



# Completion Report

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Project Number: 30317  
Loan Number: 1781  
April 2009

## Viet Nam: Tea and Fruit Development Project

Asian Development Bank

## CURRENCY EQUIVALENTS

Currency Unit – dong (D)

		<b>At Appraisal</b> (16 October 2000)	<b>At Project Completion</b> (10 December 2008)
D1.00	=	\$0.000068	\$0.000059
\$1.00	=	D14,624	D16,950

## ABBREVIATIONS

ADB	–	Asian Development Bank
CCF	–	central people's credit fund
CPO	–	central project office
EA	–	executing agency
EIRR	–	economic internal rate of return
FIRR	–	financial internal rate of return
ha	–	hectare
MARD	–	Ministry of Agriculture and Rural Development
MOF	–	Ministry of Finance
PCR	–	project completion review
PFI	–	participating (private) financial institution
PHTI-HCMC	–	Post-harvest Technology Institute in Ho Chi Minh City
PPMU	–	provincial project management unit
PPTA	–	project preparatory technical assistance
RIFAV	–	Research Institute of Fruits and Vegetables
RRP	–	report and recommendation of the President
SBV	–	State Bank of Vietnam
SDR	–	special drawing rights
SOFRI	–	Southern Fruit Research Institute
TOT	–	training of trainers
TRI	–	Tea Research Institute
VBARD	–	Vietnam Bank for Agriculture and Rural Development

## NOTES

- (i) The fiscal year (FY) of the Government ends on 31 December.
- (ii) In this report, "\$" refers to US dollars.

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## BASIC DATA

### A. Loan Identification

1.	Country	Viet Nam
2.	Loan Number	1781
3.	Project Title	Tea and Fruit Development Project
4.	Borrower	Socialist Republic of Viet Nam
5.	Executing Agency	Ministry of Agriculture and Rural Development (noncredit component) Ministry of Finance (credit component)
6.	Amount of Loan	SDR31,157,000 (equivalent to \$40.2 million at the time of appraisal)
7.	Project Completion Report Number	PCR: VIE 1098

### B. Loan Data

1.	Appraisal	
	– Date Started	14 June 1999
	– Date Completed	2 July 1999
2.	Loan Negotiations	
	– Date Started	18 September 2000
	– Date Completed	18 September 2000
3.	Date of Board Approval	14 November 2000
4.	Date of Loan Agreement	1 October 2001
5.	Date of Loan Effectiveness	
	– In Loan Agreement	1 January 2002
	– Actual	14 November 2001
	– Number of Extensions	None
6.	Closing Date	
	– In Loan Agreement	30 June 2007
	– Actual	4 September 2008
	– Number of Extensions	1
7.	Terms of Loan	
	– Interest Rate	1% yearly during the grace period and 1.5% yearly thereafter
	– Maturity (number of years)	32 years
	– Grace Period (number of years)	8 years
8.	Terms of Relending	
	– Interest Rate	Equal to quarterly average weighted cost of funds
	– Maturity (number of years)	20 years
	– Grace Period (number of years)	7 years
9.	Terms of Onlending to Sub-borrowers	
	– Interest Rate	Prevailing interest rate for similar lending operations
	– Maturity (number of years)	5–15 years
	– Grace Period (number of years)	Up to 5 years

## 10. Disbursements

## a. Dates

Initial Disbursement	Final Disbursement	Time Interval
19 December 2001	14 July 2008	79 months
Effective Date	Original Closing Date	Time Interval
14 November 2001	30 June 2007	68 months

<sup>a</sup> The final transaction date was 5 September 2008, the date the Asian Development Bank received the refund of the unused imprest advance of \$2,988.14 from the Government of Viet Nam.

b.	Amount	31,157,000	40,200,000
		(loan currency)	(US dollar equivalent)

Cat. No.	Category or Subloan	Original Allocation	Partial Cancellations	Last Revised Allocation	Amount Disbursed	Undisbursed Balance <sup>a</sup>
[1]	[2]	[3]	[4] = [3] - [5]	[5]	[6]	[7] = [5] - [6]
1	Credit	26,538,000	37,612	26,500,388	26,500,388	0
2	Civil Works	119,000	63,318	55,682	55,682	0
3	Equipment	939,000	204,921	734,079	734,079	0
4	Vehicles	328,000	(110,591)	438,591	438,591	0
5	Workshops and Training	1,198,000	142,405	1,055,595	1,055,595	0
6	Consulting Services	384,000	50,797	333,203	333,203	0
7	Recurrent Expenditures	365,000	(197,786)	562,786	562,786	0
8	Interest Charge	531,000	(10,000)	541,000	541,000	0
9	Unallocated	755,000	755,000	0	0	0
	<b>Total (loan currency)</b>	<b>31,157,000</b>	<b>935,676</b>	<b>30,221,324</b>	<b>30,221,324</b>	<b>0</b>
	<b>Total (US dollars)</b>	<b>40,200,000</b>	<b>1,464,082</b>	<b>43,294,171</b>	<b>43,294,171</b>	<b>0</b>
		a	b	c	d	e

<sup>a</sup> For final cancellation

( ) = negative.

a = US dollar equivalent according to the report and recommendation of the President, b = US dollar equivalent as of the date of approval of the cancellation, c = d + e, d = Actual US dollar equivalent, e = US dollar equivalent at the time of report preparation.

## 11. Local Costs (Financed)

- Amount (\$'000)	25,580
- Percentage of Local Costs	59
- Percentage of Total Cost	42

**C. Implementation Data**

**1. Number of Subloans** (including revolving fund) **67,314**

**2. Sectoral Distribution of Subloans** (including revolving fund)

Sector	No. of Subloans	Amount	
		(D million)	(\$ million)
<b>A. VBARD</b>			
1. Tea			
Nursery	11	405.80	0.03
New Planting and Replanting	18,289	177,530.00	11.38
Intensive Farming	7,448	77,647.70	4.98
Processing and Restoration	2,421	76,815.90	4.92
<b>Subtotal (A1)</b>	<b>28,169</b>	<b>332,399.40</b>	<b>21.31</b>
2. Fruit			
Nursery	863	20,394.00	1.31
New Planting and Replanting	19,164	559,158.00	35.85
Intensive Farming	16,900	187,411.00	12.02
Processing and Restoration	334	9,519.00	0.61
<b>Subtotal (A2)</b>	<b>37,261</b>	<b>776,482.00</b>	<b>49.78</b>
<b>Subtotal (A)</b>	<b>65,430</b>	<b>1,108,881.40</b>	<b>71.09</b>
<b>B. CCF</b>			
1. Tea			
Nursery	31	910.50	0.06
New Planting and Replanting	1,044	28,861.38	1.85
Intensive Farming	0	0.00	0.00
Processing and Restoration	50	3,387.30	0.22
<b>Subtotal (B1)</b>	<b>1,125</b>	<b>33,159.18</b>	<b>2.13</b>
2. Fruit			
Nursery	0	0.00	0.00
New Planting and Replanting	717	20,503.63	1.31
Intensive Farming	0	0.00	0.00
Processing and Restoration	42	1,676.99	0.11
<b>Subtotal (B2)</b>	<b>759</b>	<b>22,180.62</b>	<b>1.42</b>
<b>Subtotal (B)</b>	<b>1,884</b>	<b>55,339.80</b>	<b>3.55</b>
<b>Total</b>	<b>67,314</b>	<b>1,164,221.20</b>	<b>74.64</b>

CCF = central people's credit fund, VBARD = Vietnam Bank for Agriculture and Rural Development.

Note: The figures may not add up to the totals given because of rounding.

**3. Geographic Distribution of Subloans** (including revolving fund)

Region	No. of Subloans	Amount	
		(D million)	(\$ million)
<b>A. VBARD</b>			
Thai Nguyen	7,289	55,012.00	3.53
Phu Tho	10,331	114,374.40	7.33
Yen Bai	3,275	36,090.00	2.31
Tuyen Quang	3,783	51,655.00	3.31
Ha Giang	2,525	37,419.00	2.40
Lam Dong	966	37,849.00	2.43
Bac Giang	16,233	148,792.00	9.54
Hoa Binh	4,370	81,407.00	5.22
Thanh Hoa	5,663	115,840.00	7.43
Binh Dinh	508	10,873.00	0.70
Khanh Hoa	1,141	20,520.00	1.32

Region	No. of Subloans	Amount	
		(D million)	(\$ million)
Tien Giang	6,167	219,448.00	14.07
Ben Tre	3,179	179,602.00	11.51
<b>Subtotal (A)</b>	<b>65,430</b>	<b>1,108,881.40</b>	<b>71.09</b>
<b>B. CCF</b>			
Thai Nguyen	0	0.00	0.00
Phu Tho	797	17,993.38	1.15
Yen Bai	110	1,697.08	0.11
Tuyen Quang	0	0.00	0.00
Ha Giang	0	0.00	0.00
Lam Dong	218	13,468.72	0.86
Bac Giang	549	15,640.52	1.00
Hoa Binh	65	3,940.00	0.25
Thanh Hoa	145	2,600.10	0.17
Binh Dinh	0	0.00	0.00
Khanh Hoa	0	0.00	0.00
Tien Giang	0	0.00	0.00
Ben Tre	0	0.00	0.00
<b>Subtotal (B)</b>	<b>1,884</b>	<b>55,339.80</b>	<b>3.55</b>
<b>Total</b>	<b>67,314</b>	<b>1,164,221.20</b>	<b>74.64</b>

CCF = central people's credit fund, VBARD = Vietnam Bank for Agriculture and Rural Development.

Note: The figures may not add up to the totals given because of rounding.

#### D. Project Data

##### 1. Project Cost (\$ million)

Cost	Appraisal Estimate	Actual
Foreign Exchange Cost	17.2	17.7
Local Currency Cost	40.4	43.6
<b>Total</b>	<b>57.6</b>	<b>61.4</b>

Note: The figures may not add up to the totals given because of rounding.

##### 2. Financing Plan (\$ million)

Cost	Appraisal Estimate	Actual
Implementation Costs		
Borrower-Financed	2.7	1.8
ADB-Financed	40.2	43.3
PFI (VBARD and CCF)	4.9	5.4
Beneficiaries	9.8	10.8
<b>Total</b>	<b>57.6</b>	<b>61.4</b>

ADB = Asian Development Bank, PFI = participating (private) financial institution, CCF = central people's credit fund, VBARD = Vietnam Bank for Agriculture and Rural Development.

Note: The figures may not add up to the totals given because of rounding.

## 3. Cost Breakdown, by Project Component (\$ million)

Component	Appraisal Estimate	Actual
<b>A. Base Cost</b>		
1. Credit	48.9	54.2
2. Technology Transfer and Market Information	2.4	1.3
3. Research Strengthening	1.6	1.1
4. Project Management	1.4	2.6
5. Training	0.5	1.4
<b>Subtotal (A)</b>	<b>54.8</b>	<b>60.6</b>
<b>B. Contingencies</b>		
1. Physical Contingencies	0.8	0.0
2. Price Contingencies	1.3	0.0
<b>Subtotal (B)</b>	<b>2.1</b>	<b>0.0</b>
<b>C. Service Charge</b>	<b>0.7</b>	<b>0.8</b>
<b>Total</b>	<b>57.6</b>	<b>61.4</b>

## 4. Project Schedule

Item	Actual
<b>A. Date of Contract with Consultants</b>	
1. Project Management Consultant	21 Mar 2003
2. Socioeconomic Consultant	31 Mar 2003
3. Tea Extension Consultant	21 Mar 2003
4. Monitoring and Evaluation Consultant	21 Jun 2003
5. Research Consultancy and Training for Community Development	31 Oct 2003
6. International Consultant Services for Research Management and Economics/Marketing	25 Mar 2005
<b>B. Civil Works Contract</b>	
1. Upgrading of Library and Piloting House (Nursery), Research Institute of Fruits and Vegetables	
Date of Award	12 Apr 2006
Completion of Work	15 Dec 2006
2. Upgrading of Library, Post-harvest Technology Institute in Ho Chi Minh City	
Date of Award	15 Mar 2006
Completion of Work	29 Jun 2006
3. Upgrading of Library and Piloting House, Tea Research Institute	
Date of Award	20 Apr 2006
Completion of Work	31 Oct 2006
4. Upgrading of Office Building into Communication House, Piloting Net House, Glass House, and Piloting Net House, Southern Fruit Research Institute	
Date of Award	12 Aug 2005
Completion of Work	12 Apr 2006
5. Upgrading of Library and Piloting House, Lam Dong Province	
Date of Award	10 Oct 2005
Completion of Work	12 Apr 2006
<b>C. Vehicles, Office Equipment</b>	
1. First Procurement	11 Dec 2001
2. Last Procurement	2 Feb 2005
<b>D. Other Milestones</b>	
1. Extension of Loan Closing Date	28 Nov 2006
2. Final Cancellation of Undisbursed Loan Balance	4 Sep 2008

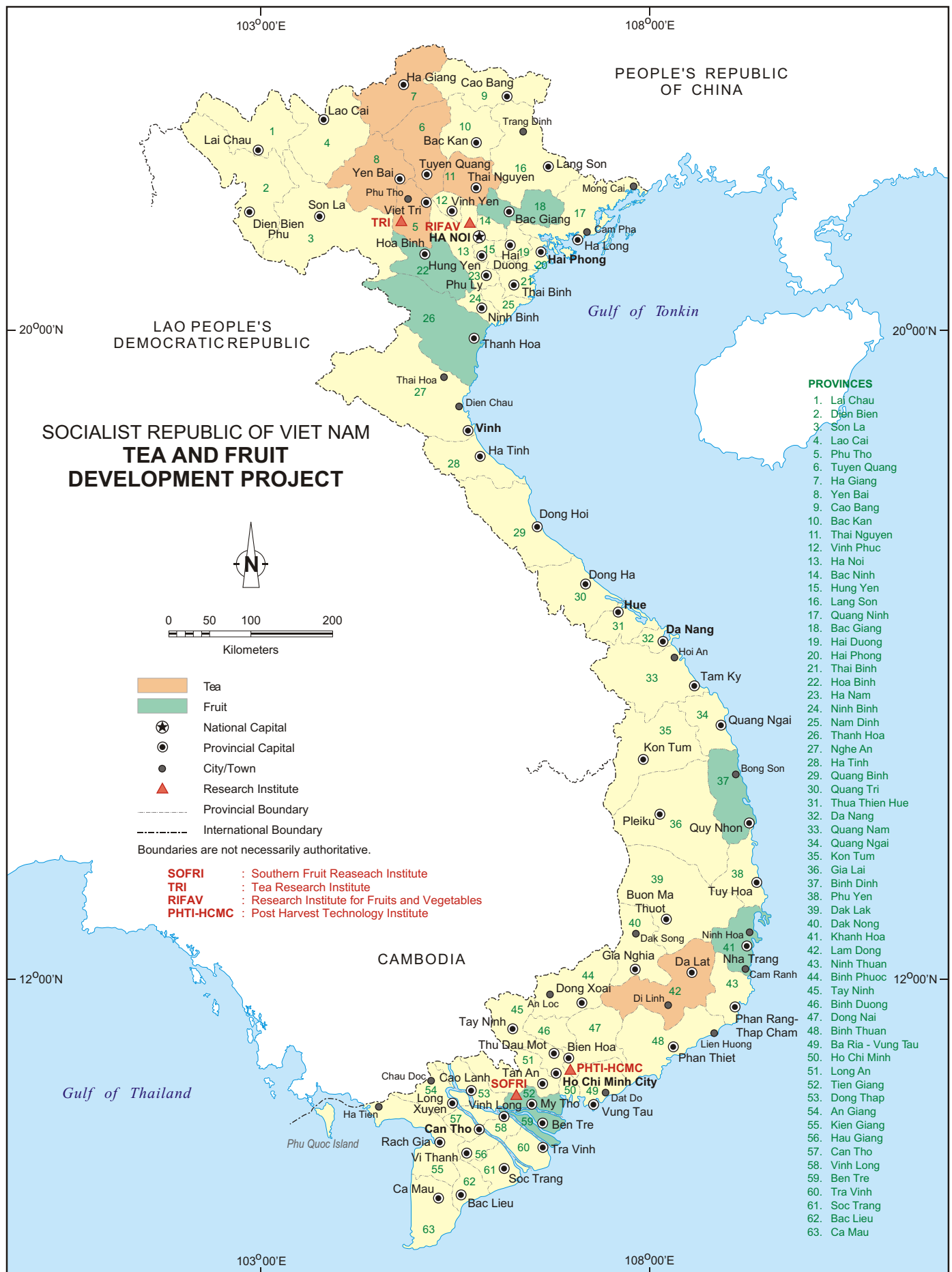
## 5. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
From 14 November to 31 December 2001	Satisfactory	Highly Satisfactory
From 1 January to 31 December 2002	Satisfactory	Highly Satisfactory
From 1 January to 31 December 2003	Satisfactory	Satisfactory
From 1 January to 31 December 2004	Satisfactory	Satisfactory
From 1 January to 31 December 2005	Satisfactory	Satisfactory
From 1 January to 31 December 2006	Satisfactory	Satisfactory
From 1 January to 31 December 2007	Satisfactory	Satisfactory
From 1 January to 31 July 2008	Satisfactory	Satisfactory

## E. Data on Asian Development Bank Missions

Name of Mission	Date	No. of Persons	No. of Person-Days	Specialization of Members <sup>a</sup>
Fact-Finding	5–23 Apr 1999	6	114	a, b, c, d, e, f
Appraisal	14 Jun–2 Jul 1999	4	76	a, b, d, e
Inception	23 Jan–5 Feb 2002	4	56	a, g, h, i
Project-Specific Contact/Consultation	19–24 Jan 2003	1	6	g
Review 1	22 May–5 Jun 2003	2	30	g, h
Special Loan Administration	8–10 Dec 2003	1	3	g
Midterm Review	12–22 Apr 2005	2	22	g, h
Review 2	20 Feb–2 Mar 2006	3	33	i, j, k
Review 3	19–27 Sep 2006	4	36	h, h, j, l
Country Portfolio Review	29 Nov–8 Dec 2006	1	10	M
Review 4	6–14 Mar 2007	2	18	h, j
Project Completion Review	25 Nov–10 Dec 2008	4	47	h, n, o, p

<sup>a</sup> a = project economist or senior project economist; b = credit specialist; c = tea specialist (consultant); d = fruit specialist (consultant); e = financial analyst (consultant); f = institutional specialist (consultant); g = senior financial analyst or specialist; h = assistant project analyst or associate project analyst; i = project implementation expert (consultant); j = project specialist (rural development and natural resources) or natural resources management specialist; k = programs officer; l = principal project economist; m = country director, resident mission; n = financial analysis specialist; o = agricultural economist (consultant); p = credit specialist (consultant).



## **I. PROJECT DESCRIPTION**

1. Agriculture is a key sector in Viet Nam's economy: it accounts for 25% of gross domestic product, about 72% of employment, and 30% of export value. The Government has promoted crop diversification to sustain agricultural growth and increase income and employment opportunities in the rural areas. But while it recognizes the potential contribution of tea and fruits to agricultural gross domestic product, it has not invested enough in these subsectors. The area planted with tea grew at a modest annual rate of 3.2% from 1990 to 2000,<sup>1</sup> compared with 13.8% for coffee and 5.8% for rubber. In 2000, Viet Nam had only 88,000 hectares (ha) planted with tea, compared with 562,000 ha of coffee and 560,000 ha of fruits and earned some \$210 million from fruit exports and \$40 million from exports of tea. With assistance from the Project, in 2006, Viet Nam's tea production grew from 315,000 tons in 2000 to 612,000 tons, while fruit production during the same period grew from 3.84 million tons to 6.70 million tons.

2. Viet Nam has had a long history of tea and fruit cultivation, but its traditional cultivation practices have kept it from adopting new technology. At the time of the Project, agricultural extension services and other agencies for tea and fruits were using a database and technology that were still heavily biased toward rice production and therefore needed updating. Credit facilities for tea and fruits were inadequate, in view of the limited experience of the financial sector with long-term credit and its minimal exposure to perennial crops. To address these needs, the Project was to provide long-term credit supplemented with various packages to build the capacity of participating financial institutions (PFIs), extension services, research agencies, and other stakeholders to support beneficiaries in using the credit properly.

3. The Project was expected to promote economic growth by increasing farm income and agricultural production value and improving the environment. It had the following components and outputs: (i) credit for tea and fruits, for establishing commercial nurseries and new plantations, rehabilitating plantations, and establishing or upgrading processing units; and (ii) a noncredit component, for developing and disseminating technology and market information, strengthening research, and carrying out project management and training. The actual achievement of the Project versus the planned key measurable indicators of project impact, outcomes, and outputs is given in Appendix 1.

4. The project areas covered six tea-growing provinces (Ha Giang, Lam Dong, Phu Tho, Thai Nguyen, Tuyen Quang, and Yen Bai), which together grow more than 60% of the country's tea production,<sup>2</sup> and seven important fruit-growing provinces (Hoa Binh and Thanh Hoa in North Viet Nam; Binh Dinh in Central Viet Nam; and Ben Tre, Khanh Hoa, Lam Dong, and Tien Giang in South Viet Nam).

## **II. EVALUATION OF DESIGN AND IMPLEMENTATION**

### **A. Relevance of Design and Formulation**

5. The Project was part of the 1997 country assistance program for Viet Nam. ADB approved project preparatory technical assistance (PPTA)<sup>3</sup> for an analysis of the sector and the

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<sup>1</sup> General Statistic Office, 2006, *Statistical Yearbook of Vietnam*, Viet Nam.

<sup>2</sup> Landell Mills Limited. 2005. *Tea Marketing and Tea Green Leaf Price* (Loan 1781 VIE-SP). Consultant's report.

<sup>3</sup> Asian Development Bank (ADB). 1997. *Technical Assistance to the Socialist Republic of Viet Nam for the Tree Crops Development Project*. Manila (TA 2923-VIE, for \$600,000, approved on 27 November). The Project later

participating government and financial institutions, and the formulation of the project design. The report and recommendation of the President (RRP) was based on the PPTA report, the findings of two Asian Development Bank (ADB) missions,<sup>4</sup> visits to selected regions, a review and evaluation of the feasibility study, and discussions with national, provincial, and district officials, as well as with private sector agribusiness enterprises, smallholder farmers, and other key stakeholders. A high priority was placed on increasing farmer income, employment in rainfed areas, and foreign exchange earnings and on improving the environment. The Project conformed to ADB's strategy and the Government's objectives and priorities for the agriculture and rural sectors, which were to increase the capacity of the rural economy to raise farm income and support policy reforms toward a market-based system. No significant changes were made in project design during implementation. The government institutions concerned, PFIs, research institutions, and beneficiaries participated actively in the overall management of the Project.

## **B. Project Components and Outputs**

6. Although there were inconsistencies between figures in the main text and appendixes of the RRP, qualitative and quantitative targets were set for the impact, outcome, components, and outputs of the Project. There were two main components: credit and noncredit. The noncredit component had four subcomponents: technology and market information, research strengthening, project management, and training. The progress reports indicated that the achievements met or exceeded the expectations at appraisal. This view was supported by all project review missions, including the midterm and project completion review (PCR) missions.

### **1. Component 1: Credit**

7. For a PFI to channel the ADB loan to sub-borrowers, it had to have an extensive rural branch network and rural-oriented credit staff, a lending portfolio of acceptable quality (less than 5% overdue) with term loans making up at least 25%, familiarity with term financing of tea and fruit subsectors, established links with extension and research agencies, available resources to meet the short- and medium-term requirements of sub-borrowers, the potential to meet the term credit requirements of the subsector beyond the project period, and a good record of compliance with the prudential covenants of capital adequacy and loan loss provisioning.

8. The Vietnam Bank for Agriculture and Rural Development (VBARD) was the first institution that met the above requirements and the only PFI that channeled the credit line to targeted beneficiaries in the initial phase of the Project. VBARD disbursed \$34.97 million, 92.2% of the ADB loan for the credit component, compared with the appraisal target of 80%. The central people's credit fund (CCF), whose selection was approved during the midterm review mission, disbursed about \$2.97 million, or 7.8%.

9. At appraisal, the segregation of tea plantation into replanting, new planting, old tea replanted, tea infilled, and tea rehabilitated was not clearly understood by the project staff, who were unfamiliar with the terms. To simplify matters, the project administration staff categorized tea plantation into two: replanted or newly planted, and rehabilitated or intensified plantation. The credit line was used for 16,271 ha of tea plantation, about 330% above the target set at appraisal. It funded the establishment of 1,222 commercial tea nurseries (about seven times higher than the appraisal target), the rehabilitation of 2 tea factories as planned, the upgrading

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became known as the Crop Diversification and Export Promotion Project and, after the fact-finding mission of April 1999, as the Tea and Fruit Development Project.

<sup>4</sup> The PPTA was followed by a loan fact-finding mission in April 1999 and appraisal in June–July 1999.

of 6,156 tea processing facilities (about 747% above the target), and the conduct of 493 green-tea processing workshops (19 times more than the target).

10. Those who received subloans from VBARD and CCF during the project period (2002–2007) numbered 67,314, close to the target of 67,400 borrowers, but the average loan size, at \$1,108 (D16.6 million), was more than twice the target amount.

11. The actual area of fruit new planting or rehabilitation was 56,861 ha, 247% above the appraisal target. In deforested land, however, the area planted with tea and fruits—1,283 ha for tea and 336 ha for fruits, for a total of 1,619 ha—was only 22% of the 7,500 ha target set at appraisal. The Project supported 336 commercial fruit nurseries, more than twice the appraisal target. The 4,795 new small-scale fruit-dryer factories were 48 times as many as the target, and the eight new fruit-juice factories were three times as many as the target. No cool storage, grading, or packing facilities were funded by the Project.

12. The wide disparity between the plan and actual achievements was mainly due to the significant contribution of sub-borrowers, who also repaid their loans early, the smaller size of processing units, underestimation of targets at appraisal, and the demand-driven nature of subprojects selected by VBARD and CCF. Although farmers were not expected to fully repay their loan within 5 years, many repaid their loans before the end of the second year, allowing the PFIs to revolve subloans quicker and provide more frequent and larger loans than planned. Also, while ADB's credit fund was projected to finance 70% of subproject cost, some farmers provided about 58% of additional new investments, accumulating more than 10 times the amount estimated at appraisal. However, sub-borrower contributions were not properly recorded.

13. Investment in deforested land was low mainly because steep slopes and poor infrastructure rendered some of these areas less viable financially and technically. The forestry department replanted forest trees on some of the targeted areas. Financing for processing facilities was less than projected because of the lack of demand for such subloans.

14. The project credit facilities provided through VBARD and CCF were part of a larger program funded by various international donors and the Government. By the end of 2007, VBARD had implemented 111 projects with over \$4 billion in funding from the World Bank, ADB, and Agence Française de Développement (AFD). This funding helped increase the total assets of VBARD more than eight times. CCF also received loans from various international financial institutions and the capital from its networks grew five times larger between 1998 and 2006, from \$128 million to \$601 million. Appendix 2 shows the detailed plan and actual progress of the credit component, as well as the performance of these two financial institutions.

## **2. Component 2: Noncredit**

### **a. Technology and Market Information System**

15. The Project provided farmers with various technology packages to upgrade their technical know-how. At project completion, the project achievements for the measurable indicators set for the subcomponents and the output-specific activities mostly exceeded the targets at appraisal.

### **i. Technical Manuals**

16. From 2003 to 2005, the technical manuals for tea and fruit development were updated and finalized. As Appendix 3 shows, about 200,000 copies of 22 technical manuals (11 for tea, 6 for fruits, and 5 for implementing guidelines) were developed and distributed to the provincial project management units (PPMUs), various institutes, trainers, and beneficiaries. These guidebooks have been very useful in the dissemination of technical information to stakeholders through training and workshops, and to end users through extension programs.

### **ii. Certification of Nurseries**

17. A nursery certification system for tea and fruits was established in 2002 with the support of the Project; by the end of 2007, 1,707 nurseries in the project areas had been certified, and of these 1,360 tea nurseries had been awarded certificates of quality. A total of 1,476 million improved tea and fruit seedlings were distributed to farmers. The research institutes developed standards for improved productivity in tea- and fruit-growing areas. Provincial workshops were held to review these standards, and to integrate provincial regulations relating to the supply of planting materials. The certification of up to 74% of tea and 34% of fruit nurseries assured farmers of guaranteed high-yielding planting materials, thus lowering their unit production cost and providing them with a comparative advantage over other areas. True-to-type materials became available at nursery outlets.

18. All participating provinces organized competitions to identify the best nurseries for fruit in both the private and public sectors. A total of 62 nurseries were presented with awards and 21 mother trees received recognition and prizes. The leading nurseries can produce 10,000 plants a year, and will be able to expand the supply rootstock to new growing areas using locally selected superior varieties. Appendix 4 gives a detailed distribution of nursery areas with the certificates and awards received.

### **iii. Classification of Tea- and Fruit-Growing Areas**

19. As shown in Appendix 5, the Project produced nearly a thousand maps (29 provincial, 210 district, and 718 commune maps) identifying areas with high potential for fruit and tea growing, and the locations of subloan applicants. These maps, covering 108,000 hectares including 54,300 hectares of tea- and fruit-growing areas, are updated yearly to help the provinces determine the suitability of land owned by potential sub-borrowers.

### **iv. Market Information Services**

20. Market information systems were developed in all provinces to disseminate information on current topics of common interest to farmers. This was carried out under the Project in collaboration with local radio and TV stations. Information was also disseminated through news bulletins and pamphlets, and specialist magazines were made available to state agencies and technical staff and small farmers to update them on current market trends and developments. As shown in Appendix 6, about 30,000 magazines and 85,000 pamphlets were distributed to tea and fruit farmers, about 600 articles were disseminated through websites, and various news items were broadcast on radio stations and village rebroadcasting facilities. The Project also provided 287 training courses in market information for nearly 15,000 people.

## **v. Quality Assurance**

21. Quality assurance guidelines were printed and distributed to the fruit-growing provinces. The Institute of Agricultural Engineering and Post-harvest Technology organized a series of training workshops in quality assurance. Tea and fruit farmers also had opportunities to study successful farming models in the country and abroad (Appendix 7). Study tours of the People's Republic of China, Japan, Thailand, and other countries allowed the participants to observe cultural practices and processing in those countries, and to study firsthand the market for tea and fruits. A total of 1,117 people gained more experience in fruit growing, while 805 gained experience in tea growing and processing. The quality control guidelines and standards and the study visits have all had a positive impact.

### **b. Research Strengthening**

22. As presented in Appendix 8, vehicles and office and research equipment were procured, buildings (including libraries and research facilities) were built or rehabilitated, and training, consulting services, and other support was provided to strengthen research on tea and fruit development in the following research institutes: Tea Research Institute (TRI),<sup>5</sup> Research Institute of Fruits and Vegetables (RIFAV), Southern Fruit Research Institute (SOFRI), Post-harvest Technology in Ho Chi Minh City (PHTI-HCMC), and Lam Dong Research Technology Transfer Centre. These research institutes were actively involved in training and technical support for the project beneficiaries. A total of 328 research contracts were carried out, and the findings of 215 research works were tested in the field, contributing to the improvement of product quality and of markets for fruit and tea. Motherblock was also improved, clones collected, and gene banks maintained. These institutes are being restructured to become more administratively independent and financially sustainable, and to adapt to the market economy.<sup>6</sup> This process is supported by another ADB-funded project.<sup>7</sup>

### **c. Project Management**

23. The central project office (CPO) and 13 PPMUs, each staffed by a director, a chief accountant, and several full-time support personnel, were created in 2001. The offices were furnished and equipped, and were also sustained with consulting services, training, and workshops. The Government approved an increase in the salary supplement for PPMU staff,<sup>8</sup> which was used by some PPMUs to hire more field staff in the districts and communes. Overall, the project structure functioned well with regular monitoring.

### **d. Training**

24. The CPO and all PPMUs carried out training workshops, seminars, and courses to disseminate technical and financial information to beneficiaries. The training also helped farmers who qualified for subloans from VBARD and CCF to use their borrowed funds more effectively. The training covered all aspects of tea and fruit cultivation, maintenance,

<sup>5</sup> Since renamed the Northern Mountainous Agriculture Forestry Research Institute.

<sup>6</sup> According to decree 115/2005/ND-CP of 05/09/2005.

<sup>7</sup> ADB. 2006. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Socialist Republic of Viet Nam for the Agriculture Science and Technology Project*. Manila (Loan 2283-VIE, effective in June 2007 and closed in June 2012).

<sup>8</sup> On average, from D25 million a year to D36 million a year in the 2003 budget.

intensification, quality assurance, nursery establishment, market information, environmental protection, and integrated pest management. The resources of research institutes with residential and teaching facilities were used. After the training of trainers (TOT), senior provincial extension staff spread the knowledge to PFI staff and farmers in the communities.

25. The number of project staff trained (70) was more than double the appraisal target (33). The staff were trained in project management, accounting, and monitoring and evaluation, but not in environmental assessment, contrary to the plan at appraisal. Except for farmer training in processing quality assurance and postharvest handling technology, the number of participants in the training provided under the Project surpassed the targets. A total of 407 TOT and more than 2,500 other training courses, meetings, and workshops were organized for project staff and beneficiaries in the country and overseas. Among the trainers were provincial and district technical staff who had been through TOT. Many of the trainees were women (4,836) and members of ethnic minorities (3,178 persons). Detailed information on these training programs can be found in Appendix 9.

### **C. Project Costs**

26. At appraisal, the total project cost, including taxes, price and physical contingencies, and service charge, was estimated at \$57.6 million—\$17.2 million in foreign exchange costs and \$40.4 million in local currency costs.<sup>9</sup> The actual project cost at loan closing was \$61.4 million, consisting of \$17.7 million in foreign exchange costs and \$43.6 million in local currency costs. The cost of the credit component increased by 11%, from the \$48.9 million estimated at appraisal to \$54.2 million, and the cost of the noncredit component increased from \$5.8 million to \$6.4 million. ADB's contribution increased from \$40.2 million to \$43.3 million, while the Government's contribution was reduced from \$2.7 million to \$1.8 million.<sup>10</sup> The contribution of VBARD and CCF increased from \$4.9 million to about \$5.4 million, and beneficiary contribution also increased, from \$9.8 million to \$10.8 million.

27. The actual project cost was higher than the appraisal estimate primarily because the surplus fund of about \$4.5 million (resulting from the appreciation of the SDR, in which the loan was denominated, against the US dollar and the dong) was used to increase the allocation for the credit component and thus create more jobs, and the allocation for the noncredit component to promote the adoption of improved planting materials and technology. The use of the surplus fund was proposed by the Executing Agencies (EAs) and approved by ADB. The cost surplus had a positive effect on the Project's economic and financial rates of return, as it increased the scope and benefits beyond the appraisal estimate and the incremental costs. Appendix 10 presents the economic and financial analyses, including the updated financial and economic rates of return, and Appendix 11 compares the budget at appraisal with the actual cost.

### **D. Disbursements**

28. The appraisal target was to disburse about 8% of the funds from all financiers by 2001, 14% by 2002, 30% by 2003, and 58% by 2004, and to make the final disbursement in 2005. Although the loan took effect only in November 2001 and disbursement started in 2002, as of 31 December 2002, the total expenditure had reached about \$8.0 million, only about 1% below the target. In February 2002, at ADB's request, VBARD agreed to slow down the approval of

<sup>9</sup> Some cost figures in the main text of the RRP did not match those in the appendices.

<sup>10</sup> The Government's contribution for project operation and maintenance was not adequately recorded.

subprojects pending the publication of the lending and technical manuals. As covenanted in the Loan Agreement, the Project had to prepare project implementation and management guidelines for approval by the EAs, and VBARD had to develop a lending policy manual for ADB's approval and make it publicly available. The delay did not adversely affect the Project.

29. Expenditure in various categories set out in the Loan Agreement differed in some respects from the appraisal targets. The expenditure for civil works was reduced by about 53%, from SDR120,000 to SDR53,000, mainly because of the availability of other financing. On the other hand, the expenditure for vehicles increased by about 34%, from SDR33,000 to SDR44,000, to meet the need for more project cars for project monitoring and management. Details of the expenditure differences between appraisal and completion are presented in Appendix 11, table 11.2.

30. The Government created separate imprest accounts for the credit component, to be managed by the Ministry of Finance (MOF), and the noncredit component, to be managed by the Ministry of Agriculture and Rural Development (MARD). From 2003 onward, the Project made significant progress in loan disbursement with the help of corrective actions to expedite the process. As requested by MARD, ADB approved an increase in the ceiling of the imprest account for noncredit activities, from \$0.5 million to \$1.0 million, to ensure that the 13 participating PPMUs and 5 research institutes had enough funds available. The Government and financial institution staff, while noting that the use of the imprest accounts had sped up loan disbursement overall, had suggested a more flexible ceiling. The current ceiling (4 months of estimated expenditure or 10% of the total loan amount) had slowed disbursement.

31. In March 2005, ADB approved the use of the surplus fund of about \$4.5 million to increase the allocation for the credit and noncredit components. Cumulative disbursements stood at \$34.9 million, or 76% of the loan amount, as of September 2006, and at \$43.30 million, or 97% of the loan amount, as of October 2007. By the end of the Project, the reduced cost of consulting service inputs and additional depreciation of the US dollar against SDR had produced about \$1.0 million in savings under the noncredit component. Details of the planned and actual disbursements are given in Appendix 12.

## **E. Project Schedule**

32. The Project was originally scheduled to be implemented from January 2002 to December 2006. In the first 2 years, progress was relatively slow for the following reasons: (i) the significant time spent on the project start-up including the administrative and financial arrangements, office setup, staff requirements, and project management guidelines and lending manuals; (ii) the implementation of regional autonomy, which affected resource allocation for the Project; (iii) delay in the procurement of laboratory equipment; and (iv) changes in MOF procedures for withdrawal applications. After this initial delay, most of the project activities proceeded on schedule. But the implementation period was extended till 31 December 2007 to allow time for all procurement activities, compliance with audit recommendations, the submission of the final withdrawal applications, the liquidation of all imprest accounts, and the preparation of the PCR by the Borrower. The planned and actual implementation schedules are given in Appendix 13.

## **F. Implementation Arrangements**

### **1. Executing and Implementing Agencies**

33. There were no changes in project arrangements. MARD was the EA for the noncredit component and was responsible for overall project coordination, and MOF was the EA for the credit component. As planned, the Government used the CPO established in MARD to (i) prepare project implementation guidelines to be approved by MARD and financial management guidelines to be approved by MOF; (ii) coordinate and monitor project implementation; (iii) manage project finances and channel funds for the noncredit component to other agencies concerned; (iv) prepare subprojects for the noncredit component and compile PFI plans; (v) compile progress reports from the provinces and PFIs for submission to ADB; (vi) promote and coordinate project activities in consultation with TRI, RIFAV, SOFRI, and PHTI-HCMC; (vii) contract research institutes to prepare technical packages; and (viii) recruit consultants.

34. The CPO was assisted by the PPMUs, which were staffed from the provincial agricultural and rural development agencies. The PPMUs, led by the provincial people's committees, administered the nursery certification scheme and provided extension services to farmers in the selected provinces, in collaboration with research institutes, VBARD, CCF, local authorities, and other stakeholders. TRI, RIFAV, and SOFRI conducted adaptive research besides assisting the PPMUs in nursery certification. PHTI-HCMC did research on postharvest technology and quality assurance. (The project organization for the noncredit component is in Appendix 14.) VBARD and CCF, through their organizations, also provided direct credit to sub-borrowers.

### **2. Financial Arrangement**

#### **a. Lending Operations**

35. MOF relending to the PFIs under the credit component had the following terms: (i) the loans were denominated in dong and had a term of 20 years on both principal and interest, including a grace period of 7 years when interest would be capitalized, and principal and interest were to be repaid in equal semiannual installments; (ii) the loans would bear an interest rate equal to the quarterly weighted average cost of funds in the banking system as determined by the State Bank of Viet Nam (SBV)<sup>11</sup> and subject to annual review by ADB and the Government to ensure that the rate covered the cost of maintaining the reserve required by SBV; (iii) the subloans would mature in 5–15 years (including a grace period of up to 5 years, when interest would be capitalized), depending on the subprojects' gestation period and cash flow projections. Except for some subloans that were repaid more quickly, the Project complied with the lending terms.

#### **b. Sub-borrower and Subproject Eligibility Criteria**

36. Both VBARD and CCF fulfilled the criteria set for financial institutions to channel the ADB loan (para. 8). At appraisal, sub-borrowers qualified for loans if they (i) were farmers, farmer groups, nursery operators, processors, or traders who had been residing for at least 3 years in a province; (ii) had land-use rights and were directly involved in production, processing, nursery, or postharvest handling of tea and fruits; and (iii) provided at least 20% of

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<sup>11</sup> Currently about 4.5% yearly.

the subproject cost in the form of equity, in cash or in kind. Most sub-borrowers met these criteria. Many contributed more than 20% of the subproject cost.

37. The amount of the loan was to be based on financing models developed under the Project. For new crop planting and replanting, the crop input and output model was used to show profitability. For crop intensification and processing, the returns from the additional investments were evaluated on the basis of the increase in benefits resulting from greater use of inputs. Sub-borrowers prepared business plans with a basic business model showing the benefits of the incremental investments.

### **c. Relending and Onlending Terms**

38. As planned at appraisal, the interest rate on the amounts onlent by the PFIs to sub-borrowers was the prevailing interest rate for similar lending operations. This margin was to be maintained above the prime rate set by SBV to cover operating costs and loan losses and ensure profitable lending. SBV reviewed each quarter its lending rate for subsidiary loans to VBARD and CCF, and these PFIs reviewed their onlending rate to sub-borrowers yearly.

39. The following were the key onlending terms at appraisal: (i) the subloan amount would be based on financing models developed under the Project; (ii) no subloan could be more than \$50,000<sup>12</sup> and no single entity could borrow more than 5% of the credit fund from ADB; (iii) PFIs would contribute 10% of subproject costs, and sub-borrowers, 20%;<sup>13</sup> (iv) all subloan credit risks would be borne by the PFIs;<sup>14</sup> (v) the PFIs would meet the short-term subloan requirements of eligible subprojects from their own resources; (vi) the approval of funding for the credit component would depend entirely on the quality of the subprojects, on a first-come-first-served basis, and the funds would be disbursed according to the lending guidelines established for the Project; and (vii) the PFIs would ensure that the subprojects complied with ADB's environmental Policies (2002) and government decrees.<sup>15</sup>

40. As planned during appraisal, VBARD and CCF established a revolving fund to which interest and principal payments under the Project were credited. The revolving fund resources were used for amortizing the ADB loan and for onlending for eligible subprojects. However, concerns were raised over the absence of provisions for post-Project stakeholder monitoring of PFI compliance with the subproject eligibility criteria.

## **G. Conditions and Covenants**

41. There were no significant delays in meeting the conditions of effectiveness of each loan covenant, as most covenants were realistic and relevant to the project needs. The deviations<sup>16</sup> pertained to the following: (i) the use of VBARD subloans by a few sub-borrowers for purposes other than those set out in the Loan Agreement (schedule 6, para. 17) such as for growing orange trees, purchasing cars and plows, raising cows, and building houses; (ii) the early repayment of some subloans, before the minimum term of 5 years (schedule 6 para. 15); and (iii) the granting of subloans beyond the maximum limit of \$50,000 without prior ADB approval

<sup>12</sup> Applications for amounts above this figure had to be accompanied with an environmental impact assessment approved by ADB, as well as recommendations for ADB's approval.

<sup>13</sup> In the form of equity, in cash or in kind.

<sup>14</sup> Therefore, the selection and location of subprojects and sub-borrowers were left solely to the discretion of the PFIs.

<sup>15</sup> Decree No. 175/CP on Guidance for Implementation of the Law on Environmental Protection and other relevant decrees, regulations, and directives issued from time to time.

<sup>16</sup> As stated in the audited financial statements and management letter for the 2005 year-end.

(schedule 6, para. 21). But deviations were insignificant in number and VBARD made up the difference out of its own funds. Overall, as shown in Appendix 15, the Government complied with the covenants.

## **H. Related Technical Assistance**

42. No technical assistance (TA) was associated with the Project, but TA 3227-VIE,<sup>17</sup> which supported a review and improvement of VBARD's systems, policies, and procedures was beneficial. The TA helped strengthen the corporate governance of VBARD, increase its effectiveness as a development finance institution, and raise awareness among VBARD management and senior staff of the role of corporate planning and monitoring and evaluation in good governance. Overall, the TA was a success.

## **I. Consultant Recruitment and Procurement**

43. A team of 10 international and 8 national consultants was recruited for the Project. The consultants provided a total of 64.1 person months of consultancy inputs (42.1 person-months international and 22 person-months national), against the original target of 68 person-months (30 international and 38 national). The difference was due to changes in the services to conform to the actual needs of the Project. (Appendix 16 presents the planned and actual consulting services for the Project.) The consultants were recruited in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). According to the project staff, most of the consultants performed satisfactorily. Project equipment was procured according to ADB's *Procurement Guidelines* (2007, as amended from time to time). However, procurement was delayed somewhat by (i) staff training in ADB's guidelines, (ii) the need to accommodate Viet Nam's state-dominated contracting procedures, and (iii) the procedural complexities of the procurement of technical equipment for the research institutes and the inexperience of MARD and research institute staff.

## **J. Performance of Consultants, Contractors, and Suppliers**

44. In general, the civil works contractors and suppliers performed well and finished their work on time. The contracts were awarded through national competitive bidding, and no failure or penalties for delay in finishing the construction were reported. The procurement of equipment, especially for the laboratories, was considerably delayed, however, partly because of the lengthy process of preparing detailed specifications, but the items were mostly supplementary and hence the delays did not significantly affect the quality of the outputs and the overall project schedule and costs. No significant delay occurred in the procurement of other equipment, furniture, and material supplies. Overall, the performance of the consultants, contractors, and suppliers was satisfactory.

## **K. Performance of the Borrower and the Executing Agency**

45. The assessment of the EAs' capabilities at appraisal was reasonably accurate and adequate covenants were included to ensure that all stakeholders participated properly in the Project. MOF closely monitored the subsidiary loans, including the updating of market interest rates and the needs of sub-borrowers. Project planning, coordination, and management of

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<sup>17</sup> ADB. 1999. *Technical Assistance to the Socialist Republic of Viet Nam for Strengthening Corporate Governance at Vietnam Bank for Agriculture and Rural Development*. Manila (TA 3227-VIE, for \$900,000, approved on 19 July 1999, and closed on 14 October 2002).

investment activities were satisfactorily undertaken by the CPO, PPMUs, VBARD, CCF, and other participating agencies. The CPO was adequately staffed to fully monitor all project activities in the selected 13 provinces and take proper mitigation measures to achieve the targets, including intensifying stakeholder coordination and collaboration. Overall, the performance of the Borrower, the EAs, and other participating agencies was satisfactory.

#### **L. Performance of the Asian Development Bank**

46. ADB fielded 9 missions (1 inception, 7 loan review, and 1 midterm review) during project implementation, effectively supervised the implementation, and addressed issues. It assisted with adjustments in project scope to achieve the intended outcome. The investment activities underwent some changes, with ADB's help, to give more emphasis to the dissemination of new technologies and the widening of stakeholder participation in project management. ADB also regularly monitored overall project administration. Project staff trained by ADB in its *Procurement Guidelines* (2007, as amended from time to time) and *Loan Disbursement Handbook* (2007, as amended from time to time) gained a better understanding of these standard operating procedures and increased capability to use the procedures. Both the midterm review and regular review missions were fielded as scheduled. The performance of ADB was satisfactory.

### **III. EVALUATION OF PERFORMANCE**

#### **A. Relevance**

47. The Project was consistent with the Government's economic development policy of transforming the country from a centrally planned to a decentralized and free-market economy. By providing credit and technical assistance to promote income generation in the countryside, the Project contributed significantly to the establishment of new businesses and the expansion or modernization of existing ones, and thereby narrowed the rural-urban gap in incomes and development. Rural employment considerably improved through the creation of about 46,000 new jobs, 170% above the target. The accent on crosscutting issues such as the environment and gender—major issues in the financing of sustainable development—was prescient. Overall, the Project was relevant, both in beneficiary targeting and in the strategies adopted.

#### **B. Effectiveness in Achieving Outcome**

48. Most of the tea and fruit plantation and processing units funded by the Project were profitable at completion, with financial internal rates of return of 13%–25%. (Appendix 10 compares investment viability at appraisal and at completion.) The economic impact on sub-borrowers was positive: access to credit improved, farm incomes became more diversified, and sub-borrowers' income increased. As shown in Appendix 10, the Project raised the average yearly income of tea farmers by 88%, from \$680 before the Project to \$1,276 after the Project. Fruit farmers' incomes increased from \$1,580 before the Project to \$2,381, or by 51%, compared with the 25%–30% increase expected at appraisal. The Project had significant social impact as well. It created more job opportunities, widened awareness of environmental impact, improved credit literacy, reduced the need to borrow from moneylenders and middlemen, improved subloan recovery, promoted the participation of social organizations and local people's committees, and increased sensitivity to gender issues and education. Overall, the Project was effective.

### **C. Efficiency in Achieving Outcome and Outputs**

49. This Project gave the rural sector significantly better access to formal credit, and its outputs generally surpassed the targets set at appraisal. The area developed extended over 23,000 ha for tea, compared with the appraisal target of 3,820 ha, and about 57,000 ha for fruits, compared with the target of 17,500 ha (Appendix 2). The incremental value of tea and fruit production is expected to be \$150 million per year by 2015, compared with the target of \$125 million at appraisal. At project completion, the economic internal rate of return (EIRR) was estimated at 20%, against 23% at appraisal (Appendix 10). More conservative assumptions of crop yields and prices for the period after the Project account for the slightly lower figure. But even with this lower EIRR figure, the Project remained economically viable. Overall, the Project was efficient.

### **D. Preliminary Assessment of Sustainability**

50. Key measures of the Project's sustainability are the establishment of a revolving fund and its effective and ongoing operation at market-based interest rates, and the high repayment rates of sub-borrowers. The objective of financing income-generating activities for livelihood improvement continues to be met after the Project and continues to encourage longer-term investments involving more borrowers. VBARD and CCF have gained more support from the Government and external agencies, and these institutions are functioning well in channeling and managing funds for rural and poor communities.

51. The Project achieved significant social impact: it trained a large number of beneficiaries in new agricultural practices, created new jobs, and developed and strengthened farmers' knowledge of marketing through practical business experience. It also enhanced awareness of gender issues by including a large number of women in the project activities. As Appendix 17 shows, environmental awareness was raised successfully among communities through replanting of tea and fruits on deforested lands in some 4,000 ha of bare hills. Environmental protection and integrated agricultural management techniques were widely used in both tea and fruit cultivation. The overall sustainability of the Project has been affirmed.

### **E. Impact**

52. The research institutes, having strengthened their research capacity, applied the results during project implementation, in collaboration with other service providers in the provinces. They have been supporting local needs and promoting business development, especially for tea and fruit production in Viet Nam. These institutes and other participating agencies have adopted more market-based operations. VBARD and CCF have improved their operating systems and procedures, and strengthened their financial position and staff capacity through continuous interaction with consultants and ADB missions. The rural financial system has been strengthened under the Project through its support for these PFIs, and has made higher-quality financial services more accessible, at lower cost, to small farmers. The impact on PFIs has been positive, especially in promoting a more balanced application of term resources, the adoption of international practices in finance and banking, and a better appreciation of sustainability concepts. The Project successfully combined profitability with environment matters. Local farmer services and processing factories have benefited from the upgraded processing capacity and improvements in the domestic and international markets for fruits and tea. Overall, the institutional and other impact of the Project has been significant.

## IV. OVERALL ASSESSMENT AND RECOMMENDATIONS

### A. Overall Assessment

53. The Project was efficiently implemented in line with the arrangements planned at appraisal. The early disbursement of the credit component, before the setting up of demonstration farms, the recruitment of consultants, and the publication of credit and technical manuals, did not have a substantial negative impact on the Project, since MARD had a long history of promoting such investments in Viet Nam. There were considerable pools of early research findings, new varieties, demonstration plots, and training for farmers. The findings were used by the PPMUs to assist farmers in adopting improved technology in the early phase and after the Project. The improvements in crop technology and extension services supported by the Project further enhanced and complemented the early research.

54. The credit component met or exceeded all of its main qualitative and quantitative targets. The emphasis placed on selecting sub-borrowers for their ability to repay their loans, assessing their fixed assets, studying the financial viability of their proposals, and closely supervising these sub-borrowers reduced the percentage of nonperforming loans to less than 2%. Access to credit helped improve the livelihood of the project beneficiaries and significantly increased their income. The noncredit component achieved its targets and provided strong support to management and technical assistance to the credit component, which also achieved high results compared with the targets. Overall, the Project was a success.

### B. Lessons

55. Charging farmers market rates of interest on loans was not a disincentive to the successful implementation of the Project. Most farmers were willing to use the subloans to improve their farms and had no difficulty repaying them. The subsidy element essential to the success of agricultural development projects supported (i) the MARD agencies in strengthening their institutional capability for research and for the provision of certified planting materials, extension services, and training; and (ii) PFI staff in gaining expertise in evaluating the risks that go with providing small loans to farmers and assessing the financial viability of the proposed farm enterprises.

56. While decentralized project implementation provides some degree of local autonomy, the rules and procedures for project implementation in the local areas must be established early. A monitoring and evaluation system should be set up and regular missions should be undertaken to assist the local authorities in implementing the system. Capacity building in concert with project implementation smoothes its progress. Training programs, including study tours, should support project implementation. The use of commercial interest rates for relending to remote ethnic minorities should be designed in consultation with other poverty reduction loan programs in the region.

### C. Recommendations

#### 1. Project-Related Recommendations

57. The following are the recommendations related to the Project:

- (i) **Future monitoring.** Progress reports on the amount of cash available in the revolving funds established by VBARD and CCF should be made available to

MARD to enable it to assist the two institutions in planning the use of the funds for the development of tea and fruit industry over the next 10 years.

- (ii) **Better service to clients.** As the primary vehicles for extending financial services to rural households and enterprises, VBARD and CCF should continually seek assistance in improving their capacity and creating products that will meet the needs of their current and prospective clients. They should maintain their close association with people's committees and continually improve on-site supervision.
- (iii) **Loans to buy and develop land.** While the Project increased farmers' incomes by 50%, average farm incomes in the project areas are still low. Tea growers earn less than \$1.00 per person per day, and fruit farmers, less than \$1.50 per person per day. The small size and low productivity of farms are the main factors contributing to the low incomes. Many of the farmers will need more loans to purchase and develop new farm areas.
- (iv) **Marketing.** Expanding the tea area cultivated with the Shan Tuyet<sup>18</sup> variety needs more attention, given the export potential of this variety. The current work in postharvest treatment to prolong shelf life and maintain product quality for mango also needs more support.
- (v) **Covenants.** Most covenants should be maintained in their present form, except for schedule 6, para. 14. The participation of CCF should have been considered much earlier, such as after 2 years of loan effectiveness, not during the midterm review. CCF could thus have achieved its intended target of delivering about 20% of the loan portfolio under the credit component.
- (vi) **Further action or follow-up.** MARD should develop a long-term plan for tea and fruit development, with long-term targets to the year 2020 to guide the country in promoting the production of different fruits for different regions based on soil, topography, and climate. This plan should also include estimates of the additional allocation required to improve the environment, increase product quality, and develop markets.
- (vii) **Support for poor farmers.** Whether to apply market-based interest rates or to improve loan access for poor farmers presents a dilemma. In poor areas, VBARD and CCF should undertake a detailed study to explore the possibility of relaxing the collateral requirements for poor farmers or improving land-use rights to make farmland more bankable. More infrastructure and technical support for these farmers and better supervision will ensure that they can raise a successful crop, market their produce, and repay their loans.
- (viii) **Additional assistance.** As marketing strategy was not fully addressed by the Project, a fruit and tea market study, to assess potential markets for these products in Viet Nam and other countries, should be made a component or subcomponent of a follow-up project proposed by MARD.<sup>19</sup>

<sup>18</sup> The variety has low tannin content and no bitter taste.

<sup>19</sup> Especially for the phaseout strategy for Loan 2283–VIE: Agriculture Science and Technology (footnote 7).

- (ix) **Timing of the project performance evaluation report.** The impact of the Project and the sustainability of the revolving funds should be evaluated 3 years after this mission.

## 2. General

58. The following are the general recommendations for project appraisal:

- (i) The design and monitoring framework should have complete and comprehensive measurable indicators consistent with figures in the main text and supporting documents of the loan agreement.
- (ii) The capacity of the executing and implementing agencies to participate in project administration should be assessed during appraisal or at least in the first 2 years of loan effectiveness.
- (iii) Consistency and interlinks between cost estimates (including component expenditure accounts), financing plans, implementation plans, and project schedules should be cross-checked to improve project monitoring and evaluation.

59. The following are the general recommendations for project implementation and review:

- (i) Design and monitoring framework performance targets should be discussed regularly with the EA and updated if necessary.
- (ii) The ceiling for imprest accounts should not be limited to 10% of the total loan or 6 months of expenditure target, whichever is lower.
- (iii) There should be regular review and monitoring of harmonization between the borrower's contracting procedures and ADB's *Procurement Guidelines* (2007, as amended from time to time), including shortlisting, prequalification, and contracting and disbursement procedures.

## PROJECT PERFORMANCE AGAINST INITIAL DESIGN FRAMEWORK

Design Summary	Performance Targets and Indicators in Original Design	Achievements
<b>A. Goal and Impact</b> Promote economic growth by diversifying into tea and fruit production	<ul style="list-style-type: none"> <li>Expand tea areas by 30,000 hectares (ha) and increase the national average yield to 1,500 kg/ha by 2010</li> <li>Expand fruit areas from 346,000 ha to 1 million ha and increase production to 12 million tons by 2010</li> </ul>	<ul style="list-style-type: none"> <li>Tea areas expanded from 88,000 ha in 2000 to 123,000 in 2006</li> <li>Tea production increased by 94%, from 315,000 tons in 2000 to 612,000 tons in 2006</li> <li>Fruit and vegetable exports increased from \$214 million in 2000 to \$259 million in 2006</li> <li>Fruit area increased from 560,000 ha in 2000 to 732,000 ha in 2006</li> <li>Fruit production increased from 3,840,750 tons in 2000 to 6,700,000 tons in 2006</li> </ul>
Monitoring Mechanisms	<ul style="list-style-type: none"> <li>National statistics</li> </ul>	<ul style="list-style-type: none"> <li><i>Statistical Yearbook of Vietnam</i>, 2006</li> <li><i>FAO, Fruit Production in Vietnam</i>, 2004</li> </ul>
Risks and Assumptions	Appropriate policies are in place; appropriate investments are available; political stability is maintained	Assumptions and risks were properly formulated
<b>B. Purpose and Outcome</b> 1. Increase farm income and raise the value of agricultural production through the development of tea and fruit crops	<ul style="list-style-type: none"> <li>Increase yield of replanted tea from 3 tons of green leaf (GL)/ha to 12 tons of GL/ha at full maturity</li> <li>Increase yield of tea from 3 tons of GL/ha to 8 tons of GL/ha on rehabilitated infilled areas at full maturity</li> <li>Achieve peak yield of 5.0 tons (t)/ha for litchi on deforested land, 8.5 t/ha for mangoes, 5.0 t/ha and 6.5 t/ha for longan on mid-level plains and delta, respectively, at full maturity</li> <li>Achieve incremental income of \$213 yearly for tea smallholders and \$525 yearly for fruit smallholders by year 15</li> <li>Achieve incremental production of 20,000 t of tea and 325,000 t of fruit per year, valued at \$25 million and \$100 million, respectively, by year 15</li> <li>Generate 26,000 person-years of employment during full maturity</li> </ul>	<ul style="list-style-type: none"> <li>Yield of replanted tea increased from 3 tons of green leaf (GL)/ha to 8.0 tons of GL/ha at full maturity</li> <li>Yield of tea increased from 3 tons of GL/ha to 7 tons of GL/ha on rehabilitated infilled areas at full maturity</li> <li>Incremental income of \$731 per year for tea smallholders and 380% per year for fruit smallholders</li> <li>Incremental production of 48,000 tons of tea and 600,000 tons of fruit per year, valued at \$361 million, by 2007</li> <li>71,600 person-years of employment generated during the development stage and 325,475 person-years of employment per year during full maturity</li> </ul>
2. Improve the environment	<ul style="list-style-type: none"> <li>Reduce erosion and degradation of 276,776 ha by 2006, particularly on 7,461 ha of deforested land to be planted with tea and fruit</li> </ul>	<ul style="list-style-type: none"> <li>Erosion and degradation reduced on 200,000 ha by 2006, particularly on 45,000 ha of deforested land planted with tea and fruit</li> </ul>
Monitoring Mechanisms	Project monitoring and completion; progress reports; review missions; project completion report	<ul style="list-style-type: none"> <li>Monitoring mechanisms were properly formulated</li> </ul>
Risks and Assumptions	World prices are maintained; political stability is maintained; implementing capabilities of implementing agencies are strengthened; appropriate policies are in place; appropriate technology and improved clonal varieties are used; new planting or replanting is done on land with high potential	World price fluctuates but local prices maintained; political stability maintained; capabilities of implementing and executing agencies strengthened; appropriate policies in place; appropriate technology and improved clonal varieties used; new planting or replanting on land with high potential
<b>C. Components and Outputs</b>		
1. Credit	<ul style="list-style-type: none"> <li>Establish 150 commercial tea nurseries and 150 commercial fruit nurseries by 2006</li> <li>Plant or replant 2,321 ha of old tea, and 291 ha of old tea infilled,</li> </ul>	<ul style="list-style-type: none"> <li>1,222 commercial tea nurseries and 336 commercial fruit nurseries established by 2007</li> <li>16,271 ha of newly grown and regrown tea, including 1,283 ha on</li> </ul>

Design Summary	Performance Targets and Indicators in Original Design	Achievements
	and rehabilitate an additional 1,164 ha, by 2006 <ul style="list-style-type: none"> <li>• Plant 23,000 ha of fruits, including 7,461 ha on deforested land</li> <li>• Upgrade 727 small green-tea processing facilities</li> <li>• Establish 25 green-tea processing workshops</li> <li>• Rehabilitate 2 green-tea factories</li> <li>• Rehabilitate 2 equitized black-tea factories</li> <li>• Establish 100 small-scale fruit dryer units</li> <li>• Establish 50 units of small-scale cool storage, grading, and packing facilities</li> <li>• Establish 3 fruit-juice factories</li> </ul>	deforested land, planted by 2007 <ul style="list-style-type: none"> <li>• 56,861 ha of fruits planted including 644 ha on deforested land</li> <li>• 6,156 small green-tea processing facilities upgraded</li> <li>• 493 small green-tea processing workshops established</li> <li>• 2 green-tea factories rehabilitated</li> <li>• 2 equitized black-tea factories rehabilitated</li> <li>• 4,795 small-scale fruit dryer units established</li> <li>• No cool storage, grading, or packing facilities established</li> <li>• 8 fruit-juice factories established</li> </ul>
2. Technology and market information package	<ul style="list-style-type: none"> <li>• Develop a technical information manual for tea and fruit farmers, extension workers, and credit officers by 2002</li> <li>• Establish nursery certification system for tea and fruits by 2002</li> <li>• Classify tea- and fruit-growing areas</li> <li>• Inspect sub-borrowers' land</li> <li>• Establish a market information dissemination system by 2002</li> <li>• Initiate a quality assurance program</li> <li>• Conduct consultative workshops</li> </ul>	<ul style="list-style-type: none"> <li>• Technical manuals (22 titles) developed (10 for tea, 7 for fruits, and 5 for implementing guidelines), and 224,636 copies distributed to PPMUs, institutes, and beneficiaries</li> <li>• 1,707 nurseries certified out of 27,481 nurseries operating in the project areas</li> <li>• Land-use maps prepared: 19 maps (1:100,000) for provinces; 210 maps (1:25,000 ) for all districts in the provinces; and 718 maps (1:10,000) for a single commune in each district</li> <li>• Market information, such as prices and market trends, disseminated to farmers through website and other media</li> <li>• Quality assurance manual prepared by PHTI-HCMC</li> <li>• Semiannual and annual stakeholder consultation workshops organized</li> </ul>
3. Strengthening of research	<ul style="list-style-type: none"> <li>• Restructure Tea Research Institute (TRI) and Research Institute for Fruits and Vegetables (RIFAV) for more effective management, sustainable funding, and autonomy by 2002</li> <li>• Procure office and laboratory equipment; upgrade physical infrastructure including library facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Restructuring of research institute under MARD approved in September 2005 under decree 115/2005/ND-CP of 5 September; TRI and RIFAV now part of the Viet Nam Agriculture Science Institute, which is funded by the Government</li> <li>• 5 vehicles and office equipment procured for Agriculture Institute North Branch, RIFAV, SOFRI, Post Harvest Institute, Lam Dong Center; 114 pieces of technical research equipment procured; building/library constructed</li> <li>• Motherblock improved, clones collected, and gene banks maintained; 29 varieties (both tea and fruits) approved for</li> </ul>

Design Summary	Performance Targets and Indicators in Original Design	Achievements
	<ul style="list-style-type: none"> <li>Collect local varieties and undertake field trials</li> </ul>	multiplication after period of experimentation
4. Project management	<p>Recruit CPMU staff; establish 13 PPMUs and recruit staff by 2001; procure 2 vehicles for CPO and 13 vehicles for PPMUs by 2001; procure furniture and office equipment for CPO and PPMUs by 2001</p> <ul style="list-style-type: none"> <li>Conduct inception workshop</li> </ul>	<ul style="list-style-type: none"> <li>CPMU and 13 PPMUs established in 2001, each one with director, accountant, and 11 other staff; full-time director, accountant, and coordinator appointed for each PPMU; necessary furniture and office equipment procured for CPMU and PPMUs; a total of 64.5 person-months of consultancy inputs (22.5 person-months international and 42 person-months national) used against the original target of 68 person-months</li> <li>Inception workshops conducted in Hanoi and Ho Chi Minh City in January 2002; most recent annual project implementation workshop held on 23 February 2006</li> </ul>
5. Training	<ul style="list-style-type: none"> <li>Train 33 CPMU and PPMU staff in project management, monitoring, accounting, and environmental assessment by 2002</li> <li>Train 530 trainers and 1,950 extension workers by 2006</li> <li>Train 1,500 farmers in tea cultivation, and 7,000 farmers in fruit cultivation, by 2006</li> <li>Train 660 financial institution staff in loan evaluation</li> <li>Train 1,020 key farmers at technical institutions by 2006</li> <li>1,950 farmers trained on quality assurance in processing and post harvest technology handling by 2006</li> </ul>	<ul style="list-style-type: none"> <li>70 CPMU and PPMU staff trained in project management, accounting, and monitoring, but not in environmental assessment</li> <li>7,787 trainers and extension workers trained</li> <li>63,224 farmers trained in tea cultivation, and 78,534 farmers in fruit cultivation</li> <li>680 provincial and district staff trained</li> <li>13,140 key farmers trained at technical institutions</li> <li>963 farmers trained in quality assurance and postharvest handling</li> <li>Training/Workshop programs covered technical aspects of tea and fruit growing, maintenance, intensification, quality assurance, establishment of nurseries, and market information</li> </ul>
Monitoring Mechanisms	<ul style="list-style-type: none"> <li>Progress reports; review missions; project completion report</li> </ul>	Monitoring mechanisms were properly formulated
Risks and Assumptions	<p>Political stability is maintained; implementing capabilities of implementing agencies are strengthened; criteria for selecting subprojects and sub-borrowers are appropriate; VBARD's capability for project appraisal is improved; technology is appropriate for small farmers; technical manuals are developed on schedule; market information system is established on schedule; consulting inputs are appropriate; coordination between the central project office (CPO) and provincial department of agriculture and rural development is good; recruitment is based on merit; adequate funding is provided; appropriate criteria are used in setting research priorities; links with extension services are good; research institutes are appropriately rationalized; consultant</p>	Most assumptions were workable and risk mitigation measures were properly formulated

Design Summary	Performance Targets and Indicators in Original Design	Achievements
	inputs are appropriate; training program is appropriate; monitoring of performance targets is effective and structured; consultants are recruited judiciously; implementing capability of provincial offices is strengthened; training program is appropriately designed; links with research are good	
Activities: 1. Provision of credit for tea and fruit cultivation, processing, and postharvest handling 2. Development of technology package and market information system 3. Support for research 4. Support for project management 5. Training 6. Consulting inputs		Most activities were implemented as planned at appraisal
Inputs: Credit: \$39.1 million in subloans over 6 years Noncredit: • \$428,000 for technical manuals; \$903,000 for nursery certification over 6 years • \$146,000 for reconnaissance survey and inspection of farmers' fields; \$365,000 for market price information system; \$939,000 for quality assurance program • \$682,000 for tea breeding and processing research at TRI and Bao Loc Research Centre over 6 years; \$573,000 for research on fruit processing and postharvest handling at RIFAV and SOFRI over 6 years; \$265,000 for upgrading of PHTI-HCMC facilities over 6 years • \$1.7 million for CPO and PPMUs over 6 years; \$514,000 for training of farmers, extension workers, and credit officers over 6 years  23 person-months international and 26 person-months national consulting inputs in agronomy, research review, marketing, and project management	Credit: ADB credit fund: \$ 37.944 million (VBARD \$34.974 million, CCF \$2.970 million) PFIs: \$5.421 million Beneficiaries: \$10.841 million  Noncredit: ADB: \$5.35 million Government: \$1.804 million  See details of investments in market development, quality certification, and research support in Appendixes 6, 7, and 8  42.1 person-months international and 22 person-months national were used satisfactorily	
Monitoring Mechanisms	• Progress reports; review missions	Properly formulated
Risks and Assumptions	Strengthening is appropriate; training is appropriate; criteria for selection of sub-borrowers are appropriate; activities are on schedule; rationalization of research institutes is appropriate and on time; recruitment is based on merit; consultants are recruited judiciously	Although actual activities were slightly delayed, most risks and assumptions were properly formulated and monitored.

ADB = Asian Development Bank, CCF = central people's credit fund, CPMU = central project management units, CPO = central project office, MARD = Ministry of Agriculture and Rural Development, PFI = participating (private) financial institution, PPMU = provincial project management unit, PHTI-HCMC = Post-harvest Technology Institute in Ho Chi Minh City, SOFRI = Southern Fruit Research Institute, TRI = Tea Research Institute, VBARD = Vietnam Bank for Agriculture and Rural Development  
Source: ADB and the Government

# PROJECT PROGRESS REPORT ON VIETNAM BANK FOR AGRICULTURE AND RURAL DEVELOPMENT AND CENTRAL PEOPLE'S CREDIT FUND

## Table A2.1: Sectoral Distribution of Subloans

Sector	VBARD Amount		CCF Amount		Total Amount	
	Number	\$ Million	Number	\$ Million	Number	\$ Million
A. Tea						
Nursery	11.0	0.0	31.0	0.1	42.0	0.1
New Planting and Replanting	18,289.0	11.4	1,044.0	1.9	19,333.0	13.2
Intensive Farming	7,448.0	5.0	0.0	0.0	7,448.0	5.0
Processing and Restoring	2,421.0	4.9	50.0	0.2	2,471.0	5.1
<b>Subtotal (A)</b>	<b>28,169.0</b>	<b>21.3</b>	<b>1,125.0</b>	<b>2.1</b>	<b>29,294.0</b>	<b>23.4</b>
B. Fruit						
Nursery	863.0	1.3	0.0	0.0	863.0	1.3
New Planting and Replanting	19,164.0	35.8	717.0	1.3	19,881.0	37.2
Intensive Farming	16,900.0	12.0	0.0	0.0	16,900.0	12.0
Processing and Restoring	334.0	0.6	42.0	0.1	376.0	0.7
<b>Subtotal (B)</b>	<b>37,261.0</b>	<b>49.8</b>	<b>759.0</b>	<b>1.4</b>	<b>38,020.0</b>	<b>51.2</b>
<b>Total (A)</b>	<b>65,430.0</b>	<b>71.1</b>	<b>1,884.0</b>	<b>3.5</b>	<b>67,314.0</b>	<b>74.6</b>

Sources: Vietnam Bank for Agriculture and Rural Development and Central People's Credit Fund, December 2008.

## Table A2.2: Geographical Distribution of Subloans

Region	VBARD			CCF			Total		
	Number	D Million	\$ Million	Number	D Million	\$ Million	Number	D Million	\$ Million
Thai Nguyen	7,289	55,012	3.53	0	0	0.00	7,289	55,012	3.53
Phu Tho	10,331	114,374	7.33	797	17,993	1.15	11,128	132,368	8.49
Yen Bai	3,275	36,090	2.31	110	1,697	0.11	3,385	37,787	2.42
Tuyen Quang	3,783	51,655	3.31	0	0	0.00	3,783	51,655	3.31
Ha Giang	2,525	37,419	2.40	0	0	0.00	2,525	37,419	2.40
Lam Dong	966	37,849	2.43	218	13,469	0.86	1,184	51,318	3.29
Bac Giang	16,233	148,792	9.54	549	15,641	1.00	16,782	164,433	10.54
Hoa Binh	4,370	81,407	5.22	65	3,940	0.25	4,435	85,347	5.47
Thanh Hoa	5,663	115,840	7.43	145	2,600	0.17	5,808	118,440	7.59
Binh Dinh	508	10,873	0.70	0	0	0.00	508	10,873	0.70
Khanh Hoa	1,141	20,520	1.32	0	0	0.00	1,141	20,520	1.32
Tien Giang	6,167	219,448	14.07	0	0	0.00	6,167	219,448	14.07
Ben Tre	3,179	179,602	11.51	0	0	0.00	3,179	179,602	11.51
<b>Total</b>	<b>65,430</b>	<b>1,108,881</b>	<b>71.09</b>	<b>1,884</b>	<b>55,340</b>	<b>3.55</b>	<b>67,314</b>	<b>1,164,221</b>	<b>74.64</b>

Source: Vietnam Bank for Agriculture and Rural Development and Central People's Credit Fund, December 2008.

**Table A2.3: Plan and Actual Achievement from Credit**

Investment	Unit	Plan	Actual	Differences	%
<b>A. Tea planting and processing</b>					
1. Total tea plantation	ha	3,776	16,271	12,495	431
a. Old tea replanted or newly planted	ha	2,321	5,420	3,099	234
b. Rehabilitation/intensification	ha	1,455	10,851	9,396	746
i. Tea infilled	ha	291	—	—	—
ii. Tea rehabilitated	ha	1,164	—	—	—
2. Tea in deforested land	ha	—	1,283	—	—
a. Commercial tea nurseries	unit	150	1,222	1,072	715
3. Small green tea processing facilities upgraded	unit	727	6,156	5,429	747
a. Green tea processing workshops	unit	25	493	468	1,872
b. Green tea factories rehabilitated	unit	2	2	0	0
c. Equitized black tea factories rehabilitated	unit	2	2	0	0
4. Tea and fruit in deforested land		7,500	1,927	(5,573)	26
<b>B. Fruit planting and processing</b>					
1. Fruits planted/replanted	ha	23,000	56,861	33,861	147
2. Fruit planted in the deforested land	ha	7,461	644	(3,083)	(41)
3. Commercial fruit nurseries	unit	150	336	186	124
4. Small-scale fruit dryer established	unit	100	4,795	4,695	4,695
5. Small-scale cool storage, grading and packing facilities	unit	50	0	(50)	(100)
6. Fruit juice factories established	unit	3	8	5	167

( ) = negative.

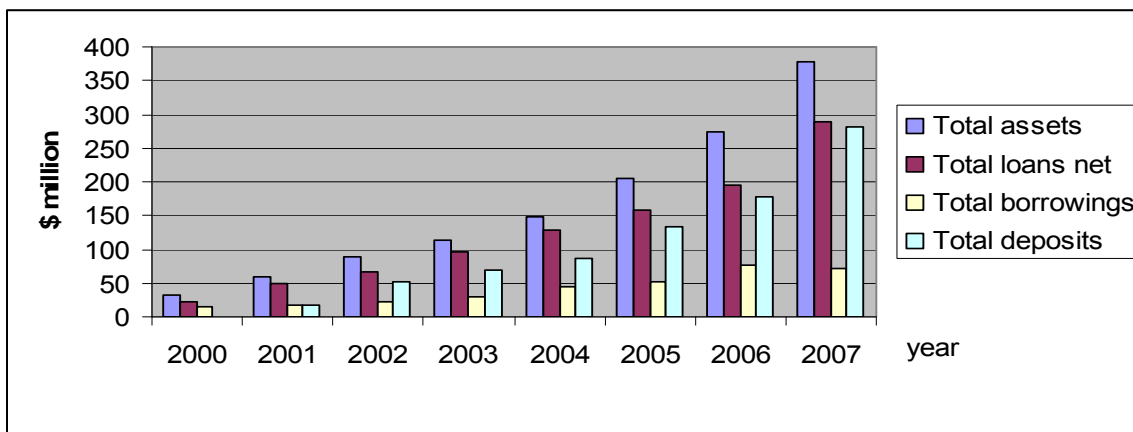
Source: Ministry of Agriculture and Rural Development, December 2008.

**Table A2.4: Vietnam Bank for Agriculture and Rural Development's Assets in 1998 and 2007**

Assets	1998	2007	Differences	%
Cash and notes	623	5,812	5,189	833.5
Precious metals	4	0	(4)	(100.0)
Deposits with the State Bank of Vietnam	3,777	17,629	13,852	366.7
Placements with, and loans and advances to other banks	3,159	12,150	8,991	284.7
Loans and advance to customers	25,892	246,188	220,296	850.8
Other assets	2,655	3,514	859	32.3
Investments	162	0	(162)	(100.0)
Tangible fixed assets	665	2,234	1,569	235.8
Financial assets held for trading	0	12,150	12,150	—
Financial investment available for sale	0	28,672	28,672	—
Financial investment held to maturity	0	4,677	4,677	—
Investments in joint ventures and associates	0	158	158	—
Intangible assets and land use rights	0	312	312	—
<b>Total</b>	<b>36,937</b>	<b>333,496</b>	<b>296,559</b>	<b>802.9</b>

( ) = negative.

Sources: Vietnam Bank for Agriculture and Rural Development's audited reports, 1998 and 2007.

**Figure 1: Key Progress of Central People's Credit Fund's Balance Sheet**

Source: Central People's Credit Fund, December 2008.

**Table A2.5: Key Progress of Central People's Credit Fund's Balance Sheet**

Item	2000	2001	2002	2003	2004	2005	2006	2007
Total assets	32.99	60.39	87.83	113.69	147.67	203.8	274.59	378.04
Total loans net	22.34	48.18	65.52	97.38	127.5	157.03	195.01	289.99
Total borrowings	14.91	16.38	22.18	29.74	45.38	51.62	76.19	70.98
Total deposits	0.15	16.24	51.46	68.35	86.71	133.91	177.28	280.83

Source: Central People's Credit Fund, December 2008.

**Table A2.6: CCF Profitability**  
(\$ million)

Item	2000	2001	2002	2003	2004	2005	2006	2007
Net interest income	1.17	2.02	2.49	3.12	4.27	7.01	8.37	10.79
Net profit before tax	0.84	0.81	0.75	0.75	0.92	1.06	1.42	1.94
Net profit after tax	0.71	0.55	0.51	0.52	0.66	0.76	1.02	1.40

Source: Central People's Credit Fund, December 2008.

**Table A2.7: CCF Financial Statements, 1995–2007**  
(\$ million)

Item	2000	2001	2002	2003	2004	2005	2006	2007
<b>Balance Sheet</b>								
Total assets	32.99	60.39	87.83	113.69	147.67	203.8	274.59	378.04
Loans to PCFs and RCFs	22.34	35.92	39.77	51.88	63.36	85.96	106.7	152.98
Loans to other clients	0	12.37	25.93	45.75	64.77	72.86	90.83	140.54
Loans to other clients net	0	12.26	25.75	45.5	64.14	71.07	88.31	137.01
Total loans gross	22.34	48.29	65.7	97.63	128.14	158.82	197.53	293.51
Total loans net	22.34	48.18	65.52	97.38	127.5	157.03	195.01	289.99
Gross other/total loans (%)	0	26	40	47	51	46	47	48
Deposits of PCFs	0.15	4.74	6.25	13.9	15.1	15.35	22.07	41.96
Deposits of other clients	0	11.5	45.2	54.45	71.61	118.56	155.21	238.86
Total deposits	0.15	16.24	51.46	68.35	86.71	133.91	177.28	280.83
Other/total deposits (%)	0	71	88	80	83	89	88	85
Domestic borrowings	2.41	0.59	3.63	1.59	3.3	0.22	20.62	9.3
Donor credit lines	12.5	14.65	18.51	28.15	35.86	45.33	49.47	55.57
Total borrowings	14.91	16.38	22.18	29.74	45.38	51.62	76.19	70.98
Total equity*	10.11	11.91	11.77	12.13	12.44	12.97	13.71	14.89
<b>Profit/Loss</b>								
Net interest income	1.17	2.02	2.49	3.12	4.27	7.01	8.37	10.79
Net profit before tax	0.84	0.81	0.75	0.75	0.92	1.06	1.42	1.94
Net profit after tax	0.71	0.55	0.51	0.52	0.66	0.76	1.02	1.4
<b>Financial Ratios (%)</b>								
CAR, risk-weighted	32	36	35	34	25	17	13	10.10
Overdues, ≥1 day	0.25	2.05	2.06	1.24	1.02	2.90	2.30	1.30
Return on average assets**	2.23	1.18	0.69	0.51	0.51	0.43	0.43	0.43
Return on average equity**	7.14	4.99	4.29	4.33	5.40	5.99	7.64	9.79
Net interest margin	3.73	3.46	2.97	2.88	2.99	3.55	3.15	2.95
Operating expense/ operating income	56.65	84.86	91.16	74.16	74.68	58.56	66.32	68.17
Deposits-to-loans	1	34	78	70	68	84	90	96
<b>\$ exchange rate</b>	14,540	15,086	15,395	15,630	15,776	15,906	16,056	16,025

CAR = credit adequacy ratio, PCF = people's credit funds, RCF = regional credit funds.  
Source: Central People's Credit Fund, 2008.

**Table A2.8: Various Developments of Central People's Credit Fund, 2000–2007**

Item	2000	2001	2002	2003	2004	2005	2006	2007
<b>Number of PCFs</b>	959	906	888	896	905	917	938	973
Growth in number per year	(5)	(53)	(18)	8	9	12	21	35
Number closed by SBV	5	53	24	3	3	4	4	2
<b>Number of members</b>	797,069	807,546	850,781	911,926	966,540	1,029,987	1,098,754	1,157,416
Average number of members/PCF	831	891	958	1,018	1,068	1,123	1,171	1,190
Number of borrowers	711,769	661,443	660,361	663,757	661,663	670,933	732,774	785,638
<b>Balance sheet</b>								
Total assets	184.2	196.15	232.14	303.11	371.01	458.74	585.98	850.71
Average total assets/PCF	0.192	0.216	0.261	0.338	0.41	0.5	0.625	0.874
Loans - gross	161.9	169.64	200.66	259.09	322.5	404.44	511.3	731.11
Growth per year (%)	15	5	18	29	24	25	26	43
Disbursements	274.83	264.19	318.3	395.85	496.42	603.63	569.49	1,131.37
Deposits	117.85	129.41	153.97	205.23	250.05	299.75	389.65	582.47
Growth (%)	10	10	19	33	22	20	30	49
Borrowings	22.34	35.92	39.77	51.88	63.36	85.96	106.7	152.98
Equity	11.96	11.8	13	15.64	19.53	24.44	28.52	38.55
Average equity/PCF	0.012	0.013	0.015	0.017	0.022	0.027	0.03	0.04
<b>Net profit after tax*</b>	3.18	3.96	4.89	5.8	7.19	8.79	10.54	10.24
<b>Financial ratios (%)</b>								
CAR (not risk-weighted)	7.4	7	6.5	6	6.1	6	5.6	5.3
Overdues (≥1 days)	3.42	2.17	1.36	0.84	0.66	0.53	0.53	0.5
ROA*	1.17	1.37	1.43	1.38	1.4	1.38	1.3	0.87
ROE*	15	18	20	20	21	18	19	14
Loans-to-deposits	137	131	130	126	129	135	131	126
Deposits-to-loans	73	76	77	79	78	74	76	80
<b>\$ exchange rate</b>	14,540	15,086	15,395	15,630	15,776	15,906	16,056	16,025

( ) = negative, CAR = credit adequacy ratio PCF = people's credit fund, ROA = return on asset ROE = return on equity, SBV = State Bank of Vietnam.

Source: Based on data from State Bank of Vietnam.

**Table A2.9: Annual Interest Rates by Borrower, Source of Funds, and Term, August 2008 (%)**

Borrower and Source	Short-Term	Medium-Term	Long-Term
CCF: Own funds	16.8	17.4	18
CCF: Project funds	13.2	14.4	14.4
SMEs: Own funds	19.8	21	21
SMEs: Project funds	13.2	13.2–19.8	13.2–19.8
Individuals: Own funds	21	21	21
Individuals: Project funds		19.8	19.8

CCF = central people's credit funds, SMEs = small and medium-sized enterprises.

Source: Central People's Credit Fund, 2008.

**Table A2.10: Amount of Loans Outstanding, 31 December 2007**  
(\$ million)

<b>Borrower and Source of Funds</b>	<b>Short-Term</b>	<b>Medium-Term</b>	<b>Long-Term</b>	<b>Total</b>
Central People's Credit Fund	115	30.3	7.6	<b>152.9</b>
Own funds	110.9	0	0	<b>110.9</b>
Project funds	4.1	30.3	7.6	<b>42</b>
Small and Medium-Sized Enterprises	15.5	4.6	0.2	<b>20.3</b>
Own funds	15.5	4.6	0.2	<b>20.3</b>
Project funds	0	0	0	<b>0</b>
Individual clients:	82.6	37.6	0	<b>120.2</b>
Own funds	82.5	31.8	0	<b>114.2</b>
Project funds	0.1	5.9	0	<b>6</b>
<b>Total</b>	<b>213.1</b>	<b>72.5</b>	<b>7.8</b>	<b>293.4</b>
Total own funds	208.9	36.3	0.2	<b>245.4</b>
Total project funds	4.2	36.2	7.6	<b>48</b>

Source: Central People's Credit Fund, 2008.

## TECHNICAL MANUALS DEVELOPED FOR THE PROJECT

Table 3.1: Technical Manuals, Distributed as of 31 December 2006  
(no. of copies)

No.	Province	Tea/Fruit Growing Guide- books for Farmers	Tea/Fruit Growing Guide- books for TOT Trainers	Tea/Fruit Nursery Care Guide- books	Tea Processing Guidebook	Tea and Fruit Quality Control Guidebook	Loan Record Notebooks	Total
<b>Total of tea and fruit</b>		<b>96,676</b>	<b>6,546</b>	<b>32,004</b>	<b>16,703</b>	<b>31,404</b>	<b>25,950</b>	<b>209,283</b>
1.	Thai Nguyen	7.628	750	4.100	2.400	4.560	2.500	21.938
2.	Phu Tho	3.340	400	2.730	2.800	1.939	2.600	13.809
3.	Yen Bai	10.709	306	788	3.862	1.560	2.500	19.725
4.	Tuyen Quang	4.000	400	2.850	3.050	1.400	1.000	12.700
5.	Ha Giang	4.060	200	3.020	3.772	1.400	1.000	13.452
6.	Lam Dong	7.920	750	400	415	140	550	10.175
<b>Total of tea</b>		<b>37,657</b>	<b>2,806</b>	<b>13,888</b>	<b>16,299</b>	<b>10,999</b>	<b>10,150</b>	<b>91,799</b>
1.	Bac Giang	11.000	630	2.105		1.995	4.000	19.730
2.	Hoa Binh	11.750	630	1.280		3.100	4.000	20.760
3.	Thanh Hoa	14.200	700	4.500		3.900	3.500	26.800
4.	Binh Dinh	7.000	250	1.300		1.900	150	10.600
5.	Khanh Hoa	550	400	1.800		2.700	550	6.000
6.	Tien Giang	5.400	630	1.400		3.200	2.400	13.030
7.	Ben Tre	4.100	50	1.400		2.900	1.200	9.650
<b>Total of fruit</b>		<b>54,000</b>	<b>3,290</b>	<b>13,785</b>	<b>0</b>	<b>19,695</b>	<b>15,800</b>	<b>106,570</b>
1.	TRI	1.642	50	1.035	340	200		3.267
2.	RIFAV	2.052	170	1.600		180		4.002
3.	SOFRI	85	170	100		20		375
4.	PHTI-HCMC	906	10	1.306	4	260		2.486
5.	Lam Dong Center	334	50	290	60	50		784
<b>Total of Institutes</b>		<b>5,019</b>	<b>450</b>	<b>4,331</b>	<b>404</b>	<b>710</b>		<b>10,914</b>

PHTI-HCMC = Post-harvest Technology Institute in Ho Chi Minh City, RIFAV = Research Institute of Fruits and Vegetables, SOFRI = Southern Fruit Research Institute, TRI = Tea Research Institute.

Source: Ministry of Agriculture and Rural Development, December 2006.

**Table 3.2: Titles of Technical Manuals Produced, as of 31 December 2006**

No.	Title of Handbook/Manuals
<b>A.</b>	<b>Implementation guidelines</b>
1.	Handbook of subloans
2.	Handbook of project management
3.	Guidelines on project financial management
4.	Handbook for project monitoring and evaluation
5.	Handbook for credit record and management
<b>B.</b>	<b>Tea plantation and processing</b>
1.	Handbook – Cultivation, maintenance, and processing tea in northern regions for end users
2.	Farmer manual – Cultivation, maintenance, and processing tea in northern regions
3.	Handbook for tea nursery standard in northern region
4.	Technical manual for tea processing in northern region
5.	Guidelines on tea quality insurance in northern region
6.	Handbook – Cultivation, maintenance, and processing tea in Lam Dong for end users
7.	Farmer manual – Cultivation, maintenance, and processing tea in Lam Dong
8.	Handbook for tea nursery standard in Lam Dong
9.	Technical manual for tea processing in Lam Dong
10.	Guidelines on tea quality insurance in Lam Dong
11.	Technical manual for tea cultivation, maintenance, and processing in middle and southern region
<b>C.</b>	<b>Fruit plantation and processing</b>
1.	Handbook – Cultivation, maintenance, and processing fruit in northern regions for end users
2.	Farmer manual – Cultivation, maintenance, and processing fruit in northern regions
3.	Handbook for fruit nursery standard in northern region
4.	Technical manual for fruit cultivation, maintenance, and processing in middle and southern region
5.	Handbook for fruit nursery standard in southern region
6.	Guidelines on fruit quality insurance

Source: Ministry of Agriculture and Rural Development, December 2006.

# NURSERY AREAS, CERTIFICATES, AND AWARDS

No.	Province	No of Mother Trees (unit)	Nursery Outputs Disseminated (unit)	Total Areas of Nursery (ha)	Nurseries Got Certificates (unit)	Percentage of Certificated Nurseries (unit)	Number of Plants (million)	Mother Trees Received Certificates (unit)	Percentage of Varieties Received Certificates (unit)	Nurseries Got Awards (unit)	Mother Trees Got Awards (unit)	Number of Household /Time Make Nursery (household)	Number of Labours Working in Nursery (person)	Average Income from Nursery (D million)
<b>A. Total of tea and fruit</b>		<b>1,404</b>	<b>27,481</b>	<b>373</b>	<b>1,707</b>	<b>54</b>	<b>1,476</b>	<b>146</b>		<b>62</b>	<b>21</b>	<b>1,983</b>	<b>106,697</b>	<b>43</b>
1.	Thai Nguyen	45	899	33	737	82	66	36	71	15	3	899	2.697	28
2.	Phu Tho	20	156		77	49	23	14	62	0	0	136	394	8
3.	Yen Bai	5	314	47	301	96	65	50	77	10	19	280	940	16
4.	Tuyen Quang	0	89	6	89	100	17	14	82	0	0	89	225	18
5.	Ha Giang	0	0	0	0	0	0	0	0	0	0	0	0	0
6.	Lam Dong	99	390	38	157	44	56	36	64	0	0	390	288	43
<b>B. Total of tea</b>		<b>169</b>	<b>1,848</b>	<b>123</b>	<b>1,361</b>	<b>74</b>	<b>228</b>	<b>30</b>	<b>71</b>	<b>25</b>	<b>21</b>	<b>1,794</b>	<b>4,544</b>	<b>22</b>
1.	Bac Giang	0	96	95	0	0	1.068	50	0	0	0	16	96	40
2.	Hoa Binh	2	58	43	4	22	42	17	42	4	0	58	580	33
3.	Thanh Hoa	0	111	36	67	60	15			33		93	470	2
4.	Binh Dinh	0	10	2	10	100	0	0	0	0	0	4	19	
5.	Khanh Hoa	0	23	7	0	0	0	0	0	0	0	8	133	29
6.	Tien Giang	116	130	62	13	10		0	0	0	0	10	55	79
7.	Ben Tre	994	25.200		248	1	111	19	17				100.800	200
<b>C. Total of fruit</b>		<b>1,112</b>	<b>25,628</b>	<b>245</b>	<b>342</b>	<b>34</b>	<b>1,236</b>	<b>86</b>	<b>8</b>	<b>37</b>		<b>189</b>	<b>102,153</b>	<b>64</b>
1.	TRI	100												
2.	RIFAV	23	5	6	4	80	12							
<b>Total No. of Institutes</b>		<b>123</b>	<b>5</b>	<b>6</b>	<b>4</b>	<b>80</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

RIFAV = Research Institute for Fruits and Vegetables, TRI = Tea Research Institute.

Source: Ministry of Agriculture and Rural Development, December 2006.

### DISTRIBUTION OF LAND-USE MAPS FOR FRUIT AND TEA AREAS

No.	Province	Provincial Maps	District Maps	Commune Maps	Areas of Tea and Fruit Covered in Maps	% of Tea and Fruit Area Covered by Map
<b>A. Total of tea and fruit</b>		<b>29</b>	<b>210</b>	<b>718</b>	<b>108,116</b>	<b>54.30</b>
1.	Thai Nguyen	4	66	0	16.641	96,50
2.	Phu Tho	1	7	56	12.160	96,30
3.	Yen Bai	2	6	75	2.054	86,30
4.	Tuyen Quang	1	3	2	4.489	69,00
5.	Ha Giang	3	20	5	15.063	100,00
6.	Lam VND	0	2	25	22.100	87,00
<b>B. Total of tea</b>		<b>11</b>	<b>104</b>	<b>163</b>	<b>72,507</b>	<b>72.80</b>
1.	Bac Giang	0	0	59	3.282	27,30
2.	Hoa Binh	1	5	234	18.344	45,5
3.	Thanh Hoa	4	13	39	1.432	49,00
4.	Binh Dinh	4	20	0	2.292	72,40
5.	Khanh Hoa	2	10	95	386	3,70
6.	Tien Giang	6	52	128		
7.	Ben Tre	1	6	0	400	
<b>C. Total of fruit</b>		<b>18</b>	<b>106</b>	<b>555</b>	<b>35,610</b>	<b>35.90</b>

Source: Ministry of Agriculture and Rural Development, December 2008.

### INVESTMENTS IN MARKET DEVELOPMENT

No.	Province	No of Magazines	No. of Pamphlet	News on Tea and Fruit	No. of Articles on the Web	Training Courses on Market Information (training)	No. of Trained Participants (persons)	No. of Women (persons)	No. of Ethnic Minority (persons)	No. of Document Films (topics)	Communes Receiving Documents on Tea and Fruit (communes)
<b>A. Total for Tea and Fruits</b>		<b>29,690</b>	<b>84,886</b>	<b>1,619</b>	<b>576</b>	<b>287</b>	<b>14,935</b>	<b>4,160</b>	<b>4,732</b>	<b>124</b>	<b>1,828</b>
1.	Thai Nguyen	7,760	25,330	237	125	8	455	266	171	2	108
2.	Phu Tho	3,000	52,500	147		25	1,650	592	100	1	143
3.	Yen Bai	5,200	0	67	16	6	310	60	35	4	75
4.	Tuyen Quang	4,680	2,200	71	25	45	2,263	826	550	0	84
5.	Ha Giang	2,900	0	61	37	15	530	272	390	72	51
6.	Lam Dong	2,460	8,526	2,500	86	4	170	45	48	4	113
<b>B. Total for Tea</b>		<b>26,000</b>	<b>88,556</b>	<b>586</b>	<b>289</b>	<b>103</b>	<b>5,378</b>	<b>2,061</b>	<b>1,294</b>	<b>83</b>	<b>574</b>
1.	Bac Giang	0	0	366	110	84	4,109	571	1,059	0	45
2.	Hoa Binh	0	0	89	52	48	2,300	943	1,196	40	0
3.	Thanh Hoa	0	9,000	464	124	16	833	390	268	0	853
4.	Binh Dinh	540	0	72	19	6	237	46	1	0	0
5.	Khanh Hoa	0	0	1,230	0	25	1,217	221	0	0	0
6.	Tien Giang	2,000	0	0	0	8	387	42	0	0	34
7.	Ben Tre	1,900	0	41	10		740	48	0	3	130
<b>C. Total for Fruits</b>		<b>4,440</b>	<b>9,000</b>	<b>1,033</b>	<b>315</b>	<b>187</b>	<b>9,823</b>	<b>2,261</b>	<b>2,524</b>	<b>43</b>	<b>1,062</b>

Source: Ministry of Agriculture and Rural Development, December 2008.

### INVESTMENTS IN QUALITY CERTIFICATION

No.	Province	No. of Training and Workshop on Quality (packages)	No. of Participants (persons)	Women Participants (persons)	Ethnic Minority Participant (persons)	Study Visit in Country (packages)	Joining the Visits (persons)	No. of Competition on Quality (packages)
<b>A. Total of tea and fruit</b>		<b>544</b>	<b>33,183</b>	<b>10,443</b>	<b>7,474</b>	<b>42</b>	<b>1,128</b>	<b>14</b>
1.	Thai Nguyen	29	1.580	1.032	624	8	154	3
2.	Phu Tho	49	3.675	1.361	180	2		1
3.	Yen Bai	6	310	60	35	11	370	1
4.	Tuyen Quang	58	2.903	1.214	587	3	100	0
5.	Ha Giang	30	1.150	679	1.338	2	27	2
6.	Lam Dong	5	201	55	35	3	37	0
<b>B. Total of tea</b>		<b>177</b>	<b>9,819</b>	<b>4,401</b>	<b>2,799</b>	<b>29</b>	<b>688</b>	<b>7</b>
1.	Bac Giang	69	3.377	475	671	4	45	2
2.	Hoa Binh	85	4.250	2.040	2.210	2	60	2
3.	Thanh Hoa	73	4.634	2.310	1.767	1	60	0
4.	Binh Dinh	33	1.751	223	1	2	27	0
5.	Khanh Hoa	37	1.801	327	26	1	22	0
6.	Tien Giang	8	3.792	380	0	2	48	0
7.	Ben Tre	62	3.759	287	0	1	178	3
<b>C. Total of fruit</b>		<b>367</b>	<b>23,364</b>	<b>6,042</b>	<b>4,675</b>	<b>13</b>	<b>440</b>	<b>7</b>

Source: Ministry of Agriculture and Rural Development, December 2008.

## PROJECT SUPPORT FOR RESEARCH INSTITUTES

No.	Item	Agriculture Institute (North)	RIFAV	SOFRI	Post- Harvest Institute	Lam Dong Center	Total
1.	Restructuring program (packages)	1	1	1	1	1	5
2.	Annual revenues of the institution (D million)	62.835	52.355	45.564	46.371		207,126
3.	Budget for research (D million)	17.090	22.700		19.064		58,854
4.	Budget from ADB (D million)	2.004	1.288	4.281			7,573
5.	Annual research works (packages)	53	128	32	100	15	328
6.	Research work applied (packages)	51	101	32	24	7	215
7.	No. of gardens with mother trees (unit)	100	23	3	0	6	132
8.	Car provided by the Project (unit)	1	1	1	1	1	5
9.	Equipment provided by the Project (package)	38	13	24	8	28	114
10.	Research buildings with equipment (unit)	1	1	2	1	1	6
11.	Additional books for the libraries (copy)	0	288	294	16	0	598
12.	No. of libraries for pilot models of tea and fruit (unit)	1	2	1	1	1	6
13.	New varieties brought to production (package)	10	15		0	4	29

RIFAV = Research Institute of Fruits and Vegetables, SOFRI = Southern Fruit Research Institute.

Source: Ministry of Agriculture and Rural Development, December 2008.

## TRAINING PROGRAM FOR THE PROJECT

**Table A9.1: Training of Trainers and Training for Farmers/Direct Beneficiaries**

		Training of Trainers					Training for Farmers				
No.	Province	No. of Training	Total Trainees	Became Trainers	Key Farmers	Women Trainees	Ethnic Minority Trainees	Training Course	Participants	Women	Ethnic Minority
A. Total of tea and fruit		407	20,065	7,218	13,140	4,836	3,178	2,551	141,758	36,369	38,297
1.	Thai Nguyen	8	50	366	134	195	122	123	11.54	4.397	7.143
2.	Phu Tho		924		924	247	0	179	12.05	4.7	385
3.	Yen Bai	49	2.159	714	1.445	846	419	309	19.158	7.119	7.747
4.	Tuyen Quang	22	1.049	991	58	459	0	205	10.087	1.51	2.896
5.	Ha Giang	34	1.599	210	1.38	657	1.264	78	3.766	1.46	2.889
6.	Lam Dong	25	764	139	735	238	36	142	6.623	1.156	843
B. Total of tea		138	6,545	2,420	4,676	2,642	1,841	1,036	63,224	20,342	21,903
1.	Bac Giang	40	1.573	221	1.352	214	295	568	27.891	4.096	5.094
2.	Hoa Binh	12	495	173	322	183	252	325	16.204	6.834	9.792
3.	Thanh Hoa	29	1.228	175	937	179	242	88	7.159	2.076	1.043
4.	Binh Dinh	43	1.691	834	857	190	49	86	4.492	463	110
5.	Khanh Hoa	11	530	56	474	73	14	137	7.141	1.136	355
6.	Tien Giang	11	586	0	586	65	0	164	7.9	785	0
7.	Ben Tre	19	1.223	90	1.133	181	0	147	7.747	637	0
C. Total of fruit		165	7,326	1,549	5,661	1,085	852	1,515	78,534	16,027	16,394
1.	North Institute of Agricultural Science	42	2.065	1.288	777						
2.	TRI	24	1.723	794	929	674	409				
3.	SOFRI	11	505	277	228	75	0				
4.	Agricultural Engine institute	9	736	530	64	71	5				
5.	Lam Dong Center	18	1.165	360	805	289	71				
D. Total of Institutes		104	6,194	3,249	2,803	1,109	485				

SOFRI = Southern Fruit Research Institute, TRI = Tea Research Institute.

Source: Ministry of Agriculture and Rural Development, December 2008.

Table A9.2: In-Country and Overseas Study

No.	Province	In Country Participants (person)				Overseas Participants (person)			
		Trips	Total	Women	Ethnic Minority	Trips	Total	Women	Ethnic Minority
		<b>7</b>	<b>1,945</b>	<b>475</b>	<b>299</b>	<b>46</b>	<b>77</b>	<b>15</b>	<b>0</b>
<b>A. Total of tea and fruit</b>		<b>0</b>							
1.	Thai Nguyen	8	154	79	36	4	4	3	0
2.	Phu Tho	2	47	3	0	0	0	0	0
		1				6	8	1	0
3.	Yen Bai	1	370	154	108				
4.	Tuyen Quang	5	100	30	17	4	5	2	0
5.	Ha Giang	9	97	39	70	3	4	1	0
6.	Lam Dong	3	37	7		5	8	0	0
		3				22	29	7	0
<b>B. Total of tea</b>		<b>8</b>	<b>805</b>	<b>312</b>	<b>231</b>				
1.	Bac Giang	4	45	6	7	4	5	0	0
2.	Hoa Binh	2	60	12	35	3	4	0	0
3.	Thanh Hoa	3	120	40	26	5	6	1	0
4.	Binh Dinh	2	36	3	0	4	5	1	0
5.	Khanh Hoa	2	30	6	0	4	5	1	0
		1				0	0	2	0
6.	Tien Giang	5	621	69	0				
7.	Ben Tre	4	205	16	0	4	5	1	0
		3				24	30	6	0
<b>C. Total of fruit</b>		<b>2</b>	<b>1,117</b>	<b>152</b>	<b>68</b>				
1.	Institute of Agricultural Science (North)					5	5	0	0
		1				3	3	0	0
2.	TRI	1	22	10	0				
3.	SOFRI					3	3	1	0
4.	Agricultural Engine Institute					2	2	0	0
5.	Lam Dong Center	1	1	1		5	5	1	0
		1				18	18	2	0
<b>D. Total of Institutes and research</b>		<b>2</b>	<b>23</b>	<b>11</b>	<b>0</b>				

SOFRI = Southern Fruit Research Institute, TRI = Tea Research Institute.

Source: Ministry of Agriculture and Rural Development, December 2008.

## ECONOMIC AND FINANCIAL ANALYSES

1. The Project had two key objectives: (i) to increase farmers' income by raising the value of agricultural production through the development of the tea and fruit industries; and (ii) to enhance environmental protection of tea- and fruit-growing areas, particularly in hilly and deforested land. Farm incomes would be raised by (i) providing farmers with knowledge of new farm technology through training; (ii) supporting research and extension agencies in developing new technology and transferring this knowledge to farmers; (iii) extending credit to farmers for farm improvements, including tea and fruit planting and rehabilitation; and (iv) providing credit for small processing units to enable farmers to process their own farm produce and obtain higher prices.
2. The project targets established at appraisal were as follows: (i) new planting or replanting of 2,320 hectares (ha) of tea; (ii) infilling or rehabilitation of 1,500 ha of tea; (iii) planting of 23,000 ha of fruits using accredited clonal materials, including 7,500 ha on deforested land; (iv) upgrading of 730 small green-tea processing facilities; (v) establishment of 25 green-tea processing workshops; (vi) rehabilitation of 4 large green- and black-tea factories; (vii) establishment of 100 small-scale fruit dryer units and 50 small-scale cool storage, grading, and packing facilities; and (viii) establishment of 300 certified commercial tea and fruit nurseries.
3. The Project was expected to benefit some 67,400 tea and fruit farmers and to generate 71,600 person-years of employment during the 6-year development stage and 26,000 person-years of employment per year at full maturity. By year 15 (2016), incremental production would reach 20,000 tons of tea, valued at \$25 million and 325,000 tons of fruits, valued at \$100 million, annually. Tea yield would be raised from 3 tons of green leaf (tgl)/ha to 8–12 tgl/ha, while fruit yield would increase from 5.0 tons/ha to 8.5 ton/ha. Tea farmers' income would grow from \$680/year (before the Project) to \$893/year, or by 30%, and fruit farmers' income, from \$1,580/year to \$2,100/year, or by 33%.
4. Farmers would be provided credit to undertake all these activities, and the loan would be administered by two rural financial institutions, Viet Nam Bank for Agricultural Development (VBARD) and People's Credit Fund (PCF), which would work closely with the provincial departments of agriculture and rural development in supervising the use of the loan funds. Loans to small farmers would account for some 90% of the project cost.
5. At appraisal, these subloans to farmers were expected to have a term of 5–15 years, including a grace period of 15 years, during which interest would be capitalized. The onlending rate from the participating financial institutions (PFIs) would be the prevailing interest rate for similar lending operations. It was assumed that the PFIs would need to charge a rate at least 6% over the relending rate to cover their operating cost and credit risks.
6. The loan size was expected to range between \$137 and \$1,370 for the majority of loans, and only a few loans of up to \$50,000 would be required for large processing units. The PFIs were expected to lend to 67,400 farmers and processors at an average of \$500 (D7.6 million) per loan.
7. The PFIs would establish a revolving fund to which they would credit the interest and principal payments they received, and would use this fund for loan amortization and for onlending to proponents of eligible subprojects.

## A. Tea and Fruit Development in Viet Nam

8. The area planted with tea in Viet Nam grew at a modest annual rate of 3.2% from 1990 to 2000,<sup>1</sup> compared with 13.8% for coffee and 5.8% for rubber. However, from 2000 to 2006, the tea-growing area grew at a higher annual rate of 5.0%, compared with 4.2% for rubber and -1.6% for coffee.

9. In 2006, Viet Nam had a total of 123,000 ha planted with tea and it produced a total of 612,000 tons of fresh leaf (or 136,000 tons of dried leaf) of this commodity.<sup>2</sup> Some 105,000 tons of this commodity are exported, earning foreign exchange of \$110 million in 2006. The main export markets are Pakistan, Russian Federation, and India for black tea, and Taiwan and the People's Republic of China for green tea. The local market consumes some 30,000 tons, or 400 grams per capita of tea;<sup>3</sup> virtually all of this consumption is green tea. Some 75% of the tea produced in Viet Nam is exported.

10. The six tea-growing provinces included in the Project—Ha Giang, Lam Dong, Phu Tho, Tuyen Quang, Thai Nguyen, and Yen Bai—grow more than 70,000 ha of this crop (60% of the national crop area) (see footnote 3).<sup>4</sup> The average yield in these six northern provinces in 2005 was 5.24 tons/ha. Ha Giang province had the lowest yield, at 2.0 tons/ha. Ha Giang is located in the highland and is home to the minority Shan tribe, which has the lowest income among the project farmers. However, the tea grown here, the Shan Tuyet variety, has low tannin content and does not have a bitter taste. The export potential for this tea is promising and future projects need to stress the development of export markets particularly for this tea.

11. Tea production is carried out by small farmers who grow 0.2–2.0 ha of tea besides engaging in other farm activities like rice farming, fruit cultivation, and pig and cattle raising. Some of these farmers are contract farmers working on an average of 2 ha of land they rent from old state farm enterprises. Many use small dryers to produce their own green tea for home consumption and market their surplus in nearby villages. Thus, the figures for green tea production may undercount the actual production, as they exclude some amounts that are not traded.

12. Between 2000 and 2006, Viet Nam fruit cultivation area increased from 560,000 ha to 732,000 ha, or by 4.0% per year,<sup>5</sup> and production from 3,840,000 tons to 6,700,000 tons, or by 8.0% yearly. Total exports of fruits and vegetables grew from \$213 million to \$259 million, or at an annual rate of 2.6%, while imports grew from \$46 million to \$169 million, or by more than 30% per year. The trade surplus for this commodity was drastically reduced, from \$167 million to \$90 million.

13. The need to import larger amounts of this commodity is due to the slow growth in domestic supply, coupled with the high growth in demand from the growing middle class.

14. Most of the fruit farmers have farms of 1.0–2.0 ha and practice an integrated system of farming with cash crops, food crops, livestock, and aquaculture. This farming system reduces the risk of crop failure and the wide fluctuations in farm income resulting from the short fruiting

<sup>1</sup> General Statistics Office of Vietnam. 2006. *Statistical Yearbook of Vietnam*. <http://www.gso.gov.vn>.

<sup>2</sup> Assuming that 4.5 kilogram of wet leaf is equivalent to 1.0 kilogram of dried leaf.

<sup>3</sup> Local consumption estimates obtained from Landell Mills Limited. 2005. *Tea Marketing and Tea Green Leaf Price* (Loan 1781 VIE-SP). Consultant's report.

<sup>4</sup> Loan 1781 VIE-SP Consultant Report, *Tea Marketing and Tea Green Leaf Price*, Landell Mills Limited, 2005.

<sup>5</sup> FAO. 2004. *Fruit Production in Vietnam*.

reason for most fruit crops. The main fruit crops grown are litchi, longan, mango, durian, citrus, banana, and pineapple. These fruit farmers need to be trained in new technology, including the use of high-yielding varieties with a longer harvesting season, better crop management, and new postharvest methods that will extend the shelf life of their produce.

15. The Project aimed to provide all these improvements to fruit farmers in seven provinces: Hoa Binh and Thanh Hoa in North Viet Nam, Binh Dinh in Central Viet Nam, and Ben Tre, Khank Hoa, Lam Dong, and Tien Giang in South Viet Nam.

## **B. Project Achievements**

16. A comparison between the planned targets set at appraisal and the project achievements is shown in Table A10.1. According to this table, the area actually developed for tea far exceeded the appraisal targets. The area planted with tea was 3.3 times larger, the tea nursery area was 7.2 times larger, the tea processing facilities that were upgraded were 7.5 times larger, and the tea processing workshops were 18.7 times more than the target. Similarly, for fruits, the area developed was 1.5 times larger than the target set at appraisal.

17. The area planted with tea and fruits in deforested land, however, failed to meet the target set at appraisal: the actual area developed was 1,283 ha for tea and 336 ha for fruits, for a total of 1,619 ha, or 22% of the target of 7,500 ha set at appraisal. The main reason for this discrepancy was the delay in project implementation, as most of the 7,500 ha identified in the feasibility study in 1997 had already been used for forestry development by the time the Project began in 2002. The total area developed for tea was 17,554 ha, 126% above the appraisal target of 7,776 ha, while the total area developed for fruits was 57,197 ha, 63% above the target of 35,000 ha at appraisal.

18. A total of 3,558 commercial nurseries (1,222 for tea and 336 for fruits), 10.8 times more than the target at appraisal, were developed under the Project. Similarly, the number of processing units for tea was 7.8 times larger and the figure for fruit factories was 30 times larger than expected at appraisal.

19. Two factors enabled the Project to exceed its targets. At appraisal, farmers were not expected to repay their loans before 5 years. During project implementation, most farmers repaid their loans annually or by the end of the second year. The PFIs could thus recycle the funds and provide more frequent and larger loans than planned. From 2002 to 2007, the PFIs provided loans to 67,314 borrowers, close to the target of 67,400 borrowers, but the average loan size was more than twice the target amount of \$1,108 (D16.6 million).

20. Another source of funds for more rapid development was the farmers' contribution in implementing the new development. At appraisal, it was planned that the farmers would contribute 17% of project cost, or \$145 per borrower. At project completion, the farmers were found to have provided 56% of the additional new investments needed: the \$1,590 contributed by each farmer on average was more than 10 times the amount estimated at appraisal. The actual project costs at project completion, with the revolving funds and the farmers' contribution, are shown in Table 10A.2.

**Table A10.1: Planned and Actual Project Targets**

<b>Investment</b>	<b>Unit</b>	<b>Planned</b>	<b>Actual</b>	<b>Difference</b>	<b>%</b>
<b>Tea planting and processing</b>					
Tea replanting and new planting	ha	3,776	16,271	12,495	331
- Old tea replanted or newly planted	ha	2,321	—	—	Na
- Tea infilled	ha	291	—	—	Na
- Tea rehabilitated	ha	1,164	—	—	Na
Tea planting in deforested land	ha	0	1,283	1,283	
Commercial tea nurseries	unit	150	1,222	1,072	715
Small green tea processing facilities upgraded	unit	727	6,156	5,429	747
Green tea processing workshops	unit	25	493	468	1,872
Green tea factories rehabilitated	unit	2	2	0	0
Black tea factories rehabilitated	unit	2	2	0	0
<b>Fruit planting and processing</b>					
Fruits planted/replanted	ha	23,000	56,861	33,861	147
Fruit planted in the deforested land	ha	7,461	336	(7,125)	(0.05)
Commercial fruit nurseries	unit	150	336	186	124
Small-scale fruit dryer established	unit	100	4,795	4,695	4,695
Small-scale cool storage, grading, and packing facilities	unit	50	0	(50)	(100)
Fruit juice factories established	unit	3	8	5	167

( ) = negative, ha = hectare.

Source: Ministry of Agriculture and Rural Development, December 2008.

**Table A10.2: Cost by Financiers Including Revolving Fund**

<b>Item</b>	<b>ADB</b>	<b>Gov't</b>	<b>VBARD</b>	<b>CCF</b>	<b>Farmers Contribution</b>	<b>Total</b>	<b>% of Total</b>
<b>1. Credit</b>							
- Credit for Tea	11,608		10,244	2,130		23,982	13
- Credit for Fruits	27,130		23,941	1,420		52,491	28
sub-total credit	38,738		34,185	3,550	0	76,473	40
<b>Farmer Contribution</b>							
- Tea					60,270	60,270	32
- Fruits					46,861	46,861	25
<b>2. Non-Credit</b>							
Technology Transfer/Market Information	831	476				1,307	1
Project Strengthening	950	183				1,133	1
Project Management	1,942	613				2,555	1
Training	839	533				1,372	1
Sub-total non-credit	4,562	1,805	0	0	0	6,367	3
<b>Total Cost</b>	<b>43,300</b>	<b>1,805</b>	<b>34,185</b>	<b>3,550</b>	<b>107,131</b>	<b>189,971</b>	<b>100</b>
Share of Total Project Cost (%)	23	1	18	2	56	100	

Source: The Government and ADB, 2008.

21. The wide disparity between the planned and actual achievements was mainly due to the fact that the subloans were demand-driven rather than based on detailed planning. Thus, there was a shortfall in financing for processing facilities because of the lack of demand for such subloans.

### **C. Main Assumptions**

22. The main assumptions applied were similar to those used at appraisal with the major changes made to take into account (i) the differences in project accomplishments, (ii) changes in cost and the need to update all cost figures to 2008 prices, and (iii) other appropriate changes.

- (i) The project period was 6 years, and the economic life of subprojects was assumed to be 25 years for all subprojects (instead of 15 years for nurseries, 20 years for tea and fruit processing units, and 25 years for field development at appraisal). The benefits and costs were valued in 2008 base prices.
- (ii) The World Bank commodity price projections were used as the basis for deriving export parity prices of tea as well as for price projections, which were taken as the average for three main international tea auctions. The tea prices used assumed that Viet Nam suffered a price discount on quality of 10%, compared with the 20%–25% assumed at appraisal. The assumption at appraisal of a 15% improvement in quality was discounted, as no such improvement was evident at completion.
- (iii) The basic daily wage in the project area was observed to be D40,000, compared with D15,000 at appraisal. This increase in labor cost was to some extent compensated by a 150% increase in labor productivity over the last 6 years. The shadow wage rate of 0.8 applied in the economic analysis at appraisal was also used at project completion. A standard conversion factor of 0.9 was used to convert non-traded inputs into border values for the economic analysis.

### **D. Results of Economic Analysis**

23. The economic internal rate of return (EIRR) for the Project was estimated at 20%, compared with 23% at appraisal (Table A10.3). The Project was therefore deemed likely to remain economically viable even if (i) future costs, representing project operation and maintenance costs, were to go up by 10%; (ii) future benefits were to be reduced by 10%; and (iii) future costs were to increase by 10% while future benefits to go down by 10%.

24. Most of the tea and fruit plantation and processing units funded by the Project were assessed to be profitable, with a financial internal rate of return (FIRR) (updated) of 12%–35%. If the onlending rate were assumed to be 13.8% and the inflation rate 7%, as assumed at appraisal, all subprojects with an FIRR greater than 7.0% could be considered viable. All the subprojects evaluated at project completion met this criterion of project viability. The FIRRs and EIRRs of these investments at appraisal and at project completion are compared in Table A10.3.

**Table A10.3: Projects and Subprojects FIRR and EIRR at Appraisal and PCR**  
(%)

Projects	Appraisal		PCR	
	FIRR	EIRR	FIRR	EIRR
<b>Projects</b>		23	15	20
<b>Subprojects</b>				
<b>A. Tea</b>				
Commercial tea nursery	21	17	19	21
New tea planting and rehabilitation	24	15	15	17
Tea planting in deforested land	19	16	16	18
Tea Intensification	14	8	13	20
Upgrading green tea processing\	40	29	25	27
Smallholder green tea processing	27	21	16	29
<b>B. Fruit</b>				
Commercial fruit nursery	28	27	20	22
Fruit tree planting and rehabilitation	19	16	15	18
Fruit tree planting in deforested land	19	16	16	20
Small-scale processing unit	33	26	17	26
Fruit juice factory	24	20	16	24

EIRR: economic internal rate of return, FIRR: Financial Internal Rate of Return, PCR: Project Completion Report

Source: Ministry of Agriculture and Rural Development, 2008.

25. Table A10.4 shows the switching values for the project EIRR. Project costs would have to increase by 51% or project benefits to drop by 27% for the project EIRR to go below 12%.

26. The analytical tables constructed for the economic analysis are shown in the following tables (A10.7, A10.8 and A10.9, A10.10, and A10.11). The analysis for the different subcomponents and for the Project was carried out for 25 years but only the results for the first 13–15 years are shown in these tables.

**Table A10.4: Project FIRR, EIRR, and Sensitivity Analysis**

Item	At Appraisal		At PCR	
	EIRR	FIRR	EIRR	FIRR
Base Case	23	—	20.3	14.4
			<b>From 2009 onwards</b>	
Cost + 10%	21	—	18.8	12.3
Benefits – 10%	19	—	17.6	7.6
Cost + 10% and Benefits – 10%	15	—	16.0	negative
<b>Switching Values –Opportunity Cost of Capital at 12%</b>				
Increase in Project Cost			12.0	51.0
Shortfall in Incremental Benefits			4.0	27.0

EIRR= economic internal rate of return; FIRR= financial internal rate of return, PCR = project completion report

Source: Ministry of Agriculture and Rural Development, 2008.

## E. Project Impact

### 1. Farm Income

27. The average farm income with and without the Project is shown in Table A10.5. The Project was able to raise the average income of tea farmers by 88%, from \$680 before the Project to \$1,276 after the Project, compared with the \$893 expected at appraisal.

28. For fruit farmers, average income increased by 51%, from \$1,580 to \$2,381 (Table A10.6), versus the 30% increase expected at appraisal. However, despite this increase, farm incomes are still low and income per capita is less than \$1.00 per day for tea farmers and less than \$1.50 per day for fruit farmers. The main reason for the low incomes is the generally low farm productivity. More investments must be made to increase farm productivity.

**Table A10.5: Farmers Income with and without the Project**  
(D'000)

<b>Tea Farmers</b>				
	<b>Without Project</b>	<b>With Project</b>	<b>Without Project</b>	<b>With Project</b>
<b>Item</b>	<b>(D'000)</b>	<b>(D'000)</b>	<b>(\$)</b>	<b>(\$)</b>
<b>Without Project – 2008</b>				
<b>Farm Income – D</b>				
1. Tea income	6,961	15,000	476	1,026
2. Pig income	994	1,193	68	82
3. Paddy income	497	597	34	41
4. Others	1,492	1,865	102	128
Total farm income	9,944	18,655	680	1,276
Number family members	4.00	4.00	4.00	4.00
Per capita income	2,486	4,664	170	319

D = Dong.

Source: Ministry of Agriculture and Rural Development, 2008.

**Table A10.6 Farmers Income With and Without Project**  
(D'000)

<b>Fruit Farmer</b>				
	<b>Without Project</b>	<b>With Project</b>	<b>Without Project</b>	<b>With Project</b>
<b>Item</b>	<b>(D'000)</b>	<b>(D'000)</b>	<b>(\$)</b>	<b>(\$)</b>
<b>Without Project – 2008</b>				
<b>Farm Income – D</b>				
1. Litchi income	15,478	25,000	1,058	1,710
2. Pig income	3,696	4,435	253	303
3. Paddy income	1,155	1,502	79	103
4. Others	2,772	3,881	190	265
Total farm income	23,101	34,818	1,580	2,381
Number family members	5.00	5.00	5.00	5.00
Per capita income	4,620	6,964	316	476

Source: Ministry of Agriculture and Rural Development, 2008.

## 2. Nonquantifiable Benefits

29. The main nonquantifiable benefits of the Project envisaged at appraisal were as follows: (i) the reestablishment of perennial cover and the reduction of erosion on sloping land, as a result of tea and fruit crop rehabilitation and replanting; (ii) an (unmeasured) increase in the productivity of other farm crops, as a result of more farmer training and better extension services; and (iii) the production of better-quality crops, fetching higher farm-gate prices that may not be recorded by the project office. All these benefits were observed at project completion. The improvements in ground cover covered some 75,000 ha at completion, surpassing the appraisal target of 43,000 ha by 75%.

**Table A10.7: Derivation of Export Parity Prices for Tea, Constant 2008 Prices**

	2003	2004	2005	2006	2007	Average 2003 to 2007 Prices	Forecast Prices 2010	Forecast Prices 2015
<b>US\$/ton</b>								
US \$/mt/kg	1,516	1,578	1,724	1,754	1,921	1,699	1,483	1,430
Quality discount – 10%	1,364	1,420	1,552	1,579	1,729	1,529	1,335	1,287
Freight, Hanoi to Middle East	30	30	30	30	30	30	30	30
FOB Middle East, US\$	1,334	1,390	1,522	1,549	1,699	1,499	1,305	1,257
Exchange D '000 to \$	15,630	15,776	15,906	16,056	16,025	15,879	16,025	16,025
<b>D/kg</b>								
FOB Hanoi D	20,857	21,932	24,203	24,864	27,225	23,798	20,908	20,143
Transport and port charges	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Dry leaves at factory gate	19,857	20,932	23,203	23,864	26,225	22,798	19,908	19,143
Processing cost	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Processors margin – 5%	993	1,047	1,160	1,193	1,311	1,140	995	957
<b>Green Leaves</b>								
<b>Financial farm price</b>	3,748	3,974	4,454	4,594	5,092	4,372	3,758	3,597
<b>Economic farm price</b>	3,373	3,577	4,008	4,134	4,583	3,935	3,382	3,237

Source: IBRD Commodity Price Forecasts, August 2008.

**Table A10.8: Financial Cost and Benefits of Credit Component, in Million Dong, 2008 Constant prices**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Cost</b>											
<b>A. Tea</b>											
Commercial tea nursery	13,290	21,475	33,424	45,433	58,648	73,171	57,005	58,017	59,130	59,130	59,130
New tea planting and rehabilitation	0	39,055	49,943	58,885	72,170	61,034	56,342	63,145	70,579	78,220	84,185
Tea planting in deforested land	0	9,245	11,822	13,939	17,084	14,448	13,337	14,947	16,707	18,516	19,928
Tea Intensification	49,903	78,515	92,303	127,305	135,737	155,543	141,571	145,303	149,783	154,006	153,632
Smallholder green tea processing	1,039	2,244	3,620	5,168	6,887	7,454	7,441	7,441	7,441	7,441	7,441
Commercial tea processing factories	1,263	2,975	5,587	9,100	11,890	16,114	18,388	21,666	24,429	26,896	28,552
<b>B. Fruit</b>											
Commercial fruit nursery	3,014	5,093	8,353	7,743	20,901	22,082	23,870	28,128	33,046	34,728	34,728
Fruit tree on deforested land	1,389	1,843	2,489	3,213	4,205	3,095	3,433	3,675	3,810	3,968	4,013
Fruit tree planting and rehabilitation	50,172	88,110	131,447	241,865	279,592	632,826	516,113	591,521	681,726	688,323	734,804
Fruit processing unit	5,151	3,361	3,371	3,371	3,702	3,371	3,371	3,371	3,371	3,371	3,371
Fruit juice factory	0	0	13	79	145	211	265	265	265	265	264
<b>Total Cost</b>	125,220	251,915	342,373	516,102	610,961	989,349	841,136	937,480	1,050,288	1,074,864	1,130,048
<b>Benefits</b>											
<b>A. Tea</b>											
Commercial tea nursery	0	7,295	16,547	30,126	45,625	63,207	82,610	86,326	89,206	89,206	89,206
New tea planting and rehabilitation	0	0	0	0	21,550	54,933	84,726	102,985	113,857	119,424	128,786
Tea planting in deforested land	0	9,245	11,822	13,939	17,084	14,448	13,337	14,947	16,707	18,516	19,928
Tea Intensification	14,791	34,751	59,709	101,662	139,962	192,679	195,718	182,114	178,888	181,941	180,365
Smallholder green tea processing	652	1,847	3,223	4,780	6,518	8,253	8,926	8,926	8,926	8,926	8,926
Commercial tea processing factories	749	2,247	4,682	8,053	11,517	15,712	19,121	22,529	25,404	27,970	29,693
<b>B. Fruit</b>											
Commercial fruit nursery	-1,025	-1,857	-2,051	-481	2,236	11,310	22,163	34,984	45,352	57,323	61,417
Fruit tree planting and rehabilitation	-256	-530	-833	-334	375	1,557	2,996	5,031	6,404	7,570	8,841
Fruit tree intensification	-18,282	-40,333	-62,977	-52,166	1,422	-41,564	114,042	273,704	738,563	928,041	1,056,810
Fruit processing unit	3,021	3,776	3,776	3,776	3,776	3,776	3,776	3,776	3,776	3,776	3,776
Fruit juice factory	0	0	0	68	137	205	273	273	273	273	273
<b>Total Benefits</b>	-350	16,442	33,898	109,423	250,203	324,515	547,689	735,595	1,227,356	1,442,965	1,588,019
<b>Net Benefits</b>	-125,570	235,474	308,475	406,679	360,759	664,834	293,447	201,885	177,069	368,101	457,971
<b>Financial Rate of Return</b>	<b>14.8%</b>										

**Table A10.9: Economic Cost and Benefits of Credit Component in Million Dong, 2008 Constant Prices**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Cost</b>											
<b>A. Tea</b>											
Commercial tea nursery	11,723	18,848	29,273	39,709	51,189	63,804	49,326	50,214	51,190	51,190	51,190
New tea planting and rehabilitation	0	33,632	42,817	50,323	61,644	51,784	47,726	53,463	59,606	65,743	70,390
Tea planting in deforested land	0	7,961	10,135	11,912	14,592	12,258	11,297	12,656	14,110	15,562	16,662
Tea Intensification	42,916	66,568	77,575	107,261	113,324	130,121	117,593	120,491	124,105	126,961	126,426
Smallholder green tea processing	932	2,010	3,241	4,626	6,165	6,671	6,656	6,656	6,656	6,656	6,656
Commercial tea processing factories	1,136	2,677	5,029	8,190	10,701	14,503	16,549	19,499	21,986	24,206	25,696
<b>B. Fruit</b>											
Commercial fruit nursery	2,636	4,416	7,216	6,619	18,122	19,028	20,535	24,263	28,567	30,039	30,039
Fruit tree intensification	1,127	1,490	2,017	2,587	3,374	2,458	2,720	2,897	2,967	3,055	3,035
Fruit tree planting and rehabilitation	39,823	69,352	103,418	189,424	216,822	495,887	396,729	457,671	517,491	519,159	554,419
Tree processing unit	4,256	2,965	2,965	2,965	3,296	2,965	2,965	2,965	2,965	2,965	2,965
Fruit juice factory	0	0	13	79	145	211	265	265	265	265	264
<b>Total Cost</b>	104,551	209,918	283,699	423,695	499,374	799,688	672,362	751,039	829,907	845,802	887,744
<b>Benefits</b>											
<b>A. Tea</b>											
Commercial tea nursery	0	6,565	14,892	27,113	41,063	56,887	74,349	77,693	80,285	80,285	80,285
New tea planting and rehabilitation	0	0	0	0	21,550	54,933	84,726	102,985	113,857	119,424	128,786
Tea planting in deforested land	0	0	0	0	4,591	11,703	18,050	21,940	24,257	25,443	27,437
Tea Intensification	13,312	31,276	53,738	91,495	125,966	173,411	176,146	163,903	160,999	163,747	162,328
Smallholder green tea processing	584	1,656	2,889	4,285	5,844	7,399	8,003	8,003	8,003	8,003	8,003
Commercial tea processing factories	682	2,045	4,261	7,328	10,481	14,298	17,400	20,502	23,118	25,452	27,020
<b>B. Fruit</b>											
Commercial fruit nursery	-1,025	-1,894	-2,194	-900	1,390	9,722	19,820	31,747	41,393	52,530	56,339
Fruit tree planting and rehabilitation	-256	-530	-833	-334	375	1,557	2,996	5,031	6,404	7,570	8,841
Fruit tree intensification	-18,282	-40,333	-62,977	-52,166	1,422	-41,564	114,042	273,704	738,563	928,041	1,056,810
Tree processing unit	2,719	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398
Fruit juice factory	0	0	0	68	137	205	273	273	273	273	273
<b>Total Benefits</b>	-2,266	2,184	13,175	80,221	216,080	291,744	518,931	708,906	1,200,277	1,413,893	1,559,247
<b>Net Benefits</b>	-106,816	207,734	270,523	343,474	283,293	507,944	153,431	-42,134	370,370	568,091	671,503
<b>Economic Rate of Return</b>	20.8%										

**Table A10.10: Financial Cost and Benefits of Project in Billion Dong, 2008 Constant Prices**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Cost</b>											
Non credit component	11,793	4,079	34,060	12,454	23,040	16,762					
Tea component	65,495	153,508	196,699	259,831	302,417	327,763	294,085	310,519	328,069	344,209	352,868
Fruit component	59,726	98,407	145,660	256,192	308,399	661,374	546,786	626,695	721,953	730,390	776,916
Total cost	137,013	255,995	376,420	528,477	633,856	1,005,900	840,871	937,215	1,050,022	1,074,599	1,129,784
<b>Benefits</b>											
Non credit component	0	0	0	0	0	0	0	0	0	0	0
Tea component	16,192	55,385	95,983	158,560	242,257	349,232	404,438	417,828	432,988	445,982	456,903
Fruit component	-16,541	-38,943	-62,085	-49,205	7,809	-24,922	142,977	317,494	794,095	996,710	1,130,843
Total benefits	-350	16,442	33,898	109,355	250,066	324,310	547,416	735,322	1,227,083	1,442,692	1,587,746
<b>Net Benefits</b>	-137,363	239,553	342,522	419,123	383,790	-681,590	293,455	201,893	177,061	368,093	457,962
<b>Financial Rate of Return</b>	<b>14.4%</b>										

**Table A10.11: Economic Cost and Benefits of Project in Billion Dong, 2008 Constant Prices**

[illegible]

## PLANNED AND ACTUAL PROJECT COSTS

Table A11.1: Project Cost, by Component  
(\$'000)

Item	Appraisal			Actual		
	Foreign Exchange	Local Currency	Total Cost	Foreign Exchange	Local Currency	Total Cost
<b>A. Credit</b>	<b>12,229</b>	<b>36,687</b>	<b>48,916</b>	<b>13,660</b>	<b>40,546</b>	<b>54,206</b>
<b>B. Technology Transfer and Market Information</b>						
1. Preparation of Technical Manuals	204	224	428	41	131	171
2. Nursery Certification	407	120	527	25	111	136
3. Land Classification	32	75	107	34	152	186
4. Market Information	158	207	365	87	107	193
5. Quality Assurance	720	219	939	150	470	621
<b>Subtotal (B)</b>	<b>1,521</b>	<b>845</b>	<b>2,366</b>	<b>336</b>	<b>971</b>	<b>1,307</b>
<b>C. Research Strengthening</b>						
1. TRI and LADOTEA	550	132	682	246	82	328
2. RIFAV	240	78	318	246	82	328
3. SOFRI	209	46	255	238	62	300
4. PHTI	230	35	265	157	19	176
<b>Subtotal (C)</b>	<b>1,229</b>	<b>291</b>	<b>1,520</b>	<b>887</b>	<b>245</b>	<b>1,133</b>
<b>D. Project Management</b>						
1. Central Project Office Provincial Project Management	174	291	465	497	255	752
2. Units	360	389	749	898	408	1,306
3. Consulting Services	186	17	203	343	155	498
<b>Subtotal (D)</b>	<b>720</b>	<b>697</b>	<b>1,417</b>	<b>1,737</b>	<b>818</b>	<b>2,555</b>
<b>E. Training</b>						
1. Management Training	1	5	6	10	45	55
2. Technical Training (tea)	36	144	180	112	366	478
3. Technical Training (fruit)	66	263	329	184	655	839
<b>Subtotal (E)</b>	<b>103</b>	<b>412</b>	<b>515</b>	<b>306</b>	<b>1,066</b>	<b>1,372</b>
<b>Total Base Cost</b>	<b>15,802</b>	<b>38,932</b>	<b>54,734</b>	<b>16,926</b>	<b>43,646</b>	<b>60,572</b>
Physical Contingencies	536	337	873	0	0	0
Price Contingencies	227	1,110	1,337	0	0	0
<b>Subtotal</b>	<b>763</b>	<b>1,447</b>	<b>2,210</b>	<b>0</b>	<b>0</b>	<b>0</b>
Service Charge	685	0	685	788	0	788
<b>Total Cost</b>	<b>17,250</b>	<b>40,379</b>	<b>57,629</b>	<b>17,714</b>	<b>43,646</b>	<b>61,360</b>
Percentage (%)	30	70	100	2	71	100

LADOTEA = Lam Dong Tea Research Center, PHTI = Post-harvest Technology Institute, RIFAV = Research Institute of Fruits and Vegetables, SOFRI = Southern Fruit Research Institute, TRI = Tea Research Institute,  
Sources: Asian Development Bank and the Government's progress reports.

**Table A11.2: Planned and Actual Costs, by Loan Category**  
(SDR million)

Cat. No.	Category or Subloan	Original Allocation	Amount Disbursed	Deviation	
				(SDR million)	(%)
1.	Credit	26.54	26.50	0.04	0.1
2.	Civil Works	0.12	0.06	0.06	53.2
3.	Equipment	0.94	0.73	0.20	21.8
4.	Vehicles	0.33	0.44	(0.11)	(33.7)
5.	Workshops and Training	1.20	1.06	0.14	11.9
6.	Consulting Services	0.38	0.33	0.05	13.2
7.	Recurrent Expenditures	0.37	0.56	(0.20)	(54.2)
8.	Interest Charge	0.53	0.54	(0.01)	(1.9)
9.	Unallocated	0.76	0.00	0.76	100.0
Total (loan currency)		31.16	30.22	0.94	3.0

( ) = negative, Cat. = category.

Sources: Asian Development Bank and the Government's progress reports.

**Table A11.3: Planned and Actual Costs, by Source of Financing**  
(\$ million)

Source	Foreign Exchange	Planned				Actual			
		Local Currency	Total Cost	%		Foreign Exchange	Local Currency	Total Cost	
ADB	17.2	23.0	40.2	70		17.7	25.6	43.3	71
PFI	0.0	4.9	4.9	9		0.0	5.4	5.4	9
Beneficiaries	0.0	9.8	9.8	17		0.0	10.8	10.8	18
Government	0.0	2.7	2.7	5		0.0	1.8	1.8	3
<b>Total</b>	<b>17.2</b>	<b>40.4</b>	<b>57.6</b>	<b>100</b>		<b>17.7</b>	<b>43.6</b>	<b>61.4</b>	<b>100</b>

ADB = Asian Development Bank, PFI = private financial institution.

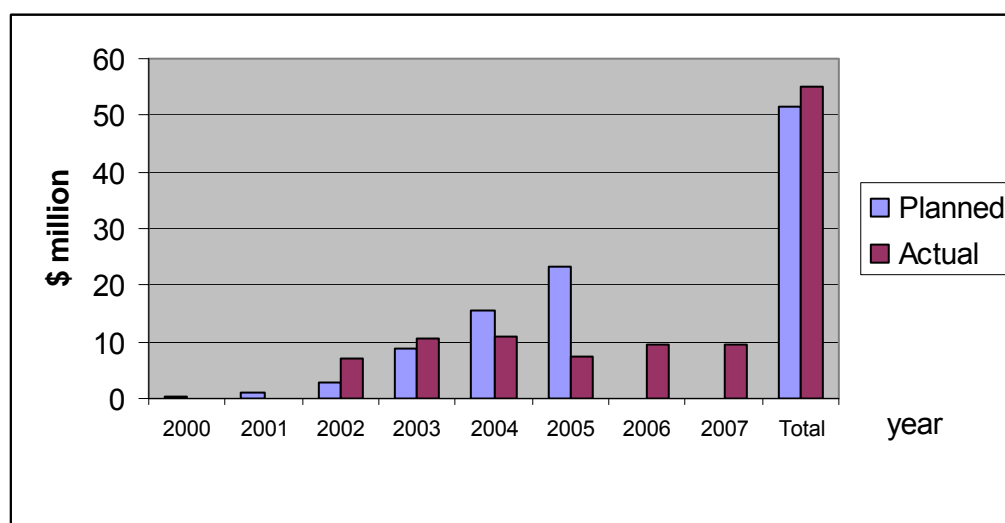
Sources: ADB and the Government's progress reports.

**PLANNED AND ACTUAL DISBURSEMENTS**  
(\$ million)

Item	2000	2001	2002	2003	2004	2005	2006	2007	Total
<b>Credit</b>									
Planned	0.30	0.94	2.89	8.72	15.51	23.16	0.00	0.00	51.50
Actual	0.00	0.00	7.23	10.46	10.88	7.40	9.45	9.49	54.91
<b>Noncredit</b>									
Planned	1.01	2.22	0.62	0.76	0.70	0.82	0.00	0.00	6.13
Actual	0.00	0.00	0.77	0.26	2.16	0.78	1.44	1.05	6.45
<b>Total</b>									
Planned	1.31	3.16	3.50	9.47	16.20	23.98	0.00	0.00	57.63
%	2.28	5.47	6.08	16.44	28.12	41.61	0.00	0.00	100.00
% Cumulative	2.28	7.75	13.83	30.27	58.39	100.00	0.00	0.00	100.00
Actual	0.00	0.00	7.99	10.72	13.04	8.19	10.89	10.54	61.36
%	0.00	0.00	13.02	17.47	21.25	13.34	17.74	17.17	100.00
% Cumulative	0.00	0.00	13.02	30.50	51.74	65.09	82.83	100.00	100.00

Sources: Asian Development Bank and the Government, 2008.

Figure A12.1: Key Progress of Central People's Credit Fund's Balance Sheet



Source: Central People's Credit Fund, December 2008

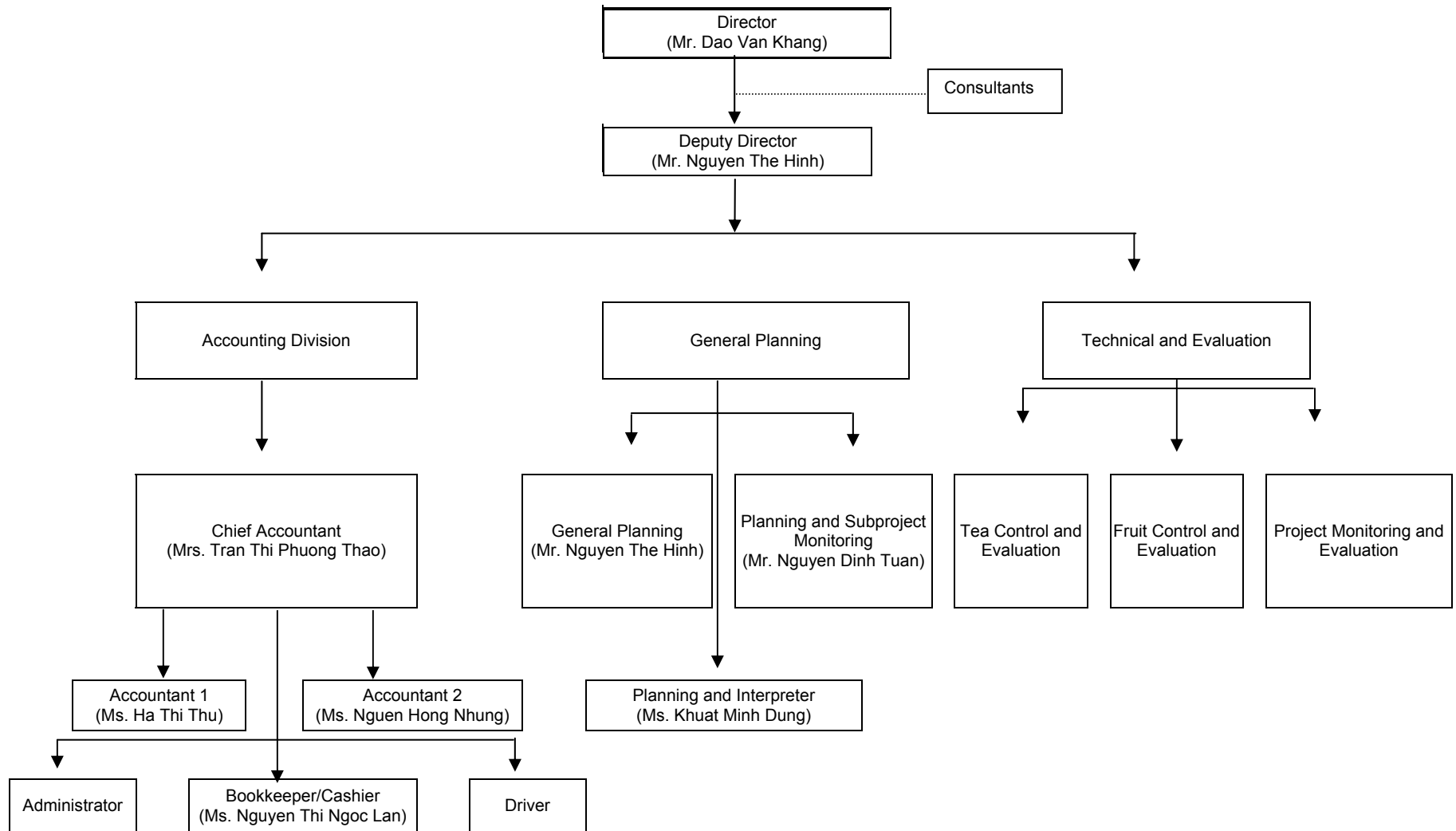
## IMPLEMENTATION SCHEDULE

Project Component	2001	2002	2003	2004	2005	2006	2007
<b>A. Credit</b>							
<b>B. Technology Transfer and Market Information</b>							
Technical Manuals							
Nursery Certification							
Land Classification							
Market Information Services							
Quality Assurance							
<b>C. Research</b>							
Institutional Review of RIFAV and TRI							
Provision of Vehicles and Equipment							
<b>D. Project Management</b>							
<b>E. Training</b>							
CPO and PPMUs							
Training – Credit/Extension Linkages							
Technical and Nursery Training							
<b>F. Consultant Services</b>							
Project Management							
M&E							
Midterm Evaluation							
Equitization							
Farm Market Reporting Services							
Legend:	<div></div> = Appraisal <div></div> = Actual						

CPO = central project office, M&E = monitoring and evaluation, PPMU = provincial project management unit, RIFAV = Research Institute for Fruit and Vegetable, TRI = Tea Research Institute.

Sources: Asian Development Bank and the Government, 2008.

## ORGANIZATION CHART



Source: Ministry of Agriculture and Rural Development, 2008.

### STATUS OF COMPLIANCE WITH LOAN COVENANTS

Covenant	Reference in Loan Agreement	Timing	Status of Compliance
<b>A. Implementation Arrangements</b>			
1. Borrower shall establish PSC in MARD, to be chaired by the Vice-Minister in charge of Agriculture, and shall comprise representatives from the Office of the Government, MOF, MPI, SBV, CPMU, PFIs and two private sector representatives from the tea and fruit industry. The PSC shall meet at least once every six months.	Sched. 6, para. 2(a)	Prior to effective date	Complied with.
2. Borrower shall ensure that PPSCs are established in each of the Project Provinces. The PSC shall meet at least once every three months.	Sched. 6, para. 2(b)	Within three months after the effective date	Complied with.
3. CPMU, established with MARD, shall be responsible for: (i) preparation of guidelines for project implementation and management, and guidelines on financial management for approval by MARD and MOF, respectively; (ii) overall coordination and monitoring of project implementation; (iii) financial management and channeling of funds for the non-credit component; (iv) preparation of project plans for the non-credit component and compilation of plans for the credit component prepared by the PFIs; (v) compilation of progress reports at the provincial level and from PFIs for submission to MARD and ADB; (vi) promotion and coordination of project activities, including consultations with TRI, RIFAV, SOFRI, PHTI; (vii) contracting with Research Institutes concerned for preparation of the technical package; (viii) recruitment and provision of logistical support for consultants; (ix) procurement of equipment for the CPMU and vehicles for the project	Sched. 6, para. 3	During implementation	Complied with and completed in July 2002
(x) monitoring and evaluation of the project activities including environmental protection measures undertaken by the subborrowers;			Partially complied with. Domestic consultants conducted the baseline survey. M&E Specialist has developed an initial

Covenant	Reference in Loan Agreement	Timing	Status of Compliance
(xi) establishment of a database for market information; and  (xii) preparation of training programs and coordination training.			M&E system for the project. Project did not record actual achievement of sub-borrower. Not complied with. Project website established but not updated. Complied with. Overall training program and specific training courses developed.
4. CPMU shall have a full time Project Director and Deputy Project Director, together with an adequate number of full time staff with working knowledge of English.	Sched. 6, para. 4	Within one month after the effective date	Complied with.
5. CPMU shall have prepared, and MARD and MOF shall have approved, the Guidelines for Project Implementation and Management and the Guidelines on Financial Management, respectively.	Sched. 6, para. 5	Within 6 months of the effective date	Complied with delay
6. PPMUs shall be set up in each Project Province, and the directors of the respective DARDS shall be the Project Directors in the PPMUs. A full time Project Manager and accountant shall be recruited for each PPMU, and they shall be assisted by the extension and accounting specialists of the respective DARDS concerned.	Sched. 6, para. 6	Within one month after the effective date	Complied with.
7. PPMUs shall be responsible for:  (i) Project implementation in the respective Project Provinces; (ii) financial management in respect of the relevant Project components; (iii) preparation of training programs and coordination of training at the provincial level; (iv) establishment of the nursery certification system in conjunction with the Research Institutes concerned; (v) establishment of the market information system; (vi) procurement of equipment; (vii) monitoring of project progress in the Province; (viii) preparation of progress reports and accounts at the provincial level for	Sched. 6, para. 7	During implementation	Complied with.

Covenant	Reference in Loan Agreement	Timing	Status of Compliance
submission to CPMU; and (ix) Inspection and evaluation of project activities including environmental protection measures undertaken by the subborrowers.			
8. PPMUs shall prepare detailed development plans, within one year, at the provincial level indicating the high potential areas for tea and fruit development at district level, giving due consideration to infrastructure and processing facilities. The plans shall also indicate the training needs and collaboration arrangements of the agencies concerned in carrying out project activities.	Sched. 6, para. 8	Prior to commencement of project implementation	Complied with.
9. VBARD shall set up the PIU at its head office to implement the credit component. The PIU shall be responsible for: (i) preparing an annual work plan; (ii) maintaining proper accounts and statements of expenditure; (iii) refinancing eligible subloans; (iv) forwarding subloan applications in excess of \$50,000 with a specific recommendation for approval to ADB;	Sched. 6, para. 9	Within one month of the effective date	Complied with.
(v) maintaining records on withdrawal applications and disbursements; (vi) monitoring the performance of VBARD's branches in the project provinces; (vii) monitoring performance of subloans; (viii) collecting and collating project related statistics; (ix) preparing and submitting required reports and statistics to the CPMU, MOF and ADB; and (x) participating in the preparation and customization of the technical manuals to be prepared under the project.			Partially complied with. Few number of SL over \$50,000 have been corrected
10. The PIU shall be headed by the Deputy General Director of VBARD, and shall have a full time Manager and an adequate number of qualified supporting staff. Reporting and statistical systems developed within VBARD under the ADB-	Sched. 6, para. 10		Complied with.

<b>Covenant</b>	<b>Reference in Loan Agreement</b>	<b>Timing</b>	<b>Status of Compliance</b>
financed Rural Credit Project shall be adopted with appropriate modifications to meet the requirements of the project.			
11. Borrower shall ensure that VBARD shall develop and make publicly available a lending policy manual, setting out the terms and conditions for obtaining loans for subprojects. Before publication, a draft of the manual shall be provided to ADB for review and approval.	Sched. 6, para. 11	Within one year of effective date	Complied with. PCFs have adopted the manual accordingly
12. The Research Institutes shall be responsible for carrying out adaptive research in agronomy, processing and post-harvest handling. The Research Institutes shall assist the PPMUs on a contractual basis in (i) the preparation of the technical package, (ii) the setting of standards for, and establishment of, the nursery certification system, (iii) provision of equipment for the components implemented by the Research Institutes, subject to MARD approval.	Sched. 6, para. 12	During implementation	Complied with.
13. The DARDS shall be responsible for: (i) administering the nursery certification scheme; (ii) conducting public awareness campaigns in association with the Research Institutes to promote planting material certification scheme and to encourage nursery operators to seek registration; (iii) adapting existing land resource maps to show areas suitable for fruit and tea for guidance in assessing subloan applications; and (iv) compiling market price information at local markets and ensuring communication of the information to local radio stations for transmission.	Sched. 6, para. 13	During implementation	Complied with.
<b>Credit Component: Financing Arrangements</b>			
14. During the mid-term review of the project, ADB shall consider the participation of the PCFs in the implementation of the credit component on the basis of (i) a review of their two years performance, and (ii) their future growth strategy as set out by SBV. In the event the PCF's participation in implementation of the credit component shall be agreed to by ADB, SBV and	Sched. 6, para. 14	Third year of implementation	Complied with. ADB approved on 13 December 2005 CCF's participation in the credit component of the project.

Covenant	Reference in Loan Agreement	Timing	Status of Compliance
<p>MOF, MOF shall ensure that the CCF Subsidiary Loan Agreement will be executed. CCF shall ensure that appropriate project implementation is set up for PCFs, which shall be agreed by ADB. The mid-term review shall decide the share of credit component to be allocated to CCF under the Subsidiary Loan Agreement, or the amount to be reallocated to VBARD if PCFs does not participate in the implementation of the credit component.</p>			
<p><b>Relending Terms for Subsidiary Loans</b></p>			
<p>15. The proceeds of the credit component shall be relent to PFIs on the basis of Subsidiary Loan Agreements to be entered into between MOF and the PFIs, which shall include the following terms and conditions:</p>	<p>Sched. 6, para. 15</p>	<p>During implementation</p>	<p>Complied with.</p>
<p>(i) the Subsidiary Loan Agreement shall be denominated in Viet Nam Dong; the Borrower will bear the foreign exchange risks;</p>			
<p>(ii) Subsidiary Loans shall have a maturity of 20 years, including a grace period of 7 years on both principal and interest; interest during the grace period shall be capitalized.</p>			
<p>(iii) repayment of principal and interest shall be in equal semi-annual installments;</p>			
<p>(iv) relending interest rate from MOF to the PFIs shall be equal to the quarterly weighted average cost of funds in the banking system of the Borrower as calculated by SBV and communicated to MOF. This rate shall be reviewed, as needed by ADB and the Borrower to ensure that it takes into account the cost associated with maintaining the reserve requirements of SBV.</p>			
<p>(v) funds shall not be reserved for either the tea of the fruit subsector, or for any particular project province;</p>			
<p>(vi) the funds so received by the PFIs shall be used only for making subloans to eligible subborrowers for eligible subprojects, to finance the reasonable foreign exchange and local currency costs of goods and services required for the subprojects;</p>			
<p>(vii) the PFIs shall ensure that the</p>			<p>Complied with. VBARD</p>



Covenant	Reference in Loan Agreement	Timing	Status of Compliance
<p>subloan;</p> <p>(ii) in case of tea, proposals for field development shall be supported by the identification of existing or new processing facilities which shall be capable of and willing to produce quality tea to ensure that the subborrowers receive green leaf prices commensurate with quality improvements that shall result from the field investment; and</p> <p>(iii) the subprojects shall be in compliance with all applicable national, provincial and local environmental laws, regulations and standards.</p>	Sched. 6, para. 19	During implementation	Complied with. VBARD require submission of environmental certificates for approval of subloans
<p><b>Eligibility Criteria for Subborrowers</b></p> <p>19. Borrower shall cause the PFIs to ensure that each subborrower shall satisfy the following criteria to be eligible for participation under the credit component.</p> <p>(i) a subborrower shall be a farmer, a farmers' group including cooperatives, nursery operator, processor or trader;</p> <p>(ii) a subborrower shall have been a resident in the relevant project province for at least three years prior to submitting the application for a subloan;</p> <p>(iii) a subborrower shall have a land use right certificate or a land use right certified by the local People's Committee, and shall be directly involved in the production, processing, nursery, and post-harvest handling of tea or fruit; and</p> <p>(iv) equitized processing units only of state owned enterprises shall be eligible as subborrowers, provided they are able to submit a viable business plan.</p>			Complied with.
<p><b>Onlending Terms for Subloans</b></p> <p>20. The Borrower shall ensure that the PFIs shall onlend the proceeds of the credit component relent to them to subborrowers for subprojects. The PFIs shall have discretion in selecting subprojects for the provision of subloans subject to the eligibility criteria for subborrowers and subprojects.</p>	Sched. 6, par. 20	During implementation	Complied with.
<p>21. The terms and conditions for onlending shall include the following:</p> <p>(i) a subloan shall have a maturity period of not less than 5 years and not</p>			Partially complied with.
			Some subborrowers have fully repaid their loan

Covenant	Reference in Loan Agreement	Timing	Status of Compliance
<p>exceeding 15 years on both principal and interest; interest during the grace period shall be capitalized;</p> <p>(ii) the onlending rate shall be the prevailing interest rate for similar lending operations of PFIs. The onlending rate shall be reviewed annually by MOF, SBV, the PFIs and ADB to ensure that lending under the project remains profitable for the PFIs;</p> <p>(iii) the subloan proceeds shall be used to finance long-term credit of above 60 months only. The PFIs shall meet short-term credit requirements of subprojects from their own resources;</p> <p>(iv) the PFIs shall finance up to 10% of the subproject costs from their own resources;</p> <p>(v) a subborrower shall be required to provide at least 20 percent for the subproject cost in the form of equity, either in cash or kind;</p> <p>(vi) subloan proposals for amounts above \$50,000 shall be submitted by the PFIs to ADB for approval;</p> <p>(vii) the total amount of subloans provided to any one subborrower shall not be more than five percent of the total credit component funded by ADB.</p>			<p>before 5 years</p> <p>Onlending rates were reviewed by SBV on quarterly basis</p> <p>Some subborrowers have fully repaid their loan before 60 months</p> <p>Many subborrowers provided more than 20% of subproject cost but the surplus not recorded A few subloans above \$50,000 have been corrected</p>
<p>22. VBARD shall establish a revolving fund to credit the interest payments and principal repayments of the subloans under the project. VBARD shall utilize the resources thus generated for amortization of the loan and further onlending fro eligible subprojects. Such funds that are not immediately required for loan amortization or for onlending shall be invested by VBARD to augment the resources of the revolving fund. VBARD shall operate the revolving fund for a period of 15 years after loan closing. In the event PCFs participate in the implementation of the credit component, CCF shall establish a revolving fund to be operated under arrangements similar to the arrangements fro the VBARD revolving fund acceptable to ADB.</p>	<p>Sched. 6, para. 22</p>	<p>Within one year of effective date</p>	<p>Complied with. A revolving fund program has been established and operational by both PCFs and VBARD, about \$24 million subloans have been mobilized from the revolving funds</p>
<b>Budgetary Allocation</b>			
<p>23. The Government shall ensure that the necessary counterpart funds shall</p>	<p>Sched. 6, par. 23</p>	<p>During implementation</p>	<p>Complied with. For 2007, government counterpart</p>

Covenant	Reference in Loan Agreement	Timing	Status of Compliance
be allocated and provided for the project in a timely manner, and provided to CPMU, the PPMUs and the Research Institutes as budgetary advances depending on the expenditure needs identified in quarterly plans, as appropriate.			funds equivalent to \$38,000 for the noncredit component is considered adequate; but inadequate monitoring after the project completion
<b>Institutional Reform</b>			
24. MARD shall ensure that the restructuring of TRI and RIFAV to achieve autonomy and introduce sustainable financing mechanisms are carried out in accordance with the recommendations of the consultants appointed under the project. No disbursements shall be made to support the further research component of TRI and RIFAV prior to such restructuring being carried out as agreed between the Borrower and ADB.	Sched. 6, para. 24	During implementation	Complied with. Prime Minister approved the implementation plan for restructuring of research institutes under MARD on 9 September 2005.
<b>Training</b>			
25. Prior to implementation of any training under the Project, CPMU shall provide ADB for approval a detailed description of the proposed training programs, including the curricula, participating institutions, duration and costs of training, and a list of the proposed trainees together with their curricula vitae. Trainees receiving international training shall be required to serve in their respective institutions for a period of time after training as required by the applicable regulations of the government.	Sched. 6, para. 25	During implementation	Complied with. Various training including a total of 173 participants joined 10 overseas studies during 2002 to 2006.
<b>Benefit Monitoring and Evaluation</b>			
26. A monitoring and evaluation system shall be set up within the CPMU to monitor the progress and benefits of the project. CPMU shall carry out monitoring and evaluation of the Project in coordination with the PPMUs, Research Institutes, and PFIs. Monitoring during the first year of project implementation shall be based on output specific activities, including the preparation of the technical manual, establishment of the nursery certification system, identification of high potential areas for tea and fruit, and establishment	Sched. 6, para. 26	Within one year of the effective date	Complied with on 26 May 2003. A monitoring and evaluation system was established to monitor project progress and evaluate outputs. Two training workshops have been conducted on monitoring and evaluation.

Covenant	Reference in Loan Agreement	Timing	Status of Compliance
<p>of the market information system. Within one year of the effective date, baseline surveys shall be carried out, and information relating to quantifiable indicators such as area planted, increase in yield, establishment of processing units and their performance, shall be collected; a baseline survey for collection of socio-economic data shall also be carried out during the same period. In the third year of project implementation, a socio-economic survey shall be conducted to assess project progress.</p>			
<b>Mid-Term Review</b>			
<p>27. Borrower shall carry out a comprehensive mid-term review of the project in conjunction with ADB, in the third year of project implementation. Based on the findings of this review, adjustments in project scope, design and implementation arrangements shall be made by the Borrower.</p>	Sched. 6, para. 27	Third year of project implementation	Complied with. A midterm review was undertaken during 12-21 April 2005, some minor adjustments on cost estimates were formulated and approved
<b>Quarterly Progress Reports</b>			
<p>28. Borrower shall furnish to ADB quarterly reports on the carrying out of the project. Such reports shall indicate, among other things, progress made and problems encountered during the quarter under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following quarter.</p>	Art. IV, Sect. 4.07(b)	Within one month after the reporting period	Complied with delay.
<b>Project Completion Report</b>			
<p>29. Promptly after physical completion of the project, but in any event not later than three (3) months thereafter, the Borrower shall prepare and furnish to ADB a report on the execution and initial operation of the project, including its cost, the performance by the Borrower of its obligations under the Loan Agreement and the accomplishment of the purposes of the Loan.</p>	Art. IV, Sect. 4.07(c)	Three months after physical completion	Complied with, draft project completion report was submitted in October 2008
<b>Audited Financial Statements</b>			
<p>30. Borrower shall maintain separate accounts for the project; have such accounts and related financial statements</p>	Art. IV, Sect. 4.06(b)	Twelve months after the end of each related	Complied with. All audit reports were received before the due date except

Covenant	Reference in Loan Agreement	Timing	Status of Compliance
audited annually by independent auditors; and furnish to ADB as soon as available but in any event not later than 12 months after the end of each related fiscal year, certified copies of such audited accounts and financial statements and the report of the auditors (including the auditors' opinion on the use of the Loan proceeds and compliance with the covenants of the Loan Agreement as well as the use of the procedures for imprest accounts/statement of expenditures)		fiscal year	for FY 2002 which was received 3.5 months after the due date, and for FY 2007 that was submitted in December 2008

ADB = Asian Development Bank, CPMU = central project management unit, DARD = Department of Agriculture and Rural Development, MARD = Ministry of Agriculture and Rural Development, M & E = monitoring and evaluation, MOF = Ministry of Finance, MPI = Ministry of Planning and Investment, PCF = people's credit fund, PFI = participating financial institution, PHTI = Post-harvest Technology Institute, PIU = project implementation unit, PPSC = provincial project steering committee, PSC = project steering committee, RIFAV = Research Institute of Fruits and Vegetables, SBV = State Bank of Vietnam, SOFRI = Southern Fruit Research Institute, TRI = Tea Research Institute, VBARD = Vietnam Bank for Agriculture and Rural Development.

# **PLANNED AND ACTUAL CONSULTING SERVICES**

No.	Titles of Consultants	Person-Month		Plan		Actual					
		Appraisal	Actual	2000	2001	2002	2003	2004	2005	2006	2007
A.	International										
1.	Tea Extension Specialist	1	2								
2.	Marketing Consultant (fruit)	2	2								
3.	Quality Insurance on Fruit Marketing	2	2								
4.	Quality Assurance on Green Leaf Formula	2	2								
5.	Research Management	6	6								
6.	Tea Research Agronomist	1	1								
7.	Project Management Specialist	4.5	4.1								
8.	M&E Specialist	1	2								
9.	Economist	1	1								
10.	Socio-economist	1.5	20								
	Midterm Evaluation/Project Completion										
11.	b. Tea Specialist	1.5	0								
12.	c. Fruit Specialist	1.5	0								
13.	d. Credit Specialist	1	0								
	Support for Equitization	0	0								
14.	a. Financial Expert	2	0								
15.	b. Valuation Expert	2	0								
	<b>Subtotal (A)</b>	<b>30</b>	<b>42.1</b>								
B.	National Consultant										
1.	Marketing Consultant	4	4								
2.	Green Leaf Formula	4	4								
3.	Research Management	6	6								
4.	Tea Research Agronomist	1	1								
5.	Project Management Specialist	5	5								
6.	National Consultants for M&E	2	2								
7.	Consultants for Midterm/PCR	4	0								
8.	Consultant for Equitization Support	12	0								
	<b>Subtotal (B)</b>	<b>38</b>	<b>22</b>								
	<b>Total</b>	<b>68</b>	<b>64.1</b>								

M&E = monitoring and evaluation, PCR = project completion report.

Note: There were some delays in fielding most consultants and several consultants were canceled in accordance with the current needs of the Project.

Source: ADB and Ministry of Agriculture and Rural Development, 2008.

## ENVIRONMENTAL EFFECTS OF THE PROJECT

Table A17.1: Environment Effects  
(before/end of the project)

No.	Province	Land Surface Covered by Trees (protected from erosion)		Cultivation Land Improved (ha) Accumulat ed to 2007		Tea and Fruits Growing on the Deforested land (ha) Accumulated to 2007	
		2002	2007	2002		2002	
A. Total of tea and fruit						105.0	43,707.2
1.	Thai Nguyen			1,205.9	5,103.2	0.0	257.4
2.	Phu Tho		46,0			0.0	46.0
3.	Yen Bai	39.3	48,2	335,0	3.875,0	0.0	4,297.5
4.	Tuyen Quang		60,9		803,6	51.0	915.5
5.	Ha Giang	40.0	65,0	2.700,0	28.480,0	0.0	31,285.0
6.	Lam Dong	50.0	75,0	10,0	105,0	156.0	396.0
B. Total of tea		45.0	59.0	4,250.9	38,366.8	98.0	42,819.7
1.	Bac Giang	65.5	81.4	1,800.0	3,776.0	0.0	213.0
2.	Hoa Binh	65.0	75.5	200.0	2,050.0	98.0	160.0
3.	Thanh Hoa		68.5		5,220.0	0.0	213.0
4.	Binh Dinh		66.0		800.0	30.0	30.0
5.	Khanh Hoa	30.0	55.0	30.0	233.5	0.0	271.5
6.	Tien Giang	44.4	50.0			0.0	0.0
7.	Ben Tre	36.1	39.1			226.0	0.0
C. Total of fruit		48.2	61.8	2,030.0	12,079.5	354.0	887.5

Source: Ministry of Agriculture and Rural Development, 2008.

**Table A17.2: Replanting on the Deforested Areas, 2002–2006**  
(ha)

No.	Province	2002	2003	2004	2005	2006	2007	Total
<b>A. Total of tea and fruit</b>		<b>382.10</b>	<b>402.50</b>	<b>398.50</b>	<b>461.50</b>	<b>496.00</b>	<b>2,140.60</b>	<b>4,281.20</b>
1.	Thai Nguyen	105.1	46.0	44.5	22.6	39.0	0	257.2
2.	Phu Tho	0	0	0	0	0	0	0,0
3.	Yen Bai	0	0	0	0	0	0	0,0
4.	Tuyen Quang	0	0	0	0	0	0	0,0
5.	Ha Giang	51	155	200	270	320	996	1992,0
6.	Lam Dong	0	0	10	10	10	30	60,0
<b>B. Total of tea</b>		<b>156.1</b>	<b>201</b>	<b>254.5</b>	<b>302.6</b>	<b>369</b>	<b>1,283.2</b>	<b>2,566.4</b>
1.	Bac Giang	98	55	37	23	0	213	426,0
2.	Hoa Binh	0	0	0	75	85	160	320,0
3.	Thanh Hoa	98	55	37	23	0	213	425.8
4.	Binh Dinh	0	0	0	0	0	0	0,0
5.	Khanh Hoa	30	91,5	70	38	42	271,5	543,0
6.	Tien Giang	0	0	0	0	0	0	0,0
7.	Ben Tre	0	0	0	0	0	0	0,0
<b>C. Total of fruit</b>		<b>226</b>	<b>202</b>	<b>144</b>	<b>159</b>	<b>127</b>	<b>857</b>	<b>1,714.8</b>

Source: Ministry of Agriculture and Rural Development, 2008.