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PROJECT PERFORMANCE ASSESSMENT REPORT



VIETNAM

Forest Sector Development Project

Report No. 123895

MARCH 6, 2018

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VIETNAM

**FOREST SECTOR DEVELOPMENT PROJECT (IDA-39530 IDA-50700 TF-
50865 TF-54122 TF-54523 TF-54524 TF-53397)**

March 6, 2018

*Financial, Private Sector, and Sustainable Development
Independent Evaluation Group*

Currency Equivalents (annual averages)

Currency Unit = Vietnam Dong (D)

2003	US\$1.00	D 15,560
2015	US\$1.00	D 21,687

Abbreviations and Acronyms

DCA	Development Credit Agreement
ERR	economic rate of return
FFG	farmer forest groups
FSC	Forestry Stewardship Council
ICR	Implementation Completion and Results
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IEG	Independent Evaluation Group
MARD	Ministry of Agriculture and Rural Development
MONRE	Ministry of Natural Resources and Environment
NTFP	non-timber forest products
PPAR	Project Performance Assessment Report
SUF	special use forest
VBSP	Vietnam Bank for Social Policy

Fiscal Year

Government: January 1 – December 31

Director-General, Independent Evaluation	Ms. Caroline Heider
Director, Financial, Private Sector, and Sustainable Development	Mr. José C. Carbajo Martínez
Manager, Sustainable Development	Ms. Midori Makino
Task Manager	Mr. Christopher D. Nelson

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This report was prepared by John R. Heath and Pallavi Sengupta, based on findings from their mission, to Vietnam in May -June 2017. The report was peer reviewed by April B. Connelly and panel reviewed by Lauren Kelly. Vibhuti Narang Khanna provided administrative support

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Principal Ratings

	ICR*	ICR Review*	PPAR
Outcome	Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Risk to Development Outcome	Modest	Modest	Modest
Bank Performance	Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Borrower Performance	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory

* The Implementation Completion and Results (ICR) report is a self-evaluation by the responsible Bank global practice. The ICR Review is an intermediate IEG product that seeks to independently validate the findings of the ICR.

Key Staff Responsible

Project	Task Manager/Leader	Division Chief/ Sector Director	Country Director
Appraisal	Susan S. Shen	Hoonae Kim	Klaus Rohland
Completion	Lan Thi Thu Nguyen	Iain G. Shuker	Victoria Kawaka

IEG Mission: Improving World Bank Group development results through excellence in independent evaluation.

About this Report

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the World Bank's self-evaluation process and to verify that the World Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20-25 percent of the World Bank's lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or World Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examine project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, interview World Bank staff and other donor agency staff both at headquarters and in local offices as appropriate, and apply other evaluative methods as needed.

Each PPAR is subject to technical peer review, internal IEG Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible World Bank country management unit. The PPAR is also sent to the borrower for review. IEG incorporates both World Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the World Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the IEG Rating System for Public Sector Evaluations

IEG's use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEG website: <http://ieg.worldbankgroup.org>).

Outcome: The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, and Operational Policies). Relevance of design is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension is not applied to development policy operations, which provide general budget support. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Risk to Development Outcome: The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High, Significant, Moderate, Negligible to Low, Not Evaluable.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency(ies) performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Preface

This is the Project Performance Assessment Report for the Vietnam Forest Sector Development Project (P066051 (IDA) and P074414 (GEF), with additional financing). The project was approved by the World Bank's Board of Executive Directors on July 8, 2004. The total project cost at appraisal was US\$74.6 million (US\$39.5 million from an International Development Association (IDA) credit, US\$9 million from a Global Environment Facility (GEF) grant; the rest was funded by the Governments of Finland, the Netherlands, and Vietnam, and by communities. The actual project cost at project closing was US\$90.2 million, inclusive of additional financing of US\$27.3 million in IDA credit, approved on March 22, 2012. The GEF grant closed on March 30, 2013 and the IDA credits closed on March 31, 2015.

This report was prepared by John R. Heath and Pallavi Sengupta, Consultants, IEG, under the guidance of Christopher Nelson, Senior Evaluation Officer, IEG Sustainable Development Unit (IEGSD). Dao Thi Ha Thanh, Consultant, IEG, interpreted for the IEG mission and facilitated focus group meetings. IEG visited Vietnam in May and June of 2017.

The report drew on a variety of sources. First, the Borrower produced separate completion reports on the plantation and special-use forest components (MARD 2013, 2015): these contained a wealth of material, much of which was not included in the World Bank implementation completion and results report (World Bank 2015). Second, there is a rich academic literature on smallholder plantations and special-use forests in Vietnam (Huynh and others 2016; Ives 2010; Macqueen 2014; Nguyen and others 2016; Polesny and others 2014; Phan and others 2015; Sikor and Baggio, 2014). These sources were used to triangulate the findings from operational analytic work (World Bank 2010) and project documents. Third, before the mission, IEG used the project implementation manual (MARD, 2012) to map out process steps and underlying assumptions, so that the field visit could test these assumptions through triangulated interviews with project staff, officials, and community members. Fourth, IEG conducted interviews and focus groups at seven project sites: four smallholder plantation communities, and three special-use forests (Appendix 1).

IEG thanks the Government of Vietnam, the project implementing agency, development partners, and World Bank staff, without whose help this assessment would not have been possible. IEG also thanks the many local government officials and villagers who contributed to the assessment. The World Bank office in Hanoi provided excellent support.

Following standard IEG procedures, a copy of the draft PPAR was sent to the relevant government officials and its agencies for their review and feedback. No Comments were received from the Borrower.

Summary

Background

The *Forest Sector Development Project*, which was implemented between 2004 and 2015, contributed to the significant reforestation efforts made by the people of Vietnam. In parallel to this smallholder plantation initiative, the project sought to protect biodiversity in parks and reserves. Bare hillsides underwent reforestation, and by 2017 the level of forest cover reached 48 percent (from 27 percent in 1990). The improved outlook for production forest was matched by an increased government commitment to conserve biodiversity in parks and reserves, which were legally designated as “special-use forests.” (SUF).

The Project

The two project objectives were to achieve sustainable management of plantation forests and to conserve biodiversity in special-use forests. The project aimed to establish 66,000 ha of smallholder plantations, benefiting 19,000 households in four provinces. Although the project was implemented in communes with high poverty rates, it was not targeted at the poorest households: participation of smallholders was voluntary, based on technical, economic and environmental criteria. The project gave land use rights certificates to participating smallholders who did not already have them. These certificates ensured that smallholders could obtain loans for plantation establishment from the state-owned Vietnam Bank for Social Policy. Smallholders also received extension services. The project sought to develop a conservation financing mechanism within the existing institutional framework which could, if successful, develop into a permanent national-level conservation fund.

Project Performance

*The relevance of the project development objective is rated **high** while project design relevance is rated **substantial**.* Support for establishing smallholder plantations on barren hillsides to raise the productivity of these plantations made environmental sense, as did measures to strengthen the capacity of special-use forest management boards to protect biodiversity. Both objectives were aligned with the Government of Vietnam’s Socio-Economic Development Strategy 2011-2020 and Socio-Economic Development Plan 2011-2015. The development objectives were also aligned with the World Bank country strategy that was current when project implementation was completed. Pillar 2 of the Country Partnership Strategy for FY2012–16 emphasized support for sustainable management of plantation forests and conservation of biodiversity (World Bank, 2011, 40). The design of the smallholder plantation component sensibly acknowledged that the provision of secure land rights was a prerequisite for sustainable management. The design of the special-use forest component responded to the need to strengthen management boards and pilot co-management schemes with local communities, but it did not support sufficiently the development of alternative livelihoods in buffer zones.

*Achievement of the first objective (sustainably manage plantation forest) is rated **substantial**.* The project implementation manual provided clear guidelines for

establishing and maintaining plantations on a sustainable basis, guidelines that were in line with good-practice standards set by the internationally recognized Forest Stewardship Council (FSC). Although only 1 percent of the area planted received an FSC certificate (owing to the time-consuming and costly FSC audit process), based on a representative sample of plantations established under the project that was assessed by an independent panel that included international experts, 73 percent of project plantations proved to be compliant with FSC management standards (exceeding the appraisal target of 50 percent). Since project closing, a further 3,457 ha of plantations established by the project have been FSC-certified (in Thua Thien Hue and Quang Nam provinces); an additional 293 ha is presently being assessed for FSC certification in Quang Ngai province. There are good grounds to assume that the management practices introduced by the project will further improve. Having harvested trees from the first rotation, 24,500 project households are now investing in new plantations, following the same management standards laid down in the implementation manual, with continuing technical assistance from forestry staff and with loans from the Vietnam Bank for Social Policy that are subject to compliance with good-practice environmental standards.

*Achievement of the second objective (conserve biodiversity in special use forests) is rated **modest**.* A benefit-sharing mechanism was piloted at Bach Ma but, overall, there is little evidence that communities in or near special-use forests received benefits substantial enough to incentivize them to actively protect flora and fauna. Without community involvement in patrolling reserves, monitoring inventory, and—most important—abstaining from illegal tree felling and poaching, it is hard to protect the resource. Biodiversity is hard to assess, and the Management Effectiveness Tracking Tool used by the project is not a suitable proxy. There is no clear-cut evidence that the project had a positive impact on biodiversity.

*Efficiency is rated **modest**.* In financial terms, the smallholder plantations were a sound investment. The financial gains for participating smallholders were substantial, mainly because the low-interest loans provided by the project reduced up-front costs to near zero (World Bank 2016). Estimates of the economic rate of return exceeded the opportunity cost of capital. At completion, the economic rate of return for plantations was 13.2 percent, compared to 17.0 percent at appraisal. But the economic and financial analysis in the implementation completion and results report did not include a sensitivity analysis to assess the effect of increases in labor costs and a fall in the price for acacia chipwood, risks that the report acknowledges. Smallholders who self-selected into the project possibly had sufficient means to invest in plantations without need of the subsidy entailed in free provision of land use rights certificates and cheap credit from the Vietnam Bank for Social Policy. In economic terms, it would have been more efficient to limit the subsidy exclusively to poor households able to plant trees. No cost-effectiveness analysis was made for the special-use forests component. The overall efficiency of the project was compromised by the institutional development component and the project management component, each of which cost almost four times more than expected. Some of this spending increase (it is not clear how much) can be attributed to the addition of two provinces at restructuring; but this would not be sufficient to explain the jump in project management costs (which ended up

accounting for 26 percent of total project costs compared to 6.5 percent at project appraisal). Delays in implementation and in disbursement reduced administrative efficiency.

Overall, the development outcome rating is **moderately satisfactory**.

*The risk to development outcome is rated **modest**.* Government appears committed to the regulatory reforms that the project supported. Plantation maintenance is sound, thanks to the efficacy of the public extension service and the growing foreign demand for acacia wood, which creates an incentive for smallholders to take good care of the trees. Pest and disease threats have been held in check and may be mitigated through species diversification and pruning. Typhoons are a threat in central Vietnam, but even if damage is heavy, wood can be sold for salvage. The tracks, fire towers, and fire management training financed by the project serve to mitigate forest fire risk. The sustainability of results achieved through the special-use forest component is less certain. The central government has not continued to finance the management boards after project completion. Most management boards depend on provincial government funding, which tends to be erratic, and it is only likely to be sufficient in those provinces receiving large revenues from environmental service payments.

*World Bank performance is rated **moderately satisfactory**.* Support for smallholder plantations was a new departure for the World Bank in Vietnam, and the project preparation team made a realistic assessment of prospects for a successful outcome. The project took government commitment and implementation capacity sufficiently into account. The provision for giving smallholders land use rights certificates (free of charge) and cheap loans, as well as technical assistance, ensured that there was plenty of demand for the intervention, and sufficient incentives for sustainable management. The special-use forest component was nationwide and the resources allocated to this component (a mere US\$9 million) were too thinly spread.

*Borrower performance is rated **moderately satisfactory**.* During implementation, the government made several policy and regulatory reforms that helped the project realize its objectives. These reforms included initiatives on land user rights certificates, plantation certification, nursery accreditation, and benefit-sharing for special-use forests. There were no shortfalls in counterpart funding. However, the slow approval of procurement contracts delayed project implementation by up to two years. By the end of 2006—16 months after the credit was made effective—only 7 percent of project funds had been disbursed (World Bank 2015, 29). Problems of coordinating the Ministry of Agriculture and Rural Development with the Ministry of Natural Resources and Environment slowed the delivery of land user rights certificates, a requirement for granting smallholder loans.

Lessons

- *When located appropriately, smallholder forest plantations can boost economic growth in rural areas and help protect the environment—as long as smallholders have continuing access to a full package of technical and financial support.* On sloping land with few alternative uses, tree plantations can be a good investment and improve the environment through carbon capture and reduced soil erosion. The forest plantation component of this project introduced the regulations, provided the technical assistance, credit, and land rights certificates, and gave smallholders a say in site selection, all of which were necessary for the investment to be economically viable.
- *Smallholders with limited means tend to operate single-species tree plantations on a short rotation; it is too early to say if this trend will continue, or if it poses a long-term risk.* Most smallholders in this project put all their resources into acacia, preferring to harvest the crop after five years (for low-value woodchip) rather than leaving it in the ground for the seven or so years needed to yield (higher-value) roundwood. Few of the smallholders invested in agro-forestry species. They also preferred monocropping to diversified stands. Smallholders perceive that the risk from typhoon damage will be lower if they harvest sooner rather than later. But in the long term, monocropping of acacia for chipboard may lead to losses from market saturation and pest and disease infestation—without enhancing biodiversity. So far, this risk has not materialized. Chipwood demand from Vietnam and China exceeds available supply and in recent decades progressive genetic improvements in acacia species have helped increase resistance to insects and diseases. Also, it is possible that in the second and subsequent rotations, farmers will be less cash-constrained and more able to commit to longer (6-7 year) rotations.
- *Attempts to engage communities in management of protected areas will only prosper if these areas (and their associated buffer zones) generate substantial revenues that are shared with the participating communities.* This project built a foundation for biodiversity conservation through its strengthening of the management boards, but was less successful in providing communities with the incentive to engage in conservation. The co-management model is unsustainable without continuing support for alternative livelihoods and—a vital corollary—the earmarking of environmental service payments for community development, staffing, and administration.
- *The design of World Bank projects should have achievable, incremental, and rigorous targets for sustainable forest management (national or international) within given timeframes with iterative steps toward recognized global standards.* Certification by the FSC is the gold standard, but the process for FSC group certification is costly and time-consuming. In this project, about three-quarters of the plantations established met FSC standards but only 1 percent had been issued with an FSC certificate at project closing. An alternative would have been to set national

standards at a level proximate to FSC, and to subsequently check on compliance with those standards—while progressing toward FSC certification in the medium to longer term.

José Carbajo Martínez
Director, Financial, Private Sector, and
Sustainable Development Department

1. Background and Context

Country Background

1.1 The forest cover of Vietnam plummeted from 43 percent of the land area in 1943 to 27 percent in 1990 (the lowest point), partly because of bombs and defoliants dropped during the Vietnam War, but primarily because farmers felled trees to plant crops and raise livestock (Ives 2010). After the communists seized power in 1975, forest resources were nationalized, and the management of production forest was entrusted to State Forest Enterprises. The poor performance of these enterprises and the rollback of central planning led, in the 1990s, to a change in forestry policy. The government began to allocate large tracts of state-owned forest to communities and to individual households, on fifty-year leases. It also invested heavily in forest plantations. By the turn of the millennium, the area in natural forest had started to grow again, through spontaneous regeneration. The area in plantations (mainly short-rotation acacia: various exotic species introduced from Australia) also increased rapidly, thanks mainly to smallholder initiative (Table 1.1). “Vietnam has become the world’s largest woodchip exporter in the last three years, and timber plantations are now a major source of income for millions of smallholder farming households” (Phan and others 2015). Formerly bare hillsides were reforested; by 2017 the level of forest cover was back to 48 percent (World Bank 2017). The improved outlook for production forest was matched by an increased government commitment to conserve biodiversity in parks and reserves, which were legally designated as “special-use forest.”

Table 1.1. Vietnam—Forest Composition, 2015

<i>FOREST AREA, 14.8 million ha (100%)</i>		
<i>Ecotype</i>	<i>Ownership</i>	<i>Legal Classification</i>
Primary natural and regenerated forest, 75%	Publicly owned, 68%	Production forest (natural forest and plantations), 50%
Plantation forest, 25%	Privately owned, 25%	Protection forest (set aside for soil and water conservation) 35%
	Other, 7%	Special-use forest (national parks and nature reserves) 15%

Sources: World Bank 2017; *Timber Trade* 2017.

Project Context

1.2 The Forest Sector Development Project (implemented between 2005 and 2013) was preceded by two World Bank–supported forest projects that were oriented toward conservation, not production: The Coastal Wetlands Protection and Development Project (1999–2007), which centered on the Mekong Delta; and the Forest Protection and Rural Development Project (1998–2006) which sought to strengthen management of nature reserves in southern Vietnam. IEG rated the outcome of these projects, respectively, as satisfactory and moderately satisfactory. Both projects raised questions about how best to measure changes in biodiversity values over time (rather than simply tracking expenditures)? How to provide communities with the incentive to protect flora and fauna (rather than rely

exclusively on policing). These same challenges were present in the Forest Sector Development Project.

2. . Objectives, Design, and their Relevance

Objectives

2.1 The Project Appraisal Document (PAD) states that “The objective of the project is to achieve sustainable management of plantation forests and the conservation of biodiversity in special use forests” (World Bank 2004, 3). The Development Credit Agreement (DCA) contained a different formulation: “The objectives of the Project are to assist the Borrower to enhance the contribution of forestry to: (i) rural poverty reduction and (ii) global environmental protection, through the sustainable management of plantation forests and the conservation of biodiversity in special use forests” (World Bank 2005, 17). In July 2009, the World Bank’s Country Director for Vietnam formally agreed that the project would be guided by the statement of objectives in the PAD (World Bank 2015, 15) and thus, IEG rates the project against the statement of objectives in the PAD. (The rating of World Bank Performance acknowledges the project team’s error in allowing the discrepancy in the statement of objectives to occur.)

Relevance of Objectives

2.2 The objective of managing plantation forests sustainably was consonant with the rising demand for commercial forest products and the pressure on natural forests resulting from rapid population increase and surging economic growth. Natural forests were insufficiently stocked to meet the demand for industrial wood products, leading to a trade deficit, with imported logs supplying 80 percent of the input to sawmills and furniture factories. Though plantation areas had increased from 100,000 ha in 1976 to 1.5 million ha when the project was appraised, the gap between wood demand and supply had widened. Plantations suffered from low productivity and poor survival, making many of them economically unviable (World Bank 2004, 5). Smallholders had already demonstrated a willingness to establish plantations and, with secure tenure, credit, and technical assistance, could be expected to manage them better. The project made environmental sense. Raising the incomes of smallholders through plantation development would potentially reduce the incentive for them to encroach on neighboring protected areas of natural forest (including special-use forest). Plantation development would help protect against soil erosion and control runoff on barren hills ravaged by past deforestation (Morgan and Woolford 2017). Also, acacia, the plantation species most preferred by smallholders, is a tree legume that fixes nitrogen in soils.

2.3 The objective of conserving biodiversity in special-use forests was equally relevant. These forests account for only about 6 percent of the national territory but they contain flora and fauna of global importance. Vietnam’s forests “lie within four of WWF’s 200 Globally Important Ecoregions and contain four Endemic Bird Areas and 63 Important Bird Areas identified by Birdlife International” (World Bank 2004, 5). Although the government had declared conservation a priority, the nationwide system of 121 special-use forests was poorly

managed. The limited capacity of the Ministry of Agriculture and Rural Development and of provincial and district forest protection units, coupled with a shortage of funds, compromised the conservation strategy. Regulations for special-use forests provided little incentive for villages in and around these areas to help protect the forest.

2.4 From project preparation through loan closing, the objectives were consistent with government and World Bank strategy. They were echoed in the government's 2001 Forest Sector Development Plan and in its Socio-Economic Development Strategy 2011–2020. The development objectives were also aligned with the World Bank country strategy that was current when project implementation was completed. Pillar 2 of the Country Partnership Strategy for FY2012–16 emphasized support for sustainable management of plantation forests and conservation of biodiversity (World Bank, 2011, 40).

2.5 The relevance of objectives is rated high.

Design

COMPONENTS

2.6 The project had four components, three of which were modified under the terms of the additional credit that was approved in 2012:

- **Component 1: Institutional Development** included: (a) revising selected policies and regulations for production plantation forest and special-use forests; (b) establishing farm forestry groups to facilitate the development of smallholder forestry; and (c) promoting certification of plantation forests in selected areas to enhance environmental sustainability and achieve higher prices for wood (World Bank, 2004, 9). *With additional financing*, this component was enlarged to include: (a) studies on state forest enterprise restructuring, community forestry, forest land allocation, and timber markets; (b) additional capacity building for forest farmer groups and support to their operationalization; (c) piloting of independent forest management certification; and (d) institutional development of the Vietnam Bank for Social Policy (World Bank, 2012, 2).
- **Component 2: Smallholder Plantation Forest** established forest plantations based on different cropping systems, including fast-growing plantations, mixed forestry–agriculture crops, and fruit trees. It included: (a) participatory site section selection; (b) granting of land use rights certificates; (c) extension services; (d) plantation design and management; and (e) credits for plantation investments, provided to households with land use rights certificates (World Bank 2004, 10). This component covered four provinces (Quang Nam, Quang Ngai, Binh Dinh, and Thua Thien Hue); and *with additional financing*, added the provinces of Thanh Hoa and Nghe An (World Bank 2012, 3).
- **Component 3: Special-Use Forest** set up the Vietnam Conservation Fund for protecting biodiversity, with supporting activities that included a competitive small grants program, development of operational management plans, strengthening of the

SUF Management Boards, and piloting of co-management agreements with local communities. Government and donors were expected to replenish the Vietnam Conservation Fund at project closing (World Bank 2004, 10).

- **Component 4: Project Management and Monitoring and Evaluation** coordinated central, provincial, and district government agencies and promoted cooperation with other partners in the Forest Sector Support Program Partnership (World Bank 2004, 10). *With additional financing*, implementation of the component was “extended to also cover the additional project areas in existing and new provinces” (World Bank 2012, 3). Neither the World Bank staff nor the counterparts in Vietnam provided IEG with a satisfactory explanation for the fourfold increase in the cost of this component; it seems unlikely that the addition of two more provinces would be enough to account for it.

IMPLEMENTATION ARRANGEMENTS

2.7 The project was guided by a national steering committee and implemented by a central project coordination unit, housed in the Department of Forestry. For the special-use forest component, a technical review committee was set up to vet the proposals accompanying applications for small grants. Project implementing agencies were also established at the province, district, and commune levels. The existing district extension agencies gave technical assistance to households participating in the Smallholder Plantation component. Forest Protection Departments in the provinces worked with the Management Boards involved in the special-use forest component. The Vietnam Bank for Social Policy was the designated source of credit for smallholders establishing plantations.

MONITORING AND EVALUATION DESIGN

2.8 During preparation, it was decided that separate monitoring and evaluation (M&E) units would be established for the smallholder plantation and special-use forest components. This led to coordination problems and made it difficult to produce unified reports on time, reducing the scope for midcourse corrections (MARD 2013). A World Bank 2006 country portfolio review concluded that, in line with the new corporate guidelines on results frameworks, the original key performance indicators were too output-focused. The review recommended that the number of indicators be reduced, that they better reflect the project development objectives, and that they focus more on aggregate outcomes. The project team streamlined the M&E framework at the first midterm review (2007). Although the changes were immediately implemented, they were not formalized until March 2011, because government was reluctant to commit the resources needed for restructuring (World Bank 2011b, 8-9).

Relevance of Design

2.9 The theory of change for the smallholder plantation objective was sound. During preparation, the legal and regulatory framework for forests was assessed, and the design of the project was based on reasonable assumptions about the adequacy of this framework. When the project was prepared, the government did not want radical reform—there was no support, for

example, for redrafting the laws bearing on forestland zoning and ownership rights (World Bank, 2004, 15). But the project design did include provision for an inquiry into the provincial and national policies on investment, credit, tax exemption, and tax reduction, and pricing of plantation forest products. This work was needed to pinpoint factors constraining the profitability of plantation forestry, and to identify how best to ease these constraints.

2.10 The design of the project provided adequate incentives for smallholders to establish plantations. First, the need for tenure security was recognized: smallholders who did not already hold a land use rights certificate were provided with one, free of charge, using project funds. This gave them a 50-year lease to land, provided it was used for forest plantations. Second, smallholders were offered low-interest rate loans provided by the Vietnam Bank for Social Policy—but they could only obtain credit if they could produce a land use rights certificate. Third, nurseries to produce improved seedlings were established under the project, and, as a condition of receiving the VBSP loan, smallholders were required to buy their seedlings from these nurseries. Fourth, smallholders were provided with a package of extension services, including advice on tree spacing, thinning, and use of fertilizer.

2.11 The project was demand-driven. Although the communes elected for inclusion in the project were relatively poor, and the mean holding size of smallholders was under five hectares, the project was not targeted to the poor: eligibility to participate in the project was not based on income or asset criteria. Participants had to be current users of the land selected for plantation development; or, otherwise, persons who had acquired land rights from the current user, with the user's free consent. The sites for plantation development excluded land designated by the community as essential for crop cultivation and collection of non-timber forest products, land used for shifting cultivation by ethnic groups, or land with disputed use rights (World Bank 2012, 137).

2.12 To stoke demand, the whole village was invited to an initial meeting where the project was explained. At follow-up meetings, applications were received from would-be participants, the names of successful applicants were announced, plantation sites were selected, and details of credit contracts, input supply, and extension services were provided.

2.13 The theory of change plausibly assumed that the viability of the plantation model would be enhancing by organizing smallholders into Farm Forestry Groups. This would facilitate information exchange about husbandry techniques. Working as a group, smallholders would be better placed to identify markets and negotiate prices for their product. They could also potentially lower their input costs by jointly procuring fertilizers, seedlings, and extension services. The Farm Forestry Groups would also serve as the hub for *group* certification of plantations, which was more cost effective than individual certification. The aim was to achieve certification to standards set by the internationally-recognized Forestry Stewardship Council, entailing that, as a group, the smallholders would apply for certification, keep records, coordinate among themselves, monitor adherence to FSC standards, and arrange for periodic re-inspection by the certifiers. These were demanding requirements, but they were not unreasonable, given that smallholders self-selected into the project, an approach likely to ensure that it was the most motivated and the most able that participated.

2.14 The focus on smallholders, rather than on large plantations owned by the state, made sense. When the project was prepared, government strategy had already de-emphasized the State

Forest Enterprises, which had a record of low productivity. There was a clear demand by smallholders to establish forest plantations, but ample scope for increasing smallholder productivity, giving a rationale to the technical assistance and the certification that the project would support. But there was one design flaw. The project initially allowed for participation of State Forest Enterprises but after the project became effective the World Bank's legal department ruled out this option. Meeting the area target for the four original provinces depended on participation of these enterprises because they controlled a lot of land. Once the State Forest Enterprises dropped out it was necessary to add two more provinces to meet the area target. But the two provinces were added towards the end of the project, meaning that plantations would not be sufficiently developed to qualify for certification before credit closing.

2.15 The theory of change for the special-use forest objective can be spelled out as follows. The goal of protecting biodiversity of global significance would be met by combining (a) strengthened management boards for reserves and parks, with (b) a central funding mechanism (the Vietnam Conservation Fund) and a competitive small grant scheme to support promising subprojects, with (c) a piloting of co-management between boards and local communities. The success of the proposed approach rested on three assumptions. First, the small grant scheme would not finance park infrastructure or the salaries of park officials, requiring that these be adequately funded outside the project, by central and provincial governments. Second, the Vietnam Conservation Fund would need to be replenished by funding from government and other donors once the project ended. Third, the project would need to improve the livelihoods of communities in and around the parks in the short term so that these communities would have incentive to participate in co-management. If the terms of co-management substantially curtailed communities' customary rights (for example, to harvest non-timber forest products, or to access land used for shifting cultivation), the incentive to participate would be limited. There would need to be a big investment in alternative livelihoods, one that more than offset the loss of traditional rights. Each of these assumptions was problematic.

2.16 A big question is whether project design adequately wed conservation to development objectives. Many previous projects had failed to get this right (World Bank 2007, 6). Unlike in the Forest Protection and Rural Development Project, there was limited provision for community infrastructure development, and no attempt to make infrastructure development contingent on prior preparation by the community of a plan for forest protection. This earlier project showed that it was necessary "to include the entire buffer zone rather than a few selected communities to have a significant impact in halting encroachment" (World Bank 2007, 21). In the assessed project, buffer zone coverage was patchy, and communities in and around the special-use forests would be offered little incentive to help conserve biodiversity. The appraisal document says that the community-centered approach was rejected not because it had no merit but because the World Bank and other donors were already using this approach elsewhere (World Bank 2004, 15). A more convincing reason is that, in the Forest Protection and Rural Development Project, Step 1—organizing and training communities and securing buy-in for forest protection took so long—particularly in the remoter, poorer areas—that there was little time left for Step 2—investing in community infrastructure, which accounted for the lion's share of project funds, resulting in disbursement lags (World Bank 2007, 21). This problem was not likely to recur in the Forest Sector Development Project because infrastructure was not funded. But the absence of a large infrastructure component and the decision to spread a small volume of resources thinly over the whole special-use forest system had implications, respectively, for community commitment, and for overall impact.

2.17 The relevance of design is rated substantial.

3. Implementation

Planned versus Actual Expenditure, by Component

3.1 The final cost of the smallholder plantation component and the special-use forest component was in line with appraisal expectations: for Component 2, the estimated cost at appraisal was US\$52.56 million while the actual cost at closing was US\$52.50 million; for Component 3, the estimated cost was US\$15.97 million while the actual cost was 89 percent of this (US\$14.14 million). Components 1 and 4 each cost roughly four times more than planned, rising respectively from US\$1.20 million to US\$4.14 million, and from US\$4.86 million to US\$19.42 million. Thus, almost two-thirds of the disbursed amount under Additional Financing (Table 3.1) went to cover the expansion of Components 1 and 4. While Component 1 included field activities related to smallholder plantations (organization of farm forestry groups and certification), Component 4 mainly financed project administration costs. The expansion in the project's geographic scope may account for some of this increase in the overhead but it is hard to credit that this would amount to a four-fold increase. IEG sought but failed to obtain a convincing explanation for this increase.

3.2 For the Special Use Forest Component, spending priorities shifted over the implementation period. In the final year (2013), biodiversity surveying accounted for 13 percent of all grant spending, down from 28 percent in 2008. Between these years, spending on community engagement (including benefit-sharing mechanisms) rose from 8 percent to 26 percent. (MARD 2013a, 37).

Table 3.1. Project Financing

<i>Funding Sources</i>	<i>Project Costs (US\$ millions)</i>		
	Originally Approved	Additional Financing	Disbursed
IDA-39530	39.50		39.09
IDA-50700		30.00	27.31
GEF	9.00		8.00
Finland Trust Fund	5.80		5.11
Netherlands Trust Fund	6.90		5.37
European Union	2.56		1.03
Government	4.32		4.32
TOTAL	68.08	30.00	90.23

Source: World Bank 2015, 49.

Implementation Experience

3.3 Start-up was slowed by procurement delays and technical assistance shortfalls. Government did not approve the procurement plan until July 2006. Field activities were limited in the first two years and, in this period, only three management boards participated in special-use forest pilots. These delays help explain why less than half of the European Union grant was disbursed, and why the closing date was extended. The midterm review in January 2007 noted the strong take-up by smallholders of plantation credits but acknowledged that productivity still lagged. Weak coordination between the Ministry of Agriculture and Rural Development and the Ministry of Natural Resources and Environment slowed the rate at which land use rights certificates were issued to smallholders, with the knock-on effect of slowing the rate at which the Vietnam Bank for Social Policy could extend loans to them (because only certificate holders could borrow).

3.4 A second midterm review, staged in January 2009, called for increased compliance with plantation forest standards and environmental guidelines. It also acknowledged the shortage of land for plantation expansion. This bottleneck resulted from the non-availability of large tracts of land held by State Forest Enterprises which, contrary to expectations at appraisal and following a ruling by World Bank lawyers after loan approval, were excluded from the project. The decision to add two more provinces to the project was mainly driven by the need to make up this shortfall in land for plantation development. The Special-Use Forest component ended in March 2013 (two years before closing of the Smallholder Plantation component), by which time 100 grants had been issued to 69 management boards. The upper limit on the size of each grant had been increased to US\$200,000 in 2009, which enhanced cost effectiveness and increased boards' incentives for good performance.

3.5 Monitoring the outcome of investments in special-use forests was problematic. The project management team acknowledged that selecting appropriate indicators was difficult (MARD 2013a, 44). The increase in scores on the Management Effectiveness Tracking Tool ranged from 19 percent in the central region to 39 percent in the north region. But this tool was not designed to capture changes in the number of species and was therefore an imperfect means for assessing achievement of the objective of conserving biodiversity. In 2012, a questionnaire on biodiversity levels was sent to 76 special-use forest management boards; 41 responded, of which 30 reported a net increase in the number of species observed. This is difficult to square with the observation elsewhere that biodiversity monitoring was limited to “the stronger special use forests with the necessary technical skills” (World Bank 2015, 27)—the number of which was much less than 30, interviewees told IEG. More precisely, “Biodiversity monitoring was notable and ongoing in *two* special use forests of the Central Region, Bach Ma National Park and Kon Ka Kinh National Park” (MARD 2013, 53, italics added)—both of which received large grants (US\$100,000–200,00) and were therefore more able to fund surveys than those sites receiving small (US\$50,000) grants. Given that small grants accounted for 71 percent of all grants issued, the scope for comprehensive biodiversity monitoring was clearly limited.

3.6 Keeping track of the diverse range of animals and plants is difficult; failure to observe does not prove that the species is not present in the forest—even large mammals may go unobserved for years. The reported level of biodiversity may a function of survey intensity

rather than the number of species present (MARD 2013a, 53). The Borrower’s completion report suggests that wide variations in METT scores over time and space were probably caused more by changes in the staff carrying out the exercise than by changes in management effectiveness, given the subjective nature of this assessment tool (MARD 2013a, 63).

SAFEGUARD COMPLIANCE

3.7 This was a “Category B” project. The triggered safeguard policies were: Environmental Assessment (OP/BP 4.01), Natural Habitat (OP 4.04), Forestry (OP 4.36), Indigenous People (OP 4.20), and Involuntary Resettlement (OP 4.12). Because involuntary resettlement was highlighted as a potential problem during project preparation, careful attention was given to the drafting of resettlement policy frameworks (in 2003 and 2011); but no resettlement took place. The project environmental safeguards set out in the operational manual and Environmental Protection Guidelines for Plantation Management (2003 and 2011) were complied with. Plantations were established on bare or degraded land, comprising holdings of less than 2 ha/household organized in a mosaic with cultivated land and pasture. Social and environmental safeguards bearing on special-use forest were also adhered to. In its visit to Vietnam, IEG came across no evidence of non-compliance.

FINANCIAL MANAGEMENT AND PROCUREMENT

3.8 Financial management risk was high given the decentralized nature of the project and low capacity. There were problems throughout implementation, but these were all satisfactorily addressed. For example, the July 2010 supervision mission reported delays in implementing an agreed financial management action plan for the special-use forest component; an independent internal auditor was appointed, and an internal control mechanism was set up to strengthen oversight (World Bank 2011b, 6). One audit identified an ineligible US\$800,000 expenditure for civil servants which occurred because of a misunderstanding of the expenditure eligibility—the World Bank was refunded. The financial monitoring reports prepared by the Ministry of Agriculture and Rural Development were often submitted late and there were further delays in clarifying World Bank observations (World Bank 2015, 30). Interviewees told IEG that procurement of civil works for forest tracks was badly timed, with construction and repairs often carried out in the rainy season, or not in time for harvesting. The World Bank’s Integrity Vice-Presidency uncovered a case of fraud involving two consultancy contracts.

4. Achievement of the Objectives

Objective 1: Manage Plantation Forests Sustainably

OUTPUTS

4.1 Achievement of this objective hinged on providing smallholders with the land, the land use rights certificates, the credit, and the technical assistance to establish plantations and to adopt improved standards of husbandry. The total area planted by the project in the six provinces covered

was 76,571 ha, compared to the 66,000 ha projected at appraisal. The number of households involved was 43,743, more than double appraisal expectations (19,000 households). Land use rights certificates were issued to 36,044 households. Under the certification pilot program, the project obtained FSC certification on 850 ha of plantation forests owned by 354 households. FSC-certified plantations obtained a wood product price premium of 20–30 percent higher than wood products from uncertified plantations.

4.2 IEG observed various discrepancies between process theory, as laid out in the project operating manual, and implementation practice (Table 4.1).

Table 4.1. Project Process—Smallholder Plantations

<i>Process Theory</i>	<i>Process Practice</i>
MARD and MONRE would coordinate effectively.	Lack of coordination delayed issue of land use rights certificates (which was MONRE’s responsibility); division of labor between MARD and MONRE is poorly defined; MONRE has less capacity than MARD.
Loans would be used for purchase of a pre-defined input package from accredited suppliers.	Many smallholders chose to spend less than expected on inputs, buying inferior seedlings and applying less fertilizer than recommended.
Ethnic Minority Development Plans would set aside funds for training minorities in a range of income-generating activities; with alternative income sources, ethnics would be less inclined to encroach on natural forest.	Ethnic minorities received training and livelihood support, but some continued to cut down natural forest.
Farmer Forest Groups (FFGs) would be created, enabling smallholders to collectively procure inputs, sell outputs and secure FSC certification.	FFG sign-up was optional; FFGs are not legal entities and cannot mobilize funds; most smallholders prefer to operate individually, not collectively; few smallholders have pursued collective certification.
Criteria for households to qualify for low-interest loans would be clearly spelled out and enforced.	The eligibility criteria were not fully understood by community members and appear to have been variably applied; village chiefs exercised considerable discretion.

Source: IEG, based on document review and interviews.

OUTCOMES

4.3 Achievement of the first objective presupposed, first, that the design of the project included detailed specifications of what sustainable plantation management entailed and, second, certification that smallholders were following internationally-recognized standards for establishing and maintaining forest plantations. Both requirements were met. The project implementation manual dealt explicitly with the environmental management of plantations, based on Principle 6 (Annex A) of the FSC guidelines. These guidelines included advice on optimal slope and soil characteristics, planting density, pruning, rotation length, and use of fertilizers and pesticides.

4.4 At appraisal, the aim was to achieve FSC certification for most plantations established under the project. The performance indicator and associated target was: “Forest certification achieved by 2009 by more than 50 percent of registered individual households and future financing for certification services identified” (World Bank 2003, 40). In the restructuring paper, this is reworded to: “50 percent of the smallholder plantation area of the project is *certifiable* according to international standards for sustainable forestry” (World Bank 2011b, Appendix 1).

4.5 By closing, only 1 percent of the area planted had been issued with a formal certificate, mainly because the FSC auditing process proved to be costly and time-consuming. However, the project management team recruited an independent panel, comprised of national and international forestry experts, to assess the management quality of a representative sample of project plantations. Internal Assessments on Forest Certification and Plantation Performance were conducted in 2011 and 2013. They found that 73 percent of the project’s plantations were ready to certify (the target for certification was 50 percent), meeting FSC best-practice standards. Before project closing, only 810 ha of project plantations had been issued with an FSC certificate. Since closing, a further 3,457 ha of plantations established by the project has been certified (in Thua Thien Hue and Quang Nam provinces); an additional 293 ha are presently being assessed for FSC certification in Quang Ngai province. The level of certification that is occurring is responsive to market signals (the price of certified wood compared to the cost of certification); and the practice of sustainable plantation management is continuing, independent of certification.

4.6 The main reasons why 27 percent of the area planted did not meet FSC standards at closing were: failure to use planting material from accredited nurseries (because alternative sources were cheaper); and planting trees too close together (2000 stems/ha, instead of the recommended 1,200 stems/ha). Also, some smallholders did not observe the recommended length of rotation, harvesting early to reduce exposure to typhoon damage and fire, and to pay off loans.

4.7 In the project area, wood output per hectare compared favorably with the yield in comparable areas outside the project (Table 4.2), and with silvicultural norms.

Table 4.2. Mean Yield

<i>Cubic meters per hectare (5 years after planting)</i>		
	PROJECT	NON-PROJECT
Acacia hybrid	113.8	98.2
Acacia mangium	103.7	95.4

Source: MARD 2015, 44.

Note: *Acacia* hybrid and *acacia mangium* accounted respectively for 65 percent and 20 percent of the total area planted. Sixty percent of the plantation area was managed on a five-year rotation.

4.8 The project design envisaged eight plantation models, comprising exotic species with differing lengths of rotation, a model based on a native species (*hopea*), and agroforestry models mixing exotic species with crops (cassava) and fruit and nut trees (cashew,

cinnamon) (World Bank 2004, 56–57). Actual plantings amounted to a near-monoculture of acacia (65 percent *acacia* hybrid and 20 percent *acacia mangium*), with 10 percent devoted to *eucalyptus urophylla* and 5 percent to other species. Sixty percent of the plantation area was devoted to trees (overwhelmingly, exotics) grown on a five-year rotation. Few if any native hardwood species were grown and there was little interplanting with crops (World Bank, 2016, 9). Raising the rotation from four to six years increases the wood output per hectare by 60 percent (Table 4.3).

Table 4.3. Yields of Sample Plots (*acacia* hybrid)

	<i>Cubic meters per hectare</i>	
	MEAN	STANDARD DEVIATION
After 4 years (N=19 plots)	82.5	41.9
After 5 years (N=16 plots)	120.0	46.9
After 6 years (N=14 plots)	131.9	44.8

Source: MARD 2015, 134-135.

4.9 Although there is room for diversifying stands and increasing rotation length, the overriding consideration is that, according to the plantation assessments, on nearly three-quarters of the area established under the project, smallholders are sustainably managing their plantations. There are good grounds to assume that the management practices will further improve over time. So far, 24,500 project households are investing in new plantations—which represents the majority of households that harvested trees at the end of the first rotation—following the same management standards laid down in the implementation manual, with continuing technical assistance from forestry staff and with loans from the VBSP that are subject to compliance with good-practice standards. (The VBSP revolving fund will remain active until 2036.) Local FSC forest certification groups established under the project serve as models for replication to neighboring populations, and key members of the forest certification group help in communication, outreach, and guidance on forest planting techniques for their own communities.

4.10 Achievement of this objective is rated **substantial**.

Objective 2: Conserve Biodiversity in Special-Use Forests

OUTPUTS

4.11 Achievement of this objective involved giving competitively selected grants to the management boards of special-use forests, which would improve their performance and enable them to pilot co-management schemes with the people living in and around the forest. The Vietnamese Conservation Fund provided grants to the management boards of 69 special-use forests nationwide, 62 of which prepared operational management plans with 34 of these being approved by the Provincial People’s Committee. Thirty of the boards were assessed to have developed management plans that meet international effectiveness criteria.

4.12 IEG observed various discrepancies between process theory, as laid out in the project operating manual, and implementation practice (Table 4.4).

Table 4.4. Project Process—Special-Use Forests

<i>Process Theory</i>	<i>Process Practice</i>
Competitively awarded grants would be used to strengthen special use forest management	Initially, the grants were too small (US\$50,000) to have much effect and provision for community livelihood support was neglected.
Grants to special use forests would be divided evenly between management capacity building, biodiversity tracking and community engagement (including benefit-sharing mechanisms).	Grants for biodiversity tracking were insubstantial and their share of the number of grants awarded declined over time.
Three technical assistance teams (one per North, Center and South) would help management boards prepare plans.	There were delays in staffing and the teams were spread too thinly, particularly in the North.
Communities in and around the forest would agree to regulate their collection of non-timber forest products and to stop practicing shifting cultivation.	Communities did not always follow the regulations, partly because community patrolling was underfunded and there was no short-term gain from behavior change

OUTCOMES

4.13 The project outcome was lopsided: it substantially raised the capacity of the management boards; but it did little to create an incentive for communities to make a long-term commitment to biodiversity protection. There are 1.8 million people at project sites: 24 percent of them are poor; 95 percent live in the buffer zone, and 5 percent in the core zone (MARD 2013a, 49).

4.14 It was only in the second half of the project that funding was released for the development of benefit-sharing mechanisms that would, in principle, give communities the incentive to co-manage. Benefit-sharing mechanisms were introduced at 41 sites, at an average cost of US\$1,053 per community—too small to have any discernible impact on livelihoods. A typical mechanism (introduced at Ngoc Linh and Bach Ma) involved establishing a baseline of the level of extraction of non-timber forest products and then negotiating with the community a sustainable rate of extraction, which was inevitably lower than the baseline rate. “Poor households participating in the non-timber forest product benefit-sharing mechanisms felt disadvantaged against neighbors not participating...as they felt restricted in the amount, areas and seasonality of NTFP collection; whereas neighbors, more or less, continued as usual” (MARD 2013a, 52).

4.15 The impact of the project on endangered flora and fauna is unclear. A senior MARD official told IEG data that biodiversity survey data were unreliable and it was impossible to say if the number of protected species had increased. Bach Ma was one of the few special-use forests where indicators were measured more than once, by the same team, helping to ensure that results were comparable. Findings were not encouraging. “Threat scores in Bach Ma increased at an alarming rate (37%), mainly due to illegal hunting and logging, deforestation for agriculture, NTFP over-exploitation and gold mining” (MARD 2013a, 62)

4.16 A report on Bach Ma prepared by academics working outside the project found that income from non-timber forest products increased after introduction of the benefit-sharing mechanism; but villagers reported that benefits were shared unevenly and that some households collected more than the amounts stipulated by the mechanism. The authors found that two-thirds of product types were over-harvested relative to agreed levels (Huyhn and others 2016, 889). In the Phong Dien nature reserve (like Bach Ma, a project site), another academic study reported that most farmers perceive the availability of the flora and fauna they harvest to have plummeted over the past decade (Polesny and others 2014). IEG visited Bach Ma and Phong Dien and, based on interviews with officials and community members, finds no reason to dispute the findings of these independent academic studies that point to the continued decline of biodiversity.

4.17 The academic studies conclude that to reduce degradation of the special-use forests it is not enough to renegotiate community access to the resource—communities need to be given alternative sources of income, particularly improved opportunities for farming in areas outside the forest. The project made no significant provision for developing alternative livelihoods. For example, ecotourism accounted for only 1 percent of grant spending. The management team concluded that ecotourism schemes “show very little prospect of benefits to communities due to the low outside interest and very poor financial returns to communities.” Small-scale livelihood projects—such as growing fodder grass as an alternative to grazing livestock in the special use forest—were piloted, particularly in the southern region. The impact on household income was not measured but the size of the investment was so small (US\$285 per beneficiary) that it is unlikely to have been substantial (MARD 2013a, 50).

4.18 Finally, it’s worth asking what impact the smallholder plantation component had on biodiversity. Plantations may offer a better refuge for plants and animals than bare hills; but the acacia monoculture that has developed may also have suppressed biodiversity (Ives 2010). The mixed stands and the planting of native species that the project intended to promote did not materialize. In the project provinces where smallholder plantations were located close to special-use forest plantation development *may* have reduced pressure to encroach on and degrade the latter; some project counterparts suggested to IEG that this was the case. But most of the special use forests served by the project were not located next to the smallholder plantations that the project financed—many were located outside the six provinces where the plantation component was implemented. Also, as noted, in those cases where smallholder plantations were close to special-use forest, there was no provision in the design of the project to reduce the incentive for smallholders to encroach on special-use forest.

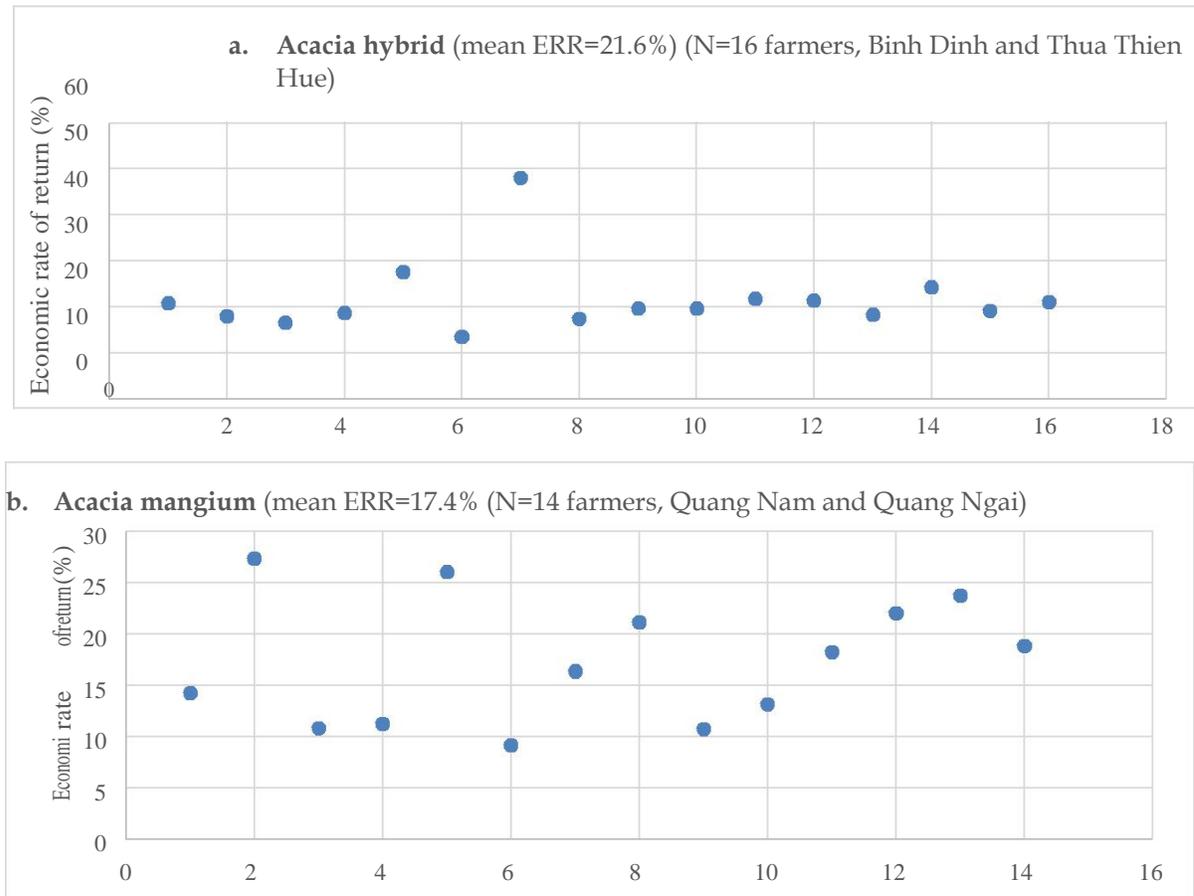
4.19 Communities in and around the special-use forests had extracted resources from them for generations. Any attempt to regulate the use of these resources was likely to be perceived, in the short term at least, as a curtailment of existing rights. Arguments about long-term sustainability were not likely to carry much weight with households living from day to day. Unlike in the case of the plantation component, there was no prospect of a new income stream to provide an incentive for forest protection. Wages for community patrols were derisory. The revenues from park entrance fees and ecotourism lodges were likely to be modest and there was no attempt to give communities a share of the (substantial) environmental service payments from hydropower schemes. Construction of these schemes (some of which have been funded by the World Bank) has sometimes increased illegal logging in special-use forests, and led to flooding (MARD 2013, 42, 45).

4.20 Achievement of this objective is rated **modest**.

5. Efficiency

5.1 In financial terms, the smallholder plantations were a sound investment. The financial gains for participating smallholders were substantial, mainly because the low-interest loans provided by the project reduced up-front costs to near zero (World Bank 2016). Estimates of the economic rate of return exceeded the opportunity cost of capital. At completion, the economic rate of return for plantations was 13.2 percent, compared to 17.0 percent at appraisal. The economic analysis at completion was sounder than that conducted at appraisal, because it reflected the (unanticipated) dominance of short-rotation acacia hybrid species in plantings and assigned a (higher) opportunity cost to land and labor, because the appraisal underestimated the range of alternative uses for those factors. The risk from fire, flood, and wind damage was not incorporated in the analysis; but, offsetting this, neither were the additional benefits from carbon sequestration, soil erosion control, and water retention.

5.2 Case studies of individual farmers in different provinces reveal that mean economic rates of return exceeded appraisal expectations. Returns to *acacia* hybrid—the crop of choice for 60 percent of smallholders—were higher and more stable than for *acacia mangium* (figure 5.1). However, it is unclear how representative these 30 cases are of the more than 14,000 smallholders who participated in the project. Given that only 1 percent of all participating smallholders were certified to FSC standards, it is possible that the rate of return recorded in the early years of the investment would not be maintained over the longer term. Also, the economic and financial analysis in the completion report did not include a sensitivity analysis to assess the effect of increases in labor costs and a fall in the price for acacia chipwood, risks that the report acknowledges.

Figure 5.1. Economic Rates of Return on Acacia Plantations: Smallholder Case Studies

Source: MARD 2015, 136–157.

5.3 No cost-effectiveness analysis was made for the special-use forests component. The number of management boards served was larger than expected while spending on this component was 89 percent of appraisal projections. For the special-use forest component, 71 percent of the grants made (79 out of 112 grants) were for only US\$50,000 (MARD 2013b, 25). Early implementation experience demonstrated that these grants were too small to be cost effective, having a limited impact on strengthening management of protected areas.

5.4 Administrative efficiency was negligible. There were delays in implementation and disbursements. Project implementation was extended three times by a total of four years, from about six years to 10 years because of the additional financing. The project management costs quadrupled, from \$4.86 million at appraisal (6.5 percent of total project cost) to US\$19.42 million at closing (21.5 percent of the total). IEG was unable to obtain a satisfactory explanation for this large increase.

5.5 Vietnam graduated from IDA to IBRD/IDA blend status in FY2010. The additional financing approved in March 2012 was on IDA terms. Because poverty reduction was not among the objectives included in the legal agreement that supported additional financing, and because

the incremental funds were primarily used for the smallholder plantation component which supported a commercially viable investment, there are legitimate questions whether this was an appropriate use of scarce IDA resources. A further concern is that smallholders who self-selected into the project possibly had sufficient means to invest in plantations without need of the subsidy entailed in free provision of land use rights certificates and cheap credit from the VBSP. The subsidy did not exclusively target poor households. In economic terms, it would have been more efficient to ensure that poor households in a position to plant trees were the only households eligible for subsidy.

5.6 The efficiency of the project is rated **modest**.

6. Ratings

Outcome

6.1 The overall rating of relevance is substantial, based on sub-ratings of substantial for both relevance of objectives and design relevance. Achievement of the sustainable plantation management objective was **substantial** while the objective of conserving biodiversity was rated **modest**. This gives an overall efficacy rating of **substantial**. Efficiency is rated **modest**.

6.2 Combining these elements, outcome is rated **moderately satisfactory**.

Risk to Development Outcome

6.3 The achievements under the smallholder plantation component are likely to endure. Smallholders who received land use rights certificates under the project have the tenure security that is essential for long-term investment. So far, the export market for woodchip remains buoyant, and acacia plantations have not been much affected by pest and disease. Typhoon damage is a continuing concern but so far the risk has not discouraged smallholders from continuing to plant—though it does lead them to favor short-cycle rotations.

6.4 Nevertheless, some researchers (Ives 2010; Phan, Lamb and Schmidt 2015) point to several medium-term risks for smallholder plantations. First, the government's push to add value to timber products and boost the furniture industry may lead to higher taxes on woodchip exports, which would depress domestic timber prices, making acacia plantations less attractive to smallholders. Second, the threat to acacia from pests and diseases may grow. Plantations in neighboring countries have been hit by fungal root rot, a problem that is more likely to spread in Vietnam if trees are grown for sawlogs rather than short-rotation woodchip production. Third, as labor costs rise, timber production for woodchip will become less competitive, hastening the move toward sawn timber production—a positive development but one that will call for the acquisition of new silvicultural techniques.

6.5 The (relatively short) rotation period was not a significant risk to development outcome. According to one source, growing timber for sawlogs requires nine to 15 years rather than the four to six years for woodchip timber, which may place a financial strain on small-scale farmers unable to make such longer-term investments (Phan, Lamb, and Schmidt 2015). But acacia hybrids harvested at rotation lengths of 6-7 years yield an output consisting of 46 percent sawlogs on average. And there is reasonable prospect for better performance. With wider spacing of trees and early thinning, sawlog rotations can be limited to eight to ten years (Harwood et al. 2017). The project influenced the framing of regulations that were introduced during implementation and may be expected to endure. Decree 147 (2007) helped legitimize smallholder forest plantations, acknowledging that land use rights certificates were a prerequisite for plantation investment and signaling the importance of using better-quality planting materials (World Bank 2015, 25). Decree 117 (2010) defined the management structure for special use

forests. Decision 24 (2012) regulated investments for livelihood development in buffer zones. Decision 126 (2012) introduced rules on the collection of entrance fees and authorized the benefit-sharing mechanisms that would be piloted at three sites.

6.6 But momentum for work in the parks and reserves has been lost since the loan closed. The benefit-sharing pilots were launched too late to achieve much and there has been no follow-up; they have not significantly raised the incomes of participating communities. When implementation began, grants were limited to US\$50,000 per site, too small to have much impact. A senior official told IEG that there is little trace left of this spending, most of which went on community awareness campaigns. Even the larger grants (US\$100,000–US\$200,000), which were not made available until 2010, have not left much legacy in systematic biodiversity surveying and protection. Staff were intensively trained but livelihoods in the buffer zones were not transformed.

6.7 During implementation, the Vietnam Conservation Fund secured 11 grants in addition to project funding, suggesting that there was some prospect of its sustainability. A revamped version of the fund has outlived the project, and the framework for competitive grant applications survives; but it has not been replenished by government or donors (whose focus has shifted elsewhere). The main hope is that payments for environmental services will be partly earmarked for the special-use forests, a provision of Decree 99 (2016). Ninety-five percent of payment revenues come from hydroelectric schemes; these revenues are collected and allocated by the provinces, not by central government. Special-use forests in areas without hydropower will lose out. MARD informed IEG that only 36 of the 164 special-use forests receive funding from environmental service payments; Bach Ma, which piloted benefit sharing, does not. Provincial governments pay the salaries of forestry staff but only the wealthier provinces—five of the 63—fund capital investments in the parks and reserves.

6.8 The risk to development outcome is rated **modest**.

World Bank Performance

QUALITY AT ENTRY

6.9 Support for smallholder plantations was a new departure for the World Bank in Vietnam and the project preparation team made a realistic assessment of prospects for a successful outcome. Government commitment and implementation capacity were taken sufficiently into account. The provision for giving smallholders land use rights certificates (free of charge) and cheap loans, as well as technical assistance, ensured that there was plenty of demand for the intervention and sufficient incentives to practice sustainable management. The special-use forest component was nationwide, and its resources (a mere US\$9 million) were too thinly spread. Design of this component took insufficient account of lessons learned from the Forest Protection and Rural Development Project, which had demonstrated that livelihood development in the buffer zones was a prerequisite for sustained community engagement; in any event, US\$9 million would never be enough to fund significant development of income-generating alternatives to forest dependency. There was inconsistency between the project appraisal document and the legal agreement in the statement of project objectives.

6.10 Quality at entry is rated **moderately satisfactory**.

QUALITY OF SUPERVISION

6.11 The project had three task team leaders, which could have resulted in a loss of continuity; however, supervision intensity was high (two or three missions per year) and there were two midterm reviews (2007 and 2009), leading to a simplification of the M&E framework and the introduction (in 2010) of internal assessments of plantation performance, a vital input for deciding whether plantations had met the certifiability objective. The first midterm review substituted direct measurement of biodiversity in the special-use forests with an imperfect proxy (the management effectiveness tracking tool). Given the limited resources available for biodiversity monitoring, this was probably a necessary expedient. The second review raised the grant ceiling for the special-use forest component, helping to counter the tendency to spread funds too thinly.

6.12 The quality of World Bank supervision is rated **moderately satisfactory**. Adding together the ratings for quality at entry and supervision, the overall rating of World Bank performance is **moderately satisfactory**.

Borrower Performance

GOVERNMENT PERFORMANCE

6.13 During implementation, the government made several policy and regulatory reforms that helped the project realize its objectives. These included initiatives on land user rights certificates, plantation certification, nursery accreditation, and benefit-sharing for special-use forests. There were no shortfalls in counterpart funding. However, slowness in approving procurement contracts delayed implementation by up to two years. By the end of 2006—16 months after the credit was made effective—only 7 percent of project funds had been disbursed (World Bank 2015, 29). Problems of coordinating the Ministry of Agriculture and Rural Development with the Ministry of Natural Resources and Environment slowed the delivery of land user rights certificates, which were needed for smallholder loans to be granted.

6.14 Government performance is rated **moderately satisfactory**.

IMPLEMENTING AGENCY PERFORMANCE

6.15 The project steering committee and the separate management committee for the special-use forests provided sound oversight and good liaison with the ministries. Well-qualified and competent staff were appointed to the central project management unit. For the smallholder plantation component, coordination with management units in the provinces and districts was handled well, although M&E in the district management units was weak. The Vietnam Bank for Social Policy worked closely with smallholder clients, providing training and follow-up, leading to a loan repayment rate of 98 percent. However, there were two instances of misprocurement involving consultant contracts.

6.16 Implementing agency performance is rated moderately satisfactory. Adding together the ratings for government and implementing agency performance, the overall rating of Borrower performance is moderately satisfactory.

Monitoring and Evaluation

Design. The project was guided by a national steering committee and implemented by a central project coordination unit, housed in the Department of Forestry. For the Special-Use Forest component, a technical review committee was set up to vet the proposals accompanying applications for small grants. Project implementing agencies were also established at the

province, district, and commune levels. The existing district extension agencies gave technical assistance to households participating in the Smallholder Plantation component. Forest Protection Departments in the provinces worked with the Management Boards involved in the Special-Use Forest component. The Vietnam Bank for Social Policy was the designated source of credit for smallholders establishing plantations.

6.17 Separate M&E units were set up for the smallholder plantation and special-use forest components, leading to coordination problems. The original key performance indicators were too output-focused and were adjusted at the 2007 midterm review. The special-use forest component initially employed an outcome indicator that directly measured biodiversity. This was later replaced by an indicator based on the (internationally accepted) Management Effectiveness Tracking Tool, a valid process measure but one that is not a sufficient substitute for the observation of biodiversity trends.

6.18 **Implementation.** The project team streamlined the M&E framework at the first midterm review (2007). Although the changes were immediately implemented, they were not formalized until March 2011, because government was reluctant to commit the resources needed for restructuring (World Bank 2011b, 8–9). At the field level, M&E implementation was weak. For the smallholder plantation component, each of the district project management units had a staff member responsible for M&E but they received little training. Contrary to expectations, the commune working groups and extension agents did not help collect data. Monitoring the outcome of investments in special-use forests was problematic. Biodiversity tracking was limited, partly because most of the grants to management boards were too small to cover the expense of this activity.

6.19 **Utilization.** For the smallholder plantation component, the midterm reviews helped to increase the input of M&E into management decision making; consequently, management could give more attention to ensuring that plantations met technical norms and observed environmental guidelines, with an eye on certification. (World Bank 2015, 25). Under the special-use forest component, social screening reports were prepared by management boards. The information gathered on the socioeconomic characteristics, food consumption, and forest-dependency of communities in and around the forest provided the rationale for government’s Decision 126, which opened the way for devoting more resources to sharing benefits with these communities.

6.20 Overall, project M&E is rated modest.

7. Lessons

7.1 *When located appropriately, smallholder forest plantations can boost economic growth in rural areas and help protect the environment—as long as smallholders have continuing access to a full package of technical and financial support.* On sloping land with few alternative uses, tree plantations can be a good investment and improve the environment through carbon capture and reduced soil erosion. The forest plantation component of this project introduced the regulations, provided the technical assistance, credit, and land rights certificates, and gave smallholders the say in site selection, all of which were necessary for the investment to be economically viable. The support helped move plantations toward internationally-certifiable quality, potentially making their product more competitive in foreign markets.

7.2 *Smallholders with limited means tend to operate single-species tree plantations on a short rotation; it is too early to say if this trend will continue, or if it poses a long-*

term risk Most smallholders in this project put all their resources into acacia, preferring to harvest the crop after five years (for low-value woodchip) rather than leaving it in the ground for the seven or so years needed to yield (higher-value) roundwood. Few of the smallholders invested in agroforestry species. They also preferred monocropping to diversified stands. Smallholders perceive that the risk from typhoon damage will be lower if they harvest sooner rather than later. But in the long term, monocropping of acacia for chipboard may lead to losses from market saturation and pest and disease infestation—without enhancing biodiversity. So far, this risk has not materialized. Chipwood demand from Vietnam and China exceeds available supply and in recent decades progressive genetic improvements in acacia species have helped increase resistance to insects and diseases. Also, it is possible that in the second and subsequent rotations, farmers will be less cash-constrained and more able to commit to longer (6–7 year) rotations.

7.3 *Attempts to engage communities in management of protected areas will only prosper if these areas (and their associated buffer zones) generate substantial revenues that are shared with the participating communities.* The special-use forests of Vietnam have a role to play in conserving diverse flora and fauna of international significance. This project built a foundation through its strengthening of the management boards but was less successful in providing communities with the incentive to engage in conservation. The co-management model is unsustainable without continuing support for alternative livelihoods and—a vital corollary—the earmarking of environmental service payments for community development, staffing, and administration.

7.4 *The design of World Bank projects should have achievable, incremental and rigorous targets for sustainable (national or international) within given timeframes with illustrate iterative steps towards recognized global standards.* Certification by the Forest Stewardship Council is the gold standard but the process for FSC group certification is costly and time-consuming. In this project, about three-quarters of the plantations established met FSC standards but only 1 percent had been issued with an FSC certificate at project closing. An alternative would have been to set national standards at a level proximate to FSC, and subsequently check on compliance with those standards—while progressing toward FSC certification in the medium to longer term.

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Appendix A. Basic Data Sheet

FOREST SECTOR DEVELOPMENT PROJECT (CREDIT 39530, 50700)

Key Project Data (amounts in US\$ million)

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as % of appraisal estimate</i>
Total project costs	68.08	90.23	133
Loan amount	39.50	66.40	168
Cofinancing	24.26	19.51	80
Cancellation			

Cumulative Estimated and Actual Disbursements

	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Appraisal estimate (US\$M)	3.6	2.5	13.0	27.5	35.1	38.8
Actual (US\$M)		1.8	4.8	10.3	13.5	20.1
Actual as % of appraisal	3.6%	72%	36.9%	37.4%	38.4%	51.8%
Date of final disbursement						9/30/2016

Project Dates

	<i>Original</i>	<i>Actual</i>
Concept Review		02/07/2002
Board approval		07/08/2004
Effectiveness	08/04/2005	08/04/2005
Closing date	03/31/2011	03/31/2015

Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank budget only)	
	Staff Weeks (number)	US\$ 000s (including travel and consultant costs)
Lending		
FY00	1.2	2,545
FY01	10.87	57,564
FY02	40.92	120,256

FY03	40.46	178,686
FY04	57.84	236,684
Total:	151.29	595,735

Supervision/ICR

FY05	16.15	43,416
FY06	21.35	92,755
FY07	24.05	97,335
FY08	12.33	57,217
FY09	16.44	82,964
FY10	25.23	84,125
FY11	21.32	73,662
FY12	17.92	65,703
FY13	26.53	92,345
FY14	20.83	54,589
FY15	16.04	87,410
Total:	218.19	832,278

Task Team Members

<i>Name</i>	<i>Title (at time of appraisal and closure, respectively)</i>	<i>Unit</i>	<i>Responsibility/Specialty</i>
Lending			
Susan S. Shen	Lead Ecologist	EASRD	TTL
Cao Thang Binh	Operations Officer	EASRD	Rural Development
Vinh Quoc Duong	Environment Specialist	EASEN	Safeguards
Dzung The Nguyen	Operations Officer	EASRD	Rural Development
Christopher Gibbs	Rural Coordinator	EASRD	Rural Development
Igor E. Artemiev	Sr. Private Sector Specialist	CIC	Economist
Lars C. Lund	Sr. Social Development Specialist	EASSO	Safeguards
Xiaolan Wang	Operations Officer	EASRD	Rural Development
William R. Sutton	Agriculture Economist	ECSN	Economist
Hoa Thi Mong Pham	Social Development Specialist	EASSO	Social Safeguards
Laurent Msellati	Sr. Operations Officer	EASRD	Rural Development
Supervision/ICR			
Susan S. Shen	Operations Manager	LLIOP	TTL

Christopher Jackson	Lead Rural Development Specialist	GFADR	TTL
Anjali Acharya Sr.	Environment Specialist	GENDR	TTL
Ulrich Schmitt	Program Leader	SACSL	TTL
Lan Thi Thu Nguyen	Sr. Environmental Economist	GENDR	TTL
Binh Thang Cao Sr.	Agriculture Specialist	GFADR	Co-TTL
Robert Ragland Davis	Sr. Forestry Specialist	GENDR	Co-TTL/Forestry
James B. Carle	Main Author, ICR	GENDR	Forestry
Douglas J. Graham	Sr. Environment Specialist	GENDR	Environment

Appendix B. Site Visits

Province	District (%poor)	Plantation Site (Commune name)	Special Use Forest (SUF name)
Thanh Hoa	Nhu Thanh (40)	Mau Lam (1)	Ben En (2)
Nghe An	Thanh Chuong (27)	Thanh Huong (3)	
Thua Thien Hue	Phong Dien (23)	Phong My (5)	Phong Dien (6)
	Dong Giang (60)		Bach Ma (4)
Quang Nam	Bac Tra My (56)	Bac Tra (7)	

Source: IEG; World Bank, Vietnam Poverty Map.

Note: Sites numbered (1) to (7) in chronological order of visit.

Appendix C. List of Persons Met

NAME	TITLE AND AFFILIATION
WORLD BANK STAFF	
Lan Thi Thu Nguyen	Senior Environmental Economist (Hanoi)
Nigel Ross Hughes	Senior Natural Resources Management Specialist
Robert Ragland Davis	Senior Forestry Specialist
Susan Shen	Practice Manager
Ulrich Schmitt	Lead Agriculture Economist
GOVERNMENT, DONORS, NGOs	
Mr. T. Nguyen.	Director, Ben En National Park. Thanh Hoa
Dang Van Tru	Director, Phong Dien Nature Reserve
Dominic Stanculescu	Technical Advisor, GIZ Conservation Programme, Hanoi
Hoang Thi Chuong	Deputy Director, Vietnam Bank for Social Policies, Hanoi
Huynh Van Keo	Director, Bach Ma National Park, Hue
Ivo Litzenberg	Chief Technical Advisor, GIZ, Conservation Programme, Hanoi
Kirsten Hegener	Director, GIZ, Conservation Programme, Hanoi
Le Thi Thu Huong	Programme Coordinator, Finland Embassy, Hanoi
	Director, Center for Sustainable Development in Mountainous Areas, Hanoi
Luong Thi Truong	
Nguyen Phong	Project Coordinator, Phong Dien Nature Reserve
Nguyen Phu Hung	Director, International Cooperation, Forestry Administration, Hanoi
Nguyen Thi Thu Thuy	Director, REDD+ Office, Forestry Administration, Hanoi
Nguyen Van Ly	Deputy General Director, Vietnam Bank for Social Policies, Hanoi
Pham Minh Uyen	Senior Trade Advisor, Netherlands Embassy, Hanoi
Traong Dinh Hien	Accountant, Phong Dien Nature Reserve
	Director, Centre of Research and Development in Upland Areas, Hanoi
Vu Thi Hien	
PROJECT COUNTERPARTS	
Dinh Van Toan	Specialist, Vietnam Forest Fund, Hanoi
Mr. Hung	Director, Provincial Project Management Unit, Quang Nam
Mr. Quyen	Officer, Provincial Project Management Unit, Quang Nam
Pham Chi Dieng	Deputy Director, Provincial Project Management Unit, Thanh Hoa
Pham Quoc Chien	Director, Central Project Management Unit, Hanoi
ham Van Tinh	Accountant, Provincial Project Management Unit, Thanh Hoa

This list does not include interviews with villagers and local officials at the seven project sites visited by IEG.