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Report No: PAD1168

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR171.2 MILLION
(US$238 MILLION EQUIVALENT)

TO THE

SOCIALIST REPUBLIC OF VIETNAM

FOR A

SUSTAINABLE AGRICULTURE TRANSFORMATION PROJECT

June 9, 2015

Agriculture Global Practice

East Asia And Pacific Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective 15 January 2015)

Currency Unit	=	Vietnam Dong
VND21,345	=	US$1
US$1.43	=	SDR1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ACP	Agricultural Competitiveness Project
AMT	Aligned Monitoring Tool
APMB	Agriculture Project Management Board
ARP	Agricultural Restructuring Plan
BIDV	Joint Stock Commercial Bank for Investment and Development of Vietnam
CLRRI	Cuu Long Delta Rice Research Institute
CPMU	Central Project Management Unit
CPS	Country Partnership Strategy
CSA	Climate Smart Agriculture
CTU	Can Tho University
DA	Designated Account
DARD	Department of Agriculture and Rural Development
DONRE	Department of Natural Resources and Environment
DoP	Department of Planning
ECOP	Environmental Codes of Practice
EIRR	Economic Internal Rate of Return
EM	Ethnic Minorities
EMP	Environmental Management Plan
EMPF	Ethnic Minority Planning Framework
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization
FFS	Farmer Field School
FM	Financial Management
FO	Farmer Organization
FWOP	Future-without Project
FWP	Future-with project
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoVN	Government of Vietnam
GRS	Grievance Redress Service
GTAP	Governance and Transparency Action Plan

ICB	International Competitive Bidding
ICD	International Cooperation Department
ICR	Implementation Completion Report
IDA	International Development Association
IFC	International Finance Corporation
IFRs	Interim Financial Reports
IPF	Investment Project Financing
IPM	Integrated Pest Management
IPSARD	Institute of Policy and Strategy for Agriculture and Rural Development
IRRI	International Rice Research Institute
LoC	Line of Credit
M&E	Monitoring & Evaluation
MARD	Ministry of Agriculture and Rural Development
MIS	Management Information System
MKD	Mekong Delta
MoF	Ministry of Finance
MPI	Ministry of Planning and Investment
MRV	Monitoring, Reporting and Verification
NAMAs	Nationally Appropriate Mitigation Actions
NCB	National Competitive Bidding
NGOs	Non-Government Organizations
NMMs	New Market Mechanisms
NRM	Natural Resource Management
OD	Organizational Development
ORAF	Operational Risk Assessment Framework
p.a.	Per annum
PCRA	Procurement Capacity and Risk Assessment
PPMUs	Provincial Project Management Unit
POM	Project Operations Manual
PPC	Provincial People's Committee
PPMU	Provincial Project Management Unit
PPPs	Public Private Partnership
QCBS	Quality and Cost Based Selection
RF	Results Framework
RF3	Third Rural Finance Project
RPF	Resettlement Policy Framework
SBV	State Bank of Vietnam
SEDPs	Socio-Economic Development Plans
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
SOEs	State- Owned Enterprises
SOEs	Statements of Expenditures
TA	Technical Assistance
TOR	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change
VBARD	Vietnam Bank for Agriculture and Rural Development
VCCB	Vietnam Coffee Coordination Board

VFA	Vietnam Food Association
vnSAT	Vietnam Sustainable Agriculture Transformation Project
WASI	Western Highlands Agriculture and Forestry Science Institute
WBG	World Bank Group

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VIETNAM
Sustainable Agriculture Transformation Project

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PAD DATA SHEET

Vietnam

Sustainable Agriculture Transformation Project (P145055)

PROJECT APPRAISAL DOCUMENT

EAST ASIA AND PACIFIC

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Report No.: PAD1168

Basic Information				
Project ID P145055		EA Category B - Partial Assessment		Team Leaders Christopher Paul Jackson Binh Thang Cao
Lending Instrument Investment Project Financing		Fragile and/or Capacity Constraints [ ] Financial Intermediaries [X] Series of Projects [ ]		
Project Implementation Start Date 01-September-2015		Project Implementation End Date 31-August-2020		
Expected Effectiveness Date 01-September-2015		Expected Closing Date 31-December-2020		
Joint IFC No				
Practice Manager/Manager	Global Practice Director	Senior Global Practice Director	Country Director	Regional Vice President
Nathan M. Belete	Ethel Sennhauser	Juergen Voegele	Victoria Kwakwa	Axel van Trotsenburg

Borrower: Socialistic Republic of Vietnam			
Responsible Agency: Ministry of Agriculture and Rural Development			
Contact:	Mme. Nguyen Thi Hong	Title:	Director General, Planning Department
Telephone No.:	+84 438468161	Email:	hongvkh@gmail.com

Project Financing Data(in US$ Million)							
[ ]	Loan	[ ]	IDA Grant	[]	Guarantee		
[X]	Credit	[ ]	Grant	[]	Other		
Total Project Cost:		US$301.0 million		Total Bank Financing:		US$238.0 million	

Financing Gap:	US$0.0	

Financing Source	**Amount**
BORROWER/RECIPIENT	US$28.1 M
Local Sources of Borrowing	US$34.9 M
International Development Association (IDA)	US$238.0 M
Total	US$301.0 M

Expected IDA Disbursements (in US$ Million)

Fiscal Year	2016	2017	2018	2019	2020	2021				
Annual	15	45	70	55	35	18				
Cumulative	15	60	130	185	220	238				

Institutional Data

Practice Area / Cross Cutting Solution Area

Agriculture

Cross Cutting Areas

[X] Climate Change

[ ] Fragile, Conflict & Violence

[X] Gender

[ ] Jobs

[X] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Agriculture, fishing, and forestry	General agriculture, fishing and forestry sector	40	40	60
Finance	SME Finance	30		
Industry and trade	Agro-industry, marketing, and trade	20		
Public Administration, Law, and Justice	Public administration-Financial Sector	10		
Total		100		

☐ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)		
Major theme	Theme	%
Rural development	Rural markets	50
Rural development	Rural non-farm income generation	20
Financial and private sector development	Other Private Sector Development	20
Trade and integration	Export development and competitiveness	10
Total		100

Proposed Development Objective(s)

The project development objective is to improve farming practices and value chains in the targeted project areas, and promote institutional strengthening of relevant public agencies to effectively support implementation of the Agricultural Restructuring Plan.

Components

Component Name	**Cost (US$ Millions)**
Institutional Strengthening to Support Agricultural Transformation	6.36
Supporting Sustainable Rice-Based Systems	182.57
Supporting Sustainable Coffee Production and Rejuvenation	98.69
Project Management, Monitoring and Evaluation	13.38

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes [ ]	No [X]
Have these been approved by Bank management?	Yes [ ]	No [X]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09	**X**	
Physical Cultural Resources OP/BP 4.11	**X**	
Indigenous Peoples OP/BP 4.10	**X**	

Involuntary Resettlement OP/BP 4.12	**X**	
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	Recurrent	Due Date	Frequency
Sections I and II of Schedule 2 to the Financing Agreement	Yes	N/A	Continuous

Description of Covenant

The recipient shall maintain the implementation arrangements and the project monitoring reporting and evaluation as described respectively in Sections I and II of Schedule 2 to the Financing Agreement.

Conditions

Source Of Fund	Name	Type
IDA Credit	On-lending agreement with BIDV	Effectiveness

Description of Condition

The On-Lending Loan Agreement has been duly authorized or ratified by the Recipient and the BIDV and is legally binding upon the Recipient and the BIDV in accordance with its terms.

Team Composition

Bank Staff

Name	Title	Specialization	Unit
Christopher Paul Jackson	Lead Rural Development Specialist	Team Lead	GFADR
Binh Thang Cao	Senior Agricultural Spec.	Senior Agricultural Specialist (Co-Team Lead)	GFADR
Dzung The Nguyen	Senior Rural Development Specialist	Senior Rural Development Specialist	GSURR
Steven M. Jaffee	Lead Rural Development Specialist	Lead Rural Development Specialist	GFADR
Xiaolan Wang	Senior Rural Credit Specialist	Senior Rural Credit Specialist	GSURR
Viet Quoc Trieu	Senior Financial Sector Specialist	Senior Financial Sector Specialist	GFMDR

Sameer Goyal	Senior Financial Sector Specialist	Senior Financial Sector Specialist	GFMDR
Nina M. Eejima	Senior Counsel	Senior Counsel	LEGES
Anjali Acharya	Senior Environmental Specialist	Senior Environmental Specialist	GENDR
Roxanne Hakim	Senior Social Development Specialist	Senior Social Development Specialist	GSURR
Ha Thuy Tran	Financial Management Specialist	Financial Management Specialist	GGODR
Yuling Zhou	Lead Procurement Specialist	Lead Procurement Specialist	GGODR
Thang Toan Le	Procurement Specialist	Procurement Specialist	GGODR
Nghi Quy Nguyen	Social Development Specialist	Social Development Specialist	GSURR
Huong Thi Mai Nong	Associate Counsel	Associate Counsel	LEGES
Thu Thi Le Nguyen	Environmental Specialist	Environmental Specialist	GENDR
Roy Parizat	Senior Economist	Senior Economist	GFADR
Yuvan A. Beejadhur	Partnerships Specialist	Partnerships Specialist	GFADR
Harideep Singh	Senior Rural Development Specialist	Senior Rural Development Specialist	GFADR
Colin Taylor	Senior Operations Officer	Private Sector Development	CMGSB (IFC)
Lan Van Nguyen	Senior Operations Officer	Private Sector Development	GTCDR (IFC)
Tam Thi Do	Team Assistant	Team Assistant	EACVF

Non Bank Staff

Name	**Title**	**City**
Klaus Urban	Senior Institutional Specialist, FAO	
Gunther Feiler	Senior Institutional Specialist, FAO	

Thomas Muenzel	Senior Economist, FAO	
Frank Hollinger	Senior Economist, FAO	

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
	Province				
	Long An	Long An City	X		
	Tien Giang	My Tho City	X		
	Can Tho	Can Tho City	X		
	An Giang	Long Xuyen City	X		
	Dong Thap	Cao Lanh City	X		
	Soc Trang	Soc Trang City	X		
	Hau Giang	Vi Thanh City	X		
	Kien Giang	Rach Gia City	X		
	Dak Lak	Buon Me Thuot City	X		
	Dak Nong	Gia Nghia City	X		
	Lam Dong	Da Lat City	X		
	Gia Lai	Pleiku City	X		
	Kon Tum	Kon Tum	X		

I. STRATEGIC CONTEXT

A. Country Context

1. **Vietnam has achieved remarkable progress in economic growth and poverty reduction over the past two decades.** GDP grew at an annual rate of 7.5 percent over 1992 – 2007 and 5.8 percent during the period 2008 – 2014. Between 1993 and 2012 the extreme poverty rate, measured using the $1.25-a-day line, fell from 64 percent to below 3 percent. During this period, a variety of transformative changes occurred in the Vietnamese economy: the share of the population with access to electricity increased from 40 percent to a remarkable 97 percent; an increasingly sophisticated export-oriented manufacturing sector emerged; Vietnam's urban centers grew significantly; and the country transitioned from being a net importer of food to being one of the developing world's largest and most diversified exporters of food and other agricultural products. For instance, it is the world's second largest exporter of rice and coffee. Vietnam is quickly transitioning from a substantially agrarian society to one whose near term aspiration is to become a 'modern industrial economy'. In 2010, Vietnam attained Middle Income Country (MIC) status.

2. **More recently, growth has slowed with international macroeconomic shocks being compounded by domestic imbalances.** Vietnam's banking sector has experienced stress with an unsustainable proportion of non-performing loans stemming from over-exposure to poorly performing state-owned enterprises (SOEs), the bursting of a real estate bubble, and other factors. While the Government of Vietnam (GoVN) has been implementing reforms in key areas, considerable risks to medium-term economic stability remain. Vulnerability is also widespread at the very micro level. A large proportion of Vietnam's population is just above the poverty line and hence is vulnerable to falling back into poverty in the face of economic or weather-related shocks and longer term consequences of environmental and natural resource degradation. Vietnam is experiencing the effects of climate change and these are expected to magnify in the coming years and decades, influencing the opportunities and vulnerabilities of many people.

3. **Despite rapid structural change, rural areas still provide the home and major sources of livelihood for some two-thirds of Vietnam's population and more than 90 percent of its poor.** While the share of primary agricultural activity in Gross Domestic Product (GDP) has fallen to 18 percent, compared with 31 percent two decades ago, the 'agricultural complex' including agro-industry and food-related business services accounts for one-third of Vietnam's GDP and around 20 percent of merchandise exports. Agriculture provides a socially stabilizing role in the face of volatile macroeconomic conditions and has provided the country with a secure, affordable, and increasingly diversified source of food. The productivity gains and increased market connectivity of many of the country's nine million smallholder farming households has been an important driver of inclusive economic growth.

B. Sectoral and Institutional Context

4. **While Vietnam's agricultural sector has made enormous progress, there are concerns related to the quality and sustainability of agricultural growth and related patterns of development**. Low quality of growth is manifested by low smallholder farmer

profitability, mixed or uncertain product quality and food safety, low value addition, significant post-harvest losses and limited technological or institutional innovation. Some agricultural growth has come at the expense of the environment in the forms of deforestation, biodiversity loss, land degradation, water pollution, and increased greenhouse gas (GHG) emissions. Market failures or institutional shortcomings have contributed to the efficiency losses, while the sector's environmental costs have been neither internalized by producers nor reflected in the 'low cost' of Vietnam's commodity exports.

5. **The past sources of agricultural growth are unlikely to be replicated in the future.** The agricultural sector now faces growing domestic competition – from cities, industry, and services – for labor, land and water. There is no unutilized land frontier. Rising labor costs inhibit the sector's ability to compete internationally as a low cost producer of bulk undifferentiated commodities. The consequences of over-intensive input and natural resource use – both for the environment and for farmer profitability – are being increasingly recognized. Vietnam's agriculture will need to generate more economic value and more farmer and consumer welfare through a more efficient use of natural, human, and other resources. It will need to improve its capacities for managing production and market risks. And it will need to increasingly compete on the bases of reliable supply, predictable quality, assured food safety and value addition.

6. **Sustained agricultural growth will require structural changes in the pattern of production and supply chain organization.** These are currently highly fragmented, with limited collective action at farmer level and weak direct linkages between farmers and downstream processors, traders, and distributors. Transaction costs are high, incentives to produce and maintain higher quality produce and raw materials remain weak and potential economies of scale are missed. These patterns are a result of institutional weaknesses and regulatory barriers – pertaining to land, cooperative/ enterprise development, and investment in the sector.

7. **Change is also needed in the model of state management in the sector.** A stronger and more sophisticated market orientation requires a step-change in the quality of technical and regulatory services provided by the state, in public investments and expenditures in the sector, and in the policies applied to foster farmer and agribusiness investment. A demand-driven agriculture needs flexibility – it cannot be centrally planned. These changes are being spurred by changing market demand and opportunities, as well as fiscal considerations, the distinctive needs of a more market-oriented agriculture, and by lessons from past experiences.

8. **The Government has recognized the need to fundamentally realign the functions of the state.** In June 2013, the Prime Minister approved the Ministry of Agriculture and Rural Development's (MARD) Agricultural Restructuring Plan (ARP). The Plan calls for a shift in sectoral goals beyond physical (output or trade) targets to include a broader set of indicators related to the 'triple bottom line' of sustainable development. It lays a set of core principles to guide the sector's development, the most significant of which are that (i) agriculture will be market-led and consumer-driven, rather than state-directed and production-led; and (ii) the government's role will shift from being the primary investor/

service provider to being the facilitator of investments and services provided by the private sector, community organizations, research institutions, commercial banks and others. The roles, approaches, and expenditures of the state in the sector will be 'restructured' in order to help realize the goals for sustainable agricultural development and rural transformation.

9. **As with most change management processes, progress in institutional and regulatory reform under the ARP will likely be uneven over time and space and among different institutions and sectors.** Policy and program-making in Vietnamese agriculture has tended to be reactive, addressing occurring problems, rather than anticipating future challenges and opportunities. The speed of sectoral reforms is likely to be influenced strongly by events, including in external markets. The speed of internal changes at MARD may not run too far ahead of broader changes in public administration and accountability within government. The legacy of central planning perpetuates a paternalistic approach to farmers and a suspicion of other value chain actors.

10. **These patterns of unsustainable growth trajectories and the need for a reorientation in the role of the state moving forward are apparent in two of the largest sectors, namely rice and coffee.** Over the 1990 – 2010 period national paddy production doubled and the country emerged as one of the world's leading rice exporters (with annual sales exceeding US$3 billion). Much of the growth and dynamism has occurred in Vietnam's Mekong Delta (MKD) which now accounts for 55 percent of national production and 90 percent of exports. Yet, productivity and export gains are no longer translating into improved living standards for most of the MKD's 1.4 million rice-growing households, due to small farm sizes, excessive input use, a fragmented value chain, and adverse terms of trade. Current practices are yielding substantial environmental costs, through localized pollution and emissions of GHGs. Some initiatives have demonstrated the benefits of alternative agronomic practices, cropping patterns and forms of farmer collaboration, yet these shifts are still in an early stage, are only weakly market driven and need to be supported and brought to scale in a more integrated manner. Vietnam's rice exports have largely targeted the lower quality (lower price) market segment, yet market opportunities and pressures are leading more agribusiness companies to focus on higher quality and speciality rice products. Achieving higher quality requires more direct linkages between organized farmers and these milling/ trading companies. Public-private partnership (PPP) arrangements can address the coordination failures and perceived risks among the supply chain actors.

11. **A similar pattern is evident in Vietnam's coffee sector.** This features the world's highest yields and annual exports exceeding US$3 billion and provides benefits to more than 500,000 farmers and more than a million seasonal workers. However, product quality is low and the expansion and intensification of production have come at considerable environmental cost. There is little cooperation amongst farmers and weak linkages between farmers and downstream processors and exporters. The latter is due to low trader margins, together with restrictions on foreign companies to purchase directly from farmers. Earlier uncontrolled industry expansion resulted in a significant share of coffee plantings occurring in areas of low agro-ecological suitability. An ageing tree stock, over-intensive production measures, and patterns of climate change threaten productivity

in other areas. Hence, in the coming decade, more than one-third of the existing area needs to be replanted, while farmers on another one-fourth of the planted area will likely need to shift to alternative land uses and livelihoods. In some areas, excessive water use for irrigation and other practices have contributed to water resource and land degradation. Several initiatives to encourage more sustainable practices have begun, yet many have been ineffective, not linked to the financing of the sector, and on too small a scale to bring about transformative change. Even if the aim is simply to maintain the current level of production, this will have to be done with less land, water, material inputs and pressures on surrounding forests and the overall landscape.

C. Higher Level Objectives to which the Project Contributes

12. **The Vietnam Sustainable Agriculture Transformation Project (vnSAT) will support the efforts of the government to implement its ARP**, relevant sector plans, and national plans for climate change adaptation and mitigation in the agricultural sector (including its Green Growth Strategy). It will also contribute to the realization of the next socio-economic development plan (SEDP) for 2016 – 2020, currently under preparation.

13. **The project is consistent with the World Bank Group (WBG) Country Partnership Strategy (CPS)** for 2012 – 2016. It contributes directly to the 'competitiveness' and 'sustainability' pillars through increasing capacity for innovation and value addition in (agricultural) value chains (outcome 1.3), improved natural resource management, including water resource management (outcome 2.1) and strengthened environmental protection and management (outcome 2.2). It will also advance cross-cutting CPS themes including governance (i.e. supply chain governance; landscape approaches to natural resource management [NRM]) and resilience (i.e. the application of climate smart agriculture [CSA] practices). Given IFC's strategic focus in agri-business, and the ongoing program of advisory services, this project contributes to a key pillar of the IFC-World Bank collaboration and joint operations in Vietnam and could become a good example of "One WBG". The project incorporates elements that relate directly to the five pillars of the Agriculture Action Plan (FY13 – FY15) including measures to raise agricultural productivity, better linking farmers to markets, facilitate non-farm rural incomes, reduce risk and vulnerability and enhancing environmental services and accountability.

14. **The project is fully consistent with the WBG 'twin goals'** of eliminating extreme poverty and boosting shared prosperity through economic growth among the bottom two quintiles. The proposed project is expected to contribute most significantly to the shared prosperity agenda, as the majority of the targeted farmers lie in close vicinity (above or below) to Vietnam's poverty line, yet are not among the extreme poor. Nevertheless, the latter will still benefit as they form part of the seasonal labor pool serving the coffee sector and are likely to benefit from longer term measures to improve the quality and equity of natural resource management efforts in coffee dominated landscapes.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

15. **The project development objective** is to improve farming practices and value chains in the targeted project areas, and promote institutional strengthening of relevant public

agencies to effectively support implementation of the Agricultural Restructuring Plan.

Project Beneficiaries

16. **The project will directly benefit some 140,000 rice-producing households (i.e. over 550,000 people) in the MKD and some 62,000 coffee-producing households (i.e. 250,000 people) in the Central Highlands** (with a similar number benefiting indirectly from continued seasonal employment opportunities). The project would target around 30 leading rice-producing districts in eight provinces in the MKD and 8 – 12 leading coffee-producing districts in five provinces in the Central Highlands. An indeterminate number of additional rural and urban households and agribusiness in these two value chains will also directly or indirectly benefit from the project interventions.

PDO Level Results Indicators

17. **Achievement of the PDO would be measured based upon the following five indicators** (see Annex 1; Results Framework [RF] and Monitoring for more details): (i) number of project beneficiaries (men and women; this is a core indicator); (ii) the farming area under sustainable farming practices in: (i) rice production and (ii) coffee production for existing plantations and rejuvenated areas (sustainable practices involve reduced use of fertilizer, agro-chemicals and water); (iii) increased net profits per ha of rice and coffee farmers; (iv) reduction in GHG emissions from rice farming; and (v) improved quality of service delivery by MARD and DARDs in support of project implementation as measured by a performance scorecard. All the indicators refer to project areas. Annex 1 includes intermediate indicators under each of the proposed project components to track progress more frequently (i.e. annually). More details on the monitoring and evaluation (M&E) are provided in Annex 3: Implementation Arrangements.

III. PROJECT DESCRIPTION

18. **The strategic orientation of the vnSAT is to support the process of agricultural modernization in Vietnam and the associated processes of institutional and regulatory strengthening and reform.** It will do so with a combination of assistance to help re-orient and strengthen the core functions of the central line ministry (MARD) and associated public agencies, and targeted support to two critical commodity clusters where the challenges and opportunities for more sustainable development are very high. The combination of supported policy and institutional reform and results in the Mekong Delta rice and the Central Highlands coffee clusters will deliver major benefits for targeted farmers and marketing entities, and will demonstrate the merits of collaborative public-private initiatives in the sector. The targeted rice and coffee clusters were selected because: (i) both exhibit a variety of market, institutional and regulatory weaknesses which have held back the shifts toward more remunerative and sustainable production practices and supply chain relationships; (ii) both are large and project impacts would therefore be to scale and transformative (regionally and nationally); (iii) there are existing private sector enterprises keen to collaborate; and (iv) previous pilots or analytical work have identified improved practices suitable for scale-up and the ways these can be leveraged, including through commercial bank lending.

19. **Alternative approaches were considered and rejected.** A project that delivered only technical assistance (TA) to MARD and key agencies would be unlikely to generate sufficient support amongst sector practitioners (including private sector agribusinesses) and would lack the instruments to change on-farm practices. Conversely a project focused exclusively on technical support to farmers (and agribusinesses) would likely yield various 'islands of success' yet would not be scalable without links to the commercial banking sector. Conversely, implementing a successor rural finance project might have lacked a coherent strategic focus and would likely have failed to realize important synergies with other technical and institutional interventions. A project seeking to leverage change across a wide geography and set of value chains would likely encounter major implementation constraints and risk having modest rather than transformative change through dilution of efforts.

20. **The project incorporates a Line of Credit (LoC)** for on-lending from the Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV), acting as a wholesale bank, to eligible commercial banks and subsequently to rice export agribusiness in the MKD and farmers investing in coffee rejuvenation in the Central Highlands. The strategic role for the credit line in the rice sector is to address a market in the availability of long-term finance for investments in upgrading rice mills and storage facilities – a factor inhibiting the shift of the export trade to high quality production. Such a shift is fundamental to the longer term sustainability of this high-value trade and the remuneration of participating farmers. Similarly, the strategic role of the coffee credit line relates to the cluster's aging tree stock and the large financial cost for replanting in the coming years. Addressing the need for long-term finance and the use of such financing to leverage sustainable production practices is an approach commonly adopted elsewhere but not in Vietnam. The technical and financial risks associated with coffee replanting in Vietnam have thus far deterred commercial bank lending. Part of the proceeds of the IDA Credit would be made available to the GoVN for on-lending to BIDV who would be responsible to accredit the interested participating financial institutions (PFIs) based on the agreed accreditation criteria.

A. Project Components

21. **The project comprises the following four components:** (A) Institutional Strengthening to Support Agricultural Transformation; (B) Supporting Sustainable Rice-Based Systems; (C) Supporting Sustainable Coffee Production and Rejuvenation; and (D) Project Management, Monitoring and Evaluation.

22. **Component A: Institutional Strengthening to Support Agricultural Transformation (US$6.3 million, of which US$5.0 million IDA).** This component would support three activities: (a) capacity development for MARD; (b) capacity development for the provincial level, and (c) capacity strengthening for value chain partners.

    - (A1) Capacity development for MARD: Support for MARD departments to strengthen their capacity to design, implement and monitor agricultural growth and sustainability initiatives, including (a) organizational development (OD) and capacity building for the effective implementation of ARP based on: (i) analysis

and clarification of roles and services of MARD government agencies in the ARP (Service Analysis), and (ii) capacity development to change/ adjust work processes (including support to strengthening inter-departmental cooperation mechanisms) to better fulfil MARD functions; (b) strengthening human resource management in MARD departments based on in depth needs assessments; and (c) strengthening capacities for results-based planning, public expenditure management, and policy analysis.

- (A2) Capacity development for the provincial level: Support to organizational development and capacity building at the provincial level in pilot provinces (which may extend beyond the provinces under Components B and C), focusing on (a) the core services to be delivered to the end-users; and (b) implementation of thematic reforms led by MARD's Department of Planning (DoP) under A1.
- (A3) Capacity strengthening for value chain partners: Support to value chain partners to enhance private sector involvement through the ARP, including the institutional support to the establishment and management of the planned Public Private Partnership secretariat, training of local financing institutions, as well as the institutional strengthening of the value chain organizations in the rice and coffee sectors (e.g. VCCB, VFA, etc.).

23. **Component B: Supporting Sustainable Rice-Based Systems (US$182.6 million, of which US$140.4 million IDA).** This component would support some 30 key rice producing districts in eight MKD provinces in a cluster approach. It would consist of three activities: (a) supporting a large-scale program on improved agronomic practices and management; (b) supporting private sector investments in upgrading rice processing technology and facilities for high value and quality rice; and (c) improving public services delivery.

    - (B1) Supporting a large-scale program on improved agronomic practices and management: Support to improve rice farming practices of small farmers and their organizations, including provision of: (a) technical training and demonstration on the basis of establishment and capacity building of farmer organizations (FO); (b) matching grants to support FOs in certified seed multiplication, leverage investments in collective harvesting and processing equipment and postharvest facilities to reduce post-harvest losses and improve their marketing position, and improve selected collective small scale infrastructure (i.e. feeder roads, connecting electricity, pumps and irrigation, etc.) to maximize FO production system efficiency including crop rotations and by-products recycling; and (c) link them with agribusinesses (ABs) (who are supported under B2) to improve quality management and incentives for sustainable practices).
    - (B2) Supporting private sector investments in upgrading rice processing technology and facilities: through provision of medium- and long-term loans (4 – 7 years) by BIDV via commercial banks on a commercial basis to support private sector ABs to upgrade their rice processing technology and facilities in order to raise efficiency and produce higher quality rice. Selected ABs would directly source paddy from FOs (who are supported under B1) to reduce post-harvest losses and enable the shift to higher quality market segments.

- (B3) Improving public services delivery: Provision of support to technical departments and concerned agencies of MARD and DARDs in the project provinces to improve their extension skills, capacity and quality, enhance capacity of foundation seed production and certification, and monitor GHG emissions and measurements from the systems that will be adopted with improved agronomic practices. The project would procure the technical services of the International Rice Research Institute (IRRI) to support MARD and project provinces in designing and implementing activities under B1.

24. **Component C: Supporting Sustainable Coffee Production and Rejuvenation (US$98.7 million, of which US$83.0 million IDA).** This component would support the transformation of a substantial portion of Vietnam's coffee sector to sustainable practices. This component has three activities: (a) supporting an intensive coffee program on improved farm agronomic and management practices, (b) supporting sustainable coffee rejuvenation/ replanting, and (c) improving public services delivery.

- (C1) Supporting an intensive coffee program on improved farm agronomic and management practices: Provision of support on sustainable production practices to coffee farmers via: (a) farmer field school (FFS) training, and (b) matching grants to adopt water saving technologies and other improved agricultural practices.
- (C2) Supporting sustainable coffee rejuvenation/ replanting: Support for sustainable coffee rejuvenation/ replanting through: (a) provision of long-term loans via a LoC administered by BIDV and disbursed via PFIs, to cost-share coffee replanting investments, with this disbursement contingent on the application of critical sustainable production practices; and (b) support for strengthening private nurseries to meet the demand of rejuvenating farmers for quality seedlings and buds.
- (C3) Improving public services delivery: provision of support for: (a) strengthening participatory planning and assessment processes, (b) pilots at community or district levels to apply an integrated landscape management approach in coffee-based ecosystems, and (c) upgrading critical public supporting services, including nursery certification, soil testing, diversification pilots, awareness raising and communications.

25. **Component D: Project Management, Monitoring and Evaluation (US$13.4 million, of which US$9.6 million IDA).** This component would support (a) project management; and (b) monitoring and evaluation.

- (D1) Project Management: provision of support for the project implementing agencies for effective project management, implementation, and supervision.
- (D2) Monitoring and Evaluation: provision of support for: (a) the establishment and implementation of an effective monitoring and evaluation system, (b) analysis and dissemination of lessons learned from project implementation.

B. Project Financing

26. **Lending Instrument:** The proposed Project would have a total cost of US$301.0 million and would be supported by the World Bank through an Investment Project Financing (IPF) in the form of an IDA Credit for US$238.0 million equivalent.

27. **Project Costs and Financing:** The table below presents the total costs and indicated IDA financing for the vnSAT. In addition to the proposed IDA credit, the government would provide an estimated US$28 million in counterpart financing for the project, while farmers, farmer groups and agribusiness entities would provide an estimated US$35 million associated with their matching grants and commercial bank borrowing.

Table 1 Project Cost and Financing
(US$ million)

Project Component	Project cost	IDA Financing	% IDA Financing
A - Institutional Strengthening for Agricultural Development	6.3	5.0	79
B - Sustainable Rice Initiative*	182.6	140.4	77
C - Sustainable Coffee Initiative*	98.7	83.0	84
D - Project Management, Monitoring and Evaluation	13.4	9.6	72
TOTAL	301.0	238.0	79

Note: * includes proposed credit lines. Numbers may not sum because of rounding.

Leveraging IFC Support

28. IFC contributed substantially to project preparation, and the project would establish and support linkages with ongoing and future IFC interventions. Joint diagnostic work on agricultural finance, the investment climate for agribusiness and on the prevailing policy environment directly informed project design. IFC advisory services are supporting the design of the syllabus on agricultural lending and the benchmarking of farmer organizations, for instance. VnSAT partner agribusinesses would be well positioned to 'graduate' to more tailored advisory services and these firms could be eligible for lending from the commercial banks to which IFC is providing advisory services. Similarly, while vnSAT is providing generic training for commercial banks to encourage lending to agriculture, this would need to be followed up with more tailored support for product development and/ or credit management systems – IFC is equipped to provide technical support on a partial cost-sharing basis, reflecting the greater private-good nature of these investments. Finally, coordination between vnSAT and the IFC would facilitate linkages between sustainable small-holder coffee producers and commercial trading companies.

29. ***Potential conflict of interest:*** IFC's collaboration with the project may give rise to actual, potential or perceived conflicts of interest in view of the possibility that prospective private sector partners of the project might be existing or future IFC clients. Should such a situation arise, IFC will disclose its business interests in or relationship with these entities. Any actual, potential or perceived conflicts of interest will be managed in accordance with the World Bank Group's guidelines for the management of inter-institutional conflicts of interest. In particular: (i) selection of private sector entities

in the project will be based on objective, clear and transparent eligibility criteria; (ii) the WBG has maintained and will continue to have separate teams for the WBG advisory role and the IFC investment role; and (iii) confidential information belonging to the Government or any private sector entity will not be shared between the WBG advisory and IFC investment teams without the prior consent of the affected parties.

C. Lessons Learned and Reflected in the Project Design

30. **The project reflects lessons drawn from both analytical work and project experience of the WBG and others, in Vietnam and globally, and builds on established Bank engagement.** The Bank provided substantial technical inputs to the development of the ARP and has considerable experience under previous agricultural commercialization projects. For instance, many such projects seek to accommodate a wide range of value chains to avoid the risk of picking the 'wrong winners' and allow for flexibility in the face of changing market circumstances. However, this demand-driven approach often results in scattered 'islands of success' which are too small to have a notable impact in any major value chain. vnSAT will focus instead on rice and coffee, and is designed to reflect the prevailing technology, market linkages and financial market interventions that are more strategic and geographically clustered.

31. **Second, the extent and severity of prevailing unsustainable farmer practices in rice and coffee are well documented and the improved practices required are similarly well known.** Previous analytical work by the World Bank combined with the experience of the previous Agriculture Competitiveness Project (ACP – P108885) quantified the impacts on profitability and on the environment from a package of agronomic practices locally referred to as "One must, Five reductions" (1M5R) and the latter piloted approaches to encourage farmer adoption to be scaled-up under vnSAT. As the world's second largest exporter the global coffee industry is naturally concerned about long-term supply trends and has sponsored extensive research into the impact of current practices. However, evidence suggests that existing certification regimes are largely ineffective in addressing Vietnam's major sustainability drivers: reducing over-watering is not required to meet compliance and, in any case, evidence suggests the farmer training associated with certification programs is too superficial to affect farmer behavior. FFSs are more effective in this regard. With regard to coffee rejuvenation, agronomic practices for grafting are well established, and analytical work undertaken as part of project preparation has updated the protocols for uprooting and replanting. Moreover, similar experiences with forestry and tree-crops projects has emphasized the importance of available high quality planting material and that linking the financing for rejuvenation to the use of certified plants and the farmer's implementation of a technical protocol – and tranching loan disbursements to verifiable completion of these steps – can serve to leverage their adoption.

32. **Complex relationships between farmers and between farmer groups and companies take time to evolve**, with a build-up of mutual trust and dependency over time. Collective action is required to address some of the inefficiencies and environmental dimensions of production and post-harvest management. While farmers can readily adjust their approach to fertilizer and agro-chemical use, improved water management and the reduction of post-harvest losses requires joint actions among neighbors or a more formal farmer

organization. Success is more likely by focusing initially on well-functioning farmer cooperatives with prior experience of working with ABs. Otherwise, efforts will simultaneously focus on building up the capacities of existing groups/ cooperatives and the farmer interface skills of interested companies before efforts are made to match-make new partnerships.

33. **Finally, the project was prepared in an inclusive manner with MARD and the provincial authorities,** specifically the respective DARDs under the supervision of the Provincial People's Committee (PPC). Experience in other projects in which feasibility studies were prepared by external consultants has undermined ownership and often leads to an extended period of project start-up as implementing agencies at the provincial level learn about the project. The preparation of Component A was led by MARD's DoP in close consultation with other departments/ directorates and with key technical inputs from FAO institutional specialists. Component B is a consolidation of individual provincial proposals prepared by the eight provincial DARDs subject to several iterations with technical inputs from the Bank team, local experts and FAO specialists. Similarly, for Component C, with the five Central Highlands provinces. This augurs well for a rapid start-up after project effectiveness.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

34. **The project will be implemented in thirteen provinces:** Kien Giang, An Giang, Tien Giang, Hau Giang, Dong Thap, Can Tho, Soc Trang, and Long An (Mekong Delta Region), and Lam Dong, Dak Lak, Dak Nong, Gia Lai, and Kon Tum (Central Highlands Region). The project implementing agencies will be MARD and the PPCs of the thirteen project provinces.

35. **At the central level**, **MARD is the central Line Agency,** responsible for overall project implementation.

36. **The Central Project Management Unit (CPMU)**, **established within MARD, is the key project implementing agency at the central level**, responsible for coordinating implementation of project components and activities across provinces, including project supervision and results monitoring and evaluation. Specific responsibilities of the CPMU include, but are not limited to, the following: (a) coordinating technical guidance among MARD departments to support DoP and DARDs in project implementation and management; (b) developing and maintaining a sound overall project accounting system in accordance with the procedures required by government and IDA; (c) handling financial management (FM) for the activities implemented by the DoP and Central Highlands project provinces through its Designated Account (DA) opened at the CPMU; (d) handling all International Competitive Bidding (ICB) packages and the selection of international consultants, as well as all other procurement matters for which central management is more efficient compared to provincial level management; (e) monitoring the quality of implementation, safeguards compliance, and project impact to report to MARD and IDA; and (f) preparing proposals for project restructuring and legal amendments, when necessary, for submission to government and IDA.

37. **The Department of Planning of MARD will be responsible for the implementation of Component A** since it has been assigned the responsibility to lead implementation of the ARP within MARD. The CPMU will provide necessary technical assistance to the DoP when required in handling procurement and disbursements for this component.

38. **At the provincial level, the Provincial People's Committee is the provincial Line Agency**, responsible for overall project implementation in the province.

39. **The Department of Agriculture and Rural Development (DARD), is the key project implementing agency at the provincial level**, responsible for implementation of project activities in the province, including procurement, financial management and disbursement for the activities implemented in the province, as well as results monitoring and evaluation.

40. **The Provincial Project Management Unit (PPMU),** established under the DARD**,** will be responsible for assisting DARD in: (a) preparing annual work plans, financial plans, procurement plans, disbursement plans, and other project reports required by government and IDA; (b) handling procurement activities that have been decentralized to the province and preparing evaluation reports for submission to concerned agencies for approval; (c) preparing and submitting evaluation reports for approval; (d) maintaining a sound project accounting system in accordance with the procedures required by the government and IDA; (e) monitoring the quality of implementation and safeguards compliance in the province; and (f) coordinating with Project Districts and Communes to carry out planned activities. The DARD Director will ensure the necessary mobilization of human and financial resources from its technical sub-departments, divisions, and centers and the additional recruitment of contracted staff, when necessary, to support project implementation and manage the quality of project implementation.

41. **Farmer Organizations (and its members)** will be formed on a voluntary basis through the facilitation of the project to implement the improved agronomic techniques for rice and coffee under Component B and Component C.

42. **Implementation of the Line of Credit** will be the responsibility of BIDV. Part of the IDA financing will be on-lent by the Recipient to BIDV by means of an On-Lending Agreement. BIDV would manage these funds as a wholesale bank, making them available through eligible PFIs to rice processors in the Mekong Delta area and farmers investing in coffee rejuvenation in the Central Highlands. The institutional arrangements need to provide efficient oversight of several PFIs and the proper fiduciary management and safeguard arrangement at reasonable cost. While each individual financial institution will take credit risk on the individual loans it makes, BIDV will take the overall credit risk on behalf of the government in case of the default from a retail financial institution. The project would leverage an existing institutional arrangement under previous IDA-financed rural finance projects in which BIDV will be engaged to help MARD to manage and monitor the loan activities. BIDV have a demonstrated track record in implementing IDA-financed lines of credit. BIDV would be responsible to accredit the interested PFIs based on the agreed accreditation criteria. BIDV would on-lend the IDA credit to the accredited PFIs in accordance with subsidiary loan agreements signed between BIDV and

those PFIs indicating the obligations of each party and the on-lending terms. The PFIs would in turn extend sub-loans to eligible rice export agribusiness and coffee replantation farmers. The advantage of this arrangement is that the monitoring of the PFIs and the LoC function is transferred from the overall project owner (i.e. MARD) to BIDV.

43. **Technical, Advisory and Supporting Agencies,** which include technical departments and research institution of MARD (i.e. Departments of Crop, Plant Protection, Cooperatives and Rural Development, Agricultural Planning, the Agriculture Project Management Board [APMB], the Institute of Policy and Strategy for Agriculture and Rural Development [IPSARD], the Western Highlands Agriculture and Forestry Science Institute [WASI], etc.), Sub-Departments of DARDs, and local governments of the project districts and communes will be available to assist the project in implementing technical matters according to their technical and management mandate.

44. **Collaboration with the International Rice Research Institute (IRRI)**. The project will procure technical services from the IRRI on the basis of the Single Source Selection (SSS) procedures to support to the CPMU and project provinces in implementing Component B.

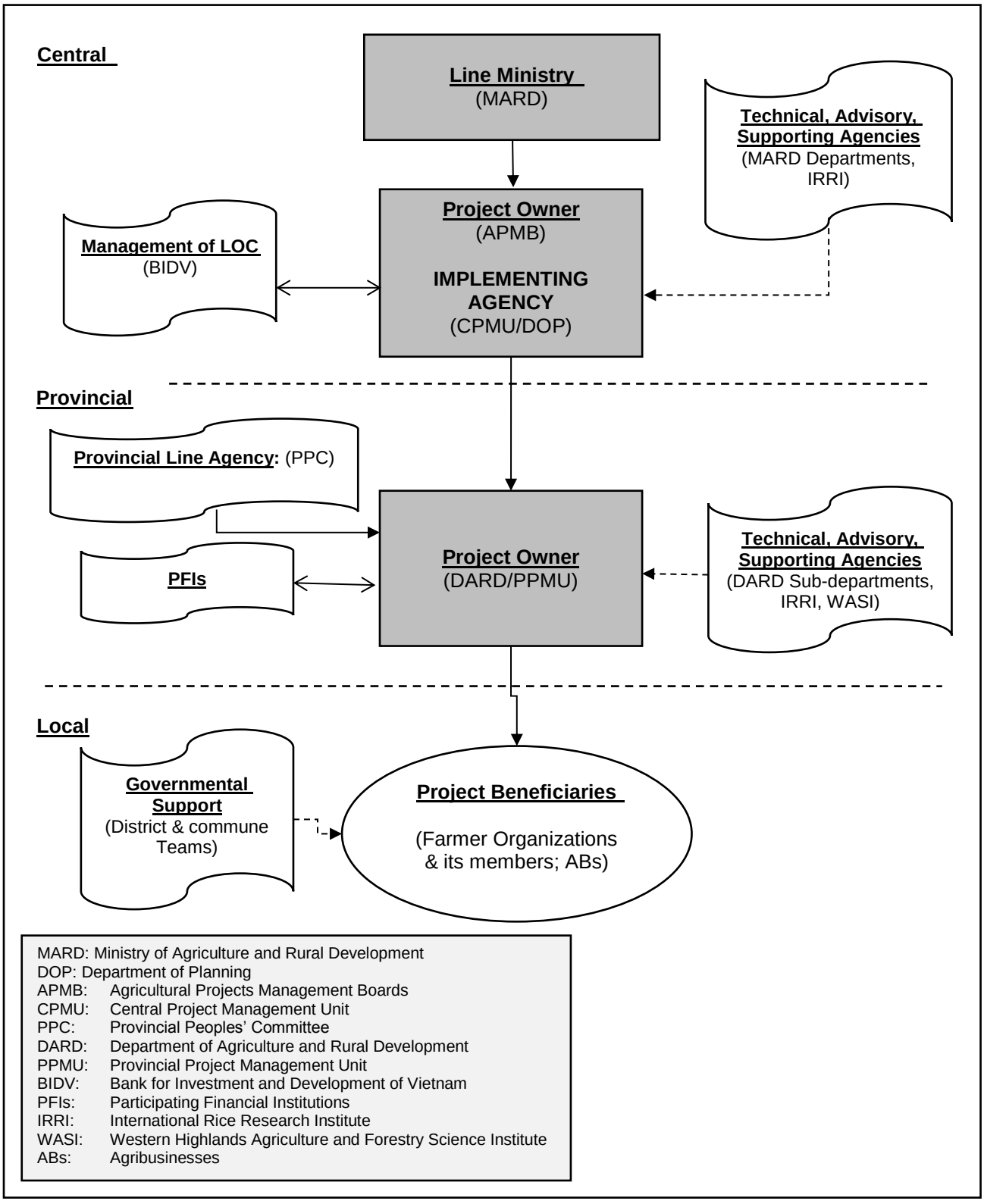
45. **The organizational structure for implementation** is presented in Figure 1. Detailed project implementation arrangements are presented in Annex 3.

Table 2 Implementation Arrangements for Each Component

Component/Activity	**Primary Responsibility**	**Supporting Agencies**
A. Institutional Strengthening to Support Agricultural Transformation • Capacity development for MARD • Capacity development at the provincial level • Capacity strengthening for value chain partners	DoP	CPMU/ MARD technical departments
B. Supporting Sustainable Rice-Based Systems • Supporting a large-scale program on improved agronomic practices and management. • Supporting private sector investments in upgrading rice processing technology and facilities for high value and quality rice. • Improving Public Services Delivery.	DARD & its technical sub-departments BIDV/ PFIs	CPMU/ MARD/ IRRI
C. Supporting Sustainable Coffee Production and Rejuvenation • Supporting an intensive program on improved farm agronomic and management. • Assisting non-state business institutions to provide improved critical services to coffee growers' rejuvenation. • Improving Public Services Delivery.	DARD & its technical sub-departments BIDV/ PFIs	CPMU/ MARD technical departments/ WASI

<u>Notes</u>: Primary responsible agencies are responsible for making decisions for project implementation; supporting agencies will provide technical advice and collaborate when necessary, but will not possess any approval powers for project implementation.

Figure 1: Implementation Arrangements



B. Results Monitoring and Evaluation

46. **The project will have a dedicated M&E system** for tracking project inputs, activities, outputs and impacts across all components in all project districts. The overall M&E system will be implemented by the CPMU. However, provincial and district level agencies, BIDV and PFIs will have important roles in inputting to the management information system (MIS) on a web-based platform that will be developed early during project implementation.

47. **The PDO and intermediate-level indicators measure improved farming practices** and it is important that these are clearly defined in order that they are specific, measurable, achievable, relevant and time-bound (SMART). Improved practices in rice farming are well-defined under the "Three gains, Three reductions" (3G3R) and 1M5R systems. Actual practices (in terms of seed/ fertilizer applications rates and water use) differ across the MKD and the POM will set out a standard application of 3G3R and 1M5R that is required under the project. For coffee, there are a wide range of current practices and improved practices – and the training methodology to achieve behavior change – tend to be defined by the specific certification regime that is sponsoring individual farmer training. These are being consolidated into a common framework and will inform the definition of improved practices in the POM against which project success will be measured.

48. ***GHG Monitoring*****:** Measuring GHG emissions associated with current cropping systems is essential in order to estimate the potential for reducing GHG emissions under improved practices for rice cultivation across Vietnam. The guidelines approved by the United Nations Framework Convention on Climate Change (UNFCCC) can facilitate the development of the standardized baseline for GHG emissions applicable to the MKD and elsewhere in order to promote a cost effective monitoring, reporting and verification (MRV) framework to quantify GHG emissions. A standardized baseline will enable GoVN to promote GHG mitigation at scale, and to support broader mitigation instruments such as Nationally Appropriate Mitigation Actions (NAMAs) and New Market Mechanisms (NMMs) that are recognizable under the UNFCCC. Standardized baselines require data collection on rice crop cultivation practices across different agro-ecological zones for onward submission to the UNFCCC for approval. Under VnSAT, GHG measurement and monitoring activities will be expanded to cover different agro-ecological zones within the MKD, with the objective of developing standardized baseline on GHG emissions. Technical assistance for GHG measurement and monitoring activities can be organized in collaboration with IRRI, Cuu Long Delta Rice Research Institute (CLRRI), Can Tho University (CTU) and other institutions in the region.

C. Sustainability

49. **The project will address sustainability at various levels**:

(a) First and foremost, vnSAT supports a high-profile government reform initiative that attracts substantial political commitment at the highest level and is already shown to be a foundation stone for future sector development. As such, vnSAT is supporting a broad

policy direction that is expected to deepen in the future. Moreover, by explicitly focusing on organizational capacity development measures to ensure MARD is fit for purpose, vnSAT seeks not only to implement a one-time reform but also to foster an ability of the Line Ministry and other key agencies to continue to respond and adapt public policy to changing external contexts.

(b) Second, the on-farm interventions in the rice and coffee components encourage improved practices that improve the 'triple bottom-line' thereby increasing profitability. The project provides incentives such as matching grants to solicit a one-time change in behaviors, whose continued application is not contingent on further subsidies. Local infrastructure will be identified with beneficiary participation.

(c) Third, by supporting collaborative linkages between small-holder farmers and agribusinesses, the project seeks to strengthen the private returns to partners along the value chain. While not without risks (see below), this maximizes the likelihood that project beneficiaries will continue to deploy the improved practices gained through the project.

(d) Fourth, by leveraging the participation of the financial sector in the lending to agribusinesses and small-holder farmers through the use of credit lines to PFIs together with the strengthening of technical capacity of local public service agencies, the project will demonstrate the scope for leveraging bank finance to induce changes in farmer practices and demonstrate the returns available to banks thereby increasing their lending to the sector. This is particularly important for Component C since the investment needs for coffee rejuvenation is an ongoing requirement over the long-term.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

50. Overall implementation risk is rated as **Substantial**, with the component risks ratings summarized in Table 3, below.

Table 3 Risk Ratings

Stakeholder Risk	Substantial
Implementing Agency Risk	
- Capacity	Moderate
- Governance	Substantial
Project Risk	
- Design	Substantial
- Social and Environmental	Moderate
- Program and Donor	Low
- Delivery Monitoring and Sustainability	Low
Overall Implementation Risk	Substantial

B. Overall Risk Rating Explanation

51. **The overall risk rating for this project is rated to be substantial** based on the anticipated difficulties in implementing the institutional changes under Component A. However, the project design was based on the high level of ownership displayed by MARD and the focal DARDs, the keen interest demonstrated by farmers, agribusinesses, and commercial banks, as well as the experience of the government in implementing similar Bank-funded projects. MARD is a key partner of the Bank, and the APMB has extensive experience in managing Bank projects. Responsibility for the technical services under Components B and C will rest with the provincial authorities, in particular the DARDs. Most DARDs in the project provinces have experience with Bank projects. Similarly, likely implementing agencies have good experience with Bank-supported projects, and are well positioned to take on these responsibilities. Safeguards issues are modest with no large-scale resettlement required. Multiple rounds of consultations have been undertaken with major stakeholders and surveys have been undertaken of farmers and companies and banks to validate expected up-take of project support.

52. **The main risks of the project are associated with**: (i) its complexity, derived, in part, from the need to build synergies among previously disconnected initiatives and stakeholders; and (ii) the political economy factors affecting implementation of the broader ARP upon which vnSAT is anchored. Another risk relates to deterioration in the external markets for higher value rice (resulting, for example, from the trading behavior of other existing or future leading exporters and import-substitution efforts by some traditional rice importers) and/ or coffee (from volatility in world prices). Both are exogenous to the project and best addressed through the improved competitiveness which the project seeks to achieve.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

53. **Project Benefits:** The project's main benefits will come from Components B and C supporting smallholder rice and coffee production systems. Benefits from Component B will result from: (a) adoption of improved agronomic practices and management; (b) investments by farmer organizations in collective infrastructures and equipment for improved harvesting and post-harvest management; (c) improved linkages between farmer organizations and agribusinesses (including contract farming); and (d) increased private sector investments in upgrading rice processing technology and facilities for high value and quality rice. Benefits from Component C will result from: (a) adoption of improved, more sustainable and climate smart agronomic and management practices, including water saving technologies; (b) rejuvenation of coffee plantations; and (c) improved commune-level coffee production infrastructure (such as irrigation canals, power lines and access roads to coffee plantations) and post-harvest processing facilities.

54. Component A will directly contribute to the effective implementation of Components B and C and is expected to result in several institutional benefits including: (a) improved MARD expenditure (investment and recurrent) planning and monitoring resulting in improved performance in budget execution; (b) improved quality of service delivery by DARD departments in project area; (c) better design, implementation and monitoring

agricultural restructuring initiatives, including agricultural investment plans that are based on market-oriented planning requirements and processes; and (d) improved coordination among Government agencies and between state- and non-state stakeholders in the agriculture sector.

55. **Financial Analysis:** The financial analysis is based on illustrative crop, farm and enterprise models which are considered representative for the production systems supported under Components B and C. For each model, three budgets have been prepared: (i) the "present-without project" (P) scenario; (ii) the "future-without project" (FWOP) scenario; and (iii) the "future-with project" (FWP) scenario (P and FWOP scenarios may be the same in some cases). Annual budgets have been prepared for rice production while multi-periodic cost-benefit analyses have been carried out for coffee plantations and processing enterprises. Detailed crop, farm and enterprise budgets are presented in the EFA Appendix. The analyses clearly show the financial viability of the production and processing activities supported by the project, and the potential for significant increases in gross margins, net profits, return to labor and return on investment resulting from the project.

56. **Economic analysis:** The economic internal rate of return (EIRR) of the overall project for the base case is 23.9 percent (including also costs of Components A and D). The net present value (NPV), discounted at 12 percent is VND 4,739 billion (US$223 million). The EIRR has also been calculated separately for Sub-components B1 (32.0 percent) and B2 (24.1 percent), and for Component C (18.0 percent). A sensitivity analysis has been conducted to assess the potential impact of these risks resulting in (a) reduced benefits; (b) increased costs; and/ or (c) delayed benefits. The economic viability of the project is quite robust and the EIRR remains above 12 percent for most scenarios. Considering that many potential project benefits as described above have not been quantified in economic terms (e.g. environmental benefits; other direct and indirect benefits for the rural economy; and additional direct benefits from institutional development under Component A), the project has a strong justification on economic grounds.

B. Technical

57. **The project will introduce improved agricultural practices to small-holder farmers.** Rice farming in the MKD will deploy the 3G3R or the 1M5R which advocate for the use of certified seeds and for the reduction in fertilizer and pesticide applications and more efficient water use (i.e. examples of CSA). Similarly, coffee farmers will also be supported to deploy Good Agricultural Practices (GAP) which will lower agro-chemical input use, improve water productivity while maintaining (or increasing) on-farm profitability. Support for diversification out of rice (at least during one season per year) will be based on better-informed farmer decisions and prevailing land suitability. Areas of intervention for the coffee component will be based on provincial rejuvenation master-plans and the piloting of landscape approaches that will identify unsuitable areas that need to exit from coffee.

58. **Technical modalities of the project are well established and already deployed in Vietnam and will be scaled up under vnSAT.** Existing bad practices and the technical content of improved practice are well known. Their positive impacts on farm-level

profitability and in reducing negative environmental externalities are also well documented. Previous analytical work, experience under previous Bank-financed projects, and assessments of interventions financed by NGOs and various certification regimes all document the physical benefits from changing farmer behavior in terms of input use and the deployment of GAP. Similarly, the modalities for effective farmer training, through the FFS approach, are well established in Vietnam albeit on a modest scale (and have been widely used in similar contexts globally). The project will utilize a range of variants in the specific approach and, through the project MIS, will review the experience and scale-up the most successful models. The project will also be informed by the national coffee curriculum currently under preparation under the auspices of the VCCB.

C. Financial Management

59. **An FM Assessment for the project implementing agencies (i.e. CPMU, project provinces, and PFIs) concluded that the project FM risk is 'substantial'**. The following key risks were identified: (a) new project provinces (i.e. Hau Giang, Kon Tum, Dak Nong) may not be familiar with Bank FM requirements; (b) project design adopts full decentralization and autonomy to the project provinces, which would require greater capacity and accountability on the part of the provinces in monitoring fund flows and in meeting the financial reporting requirements; and (c) successful project implementation requires strong linkages among project components and good management and coordination between MARD, DARDs, and PFIs.

60. **The principal risk mitigation measures include**: (a) acceptable FM staffing to be appointed at all implementing agencies (priority should be given to the staff that have experience in FM from Bank-financed projects) and provided with training on Bank FM requirements and disbursement procedures; (b) a Project FM Manual to be developed as part of the Project Operations Manual, describing in detail the roles and responsibilities of the concerned parties, as well as specifying the project FM procedures and regulations; (c) an upgraded accounting software to be installed for the project and training to be provided to all accounting staff; and (d) an internal audit team to be established with the Terms of Reference (TOR) acceptable to the Bank to build the capacity of internal audit for the project. More details of FM arrangements including the flows of funds, Designate Accounts, and disbursement are provided in Annex 3.

D. Procurement

61. **Applicable Procurement Procedures**. For contracts financed in whole or in part by the IDA Credit under the Project, procurement shall be carried out in accordance with the World Bank's "*Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*" dated January 2011 and revised July 2014; and "*Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*" dated January 2011 and revised July 2014; and the provisions stipulated in the Financing Agreement. Procurement of eligible goods and equipment for FOs and cooperatives to be financed by the project's matching grants under Components B and C will be carried out by the grant recipients using the established private sector/commercial practices, acceptable to the Association.

62. **Procurement Capacity and Risk Assessment.** A PCRA of the project implementing agencies (PIAs) – the CPMU and DARDs – was undertaken by the Bank in September 2014. The CPMU and some DARDs are familiar with the Bank's procurement procedures (those have participated in the ACP), but many of them do not have much experience in procurement of large goods contracts, as well as consulting contracts. The procurement risk is rated "Substantial".

63. **Risks identified by the PCRA are**: (a) slow or delayed government internal investment approval process (e.g. sub-projects FS, design and cost estimation, procurement plan etc.); (b) inadequate procurement experience of the project implementing agencies in the new provinces; (c) the possibly slow or delayed government internal procurement approval process (e.g. bidding documents, bids evaluation appraisal, contract award etc.); and (d) possible non-compliance, collusion, misrepresentation of qualifications etc.

64. **The following measures will be taken to address the above risk**s: (a) appointing/ recruiting adequate procurement staff at each implementing agency who have qualifications and experience acceptable to the Bank; (b) preparing and adopting a Project Operations Manual which will include a detailed procurement section (i.e. clear rules, procedures and division of responsibilities, timeline requirements for procurement activities, actions and decisions, sample documents and evaluation report for small procurements, describing an effective complaint handling mechanism, full decentralization and empowerment to the CPMU/ PPMUs, as well as a code of conduct); (c) intensive training on procurement and contract administration for PIA procurement staff; and (d) regular implementation support and procurement post reviews by the Bank procurement staff. After successful implementation of the above measures the residual procurement risk is rated Moderate. More detailed findings of the PCRA, the proposed procurement arrangements, and measures to address the identified risks are presented in Annex 3.

65. **Procurement Plan.** The procurement plan for activities to be taken up during the initial 18 months of project implementation has been prepared by the CPMU and will be reviewed by the Bank and approved by MARD before project negotiations. The agreed Procurement Plan and all subsequent updates will be published in the Bank's external website and the Government's Public Procurement Review newspaper.

66. **Engagement of International Research Institutes Service:** The 3G3R and 1M5R rice farming models promoted under the project were developed by IRRI scientists through its collaboration programs with MARD over the past years. During the project implementation of ACP in the MKD, IRRI provided excellent technical assistance to MARD and project provinces in implementing farmer training, site demonstration, and experimental pilots. Therefore, the vnSAT will continue to engage IRRI on the SSS basis to provide technical support to the CPMU and project provinces in implementing Component B if no other qualified firms could provide such services.

E. Social (including Safeguards)

67. **Two Bank social safeguards policies (Involuntary Resettlement (OP/BP 4.12) and**

Indigenous Peoples (OP/BP 4.10) are triggered under this project. The project's negative social impact is limited to small-scale acquisition of land for construction of small-scale infrastructure financed by the project (i.e., feeder roads, on-farm water supply canals, collective pumping stations, rice storages, etc.). In some specific areas where ethnic minorities (EM) are present (i.e., all project provinces in the Central Highlands and Soc Trang province in the MKD), the project's land acquisition may affect local ethnic minority households.

68. **Involuntary Resettlement (OP 4.12)**. A Resettlement Policy Framework (RPF) for the project has been prepared by MARD in compliance with Bank OP 4.12 and with relevant Vietnamese laws. The RPF specifies the steps to be taken for preparation, review, and clearance of Resettlement Plans (RPs) for sub-projects that will be identified during project implementation. No land acquisition is needed in the first year. The RPF has been disclosed locally in Vietnamese and through the Bank's InfoShop on November 4, 2014.

69. **Indigenous Peoples (OP 4.10)**. Activities supported by the project are expected to have a positive impact on ethnic minority communities by improving their access to sustainable farming technologies thereby sustaining their livelihoods. An Ethnic Minority Planning Framework (EMPF) for the project has been prepared by MARD in accordance with Bank OP 4.10. The EMPF will guide the preparation of Ethnic Minority Development Plans (EMDPs) during project implementation. The EMPF has been disclosed locally in Vietnamese and through the Bank InfoShop on November 4, 2014.

F. Environment (including Safeguards)

70. **The Project triggers three environmental safeguard policies, namely Environmental Assessment (OP 4.01), Pest Management (OP 4.09), and Physical Cultural Resources (OP 4.11)**.

71. **The project is assigned an Environment Category B.** The project's overall environmental impacts are assessed to be positive. Negative environmental and social impacts are assessed to be limited, localized and manageable. The key potential negative socio-environmental impacts include: (a) improper use and management of agro-chemicals in agricultural production; (b) ineffective management and improper treatment of agricultural wastes and by-products; and (c) civil works impacts (i.e., increased localized level of dust, noise, disturbance to traffic and community, safety risks, water pollution risks) during the construction of new infrastructure or rehabilitation (i.e., construction of rice storages, processing facilities, feeder roads, etc.). These impacts are assessed to be temporary and localized in nature and can be avoided or minimized by proper mitigation measures.

72. **Environmental and Social Management Frameworks (ESMFs).** The project has prepared two ESMFs to guide the project in screening, assessing and mitigating project environmental and social impacts: one for direct project financing (non-credit activities) developed by MARD and the other for financing through a financial intermediary (banks loans) developed by BIDV. They are in accordance with the Bank safeguard policies, as well as with Vietnamese laws. These Frameworks provide guidelines for: (a) safeguard screening to exclude sub-projects that have large scale negative or irreversible impact; (b)

impact assessment and preparation and implementation of mitigation measures, including Environmental Management Plan (EMP) for complex sub-projects or Environmental Codes of Practice (ECOP) for simple, small scale sub-projects. The sub-project EMP or ECOP will be included in the bidding and contract documents and will be monitored by supervision engineers; (c) preparation of the TOR to include the analysis of potential environmental and social issues and recommendations to address the identified issues in the policy studies that are supported by the project; (d) safeguard documentation preparation and clearance; I safeguard implementation, supervision, monitoring, reporting, and safeguard capacity building. The ESMFs have been disclosed, both locally (at the project site, the PPMU, and the Vietnam Development Information Centre) in Vietnamese, and at the Bank's InfoShop on November 4, 2014.

73. Regarding the loans to agribusinesses and farmers, the environmental management builds on lessons learnt from the Bank-financed Third Rural Finance project (RF3). BIDV is responsible for ensuring safeguard compliance of the loans with source from vnSAT. The ESMF for the line of credit portion sets out the guidelines and procedures for loans through PFIs to agribusinesses for upgrading rice processing facilities and technologies, and to smallholder coffee farmers for coffee replanting following application of sustainable production practices. The ESMF for LoC forms part of BIDV Lending Manual. The BIDV environmental management team, which served under the RF3, will be responsible for vnSAT LoC safeguards. Each PFI will appoint a Safeguard Officer. Regular reporting on safeguard compliance will be carried out by BIDV in coordination with the PFIs and will be monitored by the Bank.

74. **Pest Management**. The project will not finance the procurement of agrochemicals, pesticides, and herbicides. In contrast, the project is designed to promote the reduction in chemical and pesticide uses by promoting sustainable farming practices on farm and farmer organization basis. The project will follow existing MARD/ IRRI's Integrated Pest Management (IPM) packages which were introduced to the MKD from 1997-2003, and the follow on programs of 3G3R from 2003-2009, and 1M5R from 2009-2014. The ESMF includes a detailed description annex on the national IPM to be adopted by the project to comply with the Bank's OP 4.09.

75. **Physical Cultural Resources.** This policy is triggered as a precaution. A "chance finds" clause is included in ESMF and will be included in ECOP and construction contracts.

G. World Bank Grievance Redress

76. **Communities and individuals who believe that they are adversely affected by a World Bank supported project** may submit complaints to existing project-level grievance redress mechanisms or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit

http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

H. Mainstreaming Governance and Gender

77. **Governance and Anti-Corruption**. The project has given priority to governance issues in its component design, such as: (i) participatory processes in project planning and implementation; (ii) user satisfaction surveys; and (iii) a Governance, Transparency, and Accountability Framework (GTAF) as part of the project Operational Manual. The GTAF conforms to the overall priorities of the country's governance agenda and delineates the measures to be implemented and monitored throughout the project cycle. The GTAF draws on: (a) anti-corruption measures developed under previous World Bank-financed projects; and (b) the findings of the 2009 review of progress in implementing the Government's Anti-Corruption Law in the construction sector in Vietnam. It also properly reflects local capacity for implementation. In addition, the country team has an Action Plan on Anti-Corruption and Fraud that is applied at the portfolio level.

78. **Gender mainstreaming**. Vietnam has made substantial progress on gender equality; however, important challenges remain across sectors, especially in agriculture. They include: (i) limited access to credit (i.e. man often holds the title of land use rights); (ii) limited access to training because of male-dominated groups and absence of child care arrangements; and (iii) gender-specific roles in the household that leave men to dominate decision making. To address these constraints, during implementation the project would develop criteria to (a) ensure an equal access for women and men to all project activities under Components B and C; (b) require the implementing agencies to take into account gender aspects in the proposed activities under Component A, especially those related to policy support; (c) involve the Vietnam Women's Union at provincial, district and commune levels in project communications to ensure that all women members are fully informed about the project activities; and (d) develop an appropriate M&E tools to monitor a gender-disaggregated database of project beneficiaries. A Gender Action Plan is being prepared as part of the POM for inclusion of women throughout the implementation cycle.

ANNEXES

Annex 1: Results Framework and Monitoring

Country: Vietnam

Project Name: VIETNAM SUSTAINABLE AGRICULTURAL TRANSFORMATION PROJECT (P145055)

Results Framework

Project Development Objectives

PDO Statement

The Project development objective is to improve farming practices and value chains in the targeted project areas, and promote institutional strengthening of relevant public agencies to effectively support implementation of the Agricultural Restructuring Plan.

These results are at | Project Level

Project Development Objective Indicators

Indicator Name	Baseline	Cumulative Target Values				
		YR1	YR2	YR3	YR4	End Target
Indicator One: Number of project beneficiaries (people)	0.0	50,000	200,000	300,000	600,000	800,000
of which female (%)	0.0	50	50	50	50	50
Indicator Two: Farming area under sustainable farming practices						
(a) Rice production (ha)	0.0	0	10,000	50,000	100,000	150,000
(b) Coffee production both existing plantations and rejuvenation (ha)	0.0	0	5,000	20,000	30,000	50,000
Indicator Three: Increase in net profits per hectare						

among targeted farmers (a) Rice production (%) (b) Coffee production (%)	 0.0 0.0	 0 0	 5 5	 10 10	 10 15	 20 20
Indicator Four: Reductions in GHG emissions from rice farming in the project area (tons)	0.0	0	0	0	500,000	1,000,000
Indicator Five: Improved quality of service delivery by MARD and DARDs in support of project implementation as measured by performance scorecard (a) MARD (departments) (b) DARDs (provinces)	 0.0 0.0	 - -	 - -	 2 4	 - -	 4 10

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Intermediate Results Indicators

		Cumulative Target Values				
Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
Intermediate Result indicator A.1: Improved performance in budget execution by MARD measured by a reduction in the discrepancy between budget allocations and end-of-year budget out-turns (%)	0	0	5	10	15	20
Intermediate Result indicator A.2: An MTEF covering MARD's investment and recurrent expenditure and MTEFs for DARDs	0.0	0	0	1	3	3
Intermediate Result indicator A.3: Adoption of improved subsector ARPs in select MARD departments (departments)	0.0	0	1	2	3	3
Intermediate Result indicator B.1:	0.0	0	10,000	50,000	100,000	150,000

Area of rice farming under sustainable farming practices as measured by reductions in pesticide and fertilizer use (ha)						
***Intermediate Result indicator B.2*:** Area of sustainable rice farming applying improved farming and postharvest packages to reduce 30% water use and postharvest losses (ha)	0.0	0	10,000	30,000	50,000	75,000
Intermediate Result indicator B.3: Area of sustainable rice farming under contract farming arrangements with agribusinesses (ha)	0.0	0	5,000	15,000	30,000	50,000
***Intermediate Result indicator B.4*:** Investments by project-supported agribusinesses in additional milling/ processing capacity (US$)	0.0	0	10,000,000	20,000,000	30,000,000	40,000,000
***Intermediate Result indicator C.1*:** Coffee area adopting sustainable farming practices as measured by reductions in pesticide and fertilizer use. (a) Existing plantations (ha) (b) Rejuvenation (ha)	 0.0 0.0	 0 0	 5,000 2.000	 20,000 4,000	 30,000 8,000	 40,000 10,000
***Intermediate Result indicator C.2*:** Coffee area adopting advanced water saving irrigation technologies and reduce water use by at least 20% in the project areas (ha)	0.0	0	2,200	5,500	11,000	22,000
Intermediate Result indicator C.3: Area replanted with certified planting materials in the project areas (ha)	0.0	0	2,000	3,000	4,000	7,000
***Intermediate Result indicator C.4*:**	0.0	0	2	3	4	5

Number of pilot coffee-based landscape management plans developed in project areas (plan)						

Indicator Description

Project Development Objective Indicators

Indicator Name	Description	Frequency	Data Source / Methodology	Responsibility for Data Collection
Indicator One: Number of project beneficiaries	Number. Direct project beneficiaries are the number of people in the farming households (including spouses and children) supported by the project.	Annual	MIS	CPMU/DARDS
of which female	Percentage.	Annual	MIS	CPMU/DARDs
Indicator Two: Number of farm households who adopted defined improved practices in: (a) Rice production	Number. The number of hectares adopted improved practices of 3G3R packages with standards defined in the POM (3 Reductions: seed, fertilizers, and pesticides; 3 Gains: productivity, profits, and quality)	Baseline; Years 3 and 5	MIS plus periodic independent assessment, incl. baseline survey	CPMU/DARDs
(b) Coffee production	Number. The number of hectares adopted improved practices defined as per national extension manual.	-ditto-	-ditto-	-ditto-
Indicator Three: Increase in net profits per hectare among targeted farmers in: (a) Rice production	Percentage. Average figure on profit per ha collected from surveyed farmers who adopted improved farming practices.	Baseline; Years 3 and 5	MIS plus periodic independent assessment, incl. baseline survey	CPMU/DARDs
(b) Coffee production	- ditto-	-ditto-	- ditto-	- ditto-
Indicator Four: Reductions in GHG emissions from rice farming in the project area	Number. Measured as MT CO^2 equivalent, calculated based on the number of farmers adopted improved farming practices and the amount of GHG emissions reduced per ha.	Baseline; Years 3 and 5	MIS plus periodic independent assessment, incl. baseline survey	CPMU/DARDs
Indicator Five: Improved quality of service delivery	Number. Performance scorecard provides aggregate qualitative measure by respondents.	Baseline; Years 3 and 5	Attitudinal survey	Survey firm/ CPMU

by MARD and DARDs in support project implementation as measured by performance scorecard	MARD: Dept of Planning, Dept of Crops, Dept of Plant Protection, and National Extension Center. DARD: Sub-dept of Planning, Sub-dept of Crops, Sub-dept of Plant Protection, and Provincial Extension Center.			

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Intermediate Result Indicator A.1: Improved performance in budget execution by MARD measured by a reduction in the discrepancy between budget allocations and end-of-year budget out-turns	Percent. Baseline from AgPER. Budget execution measured as difference between ex ante budget allocations and ex poste actual expenditures.	Annual	MARD Budget and Expenditure data	Dept. of Finance, MARD
***Intermediate Result Indicator A.2*:** An MTEF covering MARD's investment and recurrent expenditure and MTEFs	Number implies MARD plus two provinces. MTEFs provide medium-term (3years) fiscal forecast for investment and recurrent expenditure.	Annual	MIS	Dept. of Finance, MARD
Intermediate Result Indicator A.3: Adoption of improved subsector ARPs in select MARD departments	Number. Subsector ARPs approved by MARD to improve their functionality and services delivery.	Annual	MIS	DoP/CPMU
***Intermediate Result indicator B.1*:** Area of rice farming under sustainable farming practices as measured by reductions pesticide and fertilizer use	Number. The number of hectares under adopted improved farming practices which reduce fertilizer and pesticide use as result of reducing seed density.	Bi-annual	Semi-annual progress report	CPMU/DARDs/ Survey firms
***Intermediate Result indicator B.2*:** Area of sustainable rice farming applying improved farming and postharvest packages to reduce water use and postharvest losses.	Number. The number of hectares adopted improved farming practices which reduce water and postharvest losses as results of better water management and improving postharvest handling.	Bi-annual	Semi-annual progress report	CPMU/DARDs/ Survey firms
Intermediate Result indicator B.3:				

Area of rice farming under contract farming arrangements with agribusinesses	Number. The number of hectares under contract farming arrangements with agribusinesses as a result of the project.	Bi-annual	Semi-annual progress report	CPMU/DARDs
***Intermediate Result indicator B.4*:** Investments by project-supported agribusinesses in additional milling/ processing capacity	Number (VND). Loans from the projects used for investing in additional milling/ processing capacity	Bi-annual	Semi-annual progress report	CPMU/DARDs
***Intermediate Result indicator C.1*:** Area of coffee farming under sustainable farming practices as measured by reductions in pesticide and fertilizer use a. Existing coffee	Number. The number of hectares adopted improved practices as results from the project.	Bi-annual	Semi-annual progress report	CPMU/DARDs
b. Rejuvenation	-Ditto-	-Ditto-	-Ditto-	-Ditto-
***Intermediate Result indicator C.2*:** Area of coffee farming adopted advanced water saving irrigation technologies in the project areas	Number. The number of hectares adopted water saving technology defined as a form of drip irrigation technology.	Bi-annual	Semi-annual progress report	CPMU/DARDs
Intermediate Result indicator C.3: Area replanted with certified planting materials in the project areas	Number. The number of hectares replanted using certified planting materials sourced from registered and approved seedling suppliers.	Bi-annual	Semi-annual progress report	CPMU/DARDs
***Intermediate Result indicator C.4*:** Number of pilot coffee-based landscape management plans developed in project areas	Number. The number of plans prepared at commune level supported by the project with participation of concerned stakeholders.	Bi-annual	Semi-annual progress report	CPMU/DARDs

Annex 2: Detailed Project Description

VIETNAM: Sustainable Agriculture Transformation Project

1. The project comprises the following four components: (A) Institutional Strengthening to Support Agricultural Transformation; (B) Sustainable Rice Initiative; (C) Sustainable Coffee Initiative; and (D) Project Management, Monitoring and Evaluation.

Component A: Institutional Strengthening to Support Agricultural Transformation (US$6.3 million, of which US$5.0 million IDA)

2. This component would support three activities: (a) capacity development for MARD; (b) capacity development for the provincial level, and (c) capacity strengthening for value chain partners.

Sub-component A1: Capacity Development for MARD (est. US$3.4 million)

3. This subcomponent would focus on re-tooling MARD and other key public sector agencies to ensure they are fit for purpose for implementing the ARP. It would focus on key departments within MARD to strengthen their capacity to design, implement and monitor agricultural restructuring and sustainability initiatives. This sub-component will include the following activities:

   (a) Capacity building for the effective implementation of ARP addressing the need for MARD to change the way it is operating in order to successfully implement the ARP based on (i) an analysis and clarification of roles and services of MARD government agencies in the ARP (Service Analysis); and (ii) capacity development to change/adjust work processes (including support to strengthening inter-departmental cooperation mechanisms) to better fulfil MARD functions.

   (b) Strengthening human resources management in MARD departments (including strengthening of soft skills), based on an in-depth needs assessment of the capacity building requirements of MARD staff. The possible areas of focus include market oriented planning requirements and processes; understanding green growth and sustainable development and its implications; project Analysis, economic analysis and M&E skills; and soft skills related to the new facilitation role of MARD.

   (c) Implementing selected thematic reforms, such as improving quality of MARD sectoral ARPs, result-based planning, public expenditure review, medium-term expenditure framework, and selected policy reforms, etc.

Sub-component A2: Capacity building for the provincial level (est. US$1.7 million)

4. This subcomponent would support organizational development and capacity building at the provincial level. Pilot provinces would be selected by MARD to represent cluster regions of the country, based on their understanding and commitment of translating the

ARP to their own projects and programs[1]. Particularly, the subcomponent would focus on the core services to be delivered to the end-users (i.e. GAP, ISO, HACCP and other quality assurance systems and certification procedures as well as sanitary and phyto-sanitary regulations required by major trading partners and WTO). In addition, it would also support the selected provinces in implementation of the thematic reforms led by the DoP under Subcomponent A1.

Sub-component A3: Capacity Strengthening for Value Chain Partners (est. US$1.2 million)

5. This subcomponent would provide support to value chain partners, in addition to support for public agencies, to enhance private sector involvement through the ARP, including the institutional support to the establishment and management of the planned PPP secretariat, training of local financing institutions, as well as the institutional strengthening of the value chain organizations in the rice and coffee sectors (i.e. VCCB, VFA, etc.).

Component B: Supporting Sustainable Rice-Based Systems (US$182.6 million, of which US$140.4 million IDA)

6. This component aims to increase rice farmer's income, reduce negative environmental impacts from rice intensified farming, and enhance the competitiveness of the rice sector. This component would support sustainable rice-based systems in the MKD through: (a) implementing a large-scale program on improved agronomic practices and management;2 (b) supporting and leveraging private sector investments in upgrading rice processing technology and facilities for high value and quality rice; and (c) improving public services delivery to support farmer adoption of improved agronomic practices and management. The component would provide direct support to around 140,000 rice-producing households in around 30 districts[3] of eight MKD provinces, namely Kien Giang, An Giang, Dong Thap, Can Tho, Hau Giang, Soc Trang, Tien Giang, and Long An.

Sub-component B1: Supporting a large-scale program on improved agronomic practices and management (est. US$112.1 million)

7. This subcomponent would provide resources for MARD and DARDs to improve on-farm practices among small-holder rice farmers in the project area. Specifically, the project would focus the following activities:

   (a) Provision of technical training for rice farmers through FFS, followed by establishment of and capacity building for farmer organizations. All rice farmers (i.e. around 140,000 rice farmers over around 200,000 ha) in the selected 'core rice'

[1] Possible provinces identified during project appraisal included Vĩnh phúc, Nam Định, Thanh Hóa, Hà Tĩnh, Bình Định, Đồng Tháp, and Lâm Đồng.

[2] The '3 Gains 3 Reductions' package (3G3R), which aims at reducing seed, fertilizer, and pesticide, thereby increasing productivity, quality, and profitability) followed by the '1 Must 5 Reductions' package (1M5R), which requires the use of certified seed and adds new requirements of reducing water and postharvest losses.

3 These core rice districts contributing more than 50 percent of rice export volumes from the MKD have been selected based on the following criteria: (a) being key rice producing districts; (b) producing high quality rice and having potential for value addition; (c) having the presence of functioning cooperatives with potential links with agribusinesses for marketing; and (d) having potential for achieving transformational impact.

districts will be trained on 3G3R – the most basic course. About 700 demonstration sites (i.e. FFSs) will be established to provide practical training for farmers. Awareness raising and information campaigns will be part of the training program to promote adoption of 3G3R, aiming that 70 – 75 percent of the trained farmers (i.e. 100,000 farmers over 150,000 ha) will adopt 3G3R by Year 3. Once farmers have adopted the basic techniques of 3G3R, the project then would assist them in forming cooperatives[4] (or other types of farmer organization [FO]) to move step-wise from 3G3R to application of the so-called '1M5R' model.[5] It is expected that some 150 FOs will adopt 1M5R, involving some 50,000 rice farmers over 75,000 ha.

(b) Provision of matching grants to support FOs in certified seed multiplication, leverage their investments in collective harvesting and processing equipment and postharvest facilities to reduce post-harvest losses and improve their marketing position, and improve selected collective infrastructure (i.e. feeder roads, connecting electricity, pumps and irrigation, etc.) to maximize FO production system efficiency including crop rotations and by-products recycling. There are two levels of matching grants for FOs: (i) for collective goods and equipment for FOs, matching grants will not exceed 60 percent of the total investment cost; (ii) for collective infrastructure for FOs, matching grants will not exceed 80 percent. All matching grants to FOs will not exceed the maximum ceiling of US$400,000 per FO with a size from 500 to 1,000 rice households.

(c) Linking the most advanced FOs to ABs (whom are supported under B2) to improve further marketing aspects (i.e. contract farming, products branding, etc.). It is expected that around 50,000 ha under 1M5R will be linked to ABs through contract farming.

Sub-component B2: Supporting private sector investments in upgrading rice processing technology and facilities for high value and quality rice (est. US$65.8 million)

8. This subcomponent would support medium- and long-term loans (4 – 7 years), on commercial basis, for agribusinesses operating in rice milling and processing to upgrade their processing technology and facilities for high value and quality rice. Criteria for selecting ABs include: (a) the proposed investments are economically viable and environmentally friendly; (b) the companies are at least majority privately owned or are companies in which an initiated equitization process will result in majority private ownership; and (c) the AB is seeking to expand or initiative direct sourcing for (at least part of) its paddy requirements from farmers/farmer organizations. The line of credit provided by the project will be managed by BIDV, a wholesale bank, and advanced to PFIs for on-lending to end-borrowers. Loans for ABs will be appraised and disbursed by PFIs, independently. Since lending to ABs may be a new area to PFIs, the project would provide technical training to PFIs to help them better understand business plans of ABs so as to facilitate credit appraisal and subsequent disbursements of PFIs.

[4] Medium size about 500 ha or large size of 1,000 ha per cooperative, involving 500-1,000 rice households.

[5] The "One must, five reductions" package features use of certified seed (the 'must'), reduced use of water, fertilizer, chemicals, and seed volumes, and realizing reduced post-harvest losses through various means. Collective action is needed for improved water management and for reducing postharvest losses, plus the farmer groups can improve access to high quality seed.

Sub-component B3: Improving Public Services Delivery (est. US$4.7 million)

9. This subcomponent would support implementation of sub-component B1. The project would provide necessary support and resources to strengthen capacity of technical departments and concerned agencies of MARD and DARDs in the project provinces (i.e. Departments of Crops, Plant Protection, Cooperatives and Rural Development, Agricultural Planning, Extension Centers, Seed Centers, etc.) to improve their extension skills, capacity and quality, enhance capacity of foundation seed production and certification, and monitor GHG emissions and measurements from the systems that will be adopted with improved agronomic practices in different ecological areas of the MKD. The DARD and its sub-departments will be responsible for implementing all field activities in the province with technical guidance and quality monitoring from MARD departments. The project would procure technical support from IRRI which already initiated under ACP to provide overall technical support to MARD and project provinces in designing and implementing activities under B1, including research on nutritional aspects of rice production.

Component C: Supporting Sustainable Coffee Production and Rejuvenation (US$98.7 million, of which US$83.0 million IDA)

10. This component would support the transformation of a substantial portion of Vietnam's coffee sector to sustainable practices. This component has three subcomponents: (a) supporting an intensive coffee program on improved farm agronomic and management practices, (b) supporting sustainable coffee rejuvenation/ replanting, and (c) improving public services delivery. The component would focus on 12 'core coffee districts' in five provinces of the Central Highlands, which dominate Vietnam's coffee production. They include Lam Dong, Dak Lak, Dak Nong, Gia Lai, and Kon Tum provinces.[6]

Sub-component C1: Implementing an intensive coffee program on improved farm agronomic and management practices (est. US$42.2 million)

11. The subcomponent would support sustainable production practices of existing coffee farmers, focusing on the following activities:

    (a) Provision of training on sustainable farm agronomic and management practices for some 62,500 coffee growers in 12 core coffee districts with the total coffee production area of around 69,000ha, of which some 9,000 growers will participate in coffee rejuvenation over an area of approximately 10,000ha. The training will be conducted, based on a standardized National Coffee Sustainable Curriculum and using the FFS approach. About 1,000 demonstration sites on improved agronomic practices and 600 demonstration sites on sustainable rejuvenation will be established as FFS for farming training. About 2,100 lead famers will be trained as commune-level master trainers and

[6] Coffee production in the CHs is very concentrated. While coffee is grown in 56 districts in all of the 5 provinces in the Central Highlands, the top 10 districts account for 51 percent of the total area of plantation, 51 percent of the total area of matured plantation, but 54 percent of the total production in 2012. Four of the districts are located in Lam Dong and Dak Lak provinces each, while 2 remaining districts are in Dak Nong province, forming clusters.

extension co-workers;[7]

(b) Provision of matching grants for coffee demonstration models adopting water saving technologies. About 500 demonstration sites on innovative water saving technologies (e.g. application of drip water saving and fertilization technologies and/ or the use of data on farm electricity usage as a monitoring proxy indicator for water use) will be established. The project would provide matching grants for these demonstration models at 60 percent of total investment cost; [8]

(c) Provision of matching grants for critical missing public (commune-level) infrastructure (i.e. power lines and feeder roads to coffee plantations) and for basic post-harvest processing facilities (e.g. coffee drying fields or storages or drying and berry skin removing machines) on the basis of establishing farmer groups or FO. Matching grants provided by the project are set at 60 and 80 percent of the total investment cost for equipment (goods) and infrastructure (works), respectively.

(d) Provision of support to the establishment, strengthening and operation of about 1,600 smallholder coffee grower clusters for sustainable coffee production and rejuvenation,[9] and about 170 cooperatives (or other types of farmer organizations) to facilitate farmers' cooperative actions and to undertake a broad range of services including coordination of group members in harvesting and marketing produce as well as in purchasing inputs such as seedlings, fertilizers and pesticides. It is expected that about 80 percent of the trained farmers would adopt the improved practices (i.e. 50,000 growers and 55,000 ha).

Sub-component C2: Supporting sustainable coffee rejuvenation/ replanting (est. US$54.6 million)

12. This subcomponent would support long term loans (7-10 years) to coffee growers via BIDV through commercial banks for replanting/ rejuvenating around 10,000 ha consistent with the provincial rejuvenation plan. The project would also provide grant-based technical training to the whole sale banks and PFIs to facilitate their appraisal and disbursement when lending to coffee growers and support private sector nurseries through technical assistance and matching grants to produce high quality seedlings to meet the demands of replanting/ rejuvenation. Below are the key focuses of this subcomponent.

(a) Provision of long term loans to coffee growers through commercial banks for coffee replanting/ rejuvenation. Loans will be at a subsidized interest rate for the initial period (3 – 5 years) while the new trees mature and income is zero, with interest-only

[7] It is proposed that training on sustainable practices, technical training and consultancy, supports to public institutions will be provided to farmers, farmer groups and cooperatives which possess large externality impacts will be provided on the grant basis

[8] On the other hand, the project will fund the material costs under activities which bring both public and private benefits on a matching grant basis such as such establishing on-farm demonstration sites, advanced water saving irrigation technologies, commune-based infrastructure, and the upgrading private nurseries. An exception is the case of the provision of post-harvest processing and managerial training and equipment for cooperatives: the percentage of the project is established at 50 percent.

[9] In average, there will be about 35 smallholder coffee growers (or 40 ha of coffee plantation) per a cluster.

payments, with commercial rates applied once the trees mature and revenues flow. All participating farmers are required to take training under B1 and their replanting/ rejuvenation plans are consistent with the provinces' overall rejuvenation plan approved by MARD. There will be a close coordination between DARDs and PFIs in farmer training, credit appraisal and disbursement to ensure high quality of new plantations;

(b) Provision of free of charge technical training focusing on agronomic techniques to the wholesale bank (BIDV) and PFIs to build their general capacity and facilitate their appraisal and disbursement when lending to coffee farmers; and

(c) Provision of matching grants (50 percent) to support some 60 private nurseries to improve their capacity including production facilities and techniques for producing high quality and certified seedlings to serve replanting/ rejuvenation activities.

Sub-component C3: Improving public services delivery (est. US$1.9 million)

13. This subcomponent would provide support to MARD departments and DARD sub-departments to improve technical and regulatory services to support the implementation of C1 and C2. More specially, this sub-component would focus on:

(a) Improving the province's coffee production master plans and rejuvenation plans to 2020 and toward 2030 and piloting a landscape approach in one or two districts in each participating province. These would be conducted based on the guiding principles of the ARP and the provincial long-term socio-economic planning processes;

(b) Developing and operationalizing an efficient M&E system based on remote sensing and computer-assisted spatial data analysis for coffee production and rejuvenation. Coordination would be made with the State Bank of Vietnam (SBV)'s rejuvenation credit program; and

(c) Enhancing quality and service delivery of MARD/ DARDs in support of farmers' adoption of improved practices such as: (i) nursery quality registration and certification and supervision of seedling quality; (ii) disease surveillance, communication and control; (iii) soil testing, nutrition balance diagnosis, and fertilizer formula advice; (iv) upgrades of public nurseries for the production of first-level coffee seeds and buds under DARD or WASI; and (v) disseminating good practices in sustainable coffee production, rejuvenation and diversification.

Component D: Project Management, Monitoring and Evaluation (US$13.4 million, of which US$9.6 million IDA)

14. This component will focus on project management and M&E. It has two sub-components:

Sub-component D1: Project management (est. US$12.6 million)

15. This sub-component would provide necessary training, equipment, facilities, and

operating costs for the CPMU and DARDs to ensure that the project is implemented in accordance with the Project Operations Manual, including safeguards, financial management and audits, reporting and supervision.

Sub-component D2: Monitoring and evaluation (est. US$0.8 million)

16. This subcomponent would provide necessary training, facilities, and operating costs to establish an M&E system for the project in line with the Aligned Monitoring Tool (AMT) established by Ministry of Planning and Investment (MPI). M&E consultant(s) would be recruited to assist the PPMU and DARDs in setting up and handling M&E activities. Independently technical audits will be conducted annually to assess the adoption of the 3G3R and 1M5R based on the criteria developed for the project.

Arrangements for Managing the Line of Credit

17. Under vnSAT, part of the IDA financing will be on-lent through BIDV (as wholesale bank) to eligible PFIs for financing rice export agribusiness in the Mekong Delta area and farmers investing in coffee rejuvenation in Central Highlands. Wide consultations have been taken place among key stakeholders including MARD, SBV, MoF, BIDV (the proposed wholesale bank) and the commercial banks to design the optimal way of managing the LoC. The following principle factors have been considered over the institutional arrangements:

    (a) The lending product must be attractive to potential financial institutions – this requires that the pass-on interest rate at which they will access the LoC is sufficiently low to allow them to apply a margin to cover cost, risk and acceptable profit.

    (b) The interest rate to be paid by the end-borrower should be sufficiently affordable to farmer households based on the actual cash flow projection for the coffee replantation during first several years when there will be no income.

    (c) The LoC is a response to market failure by providing much needed medium and long term loans for coffee replantation and agribusiness' need to expand their capital investment on fixed asset, the LoC arrangement shall create level playing field by encouraging participating from private sector players i.e. the commercial banks to sustain the long term agriculture financing in Vietnam.

    (d) Government of Vietnam through SBV is launching a subsidy loan scheme to support coffee replantation and rice export agribusiness, this project will demonstrate a model which can create competition and support long term sustainability of mobilizing local resources. SBV and MARD have agreed to coordinate their program with vnSAT.

    (e) The institutional arrangements need to provide efficient oversight of several PFIs and the proper fiduciary management and safeguard arrangement at reasonable cost. While each individual financial institution will take credit risk on individual loan it makes, a wholesale bank will take the overall credit risk on behalf of the government in case of the default from a retail financial institution.

18. Given the relevant factors as set out above, the wholesale facility would provide for an efficient implementation modality. The project would leverage an existing institutional arrangement which has demonstrated success in managing series of Rural Finance Projects in Vietnam. Accordingly, BIDV will be engaged to help MARD, the Project Owner, to manage and monitor the loan activities. The IDA Credit would be made to the GoVN for on-lending to BIDV as the wholesale institution. BIDV would be responsible to accredit the interested PFIs based on the agreed accreditation criteria. BIDV would on-lend the IDA credit to the accredited PFIs in accordance with subsidiary loan agreements signed between BIDV and those PFIs, indicating the obligations of each party and the on-lending terms. The PFIs would in turn extend sub-loans to eligible rice export agribusiness and coffee replanting/ rejuvenation farmers. The advantages of this arrangement are that it is a proven (under the series of Rural Finance Projects), the monitoring of the PFIs and the LoC function is transferred from the overall project owner (i.e. MARD) or MoF to BIDV and it would let the commercial bank to take the credit risk of the PFIs. BIDV would charge an on-lending premium to offset their assumed credit risk and to cover their operating costs. BIDV agrees to charge 1.5 percent spread instead of 2 percent as the case under the Rural Finance Program.

19. BIDV has already established a wholesale unit under the Bank-funded rural finance projects, which is part of the BIDV's core transaction center. This unit has equipped with committed and capable staff and they are the champion by working with potential PFIs in extending credits to coffer farmers and rice export agribusiness and ensure the compliance the IDA's safeguard policies. BIDV will set up an information management system to maintain relevant data to monitor and evaluate progress of the sub-loans made under this Project. The system will track the implementation of ESMF for LoC. The Project monitor and evaluation division will be responsible for consolidation of information from PFIs and will provide progress report to MARD.

Rice

20. The credit line envisaged under Component B of vnSAT would help medium to large rice processing companies to access medium and long term loans in order to expand the production of high-quality rice, mainly for exports and, to a lesser extent, for the domestic market. The credit line would allow banks to access long term funds which would enable them to extend long-term loans to rice processors without risking asset liability mis-matches.

21. Given that most of the existing and incremental cash flow of the companies will be in US$, the credit line could be offered in both currencies (US$ and VND). Since borrowers are for-profit companies who will borrow the sub-loan for revenue generating purpose, the interest rates would be market-based. The loan duration will be based on the long term cash flow needs of the agribusiness. In case of US$ loans, IDA funds would need to be passed on to PFIs at cost and with minimum mark up in order to ensure competitive rates to end-borrowers, and most importantly it should be in line with the long term US$ deposit rate. It is envisaged that several PFIs would be accredited, in order to manage portfolio concentration risk and to enable competition. Detail sub-loan terms and conditions would be determined by the PFI and validated by the wholesale lender.

Disbursements to and repayments from PFIs would mirror those between PFIs and end-borrowers.

22. The main eligibility criterion for the agribusiness to participate in the Project will be the following: the companies' willingness to enter into, or expand, its direct contract from FOs supported under vnSAT. The technical and financial feasibility of the investment proposals would then be assessed by the PFIs which will be free in their decision to accept or reject an application.

Coffee replantation

23. Vietnam's coffee plantations are ageing. Despite uncertainties about the exact numbers, a growing share of coffee trees planted during the 1990s will need to be replanted over the next 5 – 10 years in order to avoid declining productivity. However, coffee replanting poses several challenges to farmers and financial institutions: depending on the replanting strategy, farmers do not receive income during 3 – 4 years from their coffee plantations. Likewise, financial institutions lack sufficient long-term resources to provide the required long-term loans with grace periods to farmers. Coffee replanting is also subject to various risky which require an appropriate combination of financial support and technical assistance to ensure the adoption of improved practices.

24. Loan design has been linked to an established replanting protocol in order to minimize the risk of failure and maximize yields. During the first 3 or 4 years, when there is no income from coffee plantation, in principle, the pass-on rate from MoF to PFIs would be the Cost of IDA funding (currently 2 percent) plus Operating Cost of the wholesales bank and their associated Risk Premium which is 1.5 percent, plus 0.2 percent of MoF's management fee. The PFIs would add a spread of around 4 percent to the end-borrowers to reflect their costs, risks and profit requirements. Rates would be fixed for this period. This is in line with what Vietnam Bank for Agriculture and Rural Development (BARD) charges for coffee replantation as a pilot scheme. Starting from year 4 or 5, when yield is realized a variable pass-on interest rate will be applied. This will be adjustable periodically (i.e. quarterly) based upon criteria that reflect market interest rates. This rate would be calculated by SBV based on the Weighted Average Interest Rate for 3, 6 and 12 months deposits in the banking system in Vietnam from a sample of 24 banks, adjusted for the reserve requirement imposed by SBV. Therefore, the on-lending rate would largely reflect the market deposit rate on a quarterly basis. The PFIs would be free to set their interest rates to the end-borrowers to fully reflect market forces, and their associated costs, risks and profit requirements. Nevertheless, the PFIs would decide their on-lending term reflects the financing needs and cash flow of end-borrowers.

25. The sub-loan maturity can be variable but based on the actual needs of the farmers. However, based on the farm models developed through field observation and financial projection analysis, partially harvesting will only occur starting from the fourth year after the planation, till the sixth year to achieve full harvesting. Accordingly, the PFIs are expected to provide 7 – 9 year term loan to the end-borrowers depending on individual needs. The disbursement and repayment schedules and conditions of between BIDV and the PFIs should mirror those between the PFIs and the end-borrowers. Depending on the replanting model and the level of non-coffee income source of the farmer, a grace period

would typically be required for the loan principal. Similarly, the component interest rates throughout the LoC mechanisms were appropriately designed such that the aggregate pass-on rate properly reflected the repayment profile of the end borrowers.

26. The Credit Management Department from SBV who is responsible for designing the government's program is on board with the Bank's approach to leverage their much bigger program to ensure consistent approach and to improve their technical capacity by providing agriculture financing policy making for long term sustainability.

Associated Technical Assistance

27. Technical assistance, trainings and study tour will be offered to the staff from the Credit Management Department of SBV regarding how to set up policy intervention for a sustainable agriculture financing program. Relevant TA and training will also be offered to the PFIs with limited experience in financing the envisaged types and sized of investments will be provided under this Project. This would allow banks to train their staff and hire expertise to prepare and assess investment plans and structure long term loans accordingly. A successful financing scheme for coffee replanting requires a supervised credit approach based on a close collaboration between financial institutions, extension workers and input suppliers. Loans would be disbursed in tranches throughout the replanting cycle against evidence that good agronomic practices are being followed. Accordingly, training will be provided to BIDV and PFIs by MARD TA or technical staff in this regard.

Annex 3: Implementation Arrangements

VIETNAM: Sustainable Agriculture Transformation Project

A. Project Institutional and Implementation Arrangements

Implementing Agencies

1. The project will be implemented in thirteen provinces: Kien Giang, An Giang, Tien Giang, Hau Giang, Dong Thap, Can Tho, Soc Trang, and Long An (Mekong Delta Region), and Lam Dong, Dak Lak, Dak Nong, Gia Lai, and Kon Tum (Central Highlands Region). The project implementing agencies will be MARD and the Provincial People's Committees (PPCs) of the thirteen project provinces.

2. **The Ministry of Agriculture and Rural Development** is the central Line Agency responsible for overall project implementation. MARD is responsible for: (a) approving the general investment plan of the entire project including subsequent reallocations, and delegating to the Project Provinces to approve annual work plans and budgets for their provinces; (b) reporting to the government on implementation progress and effectiveness; and (c) coordinating with concerned ministries, such as the Ministries of Finance and Planning and Investment, and the SBV to process necessary legal amendments or project restructuring to facilitate project implementation, enhance disbursement, and improve the efficiency of the use of IDA funds.

3. **The Central Project Management Unit,** established within MARD, is the key project agency at the central level, responsible for coordinating implementation of project components and activities across provinces, including project supervision and results monitoring and evaluation. Specific responsibilities of the CPMU include, but are not limited to, the following: (a) coordinating technical guidance among MARD departments to support DoP and DARDs in project implementation and management; (b) developing and maintaining a sound overall project accounting system in accordance with the procedures required by government and IDA; (c) handling FM for the activities implemented by DoP and CH project provinces through its DA opened at the CPMU; (d) handling all ICB packages and the selection of international consultants, as well as all other procurement matters for which central management is more efficient compared to provincial level management; (e) monitoring the quality of implementation, safeguards compliance, and project impact to report to MARD and IDA; and (f) preparing proposals for project restructuring and legal amendments, when necessary, for submission to government and IDA.

4. **The Department of Planning of MARD** will be responsible for the implementation of Component A since they have been assigned the responsibility to lead implementation of the ARP within MARD. The CPMU will provide necessary technical support to DoP, when required, in handling procurement and disbursements of this component. A Working Group has been established under the chairmanship of the MARD Vice-Minister and will function as a coordinating body and will guide the use of project resources under Component A for the implementation of the ARP across MARD.

5. **The Provincial People's Committee** is responsible for project implementation in the respective provinces. The PCC is responsible for: (a) approving the annual work plans and budgets for the province; (b) reporting to the government/MARD on implementation progress and effectiveness; and (c) providing necessary support to the DARD to facilitate project implementation, enhance disbursement, and improve efficiency in the use of IDA funds.

6. **The Department of Agriculture and Rural Development** is the key project implementing agency at the provincial level, responsible for overall implementation of all project activities, including procurement, financial management and disbursement for the activities implemented in the province, as well as results monitoring and evaluation.

7. **The Provincial Project Management Unit (PPMU)** established under the DARD is responsible for assisting DARD in: (a) preparing annual work plans, financial plans, procurement plans, disbursement plans, and other project reports required by government and IDA; (b) handling procurement activities that have been decentralized to the province and preparing evaluation reports for submission to concerned agencies for approval; (c) preparing and submitting evaluation reports for approval; (d) maintaining a sound project accounting system in accordance with the procedures required by the government and IDA; (e) monitoring the quality of implementation and safeguards compliance in the province; and (f) coordinating with Project Districts and Communes to carry out planned activities. DARD Director will ensure the necessary mobilization of human and financial resources from its technical sub-departments, divisions, and centres and the additional recruitment of contracted staff, when necessary, to support project implementation and manage the quality of project implementation.

8. **Farmer Organizations (and its members)** will be formed on a voluntary basis through the facilitation of the project to implement the improved agronomic techniques for rice and coffee under Component B and Component C.

9. **The Wholesale Bank and Participating Financial Institutions,** selected by SBV in consultation with the Bank, will manage the Lines of Credit to provide commercial loans for: (a) agribusiness investments in increased capacity to source and process paddy from project farmers through contract farming (Component B); and (b) investment costs of coffee replanting/ rejuvenation among small-holder farmers (Component C). BIDV has been selected to be the wholesale Bank and it would be responsible to select and accredit the interested PFIs based on the agreed accreditation criteria. The IDA Credit would be lent to BIDV then it would be on-lent to the accredited PFIs in accordance with the subsidiary loan agreements between BIDV and the PFIs. The PFIs would in turn extend sub-loans to eligible rice export agribusinesses and coffee replantation farmers.

Technical, Advisory and Supporting Agencies

10. **The International Cooperation Department (ICD) in MARD** will assist in coordinating with other Government ministries and with donors and report to the MARD Minister or Vice Minister on important matters (e.g., legal amendments).

11. **The Departments of Crop, Plant Protection, Cooperatives and Rural Development,**

Agricultural Planning, IPSARD, WASI and other technical agencies of MARD will be available to assist the CPMU and DARDs in implementing technical matters related to sustainable rice- and coffee-based systems including coffee rejuvenation according to their technical and management mandate assigned by MARD.

12. **The Agricultural Project Management Board** is one of the project owners to which the CPMU will directly report to. The APMB will directly support the CPMU related to internal procedures and liaise with MARD and concerned ministries to help the CPMU address problems in project implementation.

13. **Sub-Departments of Crop, Plant Protection, Cooperatives and Rural Development, Agricultural Planning, and other technical agencies of DARD** will be available to assist DARD in implementing technical matters according to their technical and management mandate assigned by DARD.

14. **The Department of Natural Resources and Environment (DONRE)** will be available to assist the DARD in implementing activities related to environmental planning, monitoring, supervision, and management according to their technical and management mandate assigned by the PPC

15. **Local governments, consisting of District and Commune People's Committees of the Project Districts and Communes**, will be available to assist the DARD in implementing and monitoring project activities in their locations according to their administrative and management functions.

16. **International Rice Research Institute.** The project will procure technical services from the IRRI on the basis of the SSS procedures to support the CPMU and project provinces in implementing Component B.

B. Financial Management, Disbursements and Procurement

Financial Management

17. An FM Assessment has been conducted for the project implementing agencies (i.e. CPMU, project provinces, and PFIs). The following key risks were identified: (a) new project provinces (i.e. Hau Giang, Kon Tum, Dak Nong) may not be familiar with Bank FM requirements; (b) project design adopts full decentralization and autonomy to the project provinces, which would require greater capacity and accountability on the part of the provinces in monitoring fund flows and in meeting the financial reporting requirements; and (c) successful project implementation requires strong linkages among project components and good management and coordination between MARD, DARDs, and PFIs. The FM risk is rated 'substantial'.

18. The principal risk mitigation measures include: (a) acceptable FM staffing to be appointed at all implementing agencies (priority should be given to the staff that have experience in FM from Bank-financed projects, such as ACP and Rural Finance) and provided with training on Bank FM requirements and disbursement procedures; (b) a project FM Manual to be developed as part of the POM, describing in detail the roles and responsibilities of the concerned parties, as well as specifying the project FM procedures and regulations; (c)

an upgraded accounting software to be installed for the project and training to be provided to all accounting staff; and (d) an internal audit team to be established with the TOR acceptable to the Bank to build the capacity of internal audit for the project..

19. **Budgeting and counterpart funding arrangement.** Central and provincial levels will provide commitments to ensure that counterpart funds are available for project implementation and subsequent operation. The counterpart funds will be made available for the implementing agencies through the State Treasury system. Budgeting procedures, including the roles and responsibilities of each concerned party within MARD and DARD will be described in the FM Manual.

20. **Accounting system.** A consistent accounting system, based on the accounting policies and procedures under the Accounting System for Investment Owner (Decision 195 of the Ministry of Finance) will be applied. The chart of account will be modified when necessary to meet Bank FM requirements. Accounting records will be maintained in a computerized accounting system.

21. **Accounting software.** The CPMU would evaluate and select the most suitable computerized accounting software that is being used by other agricultural projects under APMB to modify (or upgrade) and use for vnSAT. The same software would be installed at all implementing agencies followed by FM staff training to ensure consistency in project accounting and reporting, and allow the CPMU to consolidate the project's financial reports more easily.

22. **Financial reporting.** The CPMU will consolidate the Semi-annual Interim Financial Reports (IFRs) prepared by the CPMU, DoP, and DARDs for monitoring of financial performance of the project in a format agreed between the representative of the GoVN and the Bank. IFRs will be based on the AMT, which is regulated under MPI Decision, and will be sent to the Bank within 45 days of the end of the semester. The CPMU will prepare consolidated annual financial statements covering all project components and activities.

23. **Internal Controls and Internal Auditing**. Internal control procedures will be established in the Project FM Manual which will be reviewed and updated regularly to take into account changes in procedures. An Internal Audit function will be established under APMB and an internal audit team will be formed at both central and local levels and they will be trained and developed capacity for conducting internal audit following an the ToR acceptable to the Bank. Internal audit reports will be prepared on semi-annual basis and submitted to the Bank twice a year, by March 31 and September 30 of each year.

24. **External Audit**. The CPMU will appoint independent auditors acceptable to the Bank. The Project financial statements will be audited annually in accordance with International Standards on Auditing and terms of reference acceptable to the Bank. The auditors' reports will be made available to the Bank within six months of the close of each fiscal year. The Project's audited financial statements will be made available to the public according to the Bank's information disclosure policy.

25. **Measures to address fraud and corruption.** The implementing agencies will implement

strict contract management to avoid overpayment/overrunning contract budgetary allocations. The contract management will be part of IFRs. The following will be carried out to mitigate the risks of fraud and corruption: (a) clear FM responsibilities in the FM Manual; (b) internal and external audits; and (c) enhanced disclosure and transparency of financial information.

Disbursements

26. **Designated Accounts.** Ten (10) Segregated DAs – one at the CPMU to cover CPMU, DoP, and five central highland provinces, one for the wholesale Bank and PFIs, and one for each of the eight project province in MKD – will be opened in US Dollars (US$) at commercial banks under terms and conditions satisfactory to IDA. The DAs will have a Fixed Ceiling of US$2,000,000 for each project province in the MKD, US$8,000,000 for the CPMU, and US$10,000,000 for the wholesale bank. The DoP and each project province in the CH will open a Sub-project account to receive funds advance (in US$) from the CPMU which is equivalent to six months of the planned activities.

27. **Funds Flow Arrangements.** The Project will use the following disbursement methods as stipulated in the Disbursement Letter: advance, reimbursement, special commitment and direct payment. The CPMU, DARDs and BIDV will report to the Bank on the operation of the DAs on a quarterly basis. Reporting on the use of Advances and requests Reimbursement would be documented based on the Statements of Expenditures (SOEs) and a List of payments against contracts that are subject to the Bank's prior review, together with Records. Replenishment applications will be submitted quarterly or when the account is drawn by 50 percent of the authorized allocation, whichever occurs first. The Minimum Application Size for Reimbursement, Special Commitment and Direct Payments will be specified in the Disbursement Letter.

28. The Project will have a Disbursement Deadline Date (final date on which the Bank will accept applications for withdrawal from the borrower or documentation on the use of credit proceeds already advanced by the Bank) four months after the Closing Date. This "Grace Period" is granted in order to permit the orderly project completion and closure of the Credit Account via the submission of applications and supporting documentation for expenditures incurred on or before the Closing Date. Expenditures incurred between the Closing Date and the Disbursement Deadline Date are not eligible for disbursement. Table 1, below provides the allocations and disbursement percentages for the different disbursement categories.

Table 1: Allocation of the IDA Credit

Category	Amount of IDA Financing Allocated (expressed in US$)	Amount of the Financing Allocated (expressed in SDR)
(1) Goods (including vehicles) and Works, Non-consulting services, Consultants' services, Incremental operating costs, and Training and Workshops and Grants	138,000,000	95,627,000 (IDA 100%)
(2) On-lending Loan, Subsidiary Loans, Sub-Loans	100,000,000	75,495,000 (IDA 100%)
TOTAL AMOUNT	238,000,000	171,200,000

Procurement

29. **Procurement Capacity and Risk Assessment**. A PCRA of the project implementing agencies - the CPMU and DARDs - was undertaken by the Bank in September 2014. The CPMU and some DARDs are familiar with the Bank's procurement procedures (those have participated in the ACP), but many of them do not have much experience in procurement of large goods contracts, as well as consulting contracts. The procurement risk is rated "Substantial".

30. Risks identified by the PCRA are:

- Slow or delayed government internal procurement approval process (e.g. for sub-project FS including design and cost estimation, procurement plan, etc.);
- Inadequate procurement experience of the project implementing agencies in the new provinces;
- the possibly slow or delayed government internal procurement approval process (e.g. for bidding documents, bids evaluation appraisal, contract award, etc.); and
- Possible non-compliance, collusion, misrepresentation of qualifications etc.

31. The following measures will be taken to address the above risks:

Table 2: Procurement Risk Mitigation Measures

	Actions	Responsibility	Time frame
1	Assign at least 2 procurement staff having qualifications and experience acceptable to the Bank.	PIAs	Early stage of implementation
2	Prepare, finalize, and adopt a project POM, including a detailed procurement section (clear rules, procedures and division of responsibilities, timeline requirements for procurement activities, actions and decisions, sample documents and evaluation report for small procurements, an effective complaint handling mechanism, full decentralization and empowerment to the CPMU/ PPMUs, as well as a code of conduct).	PIAs	Approved prior to negotiations
3	Provide initial and repeated procurement training to all procurement staff.	Bank/CPMU	Throughout implementation
4	Commit and sign a code of conduct	PIAs staff	Upon recruitment to PIA
5	Carry out regular implementation support missions and annual procurement post review.	Bank/PIAs	Implementation

32. After successful implementation of the above measures, the residual procurement risk is rated 'Moderate'.

33. **Applicable Procurement Procedures**. For contracts financed in whole or in part by the IDA Credit under the Project, procurement shall be carried out in accordance with the World Bank's "*Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*" dated January 2011 and revised July 2014; and "*Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*" dated January 2011 and revised July 2014; and the provisions stipulated in the Financing Agreement.

34. **Procurement Arrangements.** Procurement activities under the project will be undertaken by the project implementing agencies, including the CPMU and DARDs. The CPMU will carry out procurement activities at the central level (excluding procurement under Component A which will be implemented by DoP), all ICB goods/ works and Quality and cost based Selection (QCBS) packages. Procurement activities decentralized to the project provinces will be implemented by DARDs through the PPMUs. The CPMU will have responsibility to provide guidance and support to the DoP and DARDs in handling the procurement activities in the provinces. Detailed procurement arrangements are presented in the POM.

35. *Matching Grants under Sub-Components B1 and C1***.** These sub-components will support the adoption of sustainable farming practices through providing FOs and cooperatives

with matching grants (i.e. up to 60 percent of total costs for goods and equipment and 80% for infrastructure) to co-finance their collective equipment and infrastructure. Procurement of eligible goods and equipment for FOs and cooperatives will be carried out by themselves using the commercial practices applicable to the private sector. Procurement of eligible works for FOs to be financed by the project will be procured by the DARDs through PPMUs. The procurement practice for each activity will be specified in the FO's investment plan which will be reviewed by the PPMUs and approved by the DARDs. Detailed are presented in the POM.

36. *Loans under Sub-Components B2 and C2*. Under these sub-components, loans will be provided through commercial banks to rice agribusinesses for upgrading their processing facilities and famers for coffee rejuvenation. The beneficiary will handle their procurement at their own way. No specific procurement guidelines from the project will be applied.

37. **Procurement Plan**: The draft Procurement Plan for the first 18 months of implementation, available as a separate project documents, are being prepared by the PIAs and will be approved by MARD before negotiations. The Procurement Plans will be updated annually or as needed by the PIAs to: (a) reflect project implementation; (b) accommodate changes that should be made; and (c) add new packages necessary for the project. The procurement plan and each subsequent update will be subject to Bank prior review. Procurement Plans will be published in the World Bank's external website in accordance with the Bank Guidelines as well as in the Government's Public Procurement Review newspaper.

Table 3: Summary of Initial 18 months Procurement Plan

Ref. No	Description	Estimated Cost US$ (million)	No. of Packages	Review by the Bank (Prior/Post)	Comments (Prior Review Contract)
1	Summary of the NCB (Works) packages	2.61	12	Prior/Post	prior-review the first 2 or 1 contract(s) depending on the PPMU's capacity
2	Summary of the ICB (Goods) packages	0	0	NA	
3	Summary of the NCB (Goods) packages	4.50	25	Prior/Post	prior-review the first 2 or 1 contract(s) depending on the PPMU's capacity
4	Summary of the Shopping contracts (Non-consulting services)	1.06	18	Post	
5	Summary of number of contract ≥US$0.3m that will be let under QCBS/ QBS	1.40	1	Prior	
6	Summary of number of contracts <US$0.3m that will be let under CQS	3.57	36	Prior/Post	prior-review the first 2 or 1 contract(s) depending on the PPMU's capacity
7	Summary of Individual Consultant Contracts	4.57	52	Post	
	Total	19.47	155	Prior/Post	prior-review the first 2 or 1 contract(s) depending on the PPMU's capacity

38. **Procurement Supervision and Post-review.** Contracts not subject to prior review will be subject to post-review as per procedures set forth in paragraph 5 of Appendix 1 of the Procurement Guidelines and Consultant Guidelines. The rate of post review will initially be 20 percent. This rate will be adjusted periodically based on procurement performance. The CPMU and the DARDs will send to the Bank, on a bi-annual basis, a list of all awarded contracts for goods, works and consultants' services that are subject to post-review.

39. **Procurement thresholds and Bank's Prior Review.** The thresholds for procurement methods and Bank prior review are presented in Table 4, below.

Table 4: Procurement Method and Prior Review Thresholds

Category	Procurement Method Thresholds		Prior Review Thresholds	
	Applicable thresholds (in US$ million)	**Remarks**	**Applicable thresholds (in US$ million)**	**Remarks**
Works				
ICB	≥ US$20 m		All ICB contracts	
NCB	< US$20 m		First maximum 2 NCB contracts for each CPMU / DARD > US$15 m	
Shopping	< US$0.2 m		None	
Goods				
ICB	≥ US$3 m		All contracts	
NCB	< US$3 m	Where goods are not normally available from within Vietnam, the method of procurement will be ICB even if the contract value is less than US$3 m.	First maximum 2 NCB contracts for each CPMU / DARD	
Shopping	< US$0.1 m		None	
Consultant Services				
CQS	< US$0.3 m	Para 3.7 of Consultant Guidelines. Other methods (QCBS, QBS, LCS) may also be applied for contracts below US$0.3 m.	Firms: ≥ US$0.3 m (for competitive selection) plus the first contract for each method (QCBS, QBS, LCS, CQS) regardless of value. SSS: All SSS contracts. All Audit contracts Individuals: for essential assignments (procurement consultant, accountant…).	Essential individual assignments will be defined in the Procurement Plan

40. **International Rice Research Institute:** The 3G3R and 1M5R rice farming models promoted under the project were developed by IRRI scientists through its collaboration programs with MARD over the past years. During the project implementation of ACP in the MKD, IRRI provided excellent technical assistance to MARD and project provinces in implementing farmer training, site demonstration, and experimental pilots. Therefore, the vnSAT will continue to engage IRRI on the SSS basis to provide technical support to the CPMU and project provinces in implementing Component B if no other qualified firms could provide such services.

Environmental (including safeguards)

41. The Project triggers three environmental safeguard policies, namely Environmental Assessment (OP 4.01), Pest Management (OP 4.09), and Physical Cultural Resources (OP 4.11).

42. The project is assigned an Environment Category B as its negative environmental and social impacts are assessed to be limited, localized and manageable. The key potential negative socio-environmental impacts include: (a) improper use and management of agro-chemicals in agricultural production; (b) ineffective management and improper treatment of agricultural wastes and by-products; and (c) civil works impacts (i.e., increased localized level of dust, noise, disturbance to traffic and community, safety risks, water pollution risks) during the construction of new infrastructure or rehabilitation (i.e., construction of rice storages, processing facilities, feeder roads, etc.). These impacts are assessed to be temporary and localized in nature and can be avoided or minimized by proper mitigation measures.

43. Two ESMFs have been prepared: one by MARD for direct project financing and one by BIDV for financing through PFIs. These ESMFs are part of the project feasibility study. They have been prepared in accordance with the country's environmental regulations and requirements of the World Bank OP/BP 4.01. The ESMFs ensure that activities financed under the Project would not create adverse impacts on the local environment and local communities, and the residual and/or unavoidable impacts will be adequately mitigated. The frameworks provide guidelines for: (a) safeguard screening to exclude sub-projects that have large scale negative or irreversible impact; (b) impacts assessment and preparation and implementation of mitigation measures, including EMP for complex sub-projects or ECOP for simple, small scale sub-projects. The sub-project EMP or ECOP will be included in the bidding and contract documents and will be monitored by supervision engineers; (c) preparation of the TOR to include the analysis of potential environmental and social issues and recommendations to address the identified issues in the policy studies that are supported by the project; (d) safeguard documentation preparation and clearance; (e) safeguard implementation, supervision, monitoring, and reporting.

44. The CPMU and BIDV are responsible for overall implementation of the ESMFs for direct project financing and for LoC respectively. Each implementing agency (i.e. CPMU, BIDV, DARDs, PFIs, etc.) will appoint an Environment Safeguard Officer. The project will provide training to build capacity of the CPMU, DARDs, BIDV, PFIs, DONREs as well as contractors and construction supervision consultants on environmental safeguards and implementation of the ESMFs and related monitoring activities. Training would be conducted by the Bank Safeguard staff and/ or its consultants within the first six months of project implementation and it will be refreshed annually in the following years. Regular reporting on safeguard compliance will be carried out by the CPMU and BIDV and it will be monitored by the Bank through its Implementation Support Missions. Information on safeguard implementation will be inputted in to the project information management system (MIS).

45. For the project direct financing activities, during project implementation the following

steps will be taken by DARDs: (a) environmental screening; (b) determining an EMP or ECOP is required for each sub-project; (c) preparing required safeguard documents for approval by DONRE for EMPs, or by District People's Committee for ECOPs, followed by public disclosure; (d) incorporating mitigation measures into bidding documents, construction and supervision contracts; and (e) monitoring the implementation of the EMP or ECOP together with construction supervision consultant. For policy studies under Component A and technical assistance related to sectoral planning and coffee rejuvenation planning, the CPMU will be responsible for preparing the TOR to include the analysis of potential environmental and social impacts to address them appropriately in the proposed policies. Regarding loans to agribusinesses and farmers by PFIs, BIDV is responsible for ensuring safeguard compliance of the loans as guided by the ESMF for LoC. The BIDV environmental management team, which serves under the RF3, is responsible for implementation of the ESMF for LoC. Reporting on the safeguard implementation and compliance will be conducted by BIDV in coordination with PFIs and will be monitored by the Bank.

46. **Pest Management**. The project will not finance the procurement of agrochemicals, pesticides, and herbicides. In contrast, the project is designed to promote the reduction in chemical and pesticide uses by promoting sustainable farming practices on farm and farmer organization basis. The project will follow existing MARD/ IRRI's IPM packages which were introduced to the MKD from 1997-2003, and the follow on programs of 3G3R from 2003-2009, and 1M5R from 2009-2014. The ESMF includes a detailed description annex on the national Integrated Pest Management to be adopted by the project to comply with the Bank's OP 4.09.

47. **Physical Cultural Resources**. This policy is triggered as a precaution. A "chance finds" clause is included in the ESMFs and ECOPs will be included in construction contracts.

Social (including Safeguards)

48. Two Bank social safeguards policies (OP. 4.10 and OP 4.12) are triggered under this project. The project's negative social impact is limited to small-scale acquisition of land for construction of small-scale infrastructure financed by the project (i.e., feeder roads, on-farm water supply canals, collective pumping stations, rice storages, etc.). In some specific areas where ethnic minorities (EM) are present (i.e., all project provinces in the Central Highlands and Soc Trang province in the MKD), the project's land acquisition may affect local ethnic minority households.

49. During project preparation, the DARDs have evaluated and excluded all investment proposals that may cause large-scale (or irreversible) social and environment impacts. A Social Assessment (SA) for the whole project has been prepared by MARD through a review of the relevant SAs recently prepared for similar Bank-financed projects in the same regions (i.e. the Central Highland Poverty Reduction Project and the Agriculture Competitiveness Project). The SA analysis informs the overall social impact and provides the basis for identifying mitigation measures and preparing RPF and EMPF in accordance to Bank safeguard requirements. The former provides guidelines to (i) ensure the benefits provided by the project are culturally appropriate to local EMs; and (ii) minimize and mitigate potentially adverse effects on local EMs. The latter lays down the principles and

objectives of project compensation, eligibility criteria, entitlements, approval procedures, participation features and grievance procedures. These frameworks will also include provisions/ guidance for (i) the analysis of potential environmental and social issues associated with policy studies and technical assistance activities under Component A; and (ii) all safeguards aspects associated to activities supporting private sector investments are treated in accordance to the Bank OP 4.03 on Performance Standard for Private Sector Activities.

50. Preparation of RPs and EMDPs for sub-projects is not applicable at this stage as all specific sites at local levels including associated technical parameters are only tentatively planned now and they are subject to changes during implementation. The project investments are truly demand-driven, based on continuous consultation with local communities and their participation is on a voluntary basis. When project implementation begins, DARDs will verify and confirm again all the demands from local beneficiaries then include them in their provincial annual work plans. At that stage when specific investments in a location for a specific community has been confirmed, a RP and/ or EMDP will be prepared and sent to the Bank for review prior to implementation. There are no plans for construction of infrastructure sub-projects and land acquisition taking place in the first year of implementation.

51. The CPMU is responsible for the overall implementation of all social safeguards policies under the project. However, most of the work related to social safeguards will take place at local levels and will be handled by the DARDs. The main role of the CPMU during project implementation will be to provide necessary training and technical assistance to the DARDs and ensure that the DARDs are aware of the required social safeguards and know how to implement them appropriately.

52. **Public Consultation and Disclosure**. Extensive consultations were carried out with the affected communities during project preparation and the preparation of the project's environmental and social safeguard frameworks. The ESMFs, the RPF, and the EMPF have been disclosed locally in the project provinces (in Vietnamese), at Vietnam Development Center (VIDC) in Hanoi, and through the Bank's Infoshop in Washington, DC. Any safeguard instruments (RP, EMDP and EMP) prepared during project implementation will also be subject to public disclosure per the Bank's requirements.

Monitoring and Evaluation

53. The project will develop a dedicated M&E system for tracking project inputs, activities, outputs and impacts across all components (including safeguards) in all project districts. The overall M&E system will be implemented by the CPMU. However, the DARDs, BIDV and PFIs will have an important role in inputting to the project's MIS on a web-based platform what will be developed early during project implementation.

54. **Aligned Monitoring Tool**. Monitoring and evaluation arrangements for the project would be established in line with the AMT established by MPI.

55. Regarding M&E for Component A, data would be collected from DoP's progress reports. Perceptions surveys and performance scorecards will also be carried out periodically to

measure the Component's outcome indicator. For Components B and C, data would be collected through existing networks of DARDs, district and commune extension officers, farmer organizations to be established and facilitated under the project, and from the annual Independent Technical Audits. For GHG monitoring in rice production systems (Component B), the project will build on the previous work initiated under the ACP which was implemented by CTU. The project will also explore opportunities to collaborate with other development partners working in the country (i.e. Environmental Defend Fund, SNV, etc.) to complete a baseline of GHG emissions for the rice sector through expanding the coverage of GHG emission measurements in all main ecological zones of the MKD and in other regions for onward submission to the UNFCCC for approval. This will help provide the basis for the future access to Global Carbon Funds. Costs of establishing and implementing the project M&E have been estimated and are included in project costs.

56. **Capacity Building for M&E**: In the CPMU and in each of the DARDs of the project provinces, at least one M&E staff would be appointed to consolidate information from the components, procurement, financial management, and environmental and social safeguards and prepare quarterly reports that would be disseminated and discussed among key stakeholders at the central and provincial levels. M&E consultants would also be recruited to assist the CPMU and DARDs in setting up and handling M&E activities in accordance with Decision 803/2007/QD-BKH of MPI, dated 30 July, 2007. The project would also provide necessary training for the CPMU and DARDs' M&E staff to ensure that data collection, analysis, and reporting will be carried out in accordance with the RF in Annex 1.

57. **Reports and Reviews**: The M&E reports will be prepared, updated and submitted to the Bank semi-annually as part of the semi- and annual progress reports. During implementation, the project's result indicators will be monitored, reviewed, and fine-tuned, if necessary through project restructuring. A mid-Term Review mission will assess progress in achieving the PDO. An Implementation Completion Report (ICR) will be prepared by the government and by the Bank team within six months after the project closes to assess the project's achievements.

Governance and Anti-Corruption

58. The project has developed a Governance and Transparency Action Plan (GTAP) that addresses the general governance environment in Vietnam, as well as the risks associated with the institutional reform activities, and the rice and coffee sectors. The GTAP conforms to the overall priorities of the country's governance agenda and delineates the measures to be implemented and monitored throughout the project cycle. The GTAP draws on: (a) anti-corruption measures developed under previous World Bank-financed projects; and (b) the findings of the 2009 review of progress in implementing the Government's Anti-Corruption Law in the construction sector in Vietnam. It also properly reflects local capacity for implementation.

59. The GTAP, which is presented in the POM, consists principally of two parts: (a) awareness raising and capacity building; and (b) transparency and disclosure measures. Specific activities include the preparation of a governance and transparency training manual; the implementation of corresponding training sessions; and periodic disclosure of

key project related information in relevant public media.

60. Other governance and corruption mitigation measures adhere to the specific principles and actions already set out in relevant World Bank policies and guidelines for procurement, financial management and disclosure, as appropriate.

Annex 4: Operational Risk Assessment Framework (ORAF)

Vietnam: Sustainable Agriculture Transformation Project (P145055)

Stage: Appraisal

Risks

1. Project Stakeholder Risks

1.1 Stakeholder Risk	Rating	Substantial				
Risk Description: (1) Rice sector agribusinesses are unwilling to borrow for investment purposes due to the perception of high interest rates, concerns over returns, and/or concerns about their ability to source quality raw materials. (2) Farmer associations for rice production and contracting fail to act effectively, resulting in non-performance and significant side-selling against contracts with agribusinesses. (3) The extent of risk aversion of small-holder coffee farmers is underestimated such that they continue to ignore incentives for investing in/ benefiting from improved practices.	**Risk Management:** Round-table meetings, company interviews, and the completed survey that assessed the demand for medium-long term finance and interest rate sensitivity.					
	Resp: Client	Status: In Progress	Stage: Both	Recurrent:	Due Date: N/A	Frequency:
	Risk Management: The development of localized public-private partnerships involving the agribusinesses, DARDs and farmer organizations which will address constraints/uncertainties related to quality production and company sourcing.					
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: N/A	Frequency:
	Risk Management: Farmer associations to be selected based upon evidence or potential for cohesive operation: Initial schemes will involve well-established groups or cooperatives, while later groups will be supported/ trained prior to entry into contracts with agribusinesses.					
	Resp: Client	Status: In Progress	Stage: Both	Recurrent:	Due Date: N/A	Frequency:

2. Operating Environment Risks

<table>
<tr><td>2.1 Country</td><td>Rating</td><td colspan="6">Substantial</td></tr>
<tr><td rowspan="11">Risk Description:

Contagion from the Global Economy: The global economy is passing through a period of considerable uncertainty. As Vietnam is highly integrated with the rest of the world, it is significantly exposed to contagion from external shocks. A global recession or a period of prolonged growth slowdown could significantly affect Vietnam’s growth.

Macroeconomic instability: Vietnam has experienced increased macroeconomic instability during the past five years - fueled by external shocks and rooted in structural distortions in the economy, notably a large, overleveraged and inefficient state-owned enterprise sector and declining quality of loan portfolios in the banking sector. Since February 2011, Government has been implementing a strong stabilization program which is yielding positive results. Government has also begun to accelerate reforms in the SOE and financial sectors. But it will take time to fully address these structural roots of macroeconomic instability. A growth slowdown is likely to increase pressure on Government to abandon its stabilization effort.

Political Risks: There is a risk of social instability from slower growth, and from</td><td colspan="7">Risk Management:

Continued dialogue and technical assistance to government to improve domestic policy environment and in particular build strong cushions against economic shocks. Areas of focus include macroeconomic policy, public financial management and debt Management.</td></tr>
<tr><td>Resp: Bank</td><td>Status: In Progress</td><td>Stage: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency:</td></tr>
<tr><td colspan="6">Risk Management:

Intensified dialogue with the Government and close collaboration with the IMF will continue. Regular monitoring and analysis of macroeconomic and financial indicators, including DSA, will remain a core part of our engagement. Support for acceleration of reforms in public investment, SOE and financial sector will be provided through an FSAP, through TA and new policy operations.</td></tr>
<tr><td>Resp: Both</td><td>Status: In Progress</td><td>Stage: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency:</td></tr>
<tr><td colspan="6">Risk Management:

Close monitoring of domestic and regional political stability; enhanced TA for addressing social safeguards issues, in particular those related to land management and involuntary resettlement.</td></tr>
<tr><td>Resp: Bank</td><td>Status: In Progress</td><td>Stage: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency:</td></tr>
<tr><td colspan="6">Risk Management:

Strengthened support to implementation of the Government’s Anti-Corruption Strategy enhanced TA and dialogue around transparency.</td></tr>
<tr><td>Resp: Both</td><td>Status: In Progress</td><td>Stage: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency:</td></tr>
<tr><td colspan="6">Risk Management:

The Bank continues to support the Government in improving the performance of public procurement system through IDFs for strengthening procurement audit capacity, updating the assessment of procurement legal framework and assessing the e-GP system. Action plans have been developed to strengthen the financial management arrangements for the project and to help further reduce the risk of fraud and corruption. This is achieved through having: (a) clear FM responsibilities with avoidance of</td></tr>
</table>

reduced access to land of poorer Vietnamese in the wake of rapid urbanization. The Government is working on various measures to address this. Systemic Fraud and Corruption: A relatively good legal framework on anti-corruption is in place (e.g., Law on Anti-corruption, National Strategy on Anti-Corruption until 2020, Law on Procurement), but implementation is lagging. Conflicts of interest are widespread, and oversight institutions (e.g., Judiciary, National Assembly, and State Audit) are not fully independent from the executive. Fiduciary Management: The public procurement legal framework continues to have some key shortcomings compared to internationally accepted standards and acknowledged good practices for public procurement. On the implementation side procurement is highly decentralized; however, most of the implementing agencies lack the necessary capacity. A particular risk under Bank financed projects is the practice by project agencies of following national procurement procedures in parallel with Bank procedures. This leads to procurement delays, irregularities and noncompliance. Low financial management capacity, particularly at sub-national level, can lead to project internal control weakness and	gaps and overlaps and segregation of duties has been included in the FM Manual; (b) enhanced disclosure and transparency of financial information by publishing project and entity financial statements; (c) internal audit and inspection by MARD and Provincial People's Committees for components implemented in their local areas (country system); and (d) authorization of Expenditures Verification Agencies (Provincial State Treasuries) will be obtained before any payment is made.

Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:
Both	In Progress	Both		N/A	

Risk Management:

The Bank will continue to work with Government to further improve the public financial management systems. For this particular project, the number of contracts would be limited, which would streamline the financial management arrangements.

Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:
Bank	Not Yet Due	Implementation		N/A	

poor quality of reporting. Disbursement is impacted by delays in counterpart funds and approvals. Financial reporting and oversight mechanisms (Internal & external audit) are below international level for both the public and corporate sectors.						
2.2 Sector and Multi-Sector	Rating	Moderate				
Risk Description: MARD has embarked on a strategy of agricultural restructuring. This initiative will likely involve some shifts in the roles of government and stakeholders, encouragement of PPPs, as well as institutional reforms and measures to realize higher returns from better prioritized public expenditures within the sector. Since the project is directly supporting implementation of the ARP, the risks are largely internalized within the project. However, important residual risks remain at the sector level, and beyond. These include risks associated with other sectors (e.g. financial sector) referred to above. A key element of the sector context is the commitment of the Minister in seeking to implement the reform embodied in the ARP	**Risk Management:** The Bank will maintain a comprehensive and high-level policy dialog with MARD, which will ensure regular monitoring of risks materializing and will provide opportunities for relevant mitigating strategies as necessary.					
	Resp: Both	Status: In Progress	Stage: Both	Recurrent:	Due Date: N/A	Frequency:
	Risk Management: A political economy analysis of the ARP has been commissioned to assess the forces for and against continued reform efforts. This analysis will be updated during implementation.					
	Resp: Bank	Status: In Progress	Stage: Both	Recurrent:	Due Date: N/A	Frequency:
3. Implementing Agency (IA) Risks (including Fiduciary Risks)						
3.1 Capacity	Rating	Moderate				
Risk Description: The project will be implemented in	**Risk Management:** DoP senior leadership has been closely involved in project preparation and will be provided with training and advice on World Bank procedures, etc. Component A has been designed to address					

<table>
<tr><td rowspan="5">accordance with existing procedures. The APMB in MARD has extensive experience with World Bank-funded projects. Similarly, the majority of project provinces also have recent experience with Bank projects. Overall implementation performance of the agriculture sector portfolio has improved, with no problem projects. However, risks remain with (i) the leadership role of the DoP – a Department not accustomed to implementing donor projects – in implementing Component A; and (ii) the apparent complexity of a project in 13 provinces.

Implementation of the credit component will reflect the 15 years of experience with previous World bank-funded Rural Finance projects, with a wholesale facility managed by BIDV and a small number of (vetted) PFIs. There are structural weaknesses in Vietnam’s banking system, particularly with VBARD which will likely dominate the on-lending for Component C given its widespread presence in the Central Highlands. However, the agriculture portfolio is one of the better performing portfolios (real estate lending has dragged down overall performance).</td><td colspan="6">emerging institutional needs, yet be selective in its coverage to limit complexity. It will be designed to include very clear roles and responsibilities among the targeted MARD departments and technical institutes and the flow of resources to these entities.</td></tr>
<tr><td>Resp: Both</td><td>Status: In Progress</td><td>Stage: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency:</td></tr>
<tr><td colspan="6">Risk Management:

A Project Financial Management Manual (FMM) and a Procurement Implementation Manual acceptable to the Bank (which could be part of the Project Operational Manual), will provide practical step-by-step guidance on FM and procurement procedures. Appropriate accounting software will be selected for accounting records and reporting purposes. Training will be provided on Bank procurement, financial and disbursement procedures, including preparation of bid evaluation reports and financial reports. Qualified procurement and accounting staff acceptable to the Bank, as well as qualified procurement advisers/procurement consultants, acceptable to the Bank, will be appointed.</td></tr>
<tr><td>Resp: Client</td><td>Status: In Progress</td><td>Stage: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency:</td></tr>
<tr><td colspan="6">Risk Management:

The PFIs to be included will be those already engaged in the specific areas of financing or be the long-standing banking partners for the participating agribusinesses. The project will incorporate a wholesale lending facility – similar to RF3. Banks will be provided with technical assistance relating to coffee tree rejuvenation enabling them to design appropriate products and disburse loan tranches as specific rejuvenation steps are completed.

The lines of credit (and their terms and conditions) will be designed, taking into account farmer and enterprise needs and demand as well as considerations of risk and potential profitability for the banks. Terms and conditions of LOC to ensure appropriate client due diligence and credit risk assessment undertaken for all on-lending. Assessment of banks undertaken to identify issues in advance of approval so informed decision may occur. The capacities for PFIs to implement these types of credit lines will be assessed, and, where needed, training and technical assistance will be provided.</td></tr>
<tr><td>Resp: Both</td><td>Status: In Progress</td><td>Stage: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency:</td></tr>
<tr><td>3.2 Governance</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td>Risk Description:</td><td colspan="6">Risk Management:</td></tr>
</table>

A governance challenge will be the required coordination between MARD and the DARDs, and across the key implementing agencies. A second risk relates to the governance arrangements for the business linkages between agribusinesses and the farmers' groups in the rice component. Such arrangements need to be mutually beneficial and not exploitative.	The project Operations Manual includes a responsibility matrix and describes the TOR of each agency. The FMM will include a similar matrix on fund flow and disbursement arrangements. MARD and Bank missions will monitor implementation of the POM and the FMM. The Bank will provide comprehensive implementation support and will monitor coordination issues closely.						
	Resp: Bank	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: N/A	Frequency:	
	Risk Management: The nature of the business linkages between the agribusiness and small-holder rice farmers is a key element of the project. The selection of agribusinesses will include a review of their existing small-holder supply chains and business plans for expansion which will provide an opportunity to evaluate the existing and anticipated distribution of benefits from such collaboration.						
	Resp: Both	Status: In Progress	Stage: Both	Recurrent:	Due Date: N/A	Frequency:	
Fraud and Corruption	Rating	Substantial					
Risk Description: While there have been some cases of fraud and corruption in Bank supported projects in Vietnam, none have occurred in the agricultural sector. There are risks associated with the management of the credit line by partner financial institutions, although no instances occurred during the recently closed Third Rural Finance Project.	**Risk Management:** The project will be closely monitored by the Bank team during implementation. Close attention will be paid to monitoring of the credit line(s) established in the project.						
	Resp: Both	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: N/A	Frequency:	
4. Project Risks							
4.1 Design	Rating	Substantial					
Risk Description: The main design risks are three-fold: (i) the technical aspects of the proposed	**Risk Management:** By and large, the improved agricultural practices and other agricultural technology expected to be deployed in the project has been piloted elsewhere in Vietnam already, including under the Bank's ACP project. As such, there is little design from first principles required during preparation. Detailed						

interventions are complicated and uncertain and therefore take a long time to develop and operationalize; (ii) the private sector partners do not materialize and/ or are unwilling to collaborate with the design team; and (iii) the public sector are resistant to the proposed reforms implied by the ARP and fail to engage.	economic and financial analysis and surveys of prospective project beneficiaries (agribusinesses, small-holder rice and coffee farmers) provided the analytical foundation to the proposed project interventions. The project would use existing government systems and procedures to implement Component B (rice) and procure technical assistance from IRRI, on the SSS basis, to assist CPMU and DARDs in technical matters. Training and capacity building support will be provided throughout the project implementation period. Bank missions will provide technical guidance as required.					
	Resp: Both	Status: In Progress	Stage: Both	Recurrent:	Due Date: N/A	Frequency:
	Risk Management: Extensive consultations have already taken place with industry and potential private sector partners. Feedback has been positive, and a series of roadshows are planned during the preparation process to confirm expressions of interest with prospective agribusiness partners. Assessments will be updated during implementation from time to time.					
	Resp: Both	Status: In Progress	Stage: Both	Recurrent:	Due Date: N/A	Frequency:
	Risk Management: Engagement with MARD and DARDs is already strong, and there is evidence of commitment from the MARD and provincial project preparation team. Component A was prepared in a very inclusive process led by DoP with technical support from FAO institutional specialists. Components B and C were based on a series of individual provincial proposals that were prepared, in close collaboration with the Bank team. A Mid-Term Review will be carried out in Year 3 to review progress and to restructure the project, if required.					
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 8/1/2018	Frequency:
4.2 Social and Environmental	Rating: Moderate					
Risk Description: There are risks of non-compliance with social and environmental policies of the Bank, and national policies of Vietnam,	**Risk Management:** Social and environmental risks are not considered disproportionately significant for a project of this type. By working with existing farmers, the project will not be expanding the agricultural frontier, and the scale of infrastructure investments that might require resettlement is expected to be very small.					
	Resp: Both	Status: In	Sta Both	Recurrent:	Due N/A	Frequency

<table>
<tr><td rowspan="3">resulting from project activities. Given the nature of the project - partnering with private sector agribusinesses - there is an additional level of complexity. Also, since the exact locations of project activities are not yet known, a Framework approach will be adopted. These are identified in the ISDS.</td><td></td><td>Progress</td><td>ge:</td><td></td><td>Date:</td><td>:</td></tr>
<tr><td colspan="6">Risk Management:
The relevant safeguards have been triggered and Frameworks have been prepared during project preparation. Training will be provided to the DARDs, especially in the first two years, and maintained thereafter during project implementation. Bank missions will monitor implementation and provide guidance.</td></tr>
<tr><td>Resp: Both</td><td>Status: Not Yet Due</td><td>Sta ge: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency :</td></tr>
<tr><td>4.3 Program and Donor</td><td>Rating</td><td colspan="5">Low</td></tr>
<tr><td rowspan="2">Risk Description:
Vietnam agribusiness is a focus country/ sector for World Bank-IFC collaboration and the project seeks to coordinate parallel IFC advisory services in agri-finance and agribusiness investment promotion. There is a risk that planned coordination of inputs does not materialize.</td><td colspan="6">Risk Management:
The World Bank Group is committed to increasing collaboration in the agribusiness space, and Vietnam is a focus country in this regard. Efforts to achieve greater collaboration are well established – preparation missions have included IFC staff. IFC activities under the ongoing Department of Foreign Affairs, Trade and Development Canada (DFATD) funded advisory services program have been programmed to link with vnSAT interventions. Close collaboration between the Bank and IFC task teams under the guidance (and with support of) respective management will ensure this continues.</td></tr>
<tr><td>Resp: Bank</td><td>Status: In Progress</td><td>Sta ge: Both</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency :</td></tr>
<tr><td>4.4 Delivery Monitoring and Sustainability</td><td>Rating</td><td colspan="5">Low</td></tr>
<tr><td rowspan="3">Risk Description:
Monitoring delivery of activities undertaken in collaboration with private sector partners introduces an additional layer of complexity. Similarly, the sustainability of project impacts depends fundamentally on the sustainability of the private sector businesses, which themselves are subject to the vagaries of commodity market volatility.</td><td colspan="6">Risk Management:
The project will establish a comprehensive monitoring system for early remedial measures. Consistent with the spirit of public-private partnerships, the project will jointly monitor, with the private sector agribusiness, commercial performance and will jointly address problems that arise. Monitoring of institutional performance will be achieved through specialist scorecard assessments.</td></tr>
<tr><td>Resp: Client</td><td>Status: Not Yet Due</td><td>Sta ge: Imple menta tion</td><td>Recurrent:</td><td>Due Date: N/A</td><td>Frequency :</td></tr>
<tr><td>Resp:</td><td>Status:</td><td>Sta ge:</td><td>Recurrent:</td><td>Due Date:</td><td>Frequency :</td></tr>
</table>

5. Project Team Proposed Rating Before Review	
Overall Preparation Risk: **Low**	**Overall Implementation Risk:** **Substantial**
Risk Description: Preparation risk is judged to be low. MARD has established an effective counterpart team that includes leadership from relevant departments and officials already involved in implementing Bank projects. This demonstrates significant ownership by the key partner agency, with the necessary technical background. Building on experience of ACP project also mitigates preparation risk.	Risk Description: Implementation risk is expected to be substantial based on the anticipated difficulties in implementing the institutional changes under Component A. In addition, the major challenges include the coordination between MARD/DARDs and BIDV/PFIs and between the public and private stakeholders.
6. Overall Risk	
	Overall Risk Rating **Substantial**
	Risk Description: The project involves a large number of implementing agencies as well as government technical departments. It has several technical components and implementation will be carried out in a large geographical area in two different regions. Risk management measures implemented during project preparation, and those to be carried out during project implementation (including intensive implementation support from the Bank during the first two years) will address the risks identified.

Annex 5: Implementation Support Plan

VIETNAM: Sustainable Agriculture Transformation Project

A. Strategy and Approach for Implementation Support

1. A risk-based approach has been used to develop the implementation support plan for the project. The key risks identified in the ORAF mainly relate to the inadequate experience of the implementing agencies, the governance risk associated with project decentralization, and the compliance risks in handling the project's procurement, financial management, and safeguards. Mitigation measures have been agreed with the government and the project agencies at appraisal and are incorporated into project design. The main strategy and approach for implementation support to manage the identified risks include capacity building for implementing agencies, enhancement of project governance, and diligent project monitoring and supervision, especially during the initial period of project implementation.

2. **Building capacity of implementing agencies.** Some project provinces are new. They have little experience with the Bank-funded projects and are also not familiar with Bank procedures. Local authorities may insist on following government procedures or implement "dual procedures". The project includes training and capacity building activities for the implementing and oversight agencies. Technical assistance during project implementation will provide timely guidance and advice to the CPMU and DARDs, especially when there are technically complex implementation issues or there are differences between national regulations and Bank procedures.

3. **Enhancement of project governance**. Decentralization in project implementation and management would create incentives for local levels; however, capacity at the local levels is generally low. The responsibilities of each implementing agency have been clearly defined in the Project Operations Manual. The project GTAF will be implemented and it includes protocols for increased transparency, as well as grievance redress mechanisms. In addition, an enhanced internal audit system will be applied for each implementing agency.

4. **Intensive monitoring and supervision, especially in the initial period.** There are risks of non-compliance in procurement, financial management, and safeguards during project implementation. The project, therefore, requires intensive monitoring and supervision in the initial period to identify issues in a timely manner and to address them before they become major problems. The review and supervision would follow a risk-based approach which will focus on poor performing implementing agencies and on high risk areas. Intensive monitoring and supervision would be maintained until the capacity of the implementing agencies has been improved or the project's technical assistance team has been recruited and is functioning effectively.

B. Implementation Support Plan

5. It will be important for vnSAT to mobilize quickly: a consequence of the inclusive project

preparation with provinces is that expectations are high. Ensuring compliance with regional readiness filters will be important, as will intensive implementation support especially at project launch. Indeed, provision has been made to retain the momentum generated during preparation through-out the normal lag between Appraisal and Effectiveness, which is often 9 – 12 months in Vietnam.

6. Following project launch (anticipated in June, 2015) the Bank team will deploy to support provincial start-up in both MKD (Component B) and the Central Highlands (Component C). Special attention will be paid to ensuring provincial implementing agencies are properly equipped with the necessary procurement and financial management capability. Regarding Component A, the ongoing engagement of FAO specialists beyond project preparation will ensure that the change management process continues to gather momentum. Crucially, the first twelve months of project implementation will be dominated by detailed diagnostic analysis/ needs assessments undertaken by external consultancies and hence the focus on implementation support is quality assurance for this work.

7. The Bank team will provide intensive implementation support especially during the first 18 months of the project. This will include formal training in Bank procedures, including safeguards requirements, for implementing agencies at national and provincial level. It will also require intensive technical backstopping, including on the setting up of the LoC and in the implementation of the FFS.

8. A Mid-Term Review will be conducted in Year 3 to review implementation progress and assess the likelihood of achieving the PDO, as well as to identify any changes needed to the project; some of these may require formal restructuring, based on government request, including amendment to the Financing Agreement. About six months before project close, an implementation completion and results review (ICRR) mission will be fielded to carry out a comprehensive assessment of the project and to draft the Bank ICRR, as well as to guide MARD and the project provinces in preparing the government's own ICRR.

9. A balanced skills mix will be retained for every full mission. The majority of the Bank team is based in Hanoi and will be available to support project agencies on a frequent basis. International technical experts will be part of implementation support missions to provide specialized technical expertise.

Table 1: Focus of Implementation Support

Time	*Focus*	*Skills Needed*
First twelve months	• *Rapid implementation start-up of province-based activities.* • *Establishment of project M&E system.* • *Quality assurance of OD diagnostics and CD needs assessments.* • *Early disbursement of lines of credit.*	• *Project management; FM and Procurement* • *Project M&E specialist* • *OD/ institutions specialist* • *Rural finance/ finance sector*
12-48 months	• *Regular implementation support.* • *Safeguards compliance.*	• *Task team* • *Safeguards specialist*

Table 2: Skills Mix Required

Skills Needed	*Staff Weeks (per year)*	*Number of Trips*
TTL (Lead economist)	12	Vietnam based
Co-TTL (Senior Agricultural specialist)	10	Vietnam based
Senior rural development specialist	6	Vietnam based
Environmental safeguards/ CSA	4	Vietnam based
Social safeguards	3	Vietnam based
Finance Sector specialist	2	Vietnam based
Rural Finance specialist	3	1 per year
IFC Advisory services	4	Vietnam based
Financial Management	2	Vietnam based
Procurement	2	Vietnam based
Organizational Development specialist (FAO/CP)	4	2 per year
M&E specialist (FAO/CP)	4	2 per year

Collaboration with the FAO and others

10. The Bank team will draw on expertise under the FAO/CP arrangement to supplement the Bank staff in specific areas including M&E, rural finance, and organizational development. The last is a particular strategic priority area for FAO collaboration and the FAO Institutional Specialists will play a leading part in implementation support (as indicated in Table 2).

11. Implementation support will also leverage from existing technical expertise from partners. Existing researchers in Vietnamese socio-economic and agronomic research institutions, international researchers and practitioners associated with sustainability initiatives especially in the coffee sector will provide key technical resources. The task team will retain good networks with existing sustainability initiatives such as IDH, as well as international institutions such as IRRI. The Bank team will also draw on formal and informal networks and take advantage of the new Global Practice arrangement to draw on expertise from across the regions as well as across the Bank and IFC.[10]

[10] For instance, an informal group of experts from across the WBG with an interest in coffee has been established to share experiences from across Africa, Asia and Latin America.

Annex 6: Economic and Financial Analysis

VIETNAM: Sustainable Agriculture Transformation Project

A. Introduction

1. An economic and financial analysis (EFA) of the project was undertaken in order to assess the economic soundness of the project and the likely impact of project interventions on the beneficiaries. The analysis is based on the expected quantifiable benefits at the level of the primary beneficiaries, the smallholder rice and coffee producers and associated agribusinesses, taking into account the project costs and project outreach assumptions at the time of appraisal. It should be emphasized that numerous potential project benefits have not been included in the analysis, as some benefits cannot be easily quantified in monetary terms, particularly institutional and environmental benefits as well as the impact on other value chain actors that are not directly supported by the project. A sensitivity analysis has been conducted to assess the impact of changes in main parameters affecting the economic outcome of the project as a result of the risks that have been identified in the project's risk analysis. The findings of the analysis are summarized below.

2. The EFA is linked to the project's RF and its outcome indicators related to project outreach and improved sustainability and profitability of smallholder rice and coffee production systems. Given the focus of the project on economic outcomes at the farm and enterprise level, EFA will be integrated as a key activity during project implementation. This should include: (i) as appropriate, capacity development in EFA of project staff, beneficiaries and other relevant stakeholders (under Component A); (ii) integration of the EFA data generated during project design, including baseline, in the project's M&E system; and (iii) allocation of adequate financial and human resources for EFA during implementation. The EFA data used for appraisal should be periodically updated as an integral part of the project's M&E System[11] and as an input into the project evaluation at mid-term and completion stage.

B. Project Area and Beneficiaries

3. The project will target around 30 leading rice-producing districts in eight provinces[12] in the MKD and 8 – 12 leading coffee-producing districts in five[13] provinces in the Central Highlands. It is expected that the project will reach about 140,000 rice farming households cultivating around 200,000 ha of rice in the MKD. In the Central Highlands, some 62,000 coffee households with the total coffee production area of around 69,000 ha will be direct beneficiaries, while similar numbers of households will benefit from continued seasonal employment opportunities. An indeterminate number of additional rural and urban households, agribusinesses and other actors in these two value chains will also directly or indirectly benefit from the project interventions. Other key project beneficiaries include staff from MARD and selected provincial DARDs, other public sector agencies non-state

[11] Decisions on project support to investments in production systems, enterprises and infrastructures will be based on a robust sub-project level EFA, prepared and assessed *ex ante* as part of the business plans required for matching grant and loan applications.

[12] Kien Giang, An Giang, Dong Thap, Can Tho, Hau Giang, Soc Trang, Tien Giang, and Long An.

[13] Lam Dong, Dak Lak, Kom Tum, Gia Lai and Dak Nong.

stakeholders who will benefit from capacity building and organizational development under Component A.

C. Project Benefits

4. The project's main benefits will come from Components B and C supporting smallholder rice and coffee production systems. Component B will increase rice farmers' incomes, reduce negative environmental impacts from rice intensified farming, and enhance the competitiveness of the rice sector. This will result from: (a) adoption of improved agronomic practices and management;[14] (b) investments[15] by farmer organizations in collective infrastructures and equipment for improved harvesting and post-harvest management; (c) improved linkages between farmer organizations and agribusinesses (including contract farming); and (d) increased private sector investments[16] in upgrading rice processing technology and facilities for high value and quality rice.

5. Component C will increase coffee farmers' incomes and reduce negative environmental impacts of coffee production in the long run by facilitating a sustainable transformation of coffee production in the Central Highlands. This will result from: (a) adoption of improved, more sustainable agronomic and management practices, including water saving technologies; (b) rejuvenation of coffee plantations; and (c) improved commune-level coffee production infrastructure (such as irrigation canals, power lines and access roads to coffee plantations) and post-harvest processing facilities.[17]

6. Components B and C will result in additional benefits such as increased employment (for hired and family labour) and increased tax revenues. The increased income and employment would result in increased demand for goods and services in the project areas, which is expected to generate additional income and employment effects, and further increase government tax revenues. The increased agricultural output will increase national production, and thereby contribute to growth in overall GDP and national food security. In addition, foreign exchange earnings are expected from increases in exports.

7. Component A will directly contribute to the effective implementation of Components B and C and is expected to result in several institutional benefits including improved: (a) MARD expenditure (investment and recurrent) planning and monitoring resulting in improved performance in budget execution; (b) quality of service delivery by DARD departments in project area; (c) design, implementation and monitoring agricultural restructuring initiatives, including agricultural investment plans that are based on market-oriented planning requirements and processes; and (d) coordination among Government agencies and between state- and non-state stakeholders in the agriculture sector.

8. The main social and environmental benefits expected from the project are: (i) reduced

[14] The '3 Reductions and 3 Gains' package (3R3G), which aims at reducing seed, fertilizer, and pesticide, thereby increasing productivity, quality, and profitability) followed by the '1 Must 5 Reductions' package (1M5R), which requires the use of certified seed and adds new requirements of reducing water and postharvest losses.
[15] On matching grant basis.
[16] Supported by project line of credit.
[17] Supported by matching grants.

vulnerability and increased resilience to climate-change, resulting from the implementation of CSA practices; (ii) environmentally friendly agronomic practices resulting in reduced localized pollution; (iii) reduced emission of GHG; (iv) reduced environmental degradation and conserved natural resource base for sustainable livelihoods of present and future generations; and (v) energy-efficient processing and safe disposal of agro-industrial waste products. Table 1, below, summarizes the projected number of beneficiaries and quantifiable benefits that were included in the EFA.

Table 1: Beneficiaries and Quantifiable Benefits from Project Interventions

Intervention Area	Unit	Number /a	Expected Benefits
Adoption of 3R3G rice production			• Reduced use of water and inputs (hence sustainability) resulting in reduced production cost. • No or marginal productivity increase. • Reduced emission of CHG (not included in EFA).
Farmers	No.	126,975	
Area	Ha	165,068	
Adoption of 1M5R rice production			
Farmers	No.	46,530	
Area	Ha	60,489	
Harvest and post-harvest equipment for rice cooperatives	Coop	208	• Reduced losses during harvest, milling and storage.
Farmers	No.	104,000	
Area	Ha	135,200	
Rice contract farming			• Higher value addition as a result of higher quality/price of rice.
Farmers	No.	31,000	
Area	Ha	40,300	
Upgrading rice processing			• Increased conversion from paddy to rice. • Higher quality rice resulting in higher selling price. • Processing of high value rice.
Loans	No.	10-30	
	US$	53.6 m	
Coffee sustainable farm management practices /b			• Increased productivity and profitability resulting from sustainable agronomic and management practices, including water saving technologies. • Reduced negative environmental impacts of coffee production.
Farmers	No.	39,744	
Area	Ha	43,718	
Coffee rejuvenation			• Increased productivity and profitability.
Farmers	No.	9,503	
Area	Ha	10,453	
Commune-level coffee production infrastructure			• Increased prices (due to improved quality). • Reduced post-harvest losses. • Reduced transaction and input costs.
Irrigation canals	Ha	1,733	
Power lines	Ha/c	4.015	
On-farm roads	Ha/c	5,280	
Drying ground	Ha/c	8,349	
Store	Ha/c	17,094	
Drying machine	Ha/c	4,290	
Primary processing machine	Ha/c	16.929	

* Figures used in the analysis are conservative estimates. \a Incremental; \b Incl. area under rejuvenation; \c Production area benefitting from infrastructure

D. Financial Analysis

9. The financial analysis (FA) is based on illustrative crop and enterprise models which are considered representative of the production systems supported under Components B and C. For each model, three scenarios have been prepared: (i) the "present-without project" (P) scenario corresponding to crop performances currently observed in the project area; (ii) the FWOP scenario corresponding to the evolution of crop performances in the

absence of the project; and (iii) the FWP scenario where expected benefits from project interventions are quantified.

10. Annual budgets have been prepared for rice production while multi-periodic cost-benefit analyses have been carried out for coffee plantations investments in rice post-harvest technology. Market prices in VND at the time of appraisal (2014) were applied. It should be noted that, in the FA, family labour has been quantified but not valued. However, the calculation of return to family labour (net profit/number of family labour days) provides an indication of the ability of a household to pay for hired labour instead of using family labour (in case family labour is not available, e.g. because of household size or health reasons).[18]

Rice Production

11. Table 2 below provides an overview of the rice models supported by the project while Table 3 presents the models analysed and their expected adoption. Table 4 summarizes the financial outcome of the various rice models. The analysis of the different rice production models shows in all cases the potential for significant increases in gross margins, net profits, return to labour and return on investment resulting from the project. The estimated total annual paddy production by farmers supported by the project amounts to around 2.2 million tons[19] including an incremental production of about 2.6 percent of the estimated "without project" production (see Table 5).

Table 2: Overview of Rice Production Models Supported

	Intervention Model	Incremental Investments	Expected Incremental Benefits
1	3R3G	Training	Reduced production costs (10-15%)
2	1M5R	Training	Reduced production costs (20-30%)
3	1M5R + cooperative	Training	Reduced production costs (20-30%)
		Demonstration	Increased price (3-4%)
4	1M5R + cooperative + combine harvester	Training	Reduced production costs (20-30%)
		Demonstration	Increased price (3-4%)
		Combine harvester	Reduced harvesting losses Reduced harvesting costs
5	1M5R + cooperative + combine harvester + drying/storage	Training	Reduced production costs (20-30%)
		Demonstration	Increased price (3-4%)
		Combine harvester	Reduced harvesting losses Reduced harvesting costs
		Drier and storage	Reduced post-harvest losses Increased prices when selling dried paddy and at high price times
6	1M5R + cooperative + combine harvester + drying/storage + contract farming	As No. 5 above + investment by agribusiness	Increased price (5-10%)

[18] If the return to family labour is above the cost of hired labour, households could pay for hired labour instead of using family labour and still make a profit.

[19] Equivalent to around 1.55 million tons of rice.

Table 3: Rice Production Models Analyzed

	Model	Farmers	Ha
1	1M5R farmers in cooperative - under contract farming	31,000	40,300
2	1M5R farmers in cooperative - without contract farming	15,530	20,189
3	3R3G farmers in cooperative	57,470	74,711
4	3R3G farmers not in cooperative	22,975	29,868
	Total	**126,975**	**165,068**

Table 4: Rice Production Models - Overview of Financial Analysis (per ha)

Production period		Year (2 crops) /a		Year (3 crops) /b	
Production system		**3R3G**	**1M5R**	**3R3G**	**1M5R**
Farmer Field School Support (FFS)					
Gross Margin (VND'000)	WOP	27,675	27,675	34,367	34,367
	WP	**32,787**	**38,128**	**41,899**	**48,430**
	Increment	5,112	10,453	7,533	14,064
		18%	38%	22%	41%
Return to Total Labor	WOP	840	840	1,177	1,177
[per person day] (VND'000)	**WP**	**977**	**1,234**	**1,418**	**1,724**
	Increment	137	394	241	547
		16%	47%	21%	47%
FFS + Cooperative Investment (Combine Harvester, Drying/ Storage)					
Gross Margin (VND'000)	WOP	27,675	27,675	34,367	34,367
	WP	**36,476**	**41,946**	**46,967**	**53,635**
	Increment	8,800	14,271	12,600	19,268
		32%	52%	37%	56%
FFS + Cooperative Investment + Contract Farming					
Gross Margin (VND'000)	WOP	27,675	27,675	34,367	34,367
	WP	**40,194**	**45,794**	**52,074**	**58,885**
	Increment	12,518	18,119	17,708	24,518
		45%	65%	52%	71%

WOP = without project; WP = with project.
\a Winter-Spring + Summer-Autumn \b Winter-Spring + Summer-Autumn + Autumn-Winter

Table 5: Estimated Total and Incremental Rice Production supported by the Project

Production Model					Ha	Production (tons)	
						Total	Incremental
1	**M5R in cooperative under contract farming**	2 crops/year	90%	of total area	36,270	473,541	16,176
		3 crops/year	10%	of total area	4,030	72,614	2,189
				Total	**40,300**	**546,155**	**18,366**
2	**1M5R in cooperative without contract farming**	2 crops/year	90%	of total area	18,170	237,229	8,104
		3 crops/year	10%	of total area	2,019	36,377	1,097
				Total	**20,189**	**273,606**	**9,201**
3	**3R3G in cooperative**	2 crops/year	90%	of total area	67,240	871,026	23,131
		3 crops/year	10%	of total area	7,471	133,854	3,297
				Total	**74,711**	**1,004,880**	**26,428**
4	**3R3G not in cooperative**	2 crops/year	90%	of total area	26,881	341,386	2,419
		3 crops/year	10%	of total area	2,987	52,462	269
				Total	**29,868**	**393,848**	**2,688**
	Total				**165,068**	**2,218,489**	**56,682**

Investments in Rice Post-harvest Technology

12. Under sub-component B2 the project will provide a credit line of US$53.6 million to support private sector investments in upgrading rice processing technology and facilities for high value and quality rice.[20] On the basis of a recent survey on rice post-harvest machinery[21] detailed financial analyses were carried out for various investments in drying, storage and processing technologies that may be eligible for project support.[22] The results for selected investments are summarized in Table 6, clearly showing their profitability. However, the survey also revealed that it is critical to integrate dryers and storage facilities into rice processing plants in order to improve rice quality as a precondition for accessing export markets. Consequently, a model for an integrated investment was developed (see Table 7) with an annual capacity of 18,000 tons of paddy (12,000 tons of rice). The project could finance 24 – 25 of such integrated investments with a total annual capacity of 440,000 tons of paddy (300,000 tons of rice) – equivalent to around 80 percent of the production from project farmers expected to engage in contracts (see Table 5). Obviously, the size of individual investments may vary, however, the model allows to estimate the overall processing capacity that can be supported by the project's credit line.

[20] Considering a share of own capital of 25 percent, total investment would amount to around US$71.5 million.

[21] Survey on investments and applications of rice post-harvest machinery in the Mekong Delta, Vietnam; Pham Van Tan; Sep. 2014.

[22] Specific templates have been developed that could be used as part of a business plan required for loan applications under the project.

Table 6 Agribusiness Rice Processing Models – Overview of Financial Analysis

		Column Circulation Dryer (45 tons/batch)	Square Steel Bins of 3,000 Tons of Paddy	Complete Rice Processing Line (6 Tons/Hour (incl. Colour Sorter)	Paddy Husk Briquette Making System (800 kg/hour)
Total investment costs	VND'000	3,700,000	5,311,500	12,300,000	366,000
incl. housing	US$	776,617	250,000	578,933	17,227
Input	Item	Fresh paddy /b	Dried paddy /d	Dried paddy /d	Paddy husk
Annual capacity	Tons	4,500	9,000	5,760	960
Output	Item	Dried paddy /c	Dried paddy /e	High quality white rice /f	Paddy briquettes
Annual capacity	Tons	4,500	9,000	3,974	960
Total processing costs	VND'000/ton	158.4	106.0	481.3	954.1
	US$/ton	7.45	4.99	22.65	44.91
Revenue	VND'000/ton	220.0	170.0	525.4	1,000
	US$/ton	10.35	8.00	24.73	47.07
Net profit	VND'000/ton	61.6	64.0	44.16	146
	US$/ton	2.90	3.01	2.08	6.87
Breakeven capacity /a	tons/year	2,925	4,689	5,107	529
Internal Rate of Return (IRR)		**22.8%**	**27.2%**	**16.5%**	**32.8%**

/a Minimum input capacity required to start making profit.
/b Moisture content (MC) 18-32% wet basis (wb).
/c MC 13.5-15% wb.
/d MC14%wb.
/e After 2 months of storage.
/f Of which 80% head rice and 20% broken rice; MC 13.5–14%wb.

Table 7: Integrated Agribusiness Rice Processing Investment – Financial Analysis

		Column Circulation Dryer (45 tons/batch)	Square Steel Bins of 3,000 Tons of Paddy	Complete Rice Processing Line	Integrated Investment
No. of units		4	2	3	
Total investment costs	VND'000	14,800,000	10,623,000	36,900,000	62,323,000
incl. housing	US$	696,602	500,000	1,736,798	2,933,399
Input	Item	Fresh paddy	Dried paddy	Dried paddy	
Annual capacity	Tons	18,000	17,550	17,199	
Output	Item	Dried paddy	Dried paddy	High quality white rice	High quality white rice
Annual capacity	Tons	17,550	17,199	12,039	12,039
Total processing costs	VND'000	2,850,800	1,860,086	8,277,556	12,988,442
per year	US$	134,181	87,550	389,605	611,336
Total input costs	VND'000	per ton:	6,500	annual total:	117,000,000
(fresh paddy)	US$		306		5,506,919
Revenue /a	VND'000	per ton	9,565	annual total:	172,161,990
	US$	of paddy:	450		8,103,266
Net profit /b	VND'000/ton	per ton	2,343	annual total:	42,173,548
	US$/ton	of paddy:	110		1,327,675
Internal Rate of Return (IRR)					**19.2%**

/a From sales of rice, bran and husk.
/b Revenue - input costs - total processing costs.

Coffee Production

13. Four main coffee production models have been prepared reflecting the main project interventions: (i) FFS support only; (ii) FFS support + drip irrigation; (iii) FFS support + replanting; (iv) FFS support + grafting. Furthermore, the expected benefits from investments in drying and storage facilities at cooperative level have been quantified (in terms of higher prices – due to improved quality, and in terms of increased production – due to reduced post-harvest losses) and integrated into the above models (for the production area covered by these investments). Benefits from irrigation canals, power lines and on-farm roads have not been quantified separately as they only cover a small part of the project coffee area and are considered a precondition for realizing the benefits described in the models. Table 8 provides an overview of the coffee models analysed and their expected adoption while Table 9 summarizes the financial outcomes.

Table 8: Coffee Production Models Analyzed

	Model	Farmers	Ha
1	Farmer Field School (FFS) – improved agronomic practices only	30,064	33,070
2	FFS + drip irrigation (pilot)	545	600
3	FFS + replanting	6,284	6,912
4	FFS + grafting	2,851	3,136
	Total	**39,744**	**43,718**

Table 9: Coffee Production Models - Overview of Financial Analysis (per hectare)

	Model	FFS	FFS+Drip Irrigation
Gross Margin (VND'000)	WOP	38,735	38,735
	WP	**45,622**	**60,837**
	Increment	6,887	22,102
		18%	57%
Return to Total Labour [per person day] (VND'000)	WOP	239	239
	WP	**301**	**420**
	Increment	62	181
		26%	76%

14. *Coffee rejuvenation*. The Financial Rate of Return (FIRR) for coffee rejuvenation was calculated over a period of 23 years for replanting and 22 years for grafting, including a gestation period of three years (replanting) and two years (grafting) respectively. Constant yields of four tons/ha from year 6 were assumed for both models. For the "without project" scenario, it was assumed that 20 year old trees (old varieties) would yield 1.8 tons/ha and that yields would then gradually decline by two percent p.a. Based on cash costs for inputs and hired labour, the FIRR amounts to 13.5 percent for replanting and 24 percent for grafting. Table 10 displays the FIRR at different yield levels of the old and replanted/grafted trees.

Table 10: Coffee rejuvenation – FIRR at Different Yield Levels /a

Annual yields on old plantation (above 20 years)	Annual yields on mature plantation					
	Replanting (years 6 - 23)			Grafting (years 6 - 22)		
Kg/ha	**4,000**	**4,500**	**5,000**	**4,000**	**4,500**	**5,000**
2,000	10.8%	14.5%	17.7%	19.5%	24.5%	28.8%
1,800	**13.5%**	17.2%	20.2%	**24.0%**	29.0%	33.1%
1,600	16.5%	20.0%	23.1%	29.2%	34.0%	38.2%

\a Only hired labor valued.

15. The pace of yield reduction on old plantations also affects the FIRR. Table 11 displays the impact of various annual yield reductions on the FIRR. An estimated annual decline of four percent in the old plantation would increase the FIRR to 16 percent for replanting and to 26.9 percent for grafting. The FIRR would reduce by around one percent if the annual production costs (e.g. for fertiliser and hired labour) would also decline in line with lower outputs.

Table 11: Coffee rejuvenation – FIRR at Various Rates of Annual Yield Decline of Old Plantations

Cost reduction p.a. /a	Yield reduction in old planation p.a.					
	Replanting			Grafting		
	0%	**2%**	**4%**	**0%**	**2%**	**4%**
0%	11.9%	15.1%	17.4%	25.7%	25.7%	28.4%
2%		**13.5%**	16.0%		**24.0%**	26.9%
4%			14.8%			25.5%

\a Resulting from lower yields.

E. Economic Analysis

16. ***Economic costs and assumptions made.*** The financial project costs have been converted to economic costs, which exclude taxes and duties and price contingencies, using the COSTAB software and applying a standard conversion factor (SCF) of 0.90. The analysis was carried out for a 20-year period, which is the estimated project life including the five-year project implementation period. The economic analysis was undertaken in 2014 constant prices, and a discount rate (i.e. opportunity cost of capital) of 12 percent was assumed. The Vietnamese Dong (VND) was used as the unit of account and the official exchange rate of VND21,246 to US$1 (October 2014) was applied when converting to US$.

17. ***Economic benefits.*** In the estimation of the economic benefits, economic gross margins per hectare were derived from the crop and enterprise budgets (see Financial Analysis above) by valuing the physical input and output quantities in terms of their respective economic prices. Import or export parity prices have been calculated for major internationally traded commodities and chemical fertilizers using World Bank commodity price data and other sources[23]. For all other commodities and inputs, a SCF of 0.90 has

[23] The Financial and Economic Competitiveness of Rice and Selected Feed Crops in Northern and Southern Vietnam, World Bank, 2013. Authors: J. Keyser, S. Jaffee and Tuan Do Anh Nguyen.

been applied. All prices are current (October 2014) prices. Taxes have been removed and family labour has been valued at an estimated opportunity cost of 60 percent of the rate of hired farm labour. The economic gross margins per hectare (enterprise) were subsequently multiplied by the crop areas (number of enterprises) to determine the net benefits in the FWP and FWOP situations. The differences between the net benefits in FWP and FWOP situations were then calculated in order to determine the economic impact of the changes in rice and coffee production and related processing promoted by the project.

18. ***Economic viability and sensitivity analysis.*** The economic internal rate of return (EIRR) of the overall project for the base case is 23.9 percent (including also costs of Components A and D). The net present value (NPV), discounted at 12 percent is VND 4,739 billion (US$223 million). The EIRR has also been calculated separately for Sub-components B1[24] (32.0 percent) and B2 (24.1 percent), and for Component C (18.0 percent).

19. Table 12 presents the main risks that have been identified and may affect the economic outcome of the project. A sensitivity analysis has been conducted to assess the potential impact of these risks resulting in (a) reduced benefits; (b) increased costs; and/or (c) delayed benefits (see Table 13). It can be seen that the economic viability of the project is quite robust and the EIRR remains above 12 percent for most scenarios. Considering that many potential project benefits as described above have not been quantified in economic terms (e.g. environmental benefits; other direct and indirect benefits for the rural economy; and additional direct benefits from institutional development under Component A), the project has a strong justification on economic grounds.

[24] Including costs of Sub-component B3 for which no benefits have been quantified separately.

Table 12: Overview of Main Risks affecting Project Economic Outcomes

Risk category	Risk	Likelihood/ severity	Potential impact reflected in sensitivity analysis		
			Reduced benefits	Increased costs	Delayed benefits
Economy and Market Risks	Macro-economic instability	M/H	X	X	X
	Increased cost of inputs	L/H	X	X	
	Reduced producer prices	L/H	X		
	Deterioration in the external markets for coffee and high value rice	L/H	X		
	Rice sector agribusinesses unwilling to borrow for investment purposes	L/H	X		
	Farmer associations for rice production and contracting fail to act effectively, resulting in non-performance and significant side-selling against contracts with agribusinesses	L/H	X		
	Coffee farmers unwilling to invest in improved practices	L/H	X		
Institutional Risks	MARD and DARDs do not cooperate effectively in the implementation of ARP and SEDP	M/H	X		X
	Lack of effective cooperation & dialogue among state and non-state stakeholders	M/M		X	X
	Low financial management capacity particular at the local level	M/H			X
	Inadequate skills base amongst local service providers	M/H	X		X
	Financial institutions unwilling to participate in project	M/H	X		X
Political Risks	Social instability from slower growth and from reduced access to land of the poor	L/M	X		X
Climate Risks	Climate-change and disaster impacts	M/H	X		X

L = low; M = medium; H = high.
See PAD Annex 4, Operational Risk Assessment Framework (ORAF) for further details including additional risks and risk management measures included in project design.

Table 13: Economic Viability and Sensitivity Analysis

			Overall Project /a	Component/Sub-component		
				B1/B3	B2	C
Scenario			**EIRR (%)**			
Base Case			**23.9**	**32.0**	**24.1**	**18.0**
Changes						
Project Costs	**Incremental Benefits**	**Benefits delayed by**				
+10%			22.4	28.8	21.4	17.4
+20%			21.1	26.2	19.1	16.7
	-20%		20.5	25.0	18.0	16.4
	-40%		16.3	17.9	10.6	14.2
+10%	-20%		20.8	25.7	18.6	16.6
+20%	-40%		17.8	20.3	13.3	15.0
Base Case		1 year	20.8	24.9	19.0	16.6
		2 years	18.3	20.6	15.4	15.2
		3 years	16.1	17.6	12.6	13.8
	-20%	1 year	16.7	18.3	12.0	14.4
		2 years	14.6	15.4	9.4	13.1
		3 years	12.8	13.2	7.3	11.7
Switching Values /b						
Costs			+130	+125	+58	+120
Benefits			-57	-56	-37	-54

\a Including costs of Components A and D.
\b Percent change in cost and/or benefit streams to obtain an EIRR of 12 percent, i.e., economic viability threshold.