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(US\$385 MILLION EQUIVALENT)

TO THE

SOCIALIST REPUBLIC OF VIETNAM

FOR A

RESULTS-BASED OPERATION FOR LOCAL BRIDGE CONSTRUCTION AND ROAD
ASSET MANAGEMENT

April 8, 2016

*Transport and ICT Global Practice
East Asia Pacific Region*

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CURRENCY EQUIVALENTS

(Exchange Rate Effective February 29, 2016)

US\$1 = 22,506 VND

US\$ 1.38131 = SDR 1

ABBREVIATIONS AND ACRONYMS

ACG	Anti-Corruption Guidelines
AH	Affected Households
BCR	Benefit Cost Ratio
CFMB	Central Fund Management Board
CPS	Country Partnership Strategy
DC	Direct Contracting
DFAT	Australia's Department of Foreign Affairs and Trade
DFID	UK's Department for International Development
DLI	Disbursement-linked Indicator
DOF	Department of Finance
DOT	Department of Transport
DPC	District People's Committee
DPI	Department of Planning and Investment
DRVN	Directorate for Roads of Vietnam
DST	Department of Science and Technology
EHS	Environmental Health and Safety
EIA	Environmental Impact Assessment
EM	Ethnic Minority
EMP	Environmental Management Plan
EPC	Environmental Protection Commitment
EPP	Environmental Protection Plan
ESSA	Environment and Social Systems Assessment
FSA	Fiduciary Systems Assessment
GDP	Gross Domestic Product
GIS	Geographical Information System
GNI	Gross National Income
GoV	Government of Vietnam
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
GSO	General Statistics Office
HDM-4	Highway Development and Management Model version 4
IA	Internal Audit
IDA	International Development Association
IPF	Investment Project Financing
IPSAS	International Public Sector Accounting Standards
IT	Information Technology
IVA	Independent Verification Agent

M&E	Monitoring and Evaluation
MoF	Ministry of Finance
MoT	Ministry of Transport
MPI	Ministry of Planning and Investment
MTEP	Medium Term Expenditure Plans
NM-CH	Northern Mountains and Central Highlands (regions)
NSRTD	National Strategy on Rural Transport Development
O&M	Operation and Maintenance
ODA	Official Development Assistance
OM	Operations Manual
PAP	Program Action Plan
PAT	Performance Assessment Tool
PC	People's Committee
PDO	Program Development Objective
PDOT	Provincial Department of Transport
PforR	Program-for-Results
PLBC	Program for Local Bridge Construction
PMU	Project Management Unit
PP	Procurement Plan
PPC	Provincial People's Committee
PRMF	Provincial Road Maintenance Fund
PRVR	Program Results Verification Report
PWU	Provincial Women's Union
RMF	Road Maintenance Fund
RONET	Road Network Evaluation Tool
RRM	Routine Road Maintenance
RVR	Results Verification Report
SAV	State Audit of Vietnam
SBV	State Bank of Vietnam
SEDP	Socio-Economic Development Plan
SMART	Specific, Measurable, Assignable, Realistic, Time-related
SOE	State-Owned Enterprise
SSS	Single Source Selection
ST	State Treasury
TA	Technical Assistance
TCQM	Technical Control for Quality Management Department
TOT	Training of Trainer Workshop
VHLSS	Vietnam Household Living Standards Survey
VND	Vietnamese Dong
VPRoMMS	Vietnam Provincial Road Maintenance Management System
VRAMP	Vietnam Road Asset Management Project
VWU	Vietnam Women's Union
WB	World Bank
WTO	World Trade Organization

Regional Vice President:	Xiaoqing Yu (Acting)
Country Director:	Victoria Kwakwa
Senior Global Practice Director:	Pierre Guislain
Practice Manager:	Michel Kerf
Task Team Leader:	Mitsuyoshi Asada / Phuong Thi Minh Tran

SOCIALIST REPUBLIC OF VIETNAM

Results-Based Operation for Local Bridge Construction and Road Asset Management

Table of Contents

	Page
I. STRATEGIC CONTEXT	1
A. Country context	1
B. Sectoral (or multi-sectoral) and Institutional Context	2
C. Relationship to the CAS/CPS and Rationale for Use of Instrument	3
II. PROGRAM DESCRIPTION	5
A. Program Scope	5
B. Objectives of the Operation	8
C. Program Key Results and Disbursement Linked Indicators	8
D. Key Institutional Systems Strengthening Activities	9
III. PROGRAM IMPLEMENTATION	10
A. Institutional and Implementation Arrangements	10
B. Results Monitoring and Evaluation	11
C. Disbursement Arrangements and Verification Protocols	12
IV. ASSESSMENT SUMMARY	14
A. Technical (including Program Economic Evaluation)	14
B. Fiduciary	16
C. Environmental and Social	18
D. Integrated Risk Assessment	21
E. Program Action Plan	22
ANNEXES	
Annex 1: Detailed Program Description	24
Annex 2: Results Framework and Monitoring	32
Annex 3: Disbursement Linked Indicators, Disbursement Arrangements and Verification Protocols	35
Annex 4: Summary Technical Assessment	40
Annex 5: Summary Fiduciary Systems Assessment	57
Annex 6: Summary Environmental and Social Systems Assessment	65
Annex 7: Integrated Risk Assessment	72
Annex 8: Program Action Plan	75
Annex 9: Technical Assistance Project Appraisal	77
Annex 10: Implementation Support Plan	81

PAD DATA SHEET

VIETNAM

Results-Based Operation for Local Bridge Construction and Road Asset Management

PROGRAM APPRAISAL DOCUMENT

*East Asia Pacific Region
Transport and ICT Global Practice*

Basic Information	
Date:	April 8, 2016
Country Director:	Victoria Kwakwa
Practice Manager/ Senior Global Practice Director:	Michel Kerf / Pierre Guislain
Program ID:	P155086
Team Leader(s):	Mitsuyoshi Asada / Phuong Thi Minh Tran
Sectors:	Roads (90%), General Transportation Sector (10%)
Themes:	Governance & Institution Building
Program Implementation Period: 7 years	Start Date: April 29, 2016 End Date: December 31, 2022
Expected Financing Effectiveness Date: September 30, 2016	
Expected Financing Closing Date: June 30, 2023	

Program Financing Data

<input type="checkbox"/> Loan	<input type="checkbox"/> Grant	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Credit		

For Loans/Credits/Others (US\$M):

Total Program Cost:	1,365	Total Bank Financing:	385 (including a US\$M 4.5 Technical Assistance)
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Financing Gap: 980 (GoV funding)

Financing Source	Amount US\$ MILLION
PforR	380.5
Technical Assessment (IPF)	4.5

Borrower: Socialist Republic of Vietnam

Responsible Agency: Directorate for Roads of Vietnam (DRVN)

Contact: Mr. Nguyen Van Huyen	Title: Chairman
Telephone: +844 38571444	

Responsible Agency: Ministry of Transport (MoT)

Contact: Ms. Tran Thi Thanh Thuy	Title: Deputy Director, Department of Planning and Investment
Telephone: +844 39423291	Email: tthuy@mt.gov.vn

Expected Disbursements (in US\$ Million)								
Fiscal Year	2017	2018	2019	2020	2021	2022	2023	
Annual	18	40	93	104	79	20	31	
Cumulative	18	58	151	255	334	354	385	
Objective(s) of the Operation: <i>to improve the road and bridge connectivity for the rural communities of the participating provinces in Vietnam.</i>								
Compliance								
Policy								
Does the program depart from the CAS in content or in other significant respects?			No					
Does the program require any waivers of Bank policies applicable to Program-for-Results operations?								No
Have these been approved by Bank management?								N/A
Is approval for any policy waiver sought from the Board?								No
Does the program meet the Regional criteria for readiness for implementation?								Yes
Overall Risk Rating: Substantial								
Legal Covenants								
Name	Recurrent		Due Date		Frequency			
Schedule 2. Section I. C 2 (a)	Yes		N/A		On-going			
Description of Covenant: the Recipient shall undertake the actions, and cause the Participating Provinces to undertake the actions set forth in the Program Action Plan, in accordance with the provisions of the Operations Manual.								
Name	Recurrent		Due Date		Frequency			
Schedule 2. Section III. A 2	Yes		N/A		Annually			

Description of Covenant: the Recipient shall contract an independent auditor to undertake a verification process in accordance with terms of reference acceptable to the Association for the fulfillment of the Disbursement Linked Results.

Name	Recurrent	Due Date	Frequency
Schedule 2. Section III. D 2	No	October 31, 2019	N/A

Description of Covenant: the Recipient shall carry out jointly with the Association, by no later than October 31, 2019 a midterm review to assess the overall implementation progress of the Program and, based on the conclusions of the report, take any required measures.



Team Composition

Bank Staff

Name	Title	Specialization	Unit
Mitsuyoshi Asada	Senior Transport Specialist	Task Team leader	GTIDR
Tran Thi Minh Phuong	Senior Transport Specialist	Co-Task Team leader	GTIDR
Paul Valley	Senior Transport Specialist	Transport Cluster Leader	GTIDR
Romain Pison	Transport Specialist	Transport	GTIDR
Nguyen Van Hoai	Procurement Specialist	Procurement	GGODR
Pham Van Cung	Senior Financial Management Specialist	Financial Management	GGODR
Nguyen Nghi Quy	Social Development Specialist	Social Development	GSURR
Nina Masako Eejima	Senior Counsel	Legal	LEGES
Ha Thu le	Associate Counsel	Legal	LEGES
Chau-Ching Shen	Senior Finance Officer	Finance	WFALN
Thao Thi Do	Finance Analyst	Finance	WFALN
Tuong Phuong Thao	Program Assistant	Logistical Support	EACVF
Nguyen Chi Kien	ETC Engineer	Transport	GTIDR

Non-Bank Staff

Name	Title	Specialization
Jasper Cook	Consultant	Road engineering and management
Tran Thi Kim Dang	Consultant	Road engineering and management
Miles Rendell	Consultant	Project Preparation and Documentation

Vu Thi Dieu Ly	Environment Specialist	Environment
Mari Clarke	Consultant	Gender and Transport, M&E
Pilar Larreamendy	Consultant	Social Development

VIETNAM

RESULTS-BASED OPERATION FOR LOCAL BRIDGE CONSTRUCTION AND ROAD ASSET MANAGEMENT

I. STRATEGIC CONTEXT

A. Country Context

1. Vietnam has achieved high rates of sustained economic growth over the past 20 years. Between 1990 and 2010, real Gross Domestic Product (GDP) grew at an average annual rate of 7.4 percent and was among the world's top five growth performers. Meanwhile, the percentage of the population living below the poverty line decreased from 58 percent in 1993 to 15 percent in 2008. Vietnam joined the World Trade Organization (WTO) in 2007, and trade and foreign direct investment have grown significantly in the last 10 years.

2. In 2015, GDP per capita reached an estimated US\$2,052 at market prices. Infrastructure investment has been a key component of Vietnam's growth trajectory. Annual infrastructure expenditures have remained at between 9 and 10 percent of GDP over recent years, about half of which is transport related. As urbanization continues, further expansion of the road, rail, and inland waterway transport networks will be required to alleviate congestion, improve productivity and meet key growth and poverty reduction targets.

3. While economic growth and poverty reduction in Vietnam over the last two decades has been impressive, not all the regions have benefitted equally (Table 1). Poverty, and extreme poverty rates are highest in the Northern Mountains region of the country, and this region has experienced less poverty reduction than other parts of Vietnam over the last decade. This region also has the highest concentration of ethnic minorities. Since 1999, the Northern Mountains region has had the lowest income per capita in the country¹. In addition to the high incidence of poverty, districts in the Northern Mountains suffer higher expenditure inequality than other regions, indicating an uneven distribution of recent prosperity not only among the regions but also within them. This is partially attributed to poor connections between rural areas and markets, and a growing number of workers from rural areas migrating to the cities for work².

4. The situation in the North Central Coast region is not as critical yet comparable, since the region is the fourth poorest in Vietnam (Table 1). This region presents pockets of extreme poverty and isolation along the border, and substantial inequalities between the coastal and mountain areas. The North Central Coast Region performed well under the Bank funded Third Road Transport Project (RTP3). In addition the region was, along with the Northern Mountains region, a pilot area for the Vietnam Provincial Road Maintenance Management System (VPRoMMs) under RTP3. The North Central Coast Region is therefore a good candidate for this hybrid Operation that comprises a Results-based Program (PforR) and an Investment Project Financing (IPF) Technical Assistance Project in order to provide opportunity to achieve the intended objectives built on the achievements under RTP3. The Program's boundaries with two contiguous regions, along with poverty targeting by Region, will also facilitate the program design and implementation.

¹ Government Statistics Office, Monthly average income per capita at current prices by residence and by region (2013)

² Vietnam Poverty Assessment, World Bank, 2012

Table 1: Poverty Estimates by Region

	WB-GSO ^[1] Poverty Estimates		Population Share (%)
	Poverty Rate (%)	Extreme Poverty Rate (%)	
All Vietnam	20.7	8.0	100
East Northern Mountains	37.3	17.9	11
West Northern Mountains	60.1	36.5	3
Red River Delta (Hanoi)	11.4	2.8	22
North Central Coast	28.4	9.7	12
South Central Coast	18.1	5.9	9
Central Highlands	32.8	17.0	6
Southeast (Ho Chi Minh City)	8.6	3.1	18
Mekong Delta	18.7	4.8	19

Source: Vietnam Poverty Assessment, Table 1 (World Bank, 2012).

Note: ^[1] GSO is General Statistics Office of Vietnam.

B. Sectoral and Institutional Context

5. Vietnam's local road and bridge network comprises about 253,000 km, or about 85 percent, of the total network (295,000 km) which serves around 80 percent of the entire population and 90 percent of the nation's poor, who mainly live in rural areas. Research carried out in Vietnam and neighboring countries since 2000 has shown that investments in local roads and bridges have had a significant impact on poverty alleviation, social participation, school attendance and health services. However, many communes lack good condition roads and users are still facing high mobility costs, whilst many suffer from limited or non-existent bridge connectivity to the cities. Time lost from limited mobility and travel erodes prosperity. High mobility costs cut the disposable income of poor women and men as they often live in locations that lack reliable, safe, and affordable transportation.

6. As a result of the high rate of economic growth there have been significant infrastructure investments, especially on the local road and bridge network³. While government transport strategies and plans highlight maintenance as a priority, the actual amount of resources allocated to transport infrastructure maintenance is, at most, 50 percent of the necessary operations and maintenance expenditure at both national and local levels. The analysis of the breakdown of capital expenditure against operations and maintenance (O&M) expenditure, at the provincial level as well, clearly shows the imbalance in favor of capital expenditure, as O&M has never represented more than 20 percent of total expenditure (17 percent for the road sub-sector in 2011, and an average 12 percent during the period 2009-13). This observation, coupled with the fact that the level of O&M spending covers at most 50 percent of the needs for appropriate transport maintenance, supports the assumption that about 20 to 30 percent of total transport expenditure would be needed to target O&M expenditure. This analysis fully supports the involvement of the World Bank in this proposed Operation that focuses on better road transport infrastructure asset management, for both the local roads and the bridges.

7. Given the high level of investment over the past 10 years, partly funded by the issuance of government bonds, it is anticipated that infrastructure maintenance needs will be even higher over the next 10 years, leading to an asset preservation burden on the budget. A sustainable source of financing for maintenance, especially in the road sub-sector, will be required to preserve infrastructure assets in the future. The proposed Operation will incentivize maintenance activities so that the ratio of maintenance to overall road expenditures will increase in future years. This shift

³ "Local roads" comprise Provincial, District and Commune roads in Vietnam.

towards increased road maintenance financing will also trigger policy based discussion on the role of the Road Maintenance Fund (RMF), which is still at a nascent stage after its creation in 2012. The activities related to local road asset management (routine maintenance, periodic maintenance or rehabilitation) are being financed by the Provincial Road Maintenance Fund (PRMF). In addition, the impact of climate change has induced more extreme patterns of flooding which have subsequently impacted the local road network and bridges. Severe accidents including fatalities have occurred where temporary bridges collapsed during the rainy season flooding. The sustainability and the resilience of the bridge infrastructure has become a national priority, leading to the creation of a specific Program for Local Bridge Construction to Ensure Traffic Safety in Ethnic Minority Areas in 2014-2020 (PLBC).

8. Under the Budget Law, the People's Committee (PC) at each provincial level is responsible for the development, investment, management and maintenance of its respective roads and bridges. Thus, within each province the responsibility for local roads and bridges lies with the Provincial Department of Transport (PDoT), the District PC for district roads and the Commune PC for commune and hamlet roads. It is common practice in the provinces that each district receives as little as US\$15,000 annually for routine maintenance of the district road network, which represents on average a few hundred kilometers. Communes and hamlets may receive no maintenance budget.

9. In addition, planning and technical capacity for local road and bridge management is poor at the district and commune administrative levels. As a local road maintenance culture is established, the district and commune staff will require training and support to strengthen maintenance practices, instill management knowledge and best practice skills. Whilst coordination and technical monitoring by PDoTs is critical for ensuring the quality of rehabilitation and maintenance activities, the roles and responsibilities of the different implementing agencies are not always clearly defined. The current institutional arrangements do not provide districts and communes with the financial or technical support to preserve the road and bridge network. As a result some district and commune PCs have no qualified transport staff in charge of their road and bridge networks. Access to quality data for planning and budgeting purposes is often lacking at the provincial level, and non-existent at the district and commune levels. In many provinces this is a result of inadequate attention to the collection and updating of road inventory data, while for the bridges such an inventory does not systematically exist. The proposed Operation will play a part in addressing a number of the sectoral and maintenance issues described in this section, particularly concerning bridge and road maintenance and their asset management.

C. Relationship to the CAS/CPS and Rationale for Use of Instrument

10. The proposed Operation is closely aligned with the World Bank Group's twin goals of ending extreme poverty and boosting shared prosperity, as well as the overarching theme of sustainability, given the evidence of the inverse correlation between extreme poverty and accessibility. Focusing particularly on the Northern Mountains and North Central Coast regions for the roads presents an opportunity to address extreme poverty and promote shared prosperity. This Operation is also consistent with the World Bank Group's Vietnam Country Partnership Strategy (CPS) for 2012 to 2016 (Report 85986-VN). The principal rationale for Bank assistance is that the proposed program directly contributes to the poverty reduction and economic growth objectives set out in Vietnam's 2006-2010 and 2011-2015 Socio-Economic Development Plans (SEDP), which state the priorities of the rural transport sector to be: the completion of basic access; the improvement of access quality and an increase in maintenance budgets.

The proposed Operation aims to contribute to the Government's objective of establishing year-round access to all communes in Vietnam and as such would contribute to the CPS objective of ensuring

equitable growth in Vietnam. The Operation directly supports the priority of the CPS to narrow the development gap of disadvantaged and lagging areas, which include the targeted provinces of Northern Mountains and North Central Coast regions for the road activities. The proposed Operation will also support the empowerment of communities and gender equality by including both women and men in locally based routine maintenance. As such, it will fit into the Opportunity Pillar of the CPS (*Objective 3.2: Increased Basic Infrastructure and Public Service Delivery*) by connecting rural communities to markets and essential services, and addressing gender dimensions of transport.

11. A hybrid Operation that combines a PforR (the Program) and an IPF for Technical Assistance (the Project) has been selected as an effective instrument to facilitate the Government's efforts in articulating the implementation modalities of the National Road and Bridge Programs, particularly through aligning the provision of finance for strategic local infrastructure maintenance in targeted provinces by creating incentives through Disbursement Linked Indicators (DLI) for better planning and timely delivery of the infrastructure investments, and at the same time building their technical, managerial and financial capacity through specific activities. The proposed Operation would (i) fill the financing gap between the needs of the Government's programs and the current budget allocations, (ii) provide technical enhancements combined with behavioral changes in the Government's approach to planning, design, monitoring and evaluation of the programs by recommendations made as a result of the assessments, and (iii) provide asset value savings with prioritized maintenance allocations incentivized in the DLI design. The proposed PforR therefore addresses the need to focus on incentives, behaviors and sustainable investments, including by changing the public spending approach. The Vietnamese Government and World Bank have therefore agreed that the Program for Results (PforR) instrument is the most effective and suitable to implement the planned activities as it will strengthen the Government's programs and systems, build on the results of the previous program of three Rural Transport Projects (I, II and III), and allow for the adoption of a policy oriented approach to the development of the Local Road and Bridge Network in Vietnam.

12. The proposed Program would build on lessons learned from the on-going three Program for Results (PforR) operations in Vietnam. The Government has already gained experience of applying this modality in the rural water supply and urban development sectors and will be supported in its current efforts toward enhancing the efficiency and effectiveness of expenditure allocations. The lessons learned have included the following aspects: 1) the three elements of PDO, Program definition and DLIs need to be closely interrelated, and works should proceed simultaneously among these elements. A modification in the definition of one of these elements is likely to impact the other two. Further, having an upfront idea of possible indicators influences the Program definition. Ultimately, the process starts from the Government program, then the Program boundaries, PDO and Program results/DLIs. The right balance in terms of the scope of the Operation is a critical part of the discussion in shaping the Programs and Project. A smaller Operation mitigates risks, but also reduces flexibility in terms of implementation. The proposed Operation is the result of extensive discussion on the boundaries of the activities to be implemented, the level of risks in the preparation and implementation, as well as the political economy of road maintenance activities in Vietnam. The right balance in the number and the type of indicators and DLIs is critical. Having scalable DLIs proved to be a key feature to mitigate the disbursement risk, along with a reduced number of DLIs, which are, in the proposed Operation, a balance of output-based indicators and outcome-based indicators. The Bank assistance to develop and support this Program would also facilitate the sharing of lessons learned from successful rural and local transport projects implemented globally. The current GoV system is not adapted to technical assistance activities required for the Bank Program in the DLI-based disbursement mechanism and therefore would benefit from a separate IPF Technical Assistance Project. The Bank will bring leading international experts in road asset management, bridge

maintenance and engineering, climate resilient roads, gender mainstreaming in transport, from within and outside the Bank to assist in the design and support the Program’s implementation.

II. PROGRAM DESCRIPTION

A. Program Scope

13. The Government has endorsed the National Transport Development Strategy to 2020 and vision to 2030, and under this strategy, the development of road and bridge programs. The Government has developed National Strategy on Rural Transport Development (NSRTD) and a National Program for Local Bridge Construction to Ensure Traffic Safety in Ethnic Minority Areas in 2014-2020 (PLBC). The NSRTD and PLBC are closely linked as they both target improving access in rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children.

The National Strategy on Rural Transport Development (NSRTD)

14. The implementation of the National Strategy on Rural Transport Development to 2020 vision to 2030 (NSRTD) is being decentralized to the provinces and responsibility for implementation is with the Provincial Department of Transport (PDoTs). The national objectives of the NSRTD are to achieve the following by 2020: a) Reach 100 percent connectivity/accessibility of communes by motorized transport, b) Pave 100 percent of district roads and at least 70 percent of commune roads, c) Provide maintenance funding for 100 percent of district roads and at least 35 percent of the commune roads. The National Strategy is supported by an expenditure framework for the rehabilitation activities, while the routine maintenance activities are developed from the Medium Term Expenditure Plans (MTEPs), which have not been prepared for all Provinces at this stage. Based on an economic analysis done on seven Provinces which completed their MTEPs early, the NSRTD program is estimated to reduce CO2 emissions by 4.3 percent from 1,036,081 tons per year to 991,294 tons per year (Annex 4).

15. The Provincial implementation plan is supported by an expenditure framework for classified activities, such as improvement, rehabilitation, periodic and routine maintenance. The implementation results under the program during 2010-2015 and the implementation targets during 2016-2020 are shown below:

Table 2: NSRTD Implementation Results during 2010-2015

Road Classification	Completed (km)	Total Investment (VND billion)	Total Investment (US\$ million)
Provincial	3,250	12,000	536.67
District	10,875	30,350	1,357.33
Commune	45,300	61,326	2,742.67
Village	71,650	65,055	2,909.44
Farm	29,500	17,365	776.61
Total	160,575	186,196	8,327.19

Source: Ministry of Transport

Table 3: NSRTD Implementation Targets during 2016-2020

Road Classification	Targets (km)	Budget Projection (VND billion)	Budget Projection (US\$ million)
Provincial	4,650	18,600	831.84
District	15,356	46,068	2,060.29
Commune	60,602	81,812	3,658.86
Village	47,171	38,208	1,708.77
Farm	48,807	33,055	1,478.31
Total	176,587	217,743	9,738.06

Source: Ministry of Transport

Table 4: NSRTD Implementation Targets for 14 Provinces during 2016-2020

Road Classification	Targets (km)	Budget Projection (VND billion)	Budget Projection (US\$ million)
Provincial	1,451	5,470	243.04
District	5,652	15,056	668.97
Commune	13,270	19,684	874.61
Village	16,988	11,770	522.97
Farm	11,251	9,933	441.34
Total	61,913	61,913	2,750.95

Source: Ministry of Transport

16. The expenditure framework of the NSRTD, the improvement and rehabilitation activities coupled with the preliminary estimates for routine maintenance for the 12 Provinces for which MTEPs have been developed (out of the 14 Provinces targeted) as follows:

- **Improvement and rehabilitation** of Local Roads. This will be captured in the proposed Operation by the indicator “Km of roads that received improvements and rehabilitation” that comprises the local road network where activities of rehabilitation, and pavement upgrade have been delivered. These expenditures are considered *capital expenditures* in Vietnam, as they are designed to avoid road degradation, such as resurfacing asphalt and concrete overlays.
- **Routine maintenance** of the local roads along definitions and programs is detailed in MTEPs. The Bank supported the preparation and development of MTEPs in 12 provinces, under a recently closed Bank financed activity. The indicative NSRTD implementation targets for the 14 provinces for the period 2015-2020 suggests VND 61,913 billion (about US\$ 2,750 million equivalent) shown in Table 4. These estimated costs are relevant as a basis for an estimation of the overall costs of such a strategy and will be refined with the use of MTEPs in all provinces. This will be captured in the proposed Operation by the indicator “Km of roads that received routine maintenance” that comprises all the local road network where activities of routine maintenance have been delivered. Routine Maintenance are operations required to be carried out more than once per year on a section of road (eg. pothole repairs, cleaning of drainage, sealing of cracks and cutting of vegetation). All the previously supported MTEPs, as well as those under development, will be the foundations for the Operation. An increased percentage of recurrent expenditures will be allocated to the Operation and Maintenance activities (O&M). These expenditures are considered *recurrent expenditures* in Vietnam.

The Program for Local Bridge Construction (PLBC)

17. The Program for Local Bridge Construction (PLBC) is managed at the national level by the Ministry of Transport (MoT). Covering 50 provinces, the program funds the construction of small bridges with widths of 1.5m to 3.5m. The bridges are to be constructed to provide access to remote and poor communities, many of which are inhabited by ethnic minorities. The objectives of the PLBC are to achieve the following by 2020: a) Complement the program for local road development by targeting villages and commune roads with missing or unsafe links (river crossing... etc.), b) Facilitate access to social services and other facilities such as schools, clinics within the local road network, c) Target poor communities, particularly those of ethnic minorities. In order to achieve the objectives of the PLBC during the period from 2014 to 2020 the Government needs to complete 4,145 bridges. The overall PLBC cost in the 50 provinces for 2015-2020 is estimated at about US\$330 million. The implementation results under the program during Phase 1 (2010-2015) and the implementation targets during Phase 2 (2016-2020) are shown below:

Table 5: PLBC Implementation Results and Targets

Year/Sources	Number of Rigid Bridges	Number of Suspension Bridges	Total Budget (VND billion)	Total Budget (USD million)
Total Phase 1 (2014 - 2015)		186	931.70	57.58
Phase 2 (2015 - 2020)				
2015-2016		150	910.82	40.58
2016-2017		145	880.46	39.23
2017-2018	1,222		1,873.00	61.62
2018-2019	1,222		1,873.00	62.52
2019-2020	1,220		1,870.00	62.86
Total Phase 2	3,664	295	7,407.28	330.97
Whole Program (2014-2020)	3,664	295	8,338.98	372.63
In which				
ODA funding			5,625.00	
Local Budget			1,000.00	
Private sector contributions			782.28	

Source: Decision No 2529/QĐ-TTg by Prime Minister dated 31 December 2015 on Endorsement of the PLBC

The Operation (PforR Program and IPF Project)

18. The proposed Operation has two complementary elements – a Program using the PforR instrument (Program), supported by a US\$380.5 million IDA credit, and Technical Assistance (Project) using the Investment Project Financing (IPF) instrument, supported by a US\$4.5 million IDA credit. The implementation period is 7 years, from FY2017 to FY2023. The proposed PforR will have two results areas which correspond to the alignment with the NSRTD and the PLBC - that will be fully linked to the Government's annual budget cycle. The proposed IDA credit will cover about 28% of the equivalent needs for the two national programs; the remainder is planned to be provided by the Government. A more substantial part of the World Bank support will target the bridge component, as the needs and geographical spread are both larger than those of the road area.

19. Expenditure under the Technical Assistance Project will be managed in accordance with OP/BP10.00 (see Annex 9). The separate Technical Assistance Project is justified in view of the lessons learned from the preceding three PforR in Vietnam which suggest that the current GoV system is not adapted to technical assistance activities required for the Bank Program in the DLI-based disbursement mechanism. The Ministry of Transport therefore expressed a strong preference to finance technical assistance through IPF procedures. In several cases, technical assistance inputs will be required to meet DLIs. The Government's record in executing technical assistance is sound and it will prioritize the processing of those activities necessary for DLI compliance. The Technical Assistance Project will mostly consist of activities that are necessary to complete the PforR, namely activities related to a) auditing the Program, b) improving the capacity of Implementing Agencies in environmental and social management, and c) the Local Road Asset Management Systems support, climate resilience in the road network, and community and women based road maintenance.

20. The PforR Program will target improved spending efficiency in the selected provinces through the adoption of sustainable shifts in maintenance policy and budget allocation mechanisms, rather than funding the entire maintenance backlog. The Program is designed to incentivize prioritization of road maintenance activities, including both routine and periodic maintenance, as these provide the highest return on funding. The Program to be supported by this proposed Operation is a results-based approach to operationalize the planned activities in the following two Results Areas.

Result Area 1 – Improvement of local accessibility and associated service delivery

21. Result Area 1 of the PforR will provide support to the NSRTD. The proposed program will include rehabilitation of and the maintenance of local roads in 14 targeted provinces. The scope of this program is based on the readiness of Medium Term Expenditure Programs (MTEPs) prepared by each province, on the basis of a three year rolling program that will be extended to cover the period from FY2017 to FY2023.

22. The road results area of US\$135 million would support efforts of the National Program for the participating Provinces, with a particular focus on the rehabilitation and improvements to the network, while creating incentives to strengthen the maintenance activities with the Government's budget. Implementation and operational support will be embedded in these activities. The road results area of US\$135 million comprising a US\$125 million envelope for civil works and a US\$10 million envelope for consultancy services (preparatory activities, supervision...etc), which will be embedded in DLI based disbursement.

Result Area 2 – Improvement of local bridge connectivity to isolated communes

23. The Result Area 2 of the PforR Program will provide support to the PLBC. This Program will fund the reconstruction or construction of thousands of small bridges to isolated poor communities in the 50 targeted provinces. The scope of this program is based on the same boundaries as the national program. The total national program cost during 2015-2020 is estimated to be around US\$330 million for the 50 Provinces.

24. The World Bank subprogram will support the financing and construction of part of the 3,664 bridges of the National Program that still need to be completed (out of the 4,145 total bridges of the National Program excluding the 235 suspension bridges already constructed under phase 1 using GoV's budget). The bridge results area is proposed to provide financial support of US\$245.5 million for the fifty (50) participating Provinces. Implementation and operational support will be included in these activities. The bridge results area of US\$245.5 million will comprise a US\$215.5 million envelope for civil works and a US\$30 million envelope for consultancy services (preparatory activities, supervision...etc), which will be embedded in DLI based disbursement.

Content of the Technical Assistance Project

25. The Technical Assistance Project for an estimated amount of US\$ 4.5 million will consist of the activities that are necessary for the completion of the PforR Program (see Annex 9), namely a) activities related to the DLI verification (US\$ 1.50 million) and financial audit (US\$ 0.63 million), and internal audit (US\$ 0.37 million) of the Program, b) activities related to improving the capacity of implementing agencies in environmental and social management (US\$ 0.5 million), and c) activities related to the Local Road Asset Management Systems (US\$ 1.00 million), climate resilience in the local road network (US\$ 0.20 million), and community and women organization road maintenance activities. (US\$ 0.30 million).

26. The TA activity related to Road Asset Management Systems will rely on the results obtained under the ongoing Bank funded Vietnam Road Asset Management Project (VRAMP) and will have the objective of optimizing the funding mechanism and creation of maintenance work incentive under the Road Maintenance Fund (RMF). This will help to establish the working procedures for the RMF under VRAMP and under the Operation will extend these down to the provinces with an emphasis on funding maintenance, which will eventually improve the budgeting, planning, and implementation of road maintenance activities.

B. Objective of the Operation

27. The Objective of the Operation is to improve road and bridge connectivity for the rural communities of the participating provinces in Vietnam.

C. Program Key Results and Disbursement Linked Indicators (DLI)

28. The program will: a) Enhance rural accessibility and connectivity, b) Lower road users' transport costs, and, c) Strengthen institutional capacity at the local level to plan, manage and sustain the development of local road and bridge networks. The translation of these objectives into the proposed key results areas and corresponding proposed DLIs is in Annex 3.

29. The project design is supported by the choice of practical, measurable and verifiable DLIs but also effective triggers of sustained policy change. The project will rely on a mixture of intermediate outcome based and output based indicators to take into account short term policy changes and longer term behavioral change, such as improving the efficiency of road maintenance delivery mechanisms, the use of Medium Term Expenditure Plans (MTEPs), and the efficient use of the Road Maintenance Fund to improve the quality of the road network. In both cases, DLIs are designed to incentivize the government to achieve key milestones and targeted policy changes, hence the consideration of the full program outcome chain.

30. The selection of easily measurable and reportable DLIs also facilitates matching each DLI with the agency, or stakeholder, best equipped to achieve the indicator target, and the identification of this agency, or stakeholder, at the correct administrative level (national, provincial, district, etc.). Finally, the number of DLIs has been intentionally limited to five, to prevent administration of funds disbursement from becoming too complex and to ensure that monitoring and reporting through the M&E framework is manageable.

31. In summary, the following DLIs have been discussed, developed and agreed upon:

- **Number of kilometers of roads that received improvements, rehabilitation:** This DLI will enable the progress to be linked with the number of kilometers of road actually improved. As per standards specified in the Operations Manual (OM), for each Province, and for each year, the DLI will account for the improvements made possible through the Program.

While the indicator is output-oriented, it is a standard proxy indicator used in the road sector to measure outcomes and impacts and will be a SMART⁴ measurement of the progress. This indicator comprises all the local road network where activities of rehabilitation, pavement upgrade have been delivered. These expenditures are considered *capital expenditures* in Vietnam, as they are designed to avoid road degradation, such as resurfacing asphalt concrete overlays, etc.

- **Number of kilometers of roads that received routine maintenance at minimum level:** This DLI will enable monitoring of the maintenance works planned as per the National Program and as part of the MTEP in accordance with the standards stated in the OM. This indicator comprises all of the local network roads where routine maintenance activities have been delivered. Routine maintenance are operations required to be carried out more than once per year on a section of a road (pothole repairs, cleaning of drainage, sealing of cracks, cutting of vegetation, etc.) These expenditures are considered *recurrent expenditures* in Vietnam.
- **Increased amount in budget allocation for maintenance:** This DLI will enable monitoring and also trigger policy change in the road maintenance approach by incentivizing an increase in the share of expenditures dedicated to road maintenance. For each participating province, specific baselines, targets and allocations are set.
- **Number of bridges built or rebuilt:** This DLI will enable the progress to be linked to the number of bridges actually built or rebuilt in accordance with all relevant standards, for each Province, and for each year. The DLI will account for the connectivity improvements made possible through the bridge activities. While the indicator is output-oriented, it is a standard proxy indicator used in the road sector to measure outcomes and impacts and will be a SMART measurement of the progress.
- **Percentage of participating provinces managing a bridge database:** This DLI will help introduce the notion of bridge asset management into the Vietnam's transport infrastructure management. Currently the local departments of transport have a rather limited knowledge of their own bridge related assets and condition. The establishment of a bridge database will help transition towards a bridge asset management system equivalent to the VPROMMS for the roads, and will include information concerning bridge status, such as days closed or impassable, works, inspections and updates in accordance with the standards stated in the OM.

D. Key Institutional Systems Strengthening Activities

32. In light of the sector related challenges identified, the Program is designed to improve implementation in the provinces by using a combination of design support during preparation, results-based disbursements to incentivize performance, and technical assistance during implementation. Key institutional systems strengthening activities have been agreed with the Borrower to improve Program performance. The planned institutional strengthening activities will focus on the gap analysis in the three assessments. The enhanced implementation performance introduced by the proposed Operation would impact sustainability by providing the confidence and technical assurance of the implementing entities, as well as the financial authorities within government to sustainably finance the remaining part of the programs.

⁴ SMART stands for Specific, Measurable, Assignable, Realistic, Time-related

33. Specifically, technical assistance support will be provided to selected provinces to enhance capacity for road and bridge asset management for the road network at the provincial, district and commune levels. This will provide overall support to the improvement of the local road asset management practices. The World Bank has already provided TA support, with funding from the Australian Government, for TA to pilot use of MTEPs for local road networks, coupled with the application of the Vietnam Provincial Road Maintenance Management System (VPRoMMS) that enables PDoTs to prioritize interventions on the local road and bridge network based on both technical and socio-economic data, and provide an estimated cost for prioritized interventions, on a multi-year basis.

34. The Medium-Term Expenditure Program (MTEP) identified the local road rehabilitation and maintenance needs of 12 Provinces so far out of the 14 targeted Provinces. The identification and economic evaluation was done using the Road Network Evaluation Tools Model (RONET) that is a tool for assessing the performance of road maintenance and rehabilitation policies of an entire road network and the importance of the road sector to the economy. Without the continuous use and updating of road condition data for VPRoMMS or an equivalent Road Asset Management Tool, there cannot be a realistic and efficient network-based analysis to prioritize maintenance and budget allocation. Program activities will focus on linkages between the MTEP, the budgeting cycle, and the technical output provided by VPRoMMS, and use of the RONET⁵ software to prioritize maintenance needs over annual cycles. The deployment of VPRoMMS-RONET will simplify the data collection needs, simplify the data computation exercise, and allow consideration of the introduction of sequential annual contracts or multiannual contracts to promote continuous routine maintenance. In parallel, VPRoMMS-RONET data and analyses will be updated to allow for a multi-year approach. To complete development of this system requires that further work is undertaken to ensure that road classifications are improved in order to better respond to the road maintenance needs of the districts and communes. The success of the roll-out of the combined RONET-VPRoMMS system initiated under RTP3 will be critical to ensure the sustainability of road maintenance programs in Vietnam, and will therefore be sustained under the proposed Operation to increase capacity at all local levels.

35. Under the previous Bank funded Third Road Transport Project (RTP3), the implementation arrangements moved all work to contracting and this approach will be reinforced and fostered. The project will also be helping each of the provinces to build resources and skills at the District level, particularly for maintenance, which is currently non-existent. This additional capacity will continue after the project at the District level, while devolution and decentralization started by the GoV will continue and boost district level capacity. For the bridges, skills and expertise to monitor the databases, assets and bridge condition will be a key objective of the activities.

III. PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

36. The MoT will be the Program Decider and will be responsible for the overall program management and oversight. Its responsibilities are to coordinate the activities of central government agencies, Provincial People's Committees (PPCs), Provincial Departments of Transport (PDoTs) and other relevant organizations. MoT has appointed the Directorate for Roads of Vietnam (DRVN) to be the overall Program Coordinator for both road and bridge results areas, as DRVN is the sole agency for the road sector in Vietnam. Within MOT, DRVN will be responsible for Program TAs while PMU6 will be in charge of their procurement on behalf of DRVN. PMU6 is also the road sub-

⁵ RONET is a SSATP (Sub-Saharan Africa Transport Program) developed tool that is designed to assess the current characteristics of road networks and their future performance depending on different levels of interventions to the networks.

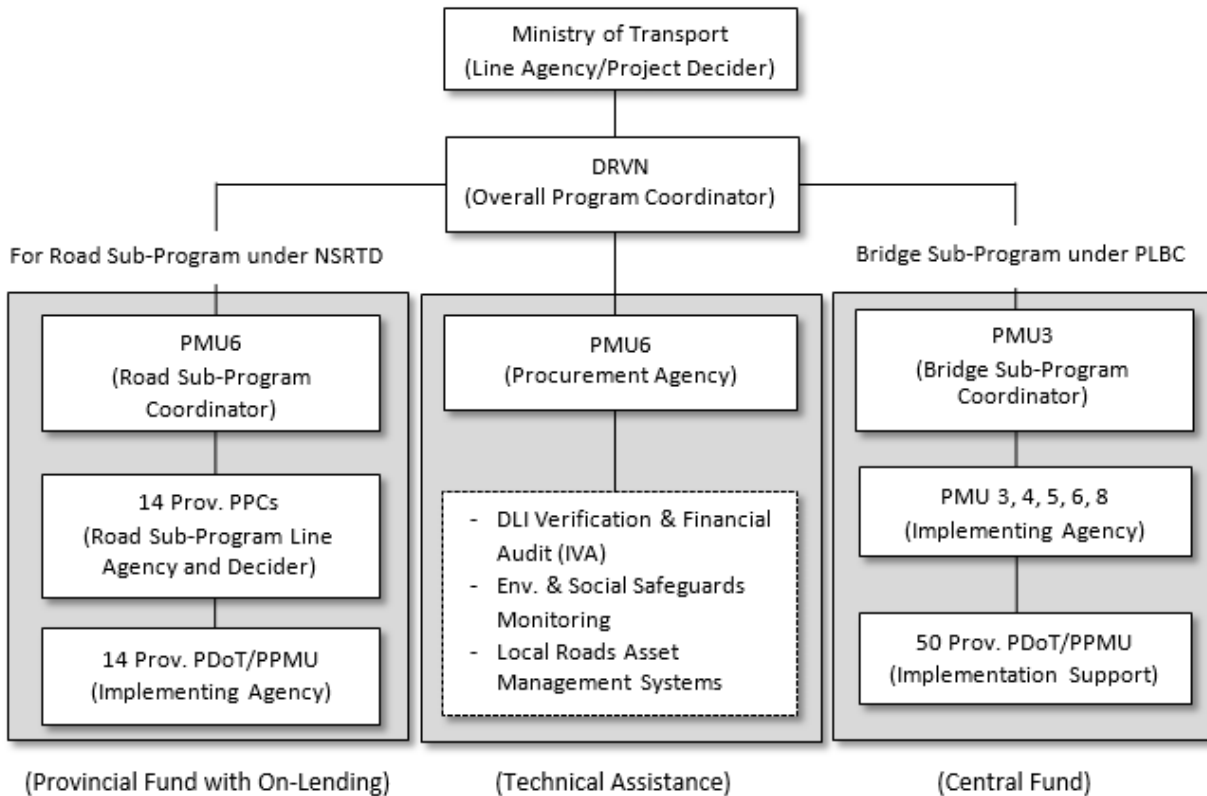
program coordinator, while DRVN is the bridge sub-program owner. DRVN will therefore be the focal agency (lead agency) to work with the Bank, and assist the MoT in the overall Program management.

37. At the central level, MoT's and DRVN's functional departments will be the technical lead for local road standard, specification, and cost norms for local road maintenance and bridge construction activities. Program quality will be ensured by the Technical Control for Quality Management Department (TCQM) that will coordinate with the Department of Science and Technology (DST) to appraise technical guidelines and engineering designs for roads and bridges. At the provincial level, institutional strengthening and training need to be provided to PDoTs as well as the Departments of Planning and Investments (DPI) and Departments of Finance (DoF). Quality will be ensured by the Transport Engineering Construction and Quality Management Bureau and the Department of Science and Technology (under MoT) to appraise typical designs for roads and bridges. The PPCs will play a key role in mobilizing other related departments, specifically in facilitating the close linkages needed with the PDoTs and Division of Infrastructure and Economic at the local level. A high level of participation is required from local governments. Local networks of the Women's Union and Commune leaders will be instrumental in program implementation.

38. For the road results area (Road Sub-Program), PMU6 will be the overall sub-program coordinator and will work with PDoTs and assist the DRVN in the sub-program management. The PPC of the 14 participating provinces will be the Line Agency and Project Decider of the Sub-Program in each province. The PPC will decide their investment and arrange provincial counterpart funds to achieve objectives as committed in each Province's approved MTEP. The PDoTs/PPMUs of the participating provinces will be the Implementing Agencies and will be responsible for technical decisions and management of the road improvements and maintenance based on the MTEP's plans and schedules. A high level of participation is also required from the local governments. Local networks of the Women's Union and Commune leaders (Women Union, Veterans Association ...) will be instrumental in the rural roads routine maintenance aspects of the Program implementation.

39. For the bridge results area (Bridge Sub-Program), DRVN will act as the owner of the overall sub-program and project decider. Five Project Management Units (PMUs) - PMU 3, 4, 5, 6 and 8 - will be the implementing agencies under the DRVN for the fifty (50) participating provinces in coordination with the PDoTs and PPMUs.

Figure 1. Institutional arrangements for Program Implementation



Source: Ministry of Transport

40. **For the Technical Assistance Project** (Annex 9), MoT authorized DRVN to be responsible for overall project coordination and PMU6 to be responsible for the procurement and financial management of the TA Project. For the entire Project, MoT will be responsible for (i) designing and maintaining the FM procedures and regulations for the project, (ii) facilitating the fund flow to the beneficiaries, (iii) meeting the reporting requirements of the project, and (iv) setting up the arrangements of the project auditing (both internal and external audit).

Independent Verification Agent (IVA)

41. An independent auditor will play the role of the *Independent Verification Agent (IVA)*. The IVA role is to provide independent confirmation of the results reported by the MoT and the Provinces to the MoF and the Bank, which will consist of (i) financial audit, and (ii) verification of the achievements of the DLIs. The Financial Audit and the verification of DLIs will be conducted in accordance with the agreed verification protocol/audit terms of reference provided in the Operations Manual (OM).

B. Results Monitoring and Evaluation

42. The Program will strengthen the national programs' existing M&E system through which the provinces will both plan their investment program and track their results. Results reporting will take place on an annual basis linked to the national planning and budgeting process and the reports will be made publicly available.

43. The M&E system will be strengthened through the Technical Assistance Project to improve community monitoring and strengthen MoT and PDOTs at the local levels. This will improve the efficiency and therefore cost-effectiveness, timeliness and accuracy of the collection, and monitoring of information and facilitate reporting on the results achieved under the Program. To monitor and evaluate progress toward the intended benefits for women and men at the local level, a baseline survey will be conducted when the project becomes active. During the life of the project, community members will provide participatory monitoring of their engagement with the project planning and implementation as well as perceived benefits and concerns. A final evaluation shall be conducted at the close of the project.

44. The M&E system will also take advantage of the quality of the DLIs which have been selected with the Government so that they are straightforward and cover the Program's various components. All defined DLIs include a quality dimension encouraging the reaching of a minimal ex-post standard as defined in the OM. This approach will facilitate the monitoring by the counterparts, the auditing of the project in line with the disbursements, and the consolidation of a straightforward causal chain with a minimum number of exogenous factors that may have otherwise hindered the post-project impact analysis on attribution.

C. Disbursement Arrangements and Verification Protocols

45. Funds will pass from the central level (from MoF via its treasury system) to the Provincial People's Committees (PPC) in the 14 recipient provinces for the NSRTD and to MoT/DRVN for the PLBC. Fund allocations will be made on the basis of provincial plans for the NSRTD and the national plan for the PLBC. The PPCs and the MoT/DRVN are responsible for allocating sufficient funding to Districts, PDOT and MoT's PMUs in accordance with the relevant guidance to achieve the required DLI targets. MoT/DRVN will support the provinces to measure progress appropriately using the existing M&E system and will collate the results to assess progress in achieving the DLIs. The results across the Program region will be aggregated as the basis for meeting the DLIs.

46. Once satisfied with the accuracy of the reporting, MoT/DRVN will present annually by March 31st, evidence of the DLI achievement (covering the period of January 1st to December 31st of the previous year) to the IVA which is tasked with verifying the results, by no later than May 31st each year in the form of the Program Results Verification report (PRVR) which will be shared with MoT and the World Bank. In order to validate the disbursement request submitted by MoT, the IVA will verify all DLI target indicators through both a desk review and physical inspection that tests the accuracy and quality of results claimed. In accordance with good audit practice, physical verification will take place against a sampling framework and frequency. A key use of the Results Verification Report will be to determine the amount of eligible disbursement based on results achieved. If the Bank finds that the disbursement request meets the terms of the Credit, the Bank will disburse the corresponding funds to the MoT.

47. **Disbursements under the TA Project** (see Annex 9) will be made primarily as Advances, though the Reimbursement and Direct Payment may also be made. Applications for withdrawal, except in the case of the initial Advance must be accompanied by Statements of Expenditure and Summary Sheets with records evidencing eligible expenditures. Advances will be transferred to a segregated US dollar denominated account at a financial institution acceptable to the Bank with a fixed ceiling of US\$ 900,000. Expenditure from the DA will be reported on a quarterly basis. The Minimum application Size for Reimbursements and Direct Payments will be US\$ 100,000 equivalent. The Disbursement Deadline will be 4 months after the Project's closing date. However, for the P4R 'Program' part, the disbursement deadline date is 6 months after the closing date.

Baseline and Verification

48. While the participating provinces and the MoT/DRVN already have provisional baseline data in their sector plans, an assessment will be undertaken by the IVA to validate the baseline information submitted by the provinces and confirmed by the MoT/DRVN, and create a starting point for the results that they will later be required to evaluate.

49. Results will be verified through financial audit, procedural verification, and physical inspection that tests the accuracy and quality of results claimed. In accordance with good audit practice, physical verification will take place against a sampling framework and frequency. The level of calibration will be detailed in the Verification Protocols.

50. The IVA will prepare a Results Verification Report (RVR) that will be shared with MOF and the World Bank. A key use of the RVR will be to determine the amount of the eligible disbursement based on the results achieved.

Advances

51. The Borrower informed the Bank that advances will be needed. Advances up to 25 percent of total Program financing (“advance”) could be made by the Bank to MoF. After consulting the provinces, MoT and MoF will jointly determine the level of advance to be requested. When the DLI(s) against which an advance has been disbursed are achieved, the amount of the advance will be deducted (recovered) from the total amount due to be disbursed under such DLI(s). The advance amount recovered by the Bank is then available for additional advances (“revolving advance”). The Bank requires that the borrower refund any advances (or portion of advances) if the DLIs have not been met (or have been only partially met) by the Closing Date, promptly upon notice from the Bank.

Reconciliation

52. If the Bank establishes after the Closing Date that the Withdrawn Financing Balance exceeds the total amount paid for Program Expenditures, exclusive of any such amounts funded by any other financier or by the Bank under any other loan, credit or grant, the Borrower shall, promptly upon notice from the Bank, refund to the Bank the excess of the Withdrawn Financing Balance. The Bank shall then cancel the refunded amount of the Withdrawn Financing Balance.

Reports and Financial Statement Audit

53. MoT/DRVN shall prepare Program consolidated financial statements annually, as outlined in the Results Monitoring and Evaluation framework, above. The Program Report will include consolidated financial statements that will cover all Program activities, expenditures and sources of funds, in accordance with the applicable international public sector accounting standards (IPSAS). Each province will prepare financial statements for the activities implemented by the PPC and submit to MoT/DRVN for consolidation and audit. The annual financial statement must be submitted to MoT/DRVN by February 28th each year of Program implementation, and MoT/DRVN must submit consolidated Program financial statements to IVA by March 31st. IVA will audit the Program financial statements. The Program Audit Report and audited financial statements shall be submitted to the Bank within seven (7) months after the end of the financial year.

IV. ASSESSMENT SUMMARY

54. The PforR lending instrument uses four assessments undertaken by the Bank as the basis for appraising the Program. These are: a) Technical Assessment that also includes, *inter alia*, the economic evaluation; b) Fiduciary Systems Assessment; c) Environmental and Social Systems Assessment; and d) Integrated Risk Assessment.

A. Technical (including program economic evaluation)

55. **Program Strategic Relevance.** Both the National Strategy on Rural Transport Development (NSRTD) and the National Program for Eradicating Temporary Bridges (PLBC) are technically sound and have a strong justification in terms of transport and economic benefits. The road network has been drastically transformed over the past 10 years, with a 23 fold increase in the length of commune roads. The efforts made to develop the commune road network highlights the social needs for additional connectivity and for lowering transport cost in rural areas. While Vietnam has a complete road network with a relatively high road density, of about 0.8 kilometers of road per square kilometer, the full potential of such a network is hindered by its poor condition due to a lack of proper maintenance. As a result there is a substantial backlog of maintenance works for the whole network. About 96 percent of national roads are paved, but only about 43 percent are in good condition; 37 percent are in average condition; and 20 percent in poor to very poor condition. The quality and condition of bridges is also of great concern and may paralyze the entire network in case of an incident, while the lack of safe bridge crossings increases the risk of accidents or may even prevent trips for children on their way to school, patients visiting health clinics, and farmers wanting to sell their products at local markets. The Program will target improving the efficiency of spending in the selected provinces (14 provinces for the road, 50 provinces for the bridges), through the adoption of sustainable shifts in maintenance policy and budget allocation mechanisms, rather than funding the entire maintenance backlog. The design and scope of the Program incentivizes prioritization of road maintenance activities, including both routine and periodic maintenance, as these provide the highest return on expenditure.

56. **Program Technical Soundness.** The effective preservation of the local road network requires a Program that is supported by rolling Medium Term Expenditure Plans (MTEPs) and a long term vision for sustainable financing and management arrangements, rather than focusing solely on individual investment sub-projects in the short term. The Program aims to rebalance the widening gap between routine and periodic maintenance needs and will be used to lay the framework for sustainable local road asset management in the targeted provinces. In particular, the Northern Midlands and Mountain area region shows a 10 percent level of spending on Operation and Maintenance (O&M), while the North Central and Central Coastal region less than 8 percent on O&M. MTEPs will be used as equivalents to local road master plans (medium and long term) in order to support the local authorities to better plan and prioritize both capital and operational expenditures within budgetary constraints. The World Bank support to the ongoing MTEP exercise coupled with the continued use of the road asset management system (VPRoMMS-RONET) aims to enable Provincial DOTs to prioritize local road network interventions based on both technical and socio-economic data, and provide adequate estimated costs on a multi-year basis, while securing adequate financing margins for operations and maintenance.

57. **Program expenditure framework.** Analysis conducted during preparation concludes that the GoV has in place budget and expenditure management systems and practices that support both programs in reaching their expected results. The Program supported by the World Bank shares most of the characteristics of the national program. Difficulties have been identified in particular areas,

including level of expenditures, allocation to non-structural investments, and their transparency and effectiveness, as well as the structural imbalance between recurrent and capital expenditures.

58. Program economic evaluation. From a broad economic perspective, the development and maintenance of the rural road network is an excellent investment that supports a strong return and inclusive growth for the country. The World Bank previously financed Vietnam's Third Rural Transport Project (RTP3) which had a substantially positive impact on the project beneficiaries' incomes, approximately one million of whom were poor. RTP3 investments helped lift approximately 510,000 people out of poverty.

59. The project's economic analysis was carried out for the NSRTD and PLBC. A cost benefit analysis was done for the NSRTD, using the RNET model, in which road user cost savings (vehicle operating costs and travel time costs) were compared with the proposed investments over an evaluation period. The evaluation of the PLBC was done using a cost effectiveness analysis in which the proposed investments were compared to the beneficiary population.

60. The Provincial, District and Commune Class A and B roads of the 14 Provinces participating in the NSRTD were surveyed to characterize all roads in terms of road class, surface type, condition and traffic. In total 36,122 km were surveyed, of which 54 percent are paved roads. The average traffic is 358 vehicles per day and the total network utilization is 4,719 million vehicles per day. The average percent of the paved roads in stable condition (good or fair condition) is 70 percent, while for the unpaved roads is 42 percent. Each road category was evaluated to identify the preservation road works requirements (routine maintenance, periodic maintenance or rehabilitation works) over the evaluation period.

61. The NSRTD program has a very high economic justification with an overall Economic Internal Rate of Return of 73 percent, a Net Present Value (NPV) of US\$ 1,130 million and a B/C ratio of 3.3. A sensitivity analysis increasing the program costs by 15 percent and reducing the program benefits by 15 percent, yields an overall EIRR of 41 percent, based on data from 7 Provinces available at the time of the economic analysis.

62. The NSRTD program is estimated to reduce CO2 emissions by 4.3 percent from 1,036,081 tons per year to 991,294 tons per year (see Annex 4).

63. The PLBC program was evaluated using a cost effectiveness benchmark, which is used to judge a program or project in situations where benefits cannot be measured in monetary terms, or where measurement is difficult. An initial assessment of the country's bridge rehabilitation needs identified 3,664 bridges requiring rehabilitation at an estimated cost of about US\$330 million for civil works including contingencies. The cost effectiveness of this initial assessment shows that the average length of the bridges is 33 meters and the average rehabilitation costs is US\$ 48,049 per bridge or US\$ 1,467 per meter, which is adequate⁶. The 3,664 bridges are located on 1,720 communes with an estimated population of 10.3 million inhabitants resulting on an average bridge rehabilitation cost per beneficiary population of US\$ 17.5 per person, which represents a cost effective program to achieve the objective of providing basic access to social and economic centers of a rural population (see Annex 4).

⁶ The cost/m depends on the width of bridge, type of bridge etc. and applies here to narrow bridges. The unit cost of bridge is generally expressed in US\$/sqm. According to preliminary assessments based on data available, the cost for suspension bridge under phase-1 was US\$ 1500/sqm and the concrete bridge permanent was about US\$ 2,000/sqm.

B. Fiduciary

64. **Financial Management Systems.** The Bank has assessed the financial management arrangements of the NSRTD and PLBC and found that they provide a reasonable assurance that the financing proceeds will be used for the intended purposes, with due attention to the principles of economy, efficiency, effectiveness, transparency and accountability. The Fiduciary Systems Assessment covers and details the analysis of the Provincial Government systems as well, and based on the overall findings, supports the Operation along with the recommended actions detailed in the PAP. The MoF recognizes the need to secure Program funds in a special deposit account, in the State Treasury at the provincial level, to manage proper budget allocation, execution and reporting of the provinces. MoF's approach is contained in the Government's Project Outline.

65. **The overall Fiduciary Risk is Substantial.** Two substantial risks have been identified. The first relates to the budgeting and planning process and the second relates to internal controls. The fiduciary systems' assessment identifies risks and proposed mitigation measures. The results of the assessment and recommendations are reflected in the technical assistance program and the Program's integrated action plan.

66. The risk relating to budgeting and planning process is the risk that insufficient budget may be allocated for Program implementation. In addition, in the PLBC, there may be a mismatch between the bridge(s) prioritized and proposed by the Provinces and MOT's preset priority criteria which may impair the Program's efficiency. In order to mitigate this risk, the following are recommended:

- The criteria and priorities shall be established through early consultations with the provinces. A monitoring/review mechanism shall be established to ensure that the prioritized bridges proposed by the provinces meet pre-set criteria;
- Performance based budget shall be in place for road maintenance which takes into account the DLIs to ensure that sufficient budget is allocated (a) in a timely manner to facilitate implementation; (b) for both improvement and regular maintenance activities; and (c) for both provincial and the districts/commune roads.

67. The second risk relates to the absence of the Internal Audit function and inefficiency of the existing Inspection function which may not provide adequate assurance for the Program's internal controls. An Internal Audit (IA) function is therefore required for the Program.

68. An independent auditor will play the role of the *Independent Verification Agent (IVA)*. The IVA role is to provide independent confirmation of the results reported by the MoT and the Provinces to the MoF and the Bank, which will consist of (i) financial audit, and (ii) verification of the achievements of the DLIs. The Financial Audit and the verification of DLIs will be conducted in accordance with the agreed verification protocol/audit terms of reference provided in the Operations Manual (OM).

69. **Procurement.** The proposed Program will adopt Government systems. The Fiduciary System Assessments established an overview of the implementation arrangement and existing procurement arrangement related to local road management and bridge construction being conducted in the provinces including regulatory framework, procurement practices, and procurement capacity of the Implementing Agencies. A summary of the assessment is provided in Annex 5. While it found a general sound system in place and the gaps in the Government's procurement systems are not major, a number of weaknesses were identified, and will be addressed through the PAP and OM to ensure that the fiduciary systems provide a reasonable assurance that the Program will achieve the intended results through its procurement processes and procedures.

70. The existing legal framework for the proposed Program will follow the national procurement laws and regulations. After July 1, 2014 when the new national procurement law No. 43/2013/QH13 was adopted, the procurement is governed by such law and decree No. 63/2014/ND-CP, which has been effective since August 15, 2014.

71. Procurement accountability for both road and bridge related activities will be ensured by the Provincial People Committee (PPC) which is the Investment Decider; and therefore has authority to approve the procurement plan (PP), which is prepared by the Department of Transport (DoT) or District People Committees (DPC) as Investment Owners. DoT and DPC are responsible for implementing the approved PP including making the required decisions during the procurement phase such as approving bidding documents, and contract awards. PDoT appeared able to satisfactorily handle procurement transactions in compliance with the approved Procurement Plans and the national procurement laws and regulations.

72. Procurement issues that may negatively affect the timeliness, efficiency and economy of program implementation include insufficient procurement human resource allocation, excessive use of direct contracting, incorrect rejection of bids, awarding of contracts to dependent State-Owned Enterprises (SOEs)⁷, non-application of Bank debarment/suspension lists and unavailability of budget for the sub-projects under the Program. In order to address these procurement issues the following measures are proposed:

- i. The Operations Manual clearly indicates the coordination mechanism between the central implementing agencies (PMUs) and provincial Implementing Agencies (such as DoT/DPC) in carrying out the procurement activities under the Program;
- ii. The Program Action Plan (PAP) will include the following procurement actions:
 - All proposals for detailed designs, construction supervision and bids for civil works, whether below or above the cost estimates, shall be evaluated; proposals and bids shall not be rejected solely on the basis of minor non-substantive deviations.
 - Dependent (from Program Provinces or MoT) SOEs will not be allowed to participate in the bidding process.
 - At least 80 percent of total value of contracts for consulting services and 80 percent of the number of contracts for works awarded annually will be procured competitively.
 - Firms on the local, national or Bank debarment list⁸ will not be allowed to participate in procurements.

73. Procurement for the Technical Assistance Project of the proposed Operation will be carried out in accordance with: 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, revised July 2014 (the Procurement Guidelines); *Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers* dated January 2011, revised July 2014 (the Consultant Guidelines); and the provisions stipulated in the Financing Agreement (Annex 9)

⁷ SOEs may participate if they can establish that they meet all of the following four criteria, namely that they are: (i) legally autonomous, (ii) financially autonomous, (iii) operating under commercial law, or (iv) not a dependent agency of the concerned Ministry or Department.

⁸ The national debarment list can be found at <http://muasamcong.mpi.gov.vn/>, and the World Bank debarment list at <http://www.worldbank.org/debar>, and the temporary suspension list at <https://clientconnection.worldbank.org>

74. **Governance.** The proposed Operation shall help advance the mainstreaming of governance at various levels such as transparency, participation of the beneficiaries and civil society at large, and anti-corruption in Vietnam, in line with the Country Partnership Strategy. At the transparency level, the Operation shall help the development of a more holistic approach for road maintenance awareness at all levels through the systematic use of MTEPs for prioritization of road maintenance. Participating Provinces will also enhance transparency by maintaining databases on public consultation/corruption/fiduciary/procurement/Program implementation complaints and the responses through grievance mechanisms and systems to be established. In terms of participation of civil society at large, the Bank has developed a strategic framework to systematically mainstream citizen engagement in Bank Group-supported activities. The goal is to improve the development results of activities and, within the scope of these operations, to strengthen engagement processes between governments, the private sector and citizens. In addition, one of the recommendations from the assessment indicated that MOT/DRVN will develop community/citizen engagement guidelines (to be implemented by PMU and participating provinces) to enhance people's participation, especially for Ethnic Minorities to ensure their meaningful participation and consultation in every step of the Program implementation, including planning, sub-project design and implementation, compensation, resettlement and rehabilitation measures in land acquisition. A DLI on citizen engagement is also included in the Results Framework.

75. For anti-corruption objectives, the Government has confirmed its commitment to the implementation of the Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results Financing which requires the application of World Bank suspension and debarment lists. The Government would also be required to issue a decision obliging all Program participants to cooperate with Bank investigations under an Executive Order to targeted provinces concerning the Bank's investigative rights and the Anti-Corruption Guidelines. All the above approaches to mainstream governance in the road sector through this Operation may positively impact project effectiveness.

76. The GoV has agreed to follow the Bank's anti-corruption guidelines that apply to all PforR Programs. Key arrangements for the implementation of these guidelines, including at the provincial level, will be included in the OM. This will set out the steps that GoV will take to: (a) report on allegations of fraud and corruption in the Program and how they are handled; (b) apply the Bank's debarment list to the Program; and (c) assist any Bank investigation under the anti-corruption guidelines by ensuring cooperation from those involved in the Program, including ensuring that these participants will be obligated to cooperate with the Bank. As noted above, items (a) and (b) are included as actions in the PAP and will be covenanted in the legal agreements through the OM. However, for item (c) a prospective covenant is not envisaged since the Government has submitted to IDA evidence of a written communication from a competent central government authority to the relevant provincial authorities which sets out the obligations of those authorized to cooperate with any investigations under the Program, including any investigations that may be necessary by the Bank's Integrity Vice-Presidency. This communication to the provinces has been issued by MoT under the authorization of the Office of Government.⁹

C. Environmental and Social Systems

77. **Environmental Systems.** Vietnam has a good legal system for environmental management. The new Law on Environmental Protection (LEP) which became effective from January 2015, Decree

⁹ Currently under discussion with the Government.

18/2015/ND-CP and Circular 27/2015/TT-BTNMT set out a relative comprehensive environmental management framework for infrastructure projects. Environmental management is also supported with related laws such as the Law on Cultural Heritage, the Law on Mineral Resources, the Law on Water Resources, the Labor Law, the Law on Natural Disaster Prevention and Responsive etc. The existing legal system is adequate for identifying and managing potential environmental impacts and risks resulting from the investments provided under the Operation.

78. The scale of the road rehabilitation, bridge and access road construction under the Operation is relatively small. The potential negative environmental impacts and risks would therefore be mostly small to medium. The locations of bridge subprojects will be considered carefully in order to avoid potentially adverse impacts during the construction and operation phases in sensitive areas. Subproject impacts and risks would be manageable through the appropriate siting, engineering design, and construction of these facilities. There are also opportunities to make the proposed investments environmentally sound by incorporating environmentally friendly solutions into the engineering design and construction activities.

79. The state environmental management authority has limited resources, particularly at district level. As a result, post-EA supervision by local authority is not common, particularly for small projects. Environmental performance of a particular subproject depends on the capacity of the Project Owner, construction supervisors and contractors. Therefore, the roles of DRVN and the PMUs in managing the Operation are critical to ensure that the potential negative socio-environmental impacts are avoided or mitigated, and the positive impacts are promoted. The Program's Implementing Agencies (ie. DRVN, PMUs 3, 4, 5, 6 and 8) have institutional arrangements and experience on environmental safeguard management at various levels. The Bank's team summarized the capacity and experience of the Implementing Agencies as follows:

- DRVN has staff with relevant background education but lack of practical experience in managing safeguards in similar programs.
- PMU 8 has strong capacity and extensive experience in environmental management.
- PMU 3's environmental performance is good if closely monitored.
- PMU 6 has safeguard staff who received extensive on-the-job training under past World-Bank financed projects.
- PMUs 4 and 5 need to be assisted with both technical expertise and putting in place a proper management and coordination procedure.

Given the large number of provinces covered under the Operation and uneven existing environmental management capacity between the Implementing Agencies, there would be a risk that the level of environmental performance is not consistent between the provinces/subprojects. Under the Operation, the identified gaps will be addressed through a Technical Assistance which covers environmental capacity building, technical guidance/assistance and independent monitoring.

80. **Social Systems.** The Program will have significant positive impacts on the socio-economic environment in the short term, as they provide employment for laborers leading to increased income. In the long term, improved road conditions provide increased access to social services, markets and could improve employment overall in the localities. The land acquisition impact in this program is expected to be minor given the nature of the investment (road rehabilitation or construction of small rural bridges). The percent of the acquired area is hardly more than 10 percent of the total land holdings. However, in some exceptional cases, the proposed investments may cause physical relocation impact, although the number of relocated households is expected to be very small. In addition, given the geographical spread of the Program, it will be very likely that it will be implemented in provinces with Ethnic Minority (EM) communities. The NSRTD and PLBC are

closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children. They will be provided with vital linkages to schools, markets and other centers. This is expected to provide substantial changes in the daily mobility patterns of the communities. One of the challenges in Program implementation is how to maximize its accessibility and benefits in these less developed regions.

81. The implementation arrangement is different in the two program areas. For the local road area, the local authority (PPC) is the owner of sub-projects in its locality. PPC is responsible for approving the subprojects and arranging the counterpart funds for implementation. MOT (through DRVN) plays the role of overall coordination with support from PMU6 to work with the World Bank and support overall project management. In the bridge area, the program will be implemented by PMUs 3, 4, 5, 6 and 8 under the coordination of DRVN (MOT). PMUs and PPMUs have well established procedures for dealing with land acquisition and compensation issues. All PMUs have dedicated staff working on social risks/impact management. These staff may be gathered in a single unit (PMU3) or integrated in project implementation departments (PMUs 4, 5 and 8) with dedicated staff (PMU6).

82. The Operation is designed in such a way that land acquisition will be minimized and the majority of land utilized will be vacant public land. Nonetheless, there may be some incidences where land acquisition is required. The assessment on EMs policy implementation suggests that the regulations covering this aspect are relatively well structured but there are some uncertainties relating to the capacity to implement those regulations. Specifically, free, prior, and informed consultation must be undertaken if EMs are potentially affected (positively or negatively). The assessment has made a number of recommendations, aiming to improve the social management system of the Operation. The recommendations are around three pillars (i) land acquisition and compensation; (ii) ethnic minority affair; and (iii) information disclosure and consultation. During program implementation, these are achieved by compliance with the Program Action Plan or the specific guidance in the Operations Manual, which specifies technical and operational aspects mentioned in the PAD.

83. The World Bank has developed a strategic framework to systematically mainstream citizen engagement in Bank Group-supported activities. The goal is to improve the development results of activities and, within the scope of these operations, to strengthen engagement processes between governments, the private sector and citizens. In addition, one of the recommendations from the assessment indicated that MOT/DRVN will develop community/citizen engagement guidelines (to be implemented by PMU and participating provinces) to enhance people's participation, especially for Ethnic Minorities to ensure their meaningful participation and consultation in every step of the Program implementation, including planning, sub-project design and implementation, compensation, resettlement and rehabilitation measures in land acquisition. A DLI on citizen engagement is also included in the Results Framework.

84. World Bank Grievance Redress. Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR Program, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance redress mechanism or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. 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. The information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS) is available at

<http://www.worldbank.org/GRS>. The information on how to submit complaints to the World Bank Inspection Panel, is available at www.inspectionpanel.org

85. **Gender.** A baseline survey for the Mekong Delta Infrastructure Development Project found that men and women have different travel patterns, uses of modes of transport, and access to and use of transport infrastructure and services based on their socially determined roles and responsibilities. Women had less information about transport projects than men and less voice in decision making about the projects. The proposed Operation will take into account the different transport needs of women and include measures to ensure that women as well as men are involved in planning, implementation, and evaluation.

86. A pilot project financed under RTP3 placed the Vietnam Women's Union in the lead of commune routine road maintenance in three provinces with technical guidance from the Provincial Department of Transport (PDoT). In 2010 RTP3 initiated a small pilot routine road maintenance activity for ethnic minority women in five communes in the mountainous Lao Cai Province. The Provincial Women's Union (PWU), under the Vietnam Women's Union (VWU), managed the pilot with technical guidance from the Provincial Department of Transport (PDoT) and the District Urban Management Department, in coordination with Provincial, District, and Commune People's Committees. Based on the pilot's very positive initial outcomes, a Women-Managed Routine Rural Road Maintenance Program scaled up the approach, including some refinements, in more districts in Lao Cai Province as well as two additional provinces (Quang Binh and Thanh Hoa) from the last quarter of 2012 until mid-2014. Positive outcomes included increased access and empowerment of women participants, increasing their status and voice in decision-making in the home and community.

87. The proposed Operation will build upon the lessons learned in the women-led routine maintenance pilot including:

- the importance of awareness raising and mobilization to build a culture of road maintenance,
- the need for a clearly defined coordination framework between the transport officials, People's Committees, and Women's Union at each level,
- the value of a recurrent provincial budget for routine maintenance of local road networks,
- the viability of including climate resilience in the form of trees and other vegetation planting as an integral part of routine community road maintenance,
- the need for ongoing supervision/technical support by transport staff, use of simple training materials and participatory approaches in awareness raising and training for community women and men¹⁰.

88. The Proposed Operation may therefore include : (i) a review of current practice in gender mainstreaming in rural road projects, including public private partnership (PPP) approaches, to build on the strong contribution of private firms to PLBC phase II for suspension bridge construction (about US\$19 million) (ii) the assistance to the MoT in developing guidelines for gender mainstreaming in the transport including PPP approaches, building on the WB support already provided through TDSI in developing tools and training; (iii) the refinement and scale up of use of training materials developed for women-led routine road maintenance, based on assessment findings, and best practices in other rural road projects; (iv) a scale up of the media campaign for community road stewardship/road maintenance through the Women's Union and other social organizations; (v) a pilot for PPP in community based road maintenance with associated capacity building for the

¹⁰ World Bank Vietnam, 2014. Empowering Women to Build a More Equitable Future in Vietnam

women’s union, project implementation units, and contractors; (vi) the development of a module on community based routine road maintenance for the Transport University training program.

D. Integrated Risk Assessment

1. Integrated Risk Assessment Summary

89. The Integrated Risk Framework (Annex 7) provides details of the risk analysis and proposed mitigation measures. The program’s technical design presents risks as the impacts of the proposed Operation may be limited given the program’s overall boundaries and the length of the local road network, yet too broad to ensure compliance and proper monitoring. While the Bank contribution and support to the GoV programs will be limited in financial terms, the risks associated with the substantially large geographical scope of the Operation will be mitigated with increased auditing through the IVA and support in supervision and evaluation through the Performance Assessment Tool (PAT) developed by the Bank, and provided at the local level. In order to mitigate the risk associated with the lack of updating the Road Asset Management System (i.e. VPRoMMS-RONET), the proposed Operation includes incentive mechanisms to put in place specific budget for annual data collection, while DLIs include the use of VPRoMMS-RONET or an equivalent Road Asset Management Tool. The success of the roll-out of the combined and simplified RONET-VPRoMMS system will ensure the sustainability of the data use for planning and programming.

90. Institutional Capacity for Implementation and Sustainability is also at risk, as late fund transfers from GoV budget may impact the implementation of the MTEP and delay the overall programs. However, MTEPs allow rolling implementation periods while the Bank support may be used to cover temporary delays and gaps in the GoV program’s budgeting and allocation at the local level. In addition, the sustainability of the maintenance scheme may not be ensured as the Bank supported Program only covers part of the funding gap, and the RMF may not be sufficient to sustain further maintenance operations after the Program ends, for both the roads and bridges. The policy dialogue to be conducted in parallel with the proposed Operation shall help strengthen both the RMF and the PRMF to sustain the local road network maintenance, as well as through the incentives/DLIs put in place by the Operation. The activities related to local road asset management (routine maintenance, periodic maintenance or rehabilitation) are being financed by the Provincial Road Maintenance Fund (PRMF). The monitoring framework will ensure that each Province maintains its existing level of programming for both capital and maintenance programs, so that the Bank supported program along with the RMF will finance extra-maintenance activities. The Program will also coordinate with a TA activity as conducted under the ongoing Bank funded Vietnam Road Asset Management Project (VRAMP) with the objective of optimizing the funding mechanism and creation of incentives for maintenance work under the RMF. This will help to set up the working procedures for the RMF under VRAMP and the Operation will extend these down to the provinces with an emphasis on funding maintenance, which will eventually improve the budgeting, planning, and implementation of road maintenance activities.

Risk	Rating
Technical	Substantial
Fiduciary	Substantial
Environmental and Social	Moderate
Disbursement Linked Indicator	Moderate
Overall Risk	Substantial

2. Risk Rating Explanation

91. The overall risk is rated “Substantial”, given that the rating is expected to reflect risks prior to the mitigating activities contemplated under the Program and documented in this Program Appraisal Document. Although the PforR lending instrument is still new in Vietnam, the road related activities that the program supports have a long history of increasingly robust performance, up to the creation of the RMF in 2012. Lessons learned from the Bank-supported PforRs have also been incorporated in the Program’s development, for instance the selection of the reduced number of core DLIs and the reduced number of results areas. In addition, lessons from the road programs in Vietnam have been incorporated, including from RTP1, RTP2 and RTP3 on the following aspects: a) institutional strengthening was targeted to improve the planning and implementation of each province’s road program instead of only the Bank-financed program, b) the technical design was adapted to the local material availability and conditions, c) a more holistic approach for road maintenance awareness at all levels was developed, d) a fairness and transparency plan for procurement was designed and adopted, and e) the community participation in rural road maintenance was reinforced as well as the quality control for the works. The more challenging part of the equilibrium between road investment and road maintenance will have explicit support from the DLI structure in the results-based approach. Additional details concerning the risk ratings are provided in Annex 7.

E. Program Action Plan

92. Based on the risk assessment, the principal Program actions (technical, systems, agency capacity and performance, as well as risk mitigation) that will be carried out to improve the Program are summarized hereafter and presented in Annex 8.

93. **Governance.** Participating Provinces will enhance transparency by maintaining databases on public consultation/corruption/fiduciary/procurement/Program implementation complaints and the responses through grievance mechanisms and systems to be established. The information will be aggregated at the national level by MoT and will be reported to the Bank on a periodic basis.

94. **Procurement.** Procurement systems will be enhanced by ensuring that: (a) All proposals for detailed designs, construction supervision and bids for civil works, whether below or above cost estimates, shall be evaluated; proposals and bids shall not be rejected solely on the basis of minor, non-substantive deviations, (b) Dependent (from Program Provinces or MoT) SOEs will not be allowed to participate, (c) At least 80 percent of total value of contracts for consulting services and 80 percent of the number of contracts for works awarded annually will be procured competitively, (d) Firms on the local, national, or Bank debarment list will not be allowed to participate.

95. **Financial Management.** Government will build and implement effective financial and results audit capabilities for the Program. Components of this action include: (a) Provinces (with guidance from PMU6) will prepare an overall five year financial plan to implement the Program, as detailed in the OM. Each year an accurate budget proposal will be produced by Provinces based on the estimated work progress and cash flow of the coming year to ensure there is no gap in the funding necessary to achieve the Program results (b) MoF will ensure that a mechanism for results-based financing is included in the Government’s annual budget cycle of related provinces, and that the annual budget allocation is adequate to achieve each year’s objectives (c) Provinces will prepare annual Program financial statements, (d) Implementing Agencies will establish an internal audit function for the Program, (e) An external IVA with generally accepted audit scope and approach will audit the Operation, (f) OM is prepared and implemented.

96. **Environment and Social.** Environment and Social aspects will be enhanced by ensuring that MOT/DRVN will develop community/citizen engagement guidelines (to be implemented by PMU and participating provinces) to enhance people's participation, especially for Ethnic Minorities to ensure their meaningful participation and consultation in every step of the Program implementation, including planning, sub-project design and implementation, compensation, resettlement and rehabilitation measures in land acquisition. The guideline will be community-driven, transparent, gender sensitive and in appropriate language. Given that the program will be implemented over a large geographic area with many different ethnic groups, specific guidance will be provided at the local level for each ethnic group. In addition, the guidelines shall fully operationalize existing Vietnamese Legislation with respect to Ethnic Minorities through a process of free, prior, and informed consultations.

97. **Operations Manual.** The implementation of the Program Action Plan (PAP) actions will require central government orders that direct and guide ministries, provinces, and their lower-level institutions how to implement the actions. The actions are expected to be executed through instructions contained in an Operations Manual (OM). The OM is required by the Government to complement existing manuals and will play an instructional role as well as have the PAP embedded in it. The OM sets forth: (a) the Vietnamese regulations and laws that will govern the various aspects of the Program; and (b) the supplemental provisions necessary to address the gaps identified in the PAP. The OM shall be approved and issued by the competent authority, expected to be the Minister of MoT, and the Participating Provinces will follow its provisions. During implementation, each province will have to ensure that it puts in place the necessary arrangements described in the OM.

Annex 1: Detailed Program Description

Description of the Objectives

1. The Objective of the Operation is to improve road and bridge connectivity for the rural communities of the participating provinces in Vietnam.

Description of the scope of the Program

2. The Government has endorsed the National Strategy on Rural Transport Development to 2020 and vision to 2030, and under this strategy, the development of road and bridge programs. The Government has developed NSRTD National Program for Local Bridge Construction to Ensure Traffic Safety in Ethnic Minority Areas in 2014-2020 (PLBC). The NSRTD and PLBC and National Strategy on Rural Transport Development are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children.

The National Strategy on Rural Transport Development (NSRTD)

3. The implementation of the National Strategy on Rural Transport Development (NSRTD) is being decentralized to the provinces and responsibility for implementation is with the Provincial Department of Transport (PDoTs). The objectives of the NSRTD are to achieve the following by 2020: a) Reach 100 percent connectivity/accessibility of communes by motorized transport, b) Pave 100 percent of district roads and at least 70 percent of commune roads, c) Provide maintenance funding for 100 percent of district roads and at least 35 percent of the commune roads. In order to achieve the objectives of the program, the Government will implement a program of rehabilitation and improvements as well as improve budget planning to be based on a three year rolling MTEP towards an increased percentage of recurrent expenditures to be allocated to Operation and Maintenance activities (O&M). Currently 12 provinces targeted have prepared MTEPs. The indicative NSRTD implementation targets for the 14 provinces for the period 2015-2020 suggests VND 61,913 billion (about US\$ 2,750 million equivalent) shown in Table 4.

The Program for Eradicating Temporary Bridges (PLBC)

4. The Program for Eradicating Temporary Bridges (PLBC) is managed at the national level by the Ministry of Transport (MoT). Covering fifty provinces, the program funds the construction of small bridges with widths of 1.5m to 3.5m. The bridges are to be constructed to provide access to poor communities, many of which are inhabited by ethnic minorities. The objectives of the PLBC are to achieve the following by 2020: a) Complement the program for local road development by targeting villages and commune roads missing or unsafe links (river crossing... etc.), b) Facilitate access to social services and other facilities such as schools, clinics within the local road network, c) Target poor communities, particularly those of ethnic minorities.

5. In order to achieve the objectives of the PLBC program during the period from 2014 to 2020 the Government needs to complete 4,145 bridges. The overall PLBC cost in the 50 provinces for 2015-2020 is estimated at about US\$ 330 million.

The Operation (PforR Program and IPF Project)

6. **The proposed Operation will improve the road and bridge connectivity for the rural communities of the participating provinces in Vietnam.** A preliminary assessment of the strategic relevance of the Government Programs that the World Bank aims to support has been conducted during the identification missions. Both the NSRTD and the PLBC have been developed under the umbrella of the Vietnamese Rural Transport Development Strategy 2020 which covers the Northern Middle and Mountainous Area, Red River Delta, Central North and Central Coast, Central Highlands, the South East and the Mekong River Delta.

7. **The proposed Operation has two complementary elements – a US\$ 380.5 million Program using the PforR instrument (Program), and a US\$ 4.5 million Technical Assistance Project using the Investment Project Financing (IPF) instrument, over a six year program period, from 2017 to 2022.** The proposed PforR will have two results areas which correspond to the alignment with the national programs under the Vietnamese Rural Transport Development Strategy 2020 Strategy – one for the NSRTD and the other for the PLBC - that will be fully linked to the Government’s annual budget cycle.

8. Expenditure under the Technical Assistance Project will be managed in accordance with OP/BP10.00 (see Annex 9). The separate Technical Assistance Project is justified by the lessons learned from the preceding three Vietnamese PforRs which suggest that the current GoV system is not adapted to technical assistance activities required for the Bank Program in the DLI-based disbursement mechanism. The GoV therefore expressed a strong preference to finance technical assistance through IPF procedures. In several cases, technical assistance inputs will be required to meet DLIs. The Government’s record in executing technical assistance is sound and it will prioritize the processing of those activities necessary for DLI compliance. The Technical Assistance Project for an estimated amount of US\$ 4.5 million will consist of the activities that are necessary for the completion of the PforR Program (see Annex 9), namely a) activities related to the DLI verification (US\$ 1.50 million) and financial audit (US\$ 0.63 million), and internal audit (US\$ 0.37 million) of the Program, b) activities related to improving the capacity of implementing agencies in environmental and social management (US\$ 0.5 million), and c) activities related to the Local Road Asset Management Systems (US\$ 1.00 million), climate resilience in the local road network (US\$ 0.20 million), and community and women organization road maintenance activities. (US\$ 0.30 million).

9. The Program’s overall objective is to facilitate and ensure all year round access to community centers and villages in remote rural areas and contribute to the transport development objectives of the Vietnamese Rural Transport Development Strategy 2020. The specific objectives are to reduce travel costs and improve access to markets and social services for poor communities in the targeted provinces through better management and maintenance of the network. One of the strategic challenges facing the provinces is that of establishing an effective management and implementation model. It is proposed that this needs to establish a sound framework for predictable financing for infrastructure investments for a province’s local road network to be addressed through use of a three-year rolling Medium Term Expenditure Plans (MTEP). Adoption of this tool has been successfully piloted¹¹ and has been found to provide a solid basis for budget planning.

¹¹ With funding from the Australian Government, TA was provided to four pilot provinces to assist in the preparation of MTEPs covering current and recurrent expenditures on a rolling three year basis for the local road network in each province. This pilot was successful and is now being scaled-up to a further three provinces.

10. For the NSRTD, the scope of the proposed Operation will be a sub-set of the provinces in the national programs, as the World Bank support targets fourteen provinces in the Northern Mountains and Northern Central Coast Regions, which are among the poorest. The provinces are also selected on the basis of the readiness of MTEPs. Out of the fourteen provinces, seven have completed and approved MTEPs, while the other six provinces have started to consolidate their MTEPs with the support of consultants. All fourteen provinces are already using the RNET-VPROMMs. For the PLBC, the scope of the World Bank support to the bridge program will cover fifty provinces, in order to align with the Government Program that aims to address the issue of unsafe bridges in the country. The alignment with the national bridge program, the flooding patterns, the lack of bridge safety and the requirement that bridges connect to communities classified as poor, and often from ethnic minorities, justify the inclusion of the bridges in the proposed PforR. The fifty provinces for the PLBC include the fourteen provinces selected for the NSRTD. In addition, exclusion criteria will be developed to ensure that agreed activities under the national programs will meet Bank policy requirements on PforR, i.e. major civil works with environmental and social impacts will be excluded.

11. The PforR Program will target spending efficiency improvements in the selected provinces through the adoption of sustainable shifts in maintenance policy and budget allocation mechanisms, rather than funding the entire maintenance backlog. The Program's design and scope of the Program have been selected so that they incentivize prioritization of road maintenance activities, including both routine and periodic maintenance, as these provide the highest return on fund. The Program to be supported by this proposed Operation is a results-based approach to operationalizing the planned activities in the following two Result Areas.

Result Area 1 – Improvement of local accessibility and associated service delivery

12. The Result Area 1 will provide support to the NSRTD. The proposed program will include the rehabilitation of and the maintenance of local roads in fourteen targeted provinces. The scope of this program is based on the readiness of MTEPs prepared by each province, on the basis of a three year rolling program that will be extended to cover the period from 2015 to 2021. The indicative NSRTD implementation targets for the 14 provinces for the period 2015-2020 suggests VND 61,913 billion (about US\$ 2,750 million equivalent) shown in Table 4

13. The PforR approach disburses against results and the control is at the end not the input level. Based on the MTEP analysis, the revenue projections for the local road networks will be less than those estimated for the national program. The proposed World Bank subprogram for support to the NSRTD will therefore help to reduce the funding gap in order to ensure completion of the program.

Result Area 2 – Improvement of local bridge connectivity to isolated communes

14. The Result Area 2 of the PforR will provide support to the PLBC. This Program will fund the reconstruction or construction of thousands of small bridges to isolated poor communities in the fifty targeted provinces. The scope of this program is based on the same boundaries as the national program.

15. The World Bank subprogram will support the financing and construction of part of the 3,664 bridges of the National Program that still need to be completed (out of the 4,145 total bridges of the National Program excluding the 235 suspension bridges already constructed under phase 1 using GoV's budget). The bridge results area is proposed to provide financial support of US\$245.5 million for the fifty (50) participating Provinces. Implementation and operational support will be included in

these activities. The bridge results area of US\$245.5 million will comprise a US\$215.5 million envelope for civil works and a US\$30 million envelope for consultancy services (preparatory activities, supervision...etc), which will be embedded in DLI based disbursement.

Content of the Technical Assistance Project

16. The Technical Assistance Project for an estimated amount of US\$ 4.5 million will consist of the activities that are necessary for the completion of the PforR Program (see Annex 9), namely a) activities related to the DLI verification (US\$ 1.50 million) and financial audit (US\$ 0.63 million), and internal audit (US\$ 0.37 million) of the Program, b) activities related to improving the capacity of implementing agencies in environmental and social management (US\$ 0.5 million), and c) activities related to the Local Road Asset Management Systems (US\$ 1.00 million), climate resilience in the local road network (US\$ 0.20 million), and community and women organization road maintenance activities. (US\$ 0.30 million).

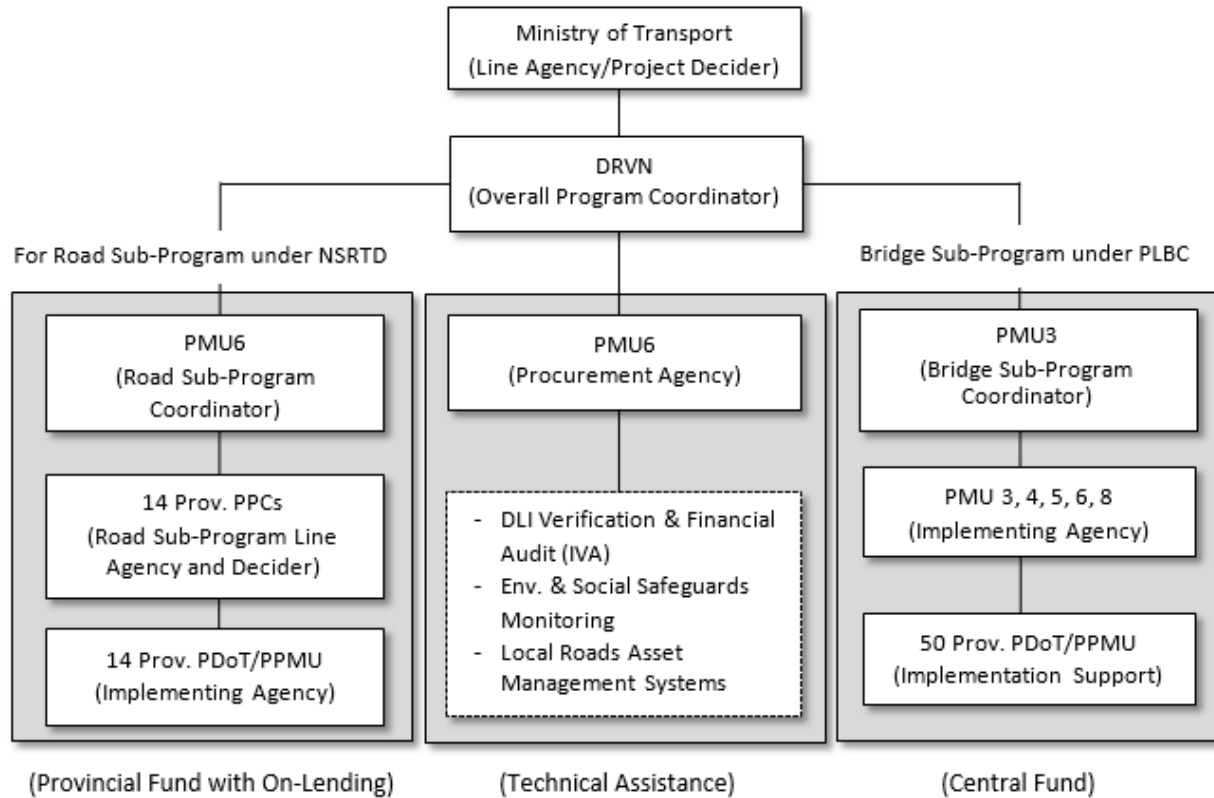
17. The TA activity related to Road Asset Management Systems will rely on the results obtained under the ongoing Bank funded Vietnam Road Asset Management Project (VRAMP) and will have the objective of optimizing the funding mechanism and creation of incentives for maintenance work under the Road Maintenance Fund (RMF). This will help to set up the working procedures for the RMF under VRAMP and under the Operation will extend these down to the provinces with an emphasis on funding maintenance, which will eventually improve the budgeting, planning, and implementing of road maintenance activities.

Implementation Arrangements

18. The MoT will be the Program Decider and will be responsible for the overall program management and oversight. Its responsibilities are to coordinate the activities of central government agencies, Provincial People's Committees (PPCs), Provincial Departments of Transport (PDoTs) and other relevant organizations. MoT has appointed the Directorate for Roads of Vietnam (DRVN) to be the overall Program Coordinator for both road and bridge results areas, as DRVN is the sole agency for the road sector in Vietnam. DRVN will be responsible for Program TAs while PMU6 will be in charge of their procurement on behalf of DRVN. PMU6 is also the road sub-program coordinator, while DRVN is the bridge sub-program owner. DRVN will therefore be the focal agency (lead agency) to work with the Bank, and assist the MoT in the overall Program management.

19. At the central level, MoT's and DRVN's functional departments will be the technical lead for local road standard, specification, and cost norms for local road maintenance and bridge construction activities. Program quality will be ensured by the Technical Control for Quality Management Department (TCQM) that will coordinate with the Department of Science and Technology (DST) to appraise technical guidelines and engineering designs for roads and bridges. At the provincial level, institutional strengthening and training need to be provided to PDoTs as well as the Departments of Planning and Investments (DPI) and Departments of Finance (DoF). Quality will be ensured by the Transport Work Quality Inspection and Management Department that will coordinate with the Department of Science and Technology (DST) to appraise typical designs for roads and bridges. The PPCs will play a key role in mobilizing other related departments, specifically in facilitating the close linkages needed with the PDoTs and Division of Infrastructure and Economic at the local level. A high level of participation is required from local governments. Local networks of the Women's Union and Commune leaders will be instrumental in program implementation.

Figure A1.1. Institutional arrangements for Program Implementation



Source: Ministry of Transport

20. For the Technical Assistance Project, MoT authorized DRVN to be responsible for overall project coordination and PMU6 to be responsible for the procurement and financial management of the TA Project. MoT will be responsible for (i) designing and maintaining the FM procedures and regulations for the project, (ii) facilitating the fund flow to the beneficiaries, (iii) meeting the reporting requirements of the project, and (iv) arrangement of the project auditing (both internal and external audit).

21. For the road results area (Road Sub-Program), PMU6 will be the overall sub-program coordinator and will work with PDoTs and assist the DRVN with sub-program management. The PPC of the fourteen participating provinces will be the Line Agency and Project Decider of the Sub-Program in each province. The PPC will decide their investment and arrange provincial counterpart funds to achieve objectives as committed in each approved Provincial MTEP. The PDoTs/PPMUs of the participating provinces will be the Implementing Agencies and will be responsible for technical decisions and management of the road improvements and maintenance based on the MTEP's plans and schedules. A high level of participation is also required from the local governments. Local networks of the Women's Union and Commune leaders will be instrumental in the rural roads routine maintenance aspects of Program implementation.

22. For the bridge results area (Bridge Sub-Program), DRVN will act as the Owner of the overall sub-program and Project Decider. Five Project Management Units (PMUs) - PMU 3, 4, 5, 6 and 8 - will be the Implementing Agency under the DRVN for the fifty (50) participating provinces in coordination with the PDoTs and PPMUs.

Independent Verification Agent (IVA)

23. An independent auditor will be procured to be the Independent Verification Agent (IVA). The IVA's role is to provide independent confirmation of the results reported by the MoT and the Provinces to the MoF and the Bank, which will consist of (i) financial audit, and (ii) verification of the achievements of the DLIs. The Financial Audit and the verification of DLIs will be conducted in accordance with the agreed verification protocol/audit terms of reference provided in the Operations Manual (OM).

Procurement

24. **Procurement.** The proposed Program will use Government systems. Although there is a need to ensure transparency and that there are adequate arrangements in place for working with communities and other vulnerable groups, the gaps in the Government's procurement systems are assessed to be not major. The initial assessments established an overview of the implementation arrangement and existing procurement arrangement related to local road management being conducted in the provinces including regulatory framework, procurement practices, and procurement capacity of Implementing Agencies, and found no substantial risk. The existing legal framework for the proposed Program will follow the national procurement laws and regulations. After July 1, 2014 procurement is governed by the new national procurement law No. 43/2013/QH13 and decree No. 63/2014/ND-CP, which became effective on August 15, 2014.

25. Procurement accountability will be ensured by the Provincial People Committee (PPC) as the Investment Decider with authority to approve the Procurement Plan (PP), which is prepared by the Department of Transport (DoT) or District People Committees (DPC) as the Investment Owners. DoT and DPC are responsible for implementing the approved PP including making the required decisions during the procurement phase such as approving bidding documents and contract awards. The Bank's team assessed that PDoT appeared to satisfactorily handle procurement transactions in compliance with the approved Procurement Plans and the national procurement laws and regulations.

Financial management

26. **Financial Management Systems.** The proposed Program will use Government systems. Although there is a need to ensure transparency and that there are adequate arrangements in place for working with communities and other vulnerable groups, the gaps in the Government's financial management systems are not major, and the overall initial assessment of the Program's fiduciary aspects is generally positive.

27. The activities related to local road asset management (routine maintenance, periodic maintenance or rehabilitation) are being financed by the Provincial Road Maintenance Fund (PRMF). As the funds from PRMF can only cover small portions of the road maintenance demand, the gaps have to be covered by the provincial recurrent budget. Different budget allocation and fund flow practices have been noted:

- In some provinces (e.g. Lao Cai, Thanh Hoa), the additional budget will be allocated to PRMF then be reallocated to transport agencies (DOT or Districts). Funds will flow from the PRMF account at the State Treasury (ST) to transport agencies' accounts at the ST. The risks associated with this practice relate to a potential delayed budget allocation process, as another layer of approval is required, in addition to delayed fund transfers.
- In other provinces (e.g. Ha Giang), PRMF allocates only their own available funds and the Provincial People Committee (PPC) will allocate the additional budget to transport agencies. The risks associated with this practice relate to a misalignment (and the potential lack of synergy or loss of economy of scale) of the activities whose funds are allocated by PRMF and the activities whose funds are allocated by the PPC.

28. As the World Bank support would cover the funding gap for road maintenance (routine, periodic maintenance and rehabilitation), it is critical that consistent joint guidance from MoF, MoT and RMF concerning budget allocation and fund flow be issued to ensure that the budget allocations are approved in a timely manner and funds flow promptly to transport agencies. In addition, independent technical and financial audits will be carried out on an annual basis.

29. *Technical Assistance Project*: The implementation arrangements for the TA Project (see Annex 9) will be consistent with an Investment Project Financing (IPF). Funds will be disbursed and spent using Bank disbursement and procurement Guidelines and Procedures. The Implementing Agency (PMU6) shall be capable of managing the project as it has several years of prior experience of working with the Bank's fiduciary requirements and implementation of Technical Assistance projects.

Environmental and social aspects

30. **Environmental Systems.** Subprojects will be screened for environmental eligibility. The Operation will not finance a subproject that: i) is located within 2 kilometers of any sensitive environmental area such as natural forest, national park, nature reserve, bird sanctuary, primary forest, legally protected area, biosphere conservation area or national graded historical/landscape site listed in MONRE Decision No. 1107/QĐ-BTNMT confirming the list of conservation areas; ii) Located within 10 meters of a physical cultural structure such as temple, monument, pagoda, ancient grave, historical site, worshiping place, sacred tree or any object of spiritual importance to the local community; iii) Road or access road alignment that requires land acquisition within an urban settlement or resulting in Affected Households (AH) being relocated in resettlement sites; iv) bridges that require significant alteration or adversely impact the hydrology or hydro-geology relating to the river such as significantly narrowing the wet cross section or require massive drilling and pile driving; and v) any new bridge construction that may cause potentially significant and adverse environment or social impacts.

31. Environmental management procedures will include screening for environmental eligibility of subprojects during the short-listing stage; preparation of Environmental Protection Plans (EPPs) for subprojects and obtaining approval from relevant Vietnamese authorities in accordance with the Vietnamese Law on Environmental Protection. Bridge EPPs must cover the access roads at both ends. Approval of EPPs must be obtained during the feasibility stage; incorporation of mitigation measures (including greening) and environmentally friendly measures into the engineering design; incorporation of environmental codes of practices or specifications into construction bidding documents and contracts; inclusion of environmental supervision as part of engineering supervision and reporting. The procedures will be followed at subproject level, coordinated and monitored by PMUs 3, 4, 5, 6, 8 and DRVN.

32. Under the Technical Assistance project, training will be provided on typical potential environmental negative impacts of the Operation's physical investments, environmental mitigation measures, Environmental Code of Practice (ECOP) and Environmental Safeguards requirements, the World Bank Group Environmental, Health and Safety (EHS) Guidelines as well as environmental friendly solutions for road and bridges rehabilitation/construction. Monitoring will focus on compliance with the OM.

33. **Social Systems.** The Program will have significant positive impacts on the socio-economic environment in the short term, as they provide employment for laborers leading to increased income. In the long term, improved road conditions provide increased access to social services, markets and could improve employment overall in the localities. The land acquisition impact in this program is expected to be minor given the nature of investment (road rehabilitation or construction of small rural bridges). The percent of the acquired area is not expected to exceed 10 percent of the total land holdings. However, in some exceptional cases, the proposed investments might cause physical relocation impact, although the number of relocated households is expected to be very small. In addition, given the geographical scope of the Program, it is very likely that it will be implemented in provinces having Ethnic Minority (EM) communities. The NSRTD and PLBC are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children. They will be provided with vital linkages to schools, markets and other centers. This is expected to provide substantial changes in the communities' daily mobility patterns. One of the challenges during the Program's implementation is how to maximize its accessibility and benefits in these less developed regions.

34. **Gender.** The proposed Operation will build upon the lessons learned in the women-led routine maintenance pilot including: the importance of raising awareness and mobilization to develop a culture of road maintenance, the need for a clearly defined coordination framework between the transport officials, People's Committees, and Women's Union at each level, the value of a recurrent provincial budget for routine maintenance of local road networks, and participatory approaches in awareness raising and training for community women and men¹². The Proposed Operations may therefore include : (i) a review of current practice in gender mainstreaming in rural road projects, including public private partnership (PPP) approaches, to build on the strong contribution of private firms to PLBC phase II for suspension bridge construction (about US\$ 19 million) (ii) the assistance to the MoT in developing guidelines for gender mainstreaming in the transport sector including PPP approaches, building on the WB support already provided through Transport Development and Strategy Institute (TDSI) in developing tools and training; (iii) the refinement and scale up of use of training materials developed for women-led routine road maintenance, based on assessment findings, and best practices in other rural road projects; (iv) a scale up of the media campaign for community road stewardship/road maintenance through the Women's Union and other social organizations; (v) a pilot for PPP in community based road maintenance with associated capacity building for the women's union, project implementation units, and contractors; (vi) the development of a module on community based routine road maintenance for the Transport University training program.

¹² World Bank Vietnam, 2014. Empowering Women to Build a More Equitable Future in Vietnam

Annex 2: Verified Results Framework Matrix

(Verified Results are cumulative, one year later than completed results; Yr1 is GoV calendar year 2017, and runs from January 2017 to December 2017)

Results Indicators	Core	DLI	Unit	Baseline 2015	Verified Results						Period	Data source /methodology	Data collection
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6			
					2017	2018	2019	2020	2021	2022			
PDO: To improve the road and bridge connectivity for the rural communities of the participating provinces in Vietnam													
PDO Indicator 1: Number of beneficiaries with overall improved access			Number of beneficiaries	0	0	50,000	500,000	1,200,000	2,000,000	2,500,000	Annual	Annual verification of results, accessibility refers to the number of beneficiaries who benefit from reduced average journey times on the road network. The number of beneficiaries for each road is calculated by the number of people in commune(s) where the road passes through. The number of beneficiaries for each bridge is calculated by the number of people in commune(s) where the bridge is located.	MoT, PDoT
PDO Indicator 2: Communes with new or rebuilt all season bridge connection			Number of communes connected	0	0	50	200	400	600	800	Annual	Annual verification of results by physical inspection of sites on Communes previously without connections that have rebuilt or built connections with the road network through adequate bridges.	MoT, PDoT
PDO Indicator 3: Local road network maintained at minimum level in accordance with MTEP			Percentage of network	51%	51%	62%	75%	88%	95%	100%	Annual	Annual verification of results based on MTEP development in the 14 provinces and verification of the difference between the MTEP and the actual program carried out. 100% when the full targeted local road network (100% of the roads) is maintained at minimum level in accordance with MTEPs.	MoT, PDoT

Intermediate Results Indicator 1: Provinces using road asset management systems.			Number of Provinces	0	0	5	9	10	11	14	Annual	Annual verification of results. The asset management system shall be similar to RONET and VPRMMS for road maintenance planning.	MoT, PDoT
Intermediate Results Indicator 2: Number of kilometers of roads that received improvements, rehabilitation		X	Km of roads	0	0	0	100	300	500	676	Annual	Progress reports. The improved roads must comply with all relevant standards and specification. Refer to Annex 3 for road improvement DLIs.	MoT, PDoT
Intermediate Results Indicator 3: Number of kilometers of roads that received routine maintenance at minimum level		X	Km of roads	0	0	10,848	21,276	31,556	40,215	48,578	Annual	Document review and site visits. The roads must be maintained to comply with all relevant standards and specifications. Refer to Annex 3 for road improvement DLIs.	MoT, PDoT
Intermediate Results Indicator 4: Increased amount in budget allocation for local road maintenance		X	Billion VND	0	0	73	166	261	322	380	Annual	Document review by comparisons between actual network length satisfying the minimum maintenance standard against total network length as detailed in OM. This DLI is assessed at the Provincial level. Refer to Annex 3 for road improvement DLIs.	MoT, PDoT
Intermediate Results Indicator 5: Community-based routine maintenance activities implemented			Km of roads under community-based maintenance	1,000	1,000	2,000	4,000	6,000	8,000	10,000	Annual	Document review, on site interviews and visits to routine maintenance activities and sites, and annual activity reports	MoT, PDoT
Intermediate Results Indicator 6: Road safety audits for improved local roads and constructed bridges			Percentage of subprojects carrying out safety audits	0	0%	100%	100%	100%	100%	100%	Annual	Review of road safety standard audits	MoT, PDoT

Intermediate Results Indicator 7: Citizens in communes involved in planning and/or evaluation of road and bridge works		Percentage of subprojects carrying out community consultations	0	0%	100%	100%	100%	100%	100%	100%	Annual	Document review and consultations organized in Communes, and site visits to communes benefitting from the Program and interviews with beneficiaries to confirm citizen consultations in planning and/or evaluation.	MoT, PDoT
Intermediate Results Indicator 8: Number of bridges built or rebuilt	X	Number of bridges	0	0	400	1,000	1,600	2,000	2,174	Annual	Annual verification of results. The rebuilt or new bridges shall comply with all relevant standards and specifications. Refer to Annex 3 for bridge improvement DLIs.	MoT, PDoT	
Intermediate Results Indicator 9: Percentage of participating provinces managing a bridge database	X	Percentage of Provinces	0%	0%	0%	20%	50%	80%	100%	Annual	Annual verification of results. The database shall include items such as a summary of the works inspection, closed days and updates. Refer to Annex 3 for bridge improvement DLIs.	MoT, PDoT	

Annex 3: Disbursement Linked Indicators, Disbursement Arrangements and Verification Protocols

Table A3.1: Verified Disbursement-Linked Indicator Matrix

(Targets are non-cumulative, one year later than completed results; Yr1 is GoV calendar year 2017, and runs from January 2017 to December 2017)

	<i>Total DLI Allocation (Million US\$)</i>	<i>As % of Total Financing Amount</i>	<i>DLI Baseline 2015</i>	<i>Timeline for verified DLI achievement</i>						
				<i>Yr1 2017</i>	<i>Yr2 2018</i>	<i>Yr3 2019</i>	<i>Yr4 2020</i>	<i>Yr5 2021</i>	<i>Yr6 2022</i>	<i>Total By 2022</i>
DLI 1: Improvement of local road connectivity										
1.1 Number of kilometers of roads that received improvements, rehabilitation	74	19.4	0	0	0	100	200	200	176	676
1.2 Number of kilometers of roads that received routine maintenance at minimum level ¹³ .	40	10.4	0	0	10,848	10,428	10,280	8,659	8,363	48,578
1.3 Increased amount in budget allocation for local road maintenance (Billion VND)	21	5.5	0	0	73	93	95	61	58	380
<i>Allocated amount:</i>	<i>135</i>	<i>35.5</i>	<i>na</i>	<i>0</i>	<i>13.0</i>	<i>24.7</i>	<i>35.6</i>	<i>32.4</i>	<i>29.4</i>	<i>135</i>
DLI 2: Improvement of rural bridge connectivity										
2.1 Number of bridges built or rebuilt	235.5	61	0	0	400	600	600	400	174	2,174
2.2 Percentage of participating provinces managing a bridge database	10	2.6	0%	0%	0%	20%	30%	30%	20%	100%
<i>Allocated amount:</i>	<i>245.5</i>	<i>64.5</i>	<i>na</i>	<i>0</i>	<i>43.3</i>	<i>67.0</i>	<i>68.0</i>	<i>46.3</i>	<i>20.8</i>	<i>245.5</i>
Total Financing Allocated for the PforR (excluding the US\$M 4.5 for the TA)	380.5	100	na	0	56.3	91.7	103.6	78.7	50.2	380.5

¹³ DLI 1.3 is assessed at the Provincial level. (refer to Table A3.4)

Table A3.2: DLI Verification Protocol Table

#	DLI	Definition/ Description of achievement	Scalability of Disbursements	Protocol to evaluate achievement of the DLI and data/result verification		
			(Yes/No)	Data source/ agency	Verification Entity	Procedure
1	1.1 Number of kilometers of roads that received improvements, rehabilitation	Roads that are improved as per national standards for roads and OM. Road works need to be fully completed including safety features, drainage and signalization when applicable, and works accepted by Employer in compliance with relevant quality and standards. The breakdown between Provincial/District/ Commune roads is subject to prioritization done by PPMUs and PDoTs based on local consultations, MTEPs and other analysis as available.	Yes	DRVN/PMU6/PDoT	IVA	Collection of road rehabilitation and improvement outputs based on contracts implemented by PPMUs, for each Province. Consolidation of reporting by DRVN/PMU6. Verification by IVA of the reporting by comparing the annual plans and list of contracts signed and implemented. Audit sampling methodology adopted on sites.
	1.2 Number of kilometers of roads that received routine maintenance at minimum level	Roads that are maintained as per national standards for roads and OM and MTEP. Road works needs to be fully completed as per MTEP, and the works accepted by Employer in compliance with relevant quality and standards.	Yes	DRVN/PMU6/PDoT	IVA	Collection of road maintenance outputs based on contracts implemented by PPMUs, for each Province, and comparison with MTEP. Consolidation of reporting by DRVN/PMU6. Verification by IVA of the reporting by comparing the MTEP and list of contracts signed and implemented. Audit sampling methodology adopted on sites.

	1.3 Increased amount in budget allocation for local road maintenance	The increased amount in budget allocation for local road maintenance on an annual basis should increase as detailed in the annual targets. Each Province reports on the actual increased budget allocation for maintenance each year, and the achievement is to be measured for each participating Province. Therefore the disbursement level is linked with each Province's results, creating an incentive-based model at the Province level.	Yes	DRVN/PMU6/PDoT	IVA	<p>Collection by PDoTs. The percentage of local road maintained to satisfy the minimum level each year for each participating Province. Comparison with defined maintenance activities to the most essential level is measured on the annual basis as detailed in the OM. The DLI is assessed at the Provincial level.</p> <p>Consolidation of the reporting by DRVN/PMU6.</p> <p>Verification by IVA of the reporting by comparing actual expenditures on an annual basis and the type of road works, and also comparing MTEP and the list of contracts signed and implemented for each Province.</p>
2	2.1 Number of bridges built or rebuilt	Bridges that are built or rebuilt as per national standards for roads and OM. Bridge works need to be fully completed including safety features and signs (when applicable), and works accepted by the Employer as conforming with relevant standards and quality requirements.	Yes	DRVN/PMU3	IVA	<p>Collection of bridges built or rebuilt based on contracts implemented by PPMUs, for each Province.</p> <p>Consolidation of reporting by DRVN/PMU3.</p> <p>Verification by IVA of the reporting by comparing annual plans and the list of contracts signed and implemented. Audit sampling methodology adopted on sites.</p>
	2.2 Percentage of participating provinces managing a bridge database	A database that includes all the bridges of each participating Province with key data on condition, previous works, location, schedule for inspection and future works, and number of closing days on an annual basis. The database can be computer/spreadsheet based or manually recorded and managed.	Yes, in proportion to the number of Provinces	DRVN/PMU3/PDOT	IVA	<p>Preparation of database by each PPMUs under the guidance of PDOT.</p> <p>Consolidation of reporting by DRVN/PMU3.</p> <p>Verification by IVA of the reporting by comparing databases, actual contracts signed and implemented. Audit sampling methodology adopted on sites.</p>

Table A3.3: Bank Disbursement Table

<i>#</i>	<i>DLI</i>	<i>Bank financing allocated to the DLI</i>	<i>Deadline for DLI Achievement</i>	<i>Minimum DLI value to be achieved to trigger disbursements of Bank Financing</i>	<i>Maximum DLI value(s) expected to be achieved for Bank disbursement purposes</i>	<i>Determination of Financing Amount to be disbursed against achieved and verified DLI value(s)</i>
1.1	Number of kilometers of roads that received improvements, rehabilitation	74	Results will be verified annually and reported during the month of July	> DLI baseline	676km By CY 2022	Disbursement for each DLI is not linked and disbursed amount in any given project year will depend on the extent of achievement made in that given year. This means that disbursements for any of the DLIs (except for DLI 1.3) in a given year will be equal to the product of 'unit price' (calculated as total allocation for the DLI divided by the maximum target set for the same DLI) and target achieved in that given year.
1.2	Number of kilometers of roads that received routine maintenance at minimum level	40			48,578km By CY 2022	
1.3	Increased amount in budget allocation for local road maintenance	21			VND380,000,000,000 By CY 2022	
2.1	Number of bridges built or rebuilt	235.5			2,174 units By CY 2022	
2.2	Percentage of participating provinces managing a bridge database	10			100% By CY 2022	
	TOTAL	380.5			na	

Table A3.4: Disaggregated Matrix for DLI 1.3

No.	Province	Allocation (Million US\$)	DLI Baseline 2015	Timeline for verified DLI achievement						
				Yr1 2017	Yr2 2018	Yr3 2019	Yr4 2020	Yr5 2021	Yr6 2022	Total by 2022
1	Lao Cai	1.8	0	0.0	3.6	5.8	6.2	2.5	2.6	20.7
2	Ha Giang	1.8	0	0.0	11.7	9.8	9.8	9.2	9.8	50.3
3	Cao Bang	1.7	0	0.0	5.2	3.8	4.1	1.9	2.0	17
4	Bac Kan*	1.3	0	0.0	1.2	1.2	1.3	1.3	1.4	6.4
5	Lang Son	1.6	0	0.0	5.7	10.6	6.5	4.5	4.8	32.1
6	Nam Dinh	1.2	0	0.0	3.0	2.6	3.4	1.2	1.1	11.3
7	Thanh Hoa	1.7	0	0.0	7.1	10.1	7.9	4.4	4.1	33.6
8	Nghe An	1.8	0	0.0	13.0	23.2	24.6	15.3	16.1	92.2
9	Ha Tinh	1.4	0	0.0	4.1	5.2	5.3	3.7	2.0	20.3
10	Quang Binh	1.4	0	0.0	4.1	4.1	5.9	4.5	3.2	21.8
11	Quang Tri	1.4	0	0.0	5.2	4.1	5.9	4.4	3.0	22.6
12	TT Hue	1.2	0	0.0	2.2	3.3	3.6	1.3	1.4	11.8
13	Quang Nam	1.4	0	0.0	4.0	6.4	6.8	4.5	4.9	26.6
14	Binh Dinh	1.3	0	0.0	3.1	3.2	3.3	2.3	1.4	13.3
	Annual target (Billion VND)		0	0.0	73	93	95	61	58	380
	<i>Allocated amount (US\$ million)</i>	<i>21.0</i>	<i>---</i>	<i>0.0</i>	<i>4.0</i>	<i>5.1</i>	<i>5.3</i>	<i>3.4</i>	<i>3.2</i>	<i>21.0</i>

Disbursement Mechanism, Data Collection and Reporting and the IVA

1. DLIs and associated annual indicative targets and amounts of financing are described in Table A3.1. The Program has five DLIs, and all are measured through the achievement of the Program results.

2. Values of DLIs in tables A3.1 and A3.4 are verified by the IVA and one year later than their actual completion.
3. All DLIs are scalable. Disbursement for each DLI is not linked and disbursed amount in any given project year will depend on the extent of achievement made in that given year. This means that disbursements for any of the DLIs (except for DLI 1.3) in a given year will be equal to the product of 'unit value' (calculated as total allocation for the DLI divided by the maximum target set for the same DLI) and target achieved in that given year.
4. For DLI 1.3, the annual target in Table A3.1 is only indicative and at the overall level, as there is specific target for each of the 14 participating provinces (See Table A3.4). Annual assessment and verification of DLI 1.3 will be at the provincial level, and disbursement for each province will be based on the 'unit value' approach described above, provided that corresponding baseline for each participating province is met. Total disbursements for DLI 1.3 in a given year will be the sum of disbursements calculated for each of the 14 participating provinces based on the extent of achievement made for that year. Details of target to be achieved for each project year for each of the 14 participating provinces will be included in the Operations Manual; a tracking system will also be devised to monitor achievement made by each of the 14 participating provinces in a given year, with corresponding disbursements.
5. During implementation, if certain DLI (or DLIs) is determined to be un-achievable, the associated allocation may be reallocated to i) other DLI or replacement DLI; ii) to the project TA component; or iii) cancelled. Conversely, any un-utilized Bank funds allocated to the project TA component may be reallocated to the program or DLI(s), or cancelled, during implementation.
6. Provinces will take two steps to meet DLI reporting requirements. First, they will make use of the existing national M&E system with data collection and checking carried out in line with national requirements. Second, assisted by MoT, they will need to develop and implement protocols for collecting information on DLIs. This implies developing the capacity to assess the achievement of DLIs.
7. MoT, as part of its duties under the Program, will undertake the initial evaluation of provincial performance. The disbursement request will be based on MoT's aggregated monitoring report, after verification by the IVA. An IVA will be responsible for verifying the MoT-reported results. The IVA will assess the aggregated output and outcome report on a sample survey basis. The IVA will provide a report to MoT containing details of its survey findings and its opinion on the actual results achieved in the period.

Annex 4: Summary Technical Assessment

A. *The Government Program*

1. The Government has endorsed the National Strategy on Rural Transport Development to 2020 and vision to 2030, and under this strategy, the development of road and bridge programs. The Government has developed NSRTD and a National Program for Local Bridge Construction to Ensure Traffic Safety in Ethnic Minority Areas in 2014-2020 (PLBC). The NSRTD and PLBC National Strategy on Rural Transport Development are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children.

2. The overall objective of the Program is to facilitate and ensure all year round access to community centers and villages in remote rural areas and contribute to the transport development objectives of the National Strategy on Rural Transport Development to 2020, vision to 2030. The specific objectives of these programs are to reduce travel costs and improve access to markets and social services for poor communities in the targeted provinces through better management and maintenance of the network. One of the strategic challenges facing provinces is that of establishing an effective management and implementation model. It is proposed that this need to establish a sound framework for predictable financing for infrastructure investments for a province's local road network be addressed through use of 3-year rolling Medium Term Expenditure Plans (MTEP). Use of this tool has been successfully piloted¹⁴ and has been found to provide a solid basis for budget planning.

The National Strategy on Rural Transport Development (NSRTD)

3. The implementation of the National Strategy on Rural Transport Development (NSRTD) has been decentralized to the provinces and responsibility for implementation is with the Provincial Department of Transport (PDoTs). The objectives of the NSRTD are to achieve the following by 2020: a) Reach 100 percent connectivity/accessibility of communes by motorized transport, b) Pave 100 percent of district roads and at least 70 percent of commune roads, c) Provide maintenance funding for 100 percent of district roads and at least 35 percent of the commune roads. In order to achieve the objectives of the program, the Government estimates the following needs and related expenditures from 2015 to 2020:

The Program for Local Bridge Construction (PLBC)

4. The Program for Local Bridge Construction (PLBC) is managed at the national level by the Ministry of Transport (MoT). Covering 50 provinces, the program funds the construction of small bridges with widths of 1.5m to 3.5m. The bridges are to be constructed to provide access to poor communities, many of which are inhabited by ethnic minorities. The objectives of the PLBC are to achieve the following by 2020: a) Complement the program for local road development by targeting villages and commune roads missing or unsafe links (river crossing... etc.), b) Facilitate access to social services and other facilities such as schools, clinics within the local road network, c) Target poor communities, particularly those of ethnic minorities

¹⁴ With funding from the Australian Government, TA was provided to four pilot provinces to assist in the preparation of MTEPs covering current and recurrent expenditures on a rolling three year basis for the local road network in each province. This pilot was successful and is now being scaled-up to a further three provinces.

B. The Program for Results (PforR)

5. **The proposed Operation will improve the road and bridge connectivity for the rural communities of the participating provinces in Vietnam.** The proposed Operation will directly support the Government Programs which are fully relevant to the development of Vietnam and the World Bank strategy. Both the National Strategy on Rural Transport Development (NSRTD) and the Program for Local Bridge Construction (PLBC) have been developed under the umbrella of the National Transport Development Strategy 2020. The National Strategy on Rural Transport Development up to 2020 vision to 2030 covers the Northern Middle and Mountainous Area, the Red River Delta, the Central North and Central Coast, the Central Highland, the South East and the Mekong River Delta. The PforR will target the Northern Mountains and North Central Coast regions for the road program as a way to address extreme poverty and promote shared prosperity, as they both present pockets of extreme poverty and isolation along the border, and substantial inequalities between the coastal and the mountain areas of the region.

6. **The proposed Operation has two complementary elements – a Program using the PforR instrument (Program), supported by a US\$ 380.5 million IDA credit, and Technical Assistance (Project) using the Investment Project Financing (IPF) instrument, supported by a US\$ 4.5 million IDA credit.** The implementation period is over 6 years, from 2017 to 2022. The proposed PforR will have two results areas which correspond to the alignment with the programs under the National Transport Development Strategy 2020 – one for the National Strategy on Rural Transport Development (NSRTD) and one for the Program for Local Bridge Construction (PLBC) - that will be fully linked to the annual budget cycle of the Government. The proposed IDA credit will cover only 28 percent of the equivalent needs for the two national programs; the remainder is planned to be provided by the Government.

7. For the NSRTD, the scope of the proposed Program will be a sub-set of the provinces in the national programs, as the World Bank support targets 14 provinces in the Northern Mountains and Northern Central Coast Regions, which are among the poorest. For the PLBC, the scope of the World Bank support to the bridge program will cover 50 provinces in the Northern Mountains and Northern Central Coast Regions. The 50 provinces for the PLBC include the 14 provinces selected for the NSRTD. In addition, exclusion criteria will be developed to ensure that activities under the national programs will meet Bank policy requirements on PforR, i.e. major civil works with environmental and social impacts will be excluded.

Content of the Technical Assistance Project

8. The Technical Assistance Project for an estimated amount of US\$ 4.5 million will consist of the activities that are necessary for the completion of the PforR Program (see Annex 9), namely a) activities related to the DLI verification (US\$ 1.50 million) and financial audit (US\$ 0.63 million), and internal audit (US\$ 0.37 million) of the Program, b) activities related to improving the capacity of implementing agencies in environmental and social management (US\$ 0.5 million), and c) activities related to the Local Road Asset Management Systems (US\$ 1.00 million), climate resilience in the local road network (US\$ 0.20 million), and community and women organization road maintenance activities. (US\$ 0.30 million).

9. The TA activity related to Road Asset Management Systems will rely on the results obtained under the ongoing Bank funded Vietnam Road Asset Management Project (VRAMP) and will have the objective of optimizing the funding mechanism and creation of incentive for maintenance work under the Road Maintenance Fund (RMF). This will help to set up the working procedures for the RMF under VRAMP and under the Operation will extend these down to the provinces with an

emphasis on funding maintenance, which will eventually improve the budgeting, planning, and implementing of road maintenance activities.

C. Program Evaluation

10. **Program Strategic Relevance.** Both the National Strategy on Rural Transport Development (NSRTD) and the Program for Local Bridge Construction (PLBC) are technically sound and have a strong justification in terms of transport and economic benefits. The road network has been drastically transformed over the past 10 years, with a 23 fold increase in the length of commune roads. The efforts made to develop the commune road network highlights the social needs for additional connectivity and for lowering transport cost in rural areas. While Vietnam has a complete road network with a relatively high road density, of about 0.8 kilometers of road per square kilometer, the full potentiality of such a network is hindered by its poor condition due to a lack of proper maintenance. As a result there is a substantial backlog of maintenance works for the whole network. About 96 percent of national roads are paved, but only about 43 percent are in good condition; 37 percent are in average condition; and 20 percent in poor to very poor condition.

11. The quality and condition of bridges are also of great concern and may paralyze the entire network in case of an incident, while the lack of safe bridge crossings increases the risk of accidents or may even prevent entirely trips for children on their way to school, patients visiting health clinics, and farmers who want to sell their products at local markets. The Program will target the improving of the efficiency of spending in the selected provinces (8 provinces for the road, 50 provinces for the bridges), through the adoption of sustainable shifts in maintenance policy and budget allocation mechanisms, rather than funding the entire maintenance backlog. The design and scope of the Program are made so that they incentivize prioritization of road maintenance activities, including both routine and periodic maintenance, as these provide the highest return on fund.

12. **Program Technical Soundness.** The effective preservation of the local road network requires a Program that is supported by a rolling medium term plan and a long term vision for sustainable financing and management arrangements, rather than a singular focus on individual investment sub-projects in the short term. The Program focuses on rebalancing the widening gap between routine and periodic maintenance needs and will be used to lay the framework for sustainable local road asset management for the targeted provinces. In particular, the Northern Midlands and Mountain area region shows a 10 percent level of spending on Operation and Maintenance (O&M), while the North Central and Central Coastal region less than 8 percent on O&M. Medium Term Expenditure Plans (MTEP) will be used as equivalents to provincial road master plans (medium term and long term) in order to support the local authorities to better plan both capital and operational expenditures within budgetary constraints. The World Bank support to the ongoing exercise on MTEP coupled with the continued use of road asset management system (VPRoMMS-RONET) aims at enabling Provincial DOTs to prioritize interventions on the Provincial road network based on both technical and socio-economic data, and provide adequate estimated costs for the interventions, on a multi-year basis, while securing enough financing margins for operations and maintenance.

13. **Program expenditure framework.** The technical analysis concluded that the Government has put in place budget and expenditure management systems and practices that, with some well-recognized difficulties and funding gaps, support the national programs in reaching its expected results. Two sources of difficulty stand out, both of which are addressed by the structure of the proposed Operation. The first is a budget cycle (common to all of Vietnam's government budgeting) with timing inconsistencies that result in very late budget decisions and fund transfers that are disruptive to capital and recurrent expenditures programs, especially when planned on a multi-year

basis. The second is that the five year plans and annual plans are made against notional resource availability, an important part of which is outside of central government control. In other programs, actual resources fell about 10 percent below initial projections and even those were concentrated in the last three years of the program. This provided a highly uncertain funding environment for Provinces implementing government programs. Finally, the long run sustainability of key investments depends on adequate budgeting and sufficient resourcing in relevant sectors, across provinces.

14. The IDA Credit will finance about 28 percent of the expected road related expenditures of the road program in participating provinces. The proposed IDA allocation will be transferred annually as a grant. Government will provide Program provinces with a predictable annual allocation within a multi-year Program envelope, including sufficient advances to commence with Program implementation. Funding to Provinces will also be disbursed in a single, predictable release, subject only to individual provinces achieving pre-specified performance targets that match the World Bank DLIs.

15. The remaining resources are those generated at national and provincial levels. These resources will provide a significant but manageable addition to resources available in each province, and thus provide a real incentive for provinces to comply with performance requirements to actually receive disbursements. This compliance with performance requirements will, in turn, strengthen the overall sustainability of the Program and sub-project investments, particularly through expanding own source revenues for operations, maintenance and future investment needs. Capacity support activities in the Program are also designed to assist Provinces to improve overall road asset management practices, prioritization and efficient spending on road activities.

16. **Program economic evaluation.** From a broad economic perspective, the development and maintenance of the rural road network is an excellent investment that supports a strong return and inclusive growth for the country. The World Bank previously financed the Third Rural Transport Project (RTP3) in Vietnam which had a substantially positive impact on the incomes of the project's beneficiaries, approximately one million of whom were poor. RTP3 investments helped lift approximately 510,000 people out of poverty and helped reduce the poverty rate nationwide by 0.06%¹⁵.

17. The economic analysis of the project was done for the two areas of the project: (i) National Program of Local Road Development (NSRTD), and (ii) Program for Local Bridge Construction (PLBC). A cost benefit analysis was done for the NSRTD in which savings in road user costs (vehicle operating costs and travel time costs) were compared with the proposed investments over an evaluation period. The evaluation of the PLBC was done by a cost effectiveness analysis in which the proposed investments were compared to the beneficiary population. The economic analysis for the road related activities is realized on the basis of a subset of the Program, which comprise seven provinces for which the MTEPs were ready and approved at the time of Appraisal. This subset is considered representative of the whole road program for the 14 provinces in terms of costs and benefits, and subsequently the broad conclusions of this analysis in terms of effectiveness, efficiency and economy of the investments are valid for the entire proposed Operation.

National Program of Local Road Development

¹⁵ Evaluation: Socio-Economic Outcomes of Vietnam's Third Rural Transport Project, WB, 2014.

18. The Medium-Term Expenditure Program (MTEP) exercises identified the local road rehabilitation and maintenance needs of 12 Provinces so far out of the 14 targeted Provinces. The identification and economic evaluation was done using the Road Network Evaluation Tools Model (RONET) that is a tool for assessing the performance of road maintenance and rehabilitation policies of an entire road network and the importance of the road sector to the economy. It also is used as tool to assess the current network condition and traffic, computes the asset value of the network and road network monitoring indicators. The model is developed from the same principles underlying the accepted economic evaluation model Highway Development and Management Model (HDM-4), adopting simplified road user costs (vehicle operating costs and travel time costs) relationships and simplified road deterioration equations derived from the HDM-4.

19. The Provincial, District and Commune Class A and B roads of seven Provinces out of the 14 Provinces targeted were surveyed to characterize all roads in terms of road class, surface type, condition and traffic. The table below presents the basic characteristics of the road networks. In total 36,122 km were surveyed, of which 54 percent are paved roads. The average traffic is 358 vehicles per day and the total network utilization is 4,719 million vehicles per day. The average percent of the paved roads in stable condition (good or fair condition) is 70 percent, while for the unpaved roads is 42 percent.

Table A4.1. Road Network Characteristics per Province

Province	Network Length (km)	Paved Network (%)	Percent in Stable Condition			Average Traffic Veh/day	Network Utilization (million veh-km)
			Paved (%)	Unpaved (%)	Total (%)		
Bac Can	2,698	44%	62%	10%	33%	257	253
Ha Giang	4,361	43%	47%	30%	37%	234	373
Ha Tinh	3,624	84%	43%	9%	37%	750	992
Lao Cai	4,633	35%	87%	19%	43%	424	717
Nghe An	10,208	54%	68%	53%	61%	174	648
Quang Binh	2,283	64%	80%	40%	66%	662	552
Thanh Hoa	8,315	57%	86%	72%	80%	390	1,185
Total	36,122	54%	70%	42%	56%	358	4,719

Stable Condition =
Good or Fair Condition

20. Each road category, characterized by road class, surface type, condition and traffic, was evaluated to identify the preservation road works requirements (routine maintenance, periodic maintenance or rehabilitation works) that minimize the total transport costs (road agency Plus road user costs) over the evaluation period. The table below shows a partial resulting work program for the 2015 to 2020 period for seven Provinces out of the 14 targeted Provinces. In total US\$ 633 million is needed for seven Provinces out of the 14 targeted Provinces, of which 51 percent is allocated to rehabilitation works and 27 percent to periodic maintenance works. In total 12,946 km are in need of rehabilitation (36 percent of the total network).

Table A4.2. Preservation Road Work Needs from 2015 to 2020

Province	Annual Routine Maintenance (US\$ m)	Periodic Maintenance (US\$ m)	Rehabilitation (US\$ m)	Total (US\$ m)
Bac Can	10.2	12.6	23.3	46.2
Ha Giang	13.6	7.4	42.8	63.9
Ha Tinh	9.2	15.4	92.5	117.1
Lao Cai	20.1	30.6	14.4	65.1
Nghe An	44.8	14.7	92.2	151.7

Quang Binh	10.5	24.2	21.9	56.6
Thanh Hoa	32.8	64.6	35.0	132.4
Total	141.2	169.5	322.2	632.9
	Routine Maintenance (km per year)	Periodic Maintenance (km)	Rehabilitation (km)	Per Mnt + Rehabilitation (km)
Bac Can	2,698	1,090	1,162	2,252
Ha Giang	4,361	539	1,915	2,455
Ha Tinh	3,624	763	889	1,653
Lao Cai	4,633	2,852	2,102	4,953
Nghe An	10,208	607	4,694	5,300
Quang Binh	2,283	1,344	328	1,672
Thanh Hoa	8,315	3,903	1,856	5,758
Total	36,122	11,098	12,946	24,044

21. In comparison with a do-minimum without project scenario, the NSRTD program has a very high economic justification with an overall Economic Internal Rate of Return of 73 percent, a Net Present Value (NPV) of US\$ 1,130 million and a B/C ratio of 3.3 (see table below). The high economic justification of the program is due to the high percentage of unpaved roads on the networks, on which maintenance and rehabilitation works have a high impact of the roughness of the roads. The EIRR of the road works on the paved roads ranges from 25 to 49 percent. A sensitivity analysis increasing the program costs by 15 percent and reducing the program benefits by 15 percent, yields an overall EIRR of 41 percent. Due to very low traffic of the program roads, the inclusion of the CO₂ emissions social costs on the economic evaluation has very little impact on the economic evaluation results, with the resulting EIRRs remaining about the same as the case of not including the CO₂ emission costs.

Table A4.3. NSRTD Program Economic Evaluation

Province	Program NPV (US\$ m)	Program B/C Ratio	Program EIRR (%)	Paved Roads EIRR (%)
Bac Can	93	3.7	> 100%	25%
Ha Giang	51	2.0	60%	49%
Ha Tinh	78	1.9	40%	39%
Lao Cai	259	6.0	> 100%	42%
Nghe An	366	3.9	71%	23%
Quang Binh	72	2.6	43%	38%
Thanh Hoa	212	3.0	47%	31%
Total	1,130	3.3	73%	34%

22. Over the 20 years evaluation period, for the without project scenario, the average roughness of the entire NSRTD network (36,122 km) is estimated to be 14.7 IRI, m/km, while with the proposed program of investments, the average network roughness will decrease to 10.0 IRI, m/km. The reduction in roughness will increase vehicle speeds from around 40 km to 60 km per hour, which will in turn reduce fuel consumption and CO₂ emissions. Considering the network vehicle utilization of 4,720 million vehicle kilometers per year, the CO₂ emissions of the total vehicle fleet are estimated to reduce by 4.3 percent from 1,036,081 tons per year to 991,294 tons per year.

National Program for Eradicating Temporary Bridges

23. Much of rural transport in Vietnam takes place on local paths, tracks and commune roads. These provide essential access to water, farm plots, social services, economic centers and the classified road network. One of the main problems faced by government institutions is in providing effective water

crossings. Particularly in the rainy season, the lack of an adequate crossing can prevent access to services, or detours of many km or taking risks, especially by women and children, on an unsafe crossing.

24. Vietnam’s bridges are in a sorry state. Pedestrian bridges needed to provide basic access are in very poor condition - and that’s where the bridges exist at all. Many bridges are so degraded people believe they could collapse at any time. The Ministry of Transport estimates that more than 40 percent of all suspension bridges across the country are in need of urgent repairs with the great majority of them located on roads connecting villages and communes. The collapse of bridges with the occurrence of fatalities is not uncommon. Access is a key determinant of poverty. Without physical access rural communities face much greater obstacles in obtaining health, education and other social services. In addition, their ability to take advantage of surplus crop production and of employment opportunities is severely constrained. Bridges are a key element in the provision of physical access.

25. The bridge rehabilitation program was evaluated using a cost effectiveness benchmark, which is used to judge a program or project in situations where benefits cannot be measured in monetary terms, or where measurement is difficult. In addition, the following conditions are satisfied: (i) the objectives of the intervention are clearly stated and are part of a wider program of objectives (i.e, poverty alleviation); and (ii) the road works represents the least-cost way of attaining the stated objectives.

26. The total Program for Local Bridge Construction cost during 2015 – 2020 is estimated at about US\$330 million for the 50 Provinces. The project is proposed to support the national program in the amount of US\$250 million for the fifty (50) participating Provinces. An initial assessment of the bridge rehabilitation needs of the country identified 3,664 bridges in need of rehabilitation requiring about US\$330million) for civil works including contingencies. The cost effectiveness of the program was based on the evaluation of a sample of these bridges representing US\$176 million.

27. The average length of the bridges is 33 meters and the average rehabilitation costs is US\$ 48,049 per bridge or US\$ 1,467 per meter, which is adequate¹⁶. The majority of the bridges (61 percent) is 2.5 meters wide with an average length of 34 meters (see Table below). The 3,664 bridges are located on 1,720 communes with an estimated population of 10.3 million inhabitants¹⁷, which are the direct beneficiaries of the program.

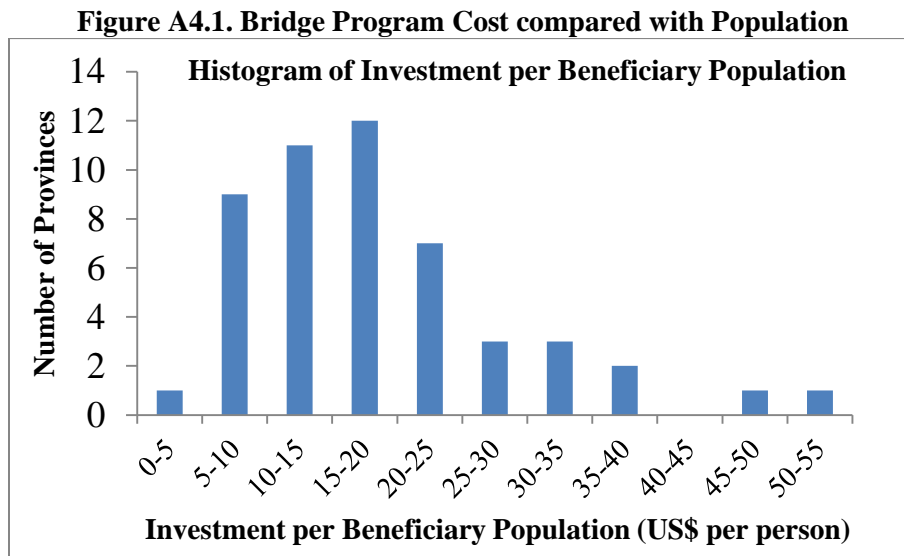
Table A4.4. PLBC Program Economic Evaluation

Bridge Width (m)	Length of Bridges (m)	Civil Works (VND bil.)	Civil Works (US\$ million)	Civil Works (US\$/Bridge)	Civil Works (US\$ per m)
1.5	1,896	35	2	17,507	831
2.0	22,771	569	26	27,983	1,135
2.5	75,974	2,398	109	48,432	1,435
3.0	180	8	0	180,653	2,007
3.5	19,205	863	39	98,832	2,043
Total	120,026	3,873	176	48,049	1,467

¹⁶ The cost/m depends on the width of bridge, type of bridge etc. and applies here to narrow bridges. The unit cost of bridge is generally expressed in US\$/sqm. According to preliminary assessments based on data available, the cost for suspension bridge under phase-1 was US\$ 1500/sqm and the concrete bridge permanent was about US\$ 2,000/sqm.

¹⁷ As of December 31, 2009, there were a total of 11,112 commune-level subdivisions in Vietnam including townships and wards. In 2011 the rural population of Vietnam was around 60 million inhabitants.

28. The chart below presents the histogram of the number of provinces per bridge rehabilitation cost per beneficiary population range. The average bridge rehabilitation cost per beneficiary population is US\$ 17.5 per person. Expenditures less than US\$ 50 per person to achieve the objective of providing basic access to social and economic centers of a rural population indicate that the program is cost effective.



D. Public Sector Financing and World Bank Added Value

29. Public sector financing is the appropriate instrument to finance the road preservation works on the project roads because the large periodic maintenance and rehabilitation costs cannot be recovered through tariffs. Public investment in road infrastructure enables the Government to play a key role in the country’s development by handling a range of issues that can only be accomplished or implemented through government actions, such as road asset management, setting up road maintenance standards, addressing road safety issues and controlling axle loads.

30. The World Bank’s role is justified because of the Project’s economic and social benefits and because of the value added it brings beyond financing in areas such as: construction quality control, sustainability of road maintenance, road safety, transport planning, environmental and social risks/impact, procurement, and financial management.

Government Rural Transport Strategy 2020 and related programs

31. The Government has endorsed the Vietnamese Rural Transport Development Strategy 2020, and, under this strategy, the development of road and bridge programs including the NSRTD and the PLBC. Both the local roads and bridges national programs are closely linked in their strategic relevance and design, as they both target rural areas where access is either poor or limited to dry seasons. These areas include a large number of poor communities, many of which are inhabited by ethnic minorities.

The National Strategy on Rural Transport Development (NSRTD)

32. The NSRTD is being implemented by the Provincial Department of Transport (PDoTs) as a decentralized program. It aims at a one hundred percent connectivity of communes by motorized transport by 2020, with the exception of communes in extremely difficult locations where investment costs would be prohibitively expensive. In these extreme cases, access by motorcycles and non-motorized vehicles is deemed sufficient. The national program also targets one hundred percent of district roads and at least seventy percent of commune roads being paved with asphalt concrete or cement concrete. In terms of maintenance, one hundred percent of district roads and at least thirty-five percent of commune roads are to be provided with maintenance funding by 2020.

33. The NSRTD also focuses on road connectivity, which remains a key priority for the country. As of the end of 2014, there are 59 communes without road access to communal centers nationwide. Among them, Mekong River Delta area has 86 communes, followed by Central North and Central Coast having 48 communes (Table A4.2).

34. In order to achieve this target for the communes without road access, the program will require periodic and routine maintenance to be funded. The overall local roads program therefore combines road construction, rehabilitation and maintenance; its scope and financing requirements are such that the estimated cost is not provided for under the national program.

Table A4.5: Importance of the balance between construction and maintenance for local roads

“Investment for new construction, upgrading and improvement of roads is only to create roads for use. Maintenance of road quality during operation would ensure service degree of existing roads and extend their lifespan, relying on that capital may be reserved for more development of network or improvement of quality of the networks to be upgraded. Therefore, after new construction, rehabilitation of roads, maintenance must be made and priority need be given to scheduled maintenance to maintain accessibility of roads and bring long-lasting and durable profit from road

Source: National Transport Development Strategy to 2020 and vision to 2030

35. Furthermore, as the program is deemed to be estimated, planned and finally managed at the provincial level, it is only through the development of provincial Medium Term Expenditure Plans (MTEP) that a detailed estimation of needs would be available at the provincial level. The ongoing World Bank support to the development of provincial MTEP is the first step towards the consolidation of an estimated need at the national level. As of 2015, 12 provinces have prepared a draft MTEP of which five have been completed. The indicative NSRTD implementation targets for the 14 provinces for the period 2015-2020 suggests VND 61,913 billion (about US\$ 2,750 million equivalent) shown in Table 4

Table A4.6: Preliminary Provincial Estimates for the National Strategy on Rural Transport Development in the 7 provinces with available data

Province	Road maintenance and rehabilitation estimated budget as per MTEP for Provincial, District, and Commune Class A and B roads (US\$ million)						
	2015	2016	2017	2018	2019	2020	Average
Bac Can	10.4	1.7	4.8	12.1	12.7	4.4	7.7
Ha Giang	17.0	2.3	6.0	29.2	6.2	3.1	10.7
Ha Tinh	24.4	7.9	8.9	49.8	18.4	7.7	19.5
Lao Cai	21.9	3.3	8.9	7.2	13.3	10.5	10.8
Nghe An	55.9	7.4	18.7	48.9	12.0	8.8	25.3
Quang Binh	18.8	2.2	13.6	5.9	6.2	10.0	9.4
Thanh Hoa	33.4	8.1	38.1	17.7	13.3	21.8	22.1
Total	181.8	32.9	99.0	170.9	82.0	66.3	105.5

Source: MTEP (PDoTs)

Table A4.7: Preliminary breakdown on investment by category of works for the Province (Thanh Hoa, US\$ million) and ratio maintenance vs. total expenditures (%)

Thanh Hoa					
	Rehabilitation	Periodic Maintenance	Routine Maintenance	Ratio maintenance vs total expenditures	Total
2015	21	7	5	36%	33
2016	3	0	5	68%	8
2017	0	33	5	100%	38
2018	11	1	5	38%	18
2019	0	8	5	99%	13
2020	0	16	5	100%	22
Total	35	65	33	74%	132

Table A4.8: Preliminary breakdown on investment by category of works for the Province (Nghe An, US\$ million) and ratio maintenance vs. total expenditures (%)

Nghe An					
	Rehabilitation	Periodic Maintenance	Routine Maintenance	Ratio maintenance vs total expenditures	Total
2015	48	0	7	13%	56
2016	0	0	7	100%	7
2017	0	11	7	100%	19
2018	40	2	7	18%	49
2019	4	1	8	68%	12
2020	0	1	8	100%	9
Total	92	15	45	39%	152

Table A4.9: Preliminary breakdown on investment by category of works for the Province (Quang Binh, US\$ million) and ratio maintenance vs. total expenditures (%)

	Quang Binh				
	Rehabilitation	Periodic Maintenance	Routine Maintenance	Ratio maintenance vs total expenditures	Total
2015	17	1	2	12%	19
2016	0	0	2	100%	2
2017	2	10	2	88%	14
2018	2	2	2	70%	6
2019	2	2	2	68%	6
2020	0	8	2	100%	10
Total	22	24	11	61%	57

Table A4.10: Preliminary breakdown on investment by category of works for the Province (Bac Kan, US\$ million) and ratio maintenance vs. total expenditures (%)

	Bac Kan				
	Rehabilitation	Periodic Maintenance	Routine Maintenance	Ratio maintenance vs total expenditures	Total
2015	9	0	2	16%	10
2016	0	0	2	100%	2
2017	0	3	2	100%	5
2018	10	0	2	14%	12
2019	4	7	2	67%	13
2020	0	3	2	100%	4
Total	23	13	10	49%	46

Table A4.11: Preliminary breakdown on investment by category of works for the Province (Ha Giang, US\$ million) and ratio maintenance vs. total expenditures (%)

	Ha Giang				
	Rehabilitation	Periodic Maintenance	Routine Maintenance	Ratio maintenance vs total expenditures	Total
2015	14	1	2	17%	17
2016	0	0	2	100%	2
2017	0	4	2	100%	6
2018	27	0	2	9%	29
2019	2	2	2	65%	6
2020	0	1	2	100%	3
Total	43	7	14	33%	64

Table A4.12: Preliminary breakdown on investment by category of works for the Province (Ha Tinh, US\$ million) and ratio maintenance vs. total expenditures (%)

Ha Tinh					
	Rehabilitation	Periodic Maintenance	Routine Maintenance	Ratio maintenance vs total expenditures	Total
2015	23	0	2	6%	24
2016	6	0	2	20%	8
2017	6	2	2	37%	9
2018	43	5	2	13%	50
2019	14	2	2	21%	18
2020	0	6	2	100%	8
Total	92	15	9	21%	117

Table A4.13: Preliminary breakdown on investment by category of works for the Province (Lao Cai, US\$ million) and ratio maintenance vs. total expenditures (%)

Lao Cai					
	Rehabilitation	Periodic Maintenance	Routine Maintenance	Ratio maintenance vs total expenditures	Total
2015	13	5	3	39%	22
2016	0	0	3	100%	3
2017	0	6	3	100%	9
2018	1	3	3	84%	7
2019	0	10	3	100%	13
2020	0	7	3	100%	11
Total	14	31	20	78%	65

The Program for Local Bridge Construction (PLBC)

36. The Program for Local Bridge Construction (PLBC) is managed at the national level by the Ministry of Transport (MoT). The program covers 50 provinces and will fund the construction of small bridges with a width profile of 1.5m to 3.5m to give motorized access to poor communities, many of which are where ethnic minorities are located. This program will complement the program for local road development by connecting villages and communes with facilities such as schools, clinics and markets within the local road network.

37. The Program for Local Bridge Construction (PLBC) is managed at the national level by the Ministry of Transport (MoT). Covering 50 provinces, the program funds the construction of small bridges with widths of 1.5m to 3.5m. The bridges are to be constructed to provide access to remote and poor communities, many of which are inhabited by ethnic minorities. The objectives of the PLBC are to achieve the following by 2020: a) Complement the program for local road development by targeting villages and commune roads with missing or unsafe links (river crossing... etc.), b) Facilitate access to social services and other facilities such as schools, clinics within the local road network, c)

Target poor communities, particularly those of ethnic minorities. In order to achieve the objectives of the PLBC program during the period from 2014 to 2020 the Government needs to complete 4,145 bridges. The overall PLBC cost in the 50 provinces for 2015-2020 is estimated at about US\$ 330 million. The implementation results under the program during Phase 1 (2010-2015) and the implementation targets during Phase 2 (2016-2020) are shown below:

Table A.4.14: PLBC Implementation Results and Targets

Year/Sources	Number of Rigid Bridges	Number of Suspension Bridges	Total Budget (VND billion)	Total Budget (USD million)
Total Phase 1 (2014 - 2015)		186	931.70	57.58
Phase 2 (2015 - 2020)				
2015-2016		150	910.82	40.58
2016-2017		145	880.46	39.23
2017-2018	1,222		1,873.00	61.62
2018-2019	1,222		1,873.00	62.52
2019-2020	1,220		1,870.00	62.86
Total Phase 2	3,664	295	7,407.28	330.97
Whole Program (2014-2020)	3,664	295	8,338.98	372.63
In which				
ODA funding			5,625.00	
Local Budget			1,000.00	
Private sector contributions			782.28	

Source: Decision No 2529/QĐ-TTg by Prime Minister dated 31 December 2015 on Endorsement of the PLBC

38. The Phase 1 of the program is well advanced, with currently 90 bridges completed and already in operation, 34 bridges with a 50 percent completion level, and 47 for which mobilization of the contractors is ongoing. The remaining bridges are under appraisal. It is estimated that all bridges under Phase 1 will be completed by June 2015.

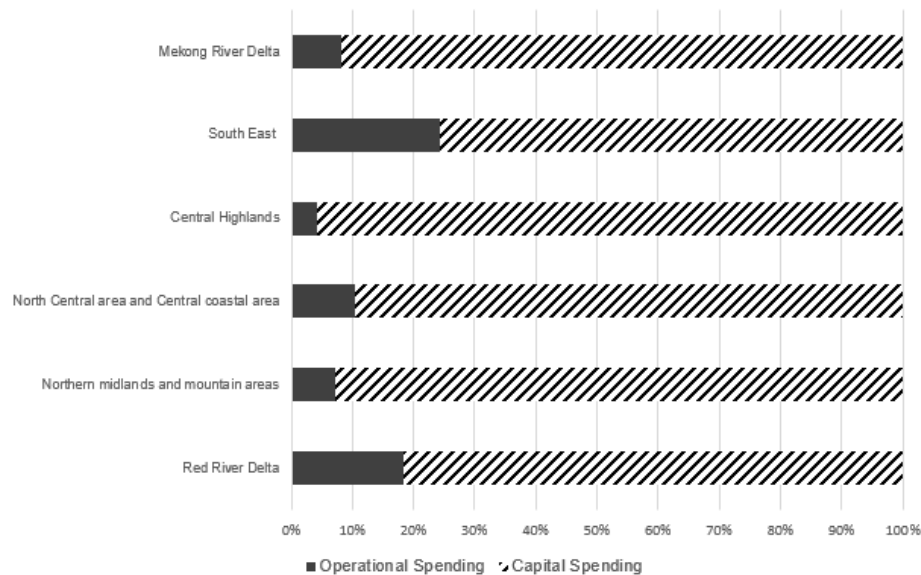
Maintenance financing through Medium-Term Expenditure Plans

39. The effective preservation of the local road network requires a rolling medium term plan and a long term vision for sustainable financing and management arrangements, rather than a singular focus on individual investment sub-projects in the short term. The widening gap between routine and periodic maintenance needs and currently available resources make it particularly important that the proposed program is used to lay the framework for sustainable local road asset management. The current practices and budgets clearly show the imbalance towards capital investments, as shown below in Figure A4.1. In particular, the Northern Midlands and Mountain area region shows a 10 percent level of spending on Operation and Maintenance (O&M), while the North Central and Central Coastal region less than 8 percent on O&M.

40. Medium Term Expenditure Plans (MTEP) will be used as equivalents to local road master plans (medium term and long term) in order to support the local authorities to better plan both capital and

operational expenditures within budgetary constraints. The World Bank support to the ongoing exercise on MTEP coupled with the continued use of road asset management system (VPRoMMS) aims at enabling Provincial DOTs to prioritize interventions on the local road network based on both technical and socio-economic data, and provide adequate estimated costs for the interventions, on a multi-year basis, while securing enough financing margins for operations and maintenance. Issues observed and assessed relate to the coordination between local road and national road authorities, which is very weak. While the Directorate of Roads Vietnam (DRVN), at MoT, has partial data on local roads through reporting procedures, they are not responsible for review of such data, and therefore there is no central level coordination and standardization of data or of priorities. MTEP are now at the provincial level and expected to be reviewed and approved by PPC only.

Figure A4.2: Transport expenditures by Region, for capital and operational spending (2011)



Source: MOF, WB analysis

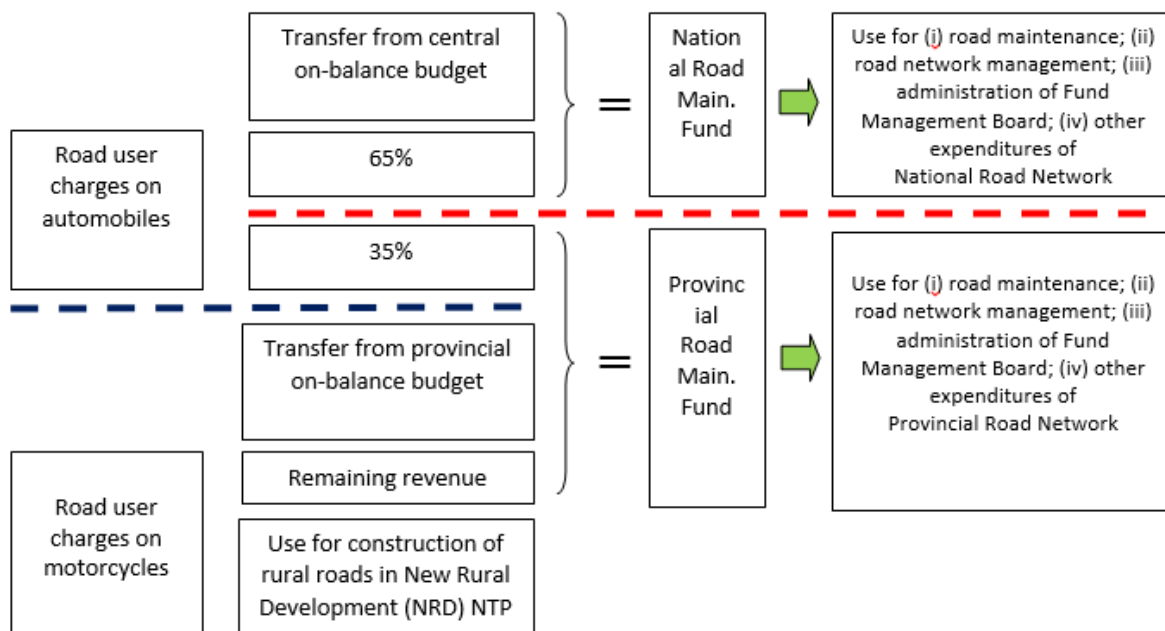
Road Maintenance Fund (RMF)

41. The Road Maintenance Fund does not finance maintenance only. Revenues from motorcycle user charges are fully used towards the financing of the maintenance of local roads. However, the full revenues are not only allocated for maintenance purpose. Rather, they can be used for capital investment of new rural roads within the scope of the National Targeted Program “*New Rural Development*” (NRD). According to the Decree 56, the NRD can use up to 100 percent of this revenue, based on the Decision of the Provincial People’s Council for each province. This regulation can substantially impact funding arrangements for Provincial Road Maintenance Funds (PRMFs) from one province to another. The Road Maintenance Fund (RMF) was set up and started providing funds for maintenance in 2013. It is a funding modality for maintenance work for national and sub-national road network, i.e. a public fund that is controlled via the State Treasury system. The RMF system consists of two types of funds: the National RMF (NRMF) and the Provincial RMF (PRMF), as detailed in Figure A4.3.

42. The allocation mechanism of this share among provinces is similar to the formula-based allocation of on-balanced state budget, with an unknown formula, unpublished, which hinders transparency, predictability for planning and opens access to political influence to secure additional financing. The fact that PRMF is eligible to receive 35 percent of revenue from automobile user

charges does not mean that 35 percent of revenue collected in a specific province will be automatically deducted and transferred to provincial fund. All revenues collected are actually deposited into a commonly used Fund. Based on the total length of road network by province, number of registered and economic-hardship-adjustment ratio, the Central Fund Management Board (CFMB) will allocate this 35 percent of revenue from automobiles to all provinces. However, if the allocated budget for any province by applying this formula-based allocation is still less than VND 20 billion, the gap will be completed by additional transfer. The economic-hardship-adjustment-ratio serves as a equalization mechanism to ensure a more adequate road maintenance funding for provinces who have fewer number of registered vehicles but a large local road network (such as in Northern Mountainous Regions).

Figure A4.3: Funding allocation and spending assignment arrangements between NRMF and PRMF



Source: World Bank analysis

E. Technical Soundness

43. **Technical risk rating.** For the road related activities, risks relate to the challenges created by the annual road database collection and consolidation. That can be difficult to carry due to sparse labor sources and poor capacity of transport staff at the district and communal level. Non-updated road data and/or inexact data are key hindering factors to the quality of MTEP and budget preparation. Without the continuous use and updating of VPRoMMS, there cannot be a realistic and efficient network-based analysis for maintenance prioritization and budget allocation. Post-project activities shall therefore continue to focus on linkages between the MTEP, the budgeting cycle, and the technical output provided by VPRoMMS, over the road life cycles. The deployment of the MTEP may consider the introduction of sequential annual contracts or multiannual contracts to promote continuous routine maintenance, in parallel with the adjustments to VPRoMMS for multi-year approaches, and the continued data updates, in order to be viable. It is of key importance that adequate identification procedures are introduced to better take into account district and communal road maintenance needs. The success of the roll-out of the combined RNET-VPRoMMS system is critical to ensure the

sustainability of road maintenance programs in Vietnam. The content of road data collection will be included in Technical Guidelines to specify which data, how and when the data is to be collected.

44. Vietnam Provincial Road Maintenance Management System (VPROMMS) is software developed by the World Bank for provincial road network management in Lao PDR and later adopted for use in Vietnam with significant modifications aimed at simplifying use of the software. The efficiency and use of VPROMMS has been proved with the adoption by PDoT in several provinces where VPROMMS as now being used as the local road database. However, as VPROMMS was not best fitted for development of an MTEP for Provincial Road Networks, the RONET program has been introduced and a combined and simplified VPROMMS-RONET system developed merging these software packages.

45. RONET approach to road management is different from VPROMMS, mostly in the treatment of economic analysis. RONET incorporates two models from HDM-4 and RUCK (Road Deterioration and Vehicle Operating Costs). RONET use most of the data inputs from VPROMMS but requires detailed IRI (beyond visual inspection results), which are not available in Vietnam under VPROMMS. In summary, RONET requires fewer but more fundamental data inputs and its outputs are considered more economically grounded and solid than VPROMMS. The combination of both tools is considered a good fit for the Local roads in Vietnam.

Technical Design and Standards

46. Standards and specifications for the Local Road Network Rehabilitation are generally well defined in Vietnam through various national standards and specifications. The application of design specifications is different for each road type, but each type uses similar construction specifications. It is essential that is clarified prior to the design as to what standards and specifications are to be applied to which activity within the various road classifications is needed.

47. The standards for both maintenance and upgrade are well defined as per Vietnamese standards. Improvement and rehabilitation activities comprise all the roads of the local network where activities of rehabilitation, pavement upgrade, and periodic maintenance have been delivered. These expenditures are considered capital expenditures in Vietnam. Periodic maintenance activities consist in road works that may be required somewhere on road link, or on a structure, after a period of a number of years. Many of the activities will require careful planning and mobilization of specific resources. They are designed to avoid road degradation, such as resurfacing asphalt concrete overlays, etc. Road Rehabilitation works are defined as a structural or functional enhancement of a road that produces a substantial extension in service life, by substantially improving pavement condition and ride quality; and finally road upgrade are defined by the rehabilitation of a road to a level of service above that for which it was originally designed.

48. Routine maintenance activities comprise all the road of the local network where activities of routine maintenance have been delivered, such as pothole repairs, cleaning of drainage, sealing of cracks, cutting of vegetation, etc.). Routine Maintenance are operations required to be carried out more than once per year on a section of road. These operations are typically small scale or simple, but widely dispersed, and require skilled or un-skilled manpower. The need for some of these can be estimated and planned on a regular basis.

49. Overall, the technical design related issues that may affect the sustainability of the program relate to the following aspects:

- *Quality of the drainage systems*
While technical specifications include drainage, this aspect is not always properly implemented in Vietnam, while the proper drainage is indispensable for sustainable quality of the road. Therefore the Program Action Plan (PAP) may include additional actions in order to upgrade the targeted road network so that it is in line with the standards on that very aspect. The MTEP could support the provinces to assess the extent and estimated costs for such works.
- *Compliance with material specifications*
While many design specifications and guidelines are not well-known by local road engineer at provincial or district levels, most construction specifications are known and applied popularly at local levels. The proposed program will ensure that all standards and specifications are added as requirements in the Program Technical Guidelines, as well as provide support for them to be applied to all provinces for construction quality enhancement.
- *Techniques for slope stabilization of the embankments*
Slope stabilization techniques and measures could also be added in the Program Action Plan (PAP) in order to assess the level of risks in the targeted provinces and to ensure that the most landslide prone sites in the provinces are treated with appropriate techniques.
- *Growing overloading of trucks on local roads*
The standards and specifications could also benefit from support through the proposed program such that they are adapted to address the growing truck related traffic in rural areas, as well as from additional studies on the sub-base bearing capacity in the various provinces. Both activities would help to adapt the design to the reality of the loading patterns and capacity in the provinces. Additional measures could include support for mobile overloading control activities.

Climate resilience

50. The Ministry of Transport developed an Action Plan¹⁸ to respond to climate change in the period 2011-2015 to create capacity to respond to climate change in order to contribute to sustainable transport development and has issued a number of general decisions requiring climate change and climate impacts to be address through road standards and specifications. At the provincial level, there is a MoT issued formal requirement for each province to draw-up and submit a climate change action plan. There are, however, no specific guidance for formal standards or design guidance on identifying climate threats and the consequent adaptation measure needed to reduce climate risks. Key issues and concerns identified during the identification mission on this aspect were: (a) the importance of climate resilience in reducing whole-life costs, (b) the role that Spot Improvement can play in cost-effective climate resilience within limited budgets, (c) the importance of roadside drainage and cross drainage in reducing climate impact, (d) the importance of prioritization in climate strengthening.

Monitoring and evaluation capacity

51. Monitoring and evaluation for provincial and district road maintenance is implemented on a quarterly basis under provincial road fund committee with support from PDoTs. Monitoring and evaluation for commune road maintenance under the Program shall be required on a similar basis to that used for other roads at the provincial and district levels. However, the performance criteria for

¹⁸ Decision No. 199/QĐ-BGTĐ dated January 26, 2011

monitoring and evaluation can be different for each level in the roads hierarchy of provincial, district and commune or village roads or even different for road types of concrete, asphalt mix, surface treatment, gravel or earth. The design of indicators to be monitored will depend on the program developed by PDoT and approved by PPC. Road rehabilitation works and bridge construction works are monitored and evaluated based on the current Vietnamese system. National auditing system or auditing consultant under government can either be used for road rehabilitation and bridge construction monitoring and evaluation.

Annex 5: Summary Fiduciary Systems Assessment

Purpose of Fiduciary Systems Assessment (FSA)

1. This assessment refers to the fiduciary arrangements governing the Program. Those governing the Technical Assistance Project are described in Annex 9.
2. The fiduciary systems assessment identifies risks and proposed mitigation measures. Prior to the mitigation measures being taken, Program risk is assessed as “Substantial”. During preparation the Bank assessed all available options: dated covenants, capacity building, Disbursement-Linked Indicators (DLIs) and Program design revisions, to help mitigate these risks. The results of the assessment and recommendations are reflected in the technical assistance program and the Program’s integrated action plan.
3. This Assessment follows the principles governing fiduciary assessment for Program-for-Results as set out in OP/BP 9.00 (Program for Results Financing) and covers both central and local government systems. This notes that the Program fiduciary systems shall provide “reasonable assurances that the financing proceeds will be used for intended purposes, with due attention to the principles of economy, efficiency, effectiveness, transparency, and accountability.” The Fiduciary Systems Assessment (FSA) of the Program integrates findings in three areas:
 - **The Procurement systems** were assessed to determine the degree to which the planning, bidding, evaluation, contract award and contract administration arrangements and practices provide a reasonable assurance that the Program will achieve the intended results through its procurement processes and procedures;
 - **The Financial management systems** were assessed to determine the degree to which the relevant planning, budgeting, accounting, internal controls, funds flow, financial reporting and auditing arrangements provide a reasonable assurance on the appropriate use of Program funds and safeguarding of its assets; and
 - **The Governance systems** were assessed to determine the extent to which they address risks of fraud and corruption, including the use of complaint mechanisms, and how such risks are managed and mitigated in light of the Government’s commitments under the Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results Financing (Anti-Corruption Guidelines or ACGs).

Procurement

4. The procurement under the Program to be supported is carried out in accordance with the national procurement laws and regulations. In particular, procurement being done before July 1, 2014 was governed by the following legal documents: (i) Procurement Law No. 61/2005/QH11 dated November 29, 2005; (ii) Law No. 38/2009/QH12 on Amendments to the Procurement Law dated June 19, 2009; (iii) Decree No.85/2008/ND-CP dated October 15, 2009; and (iv) other Circulars related to public procurement. Procurement to be carried out after July 1, 2014 is governed by the following legal documents: (i) Public Procurement Law No. 43/2013/QH13 approved by Vietnam National Assembly on November 26, 2013 and effective from July 1, 2014; (ii) Decree No. 63/2014/ND-CP dated June 26, 2014 issued by the Vietnam Government for detailing the implementation of selective articles of the Law on Public Procurement regarding Contractor Selection; and (iii) other Circulars related to public procurement. As a result, the procurement works under the proposed Program will be governed by new procurement law No. 43 and Decree No.63 as mentioned above.

5. A review of the revised Public Procurement Laws and draft regulations implementing Decrees found that they (i) require procurement planning to be prepared and approved in a timely manner with proper linkage to budget availability; (ii) mandate open competitive bidding as the default procurement method and provide detailed procedures for open competitive bidding; (iii) provide a reasonably clear allocation of responsibilities and accountabilities to the procuring entities, employers and project owners; and (iv) provide sanctions against unacceptable practices including fraud and corruption. In addition, the Government will issue various Standard Bidding Documents (including forms and templates of contract) and bid evaluation templates for use by procurement practitioners. The Public Procurement Law #43 and Decree #63 however still allow an automatic use of direct contracting and single sourcing for small contracts below certain monetary thresholds¹⁹, which are notably lower than those stipulated in the previous law and decree.

6. The open competitive bidding procedures described in the procurement laws and regulations are found to generally adequately accommodate transparency, economy and efficiency of the procurement process. The Public Procurement Law #43 and Decree #63 mandate open competitive bidding as default method of procurement. Choice of other methods (including direct contracting, and competitive shopping) is allowed where open competitive bidding is not feasible. The laws however permit direct contracting to be automatically used for contracts whose cost estimates are below the specified monetary value. In practice, the permission of monetary thresholds-based direct contracting has caused excessive abuse through packaging into small-valued contracts.

7. Procurement complaints are handled in accordance with the procedures stated in Decree No. 63/2014/ND-CP. These procedures require complaints to be duly signed and stamped by a legitimate representative of the complaining bidder. Anonymous complaints are normally not considered. For complaints related to contract award, the complainant has to deposit a fee which would be cashed if the complaint is not substantiated. Complaints are handled by procuring entities or the investment owners and appeals are reviewed by a competent agency - normally the Ministry of Transport (MoT) or Provincial People's Committee (PPC). This procedure seems to be rather rigid and discouraging of complaints. The Bank's experience in Vietnam shows that procurement complaints were frequently received under Bank-financed projects and most of them were anonymous. Bank policy requires anonymous complaints to be seriously considered and reviews of such complaints have helped to identify and address many procurement problems and unacceptable practices. The lack of a clear, consistent and affirmative policy and procedure for these complaints is a clear weakness in the Program's complaints handling system. Under the Program, MoT/DRVN and Provinces should therefore be encouraged to accept and review anonymous complaints. MoT should provide detailed guidance on this matter in the Operations Manual.

8. The Program will be subject to Vietnam's national debarment procedures. Prohibition from participation in future tenders is governed by the Law on Procurement which provides a defined set of "prohibited acts" -- commission of which can lead to debarment. For procurement, initial sanctioning decisions will be made by the investment owners. Lists of debarment within a given province are prepared by the provincial Department of Planning and Investment (DPI) and are submitted to the PPC and MPI on an annual basis. Provincial officials gave the team inconsistent information regarding whether tenders consistently refer to the MPI sources and the DPI lists to determine bidder eligibility. Under this Program, it is recommended that the Bank's debarment list will also be applicable.

¹⁹ The Law #43 and Decree #63 proposes a threshold of VND 1 billion (US\$48,000) and VND 0.5 billion under which goods, works, non-consulting and consulting services may be procured through direct contracting respectively. Compared to the thresholds in the previous laws and regulations, these thresholds are substantially lower meaning more mandatory use of competitive bidding for the Program.

9. DRVN is responsible for organizing training courses as part of their capacity building responsibilities. In addition, the Government has established an e-Government Procurement system (available at muasamcong.mpi.gov.vn). This e-GP system allows procuring entities to electronically handle bidding process (e-tendering) in a more transparent and fair manner with lower administrative costs. Participating provinces will be encouraged to gradually adopt this electronic procurement system for the Program.

10. The DoT/DPC and PMUs shall hire consultants to provide services in supervising and managing construction of works. A typical contract for construction of works under the Program normally has a contractual construction period of less than a year. It is reported that the contract execution was normally completed in time. There were also a number of cases of delay mainly due to weather conditions. Cost overruns also did not appear an issue under the Program as the agencies managed well to complete works within the agreed budget. It is noted that no serious disputes requiring resolution by a court were reported under the Program.

11. In Vietnam the construction of larger works is often delayed as a result of two major challenges: shortage of funds for contract payments and issues relating to resettlement. It is envisaged that implementation of civil works contracts under the Operation may face similar challenges. In particular, the road and bridge works under the Program would require regular cash flow (including 20-30 percent of contract prices as advance payments, monthly payments etc). Due to the nature of the PforR instrument, a major portion (75 percent or more) of disbursements can only be made once the works have been completed and certified. A shortage of cash flow is assessed to be one of the biggest challenges to good contract management and timely delivery of works and services under the Program. To effectively address this challenge, MoT would have to ensure proper management of the advance disbursement and other partial disbursements as well as to find temporary funding sources. Another option that was considered is to partially transfer this risk to contractors by asking them to advance funds for construction. This option is not recommended as it has limited applicability and may impact the fairness of bidding, the contracting process and the quality of work produced.

12. The assessment found following specific procurement related issues that could, directly or indirectly, compromise the efficient achievement of Program objectives: (i) Excessive use of Direct Contracting may cause decrease in economy and efficiency of the expected results; (ii) Awarding contract to dependent SOEs State-Owned Enterprises (SOEs) creates a perception of, or actual, conflicts of interest and may harm the integrity and fairness of procurement processes under the Program; (iii) Unjustified rejecting bid (e.g. bid is rejected due to offering price higher than the cost estimate; or due to minor deviations) may lead to loss of good bid and reduce the competitiveness that may therefore adversely impact the economy and efficiency of the program procurement; (iv) Insufficient procurement human resource of the PMUs under DRVN to cope with the large procurement workload under the Program (bridge construction area); (v) Unavailability of budget may delay the procurement process or contract execution and as a consequence may negatively affect the achievement of the results. In the context of the Program, these issues will be addressed by a series of actions being included in the PAP and through the OM of the Program. Additionally, Provinces should be encouraged to use the e-GP system for managing procurement. MoT should also provide detailed guidance on procurement matters in the Operations Manual.

13. The primary risk to contracting is that a shortage of cash flows causes delays to contract payments which result in slow construction and late delivery of works and services. To mitigate this risk, Provinces may appropriately utilize Program advances, all DLI disbursements and mobilize other temporary funding sources for contract payments. Effective, timely budgeting, procurement

planning and execution, and reporting procedures are important elements that shall be in place to mitigate this risk.

14. There is a risk that a fragmented approach to procurement planning will affect the timeliness of Program implementation and service delivery, that unrealistic or late procurement planning for critical large works and consulting services contracts will result in completion delays, and that packaging of works and services into small contracts for the use of direct contracting will occur. These practices, should they occur, would affect cost-effectiveness and competitiveness. To mitigate these risks it is recommended that Provinces plan procurement for entire sub-projects and phases with priority being given to critical large works and consulting services. Provinces will also be encouraged to bundle small contracts into larger ones for the use of competitive bidding to the extent possible. MoT will provide detailed guidance on these matters in the Operations Manual.

Financial Management

15. The Bank has assessed the financial management arrangements of the NSRTD and PLBC and found that they provide a reasonable assurance that the financing proceeds will be used for the intended purposes, with due attention to the principles of economy, efficiency, effectiveness, transparency and accountability. The overall Financial Management risk after mitigation measures is assessed as Substantial.

16. Nevertheless, the Government systems will require strengthening particularly to (a) ensure that the budget allocation is sufficient for the Programs and for the proper priorities, (b) introduce the performance based transfer to provinces, and (c) build the internal audit capacity for both DRVN (PLBC) and participating provinces (NSRTD).

17. These issues shall be addressed through measures to strengthen government budgeting and internal audit systems to enable the efficient and effective budgeting processes and provide adequate assurance for the uses of public funds. These measures include (a) clarified and specific guidance on performance based transfer system and fund flow arrangements for the Programs, issued by the Ministry of Finance, and (b) the establishment and operation of an effective internal audit function in DRVN for the PLBC and the roadmap for building IA capacity in participating provinces for NSRTD and (c) the submission of annual Program Report to the Bank, including an audit report, audited financial statements and verified results.

18. An independent auditor will play the role of the *Independent Verification Agent (IVA)*. The IVA role is to provide independent confirmation of the results reported by the MoT and the Provinces to the MoF and the Bank, which will consist of (i) financial audit, and (ii) verification of the achievements of the DLIs. The Financial Audit and the verification of DLIs will be conducted in accordance with the agreed verification protocol/audit terms of reference provided in the Operations Manual (OM).

Governance

19. The system of government in Vietnam is well established. Despite the recent decentralization of authority, Vietnam's government structure remains strongly hierarchical, though with a number of parallel systems that may duplicate functions. This system contains the basic elements of good governance, including a separation of policy-making, execution and oversight functions, both between and within levels of government, and a system of regular reporting to high levels of government.

Legal Framework

20. All civil servants are required to conform to the Law on Cadres and Civil Servants (2008). This Law provides certain ethics and code of conduct standards including requirements for civil servants to perform their duties with integrity and in an impartial manner, and prohibits fraud and corruption. Bidding documents, required by the Procurement Law, must include a provision clearly stating various prohibited acts in procurement process including fraud and corruption. After bids are received and opened, they shall be required to be preserved at a safe place; information on such bids and bid evaluation processes shall be treated as confidential. Procurement decisions by PPMUs are reviewed by PMUs and approved by PPC and DRVN for Road and Bridgeworks respectively.

21. Activities to prevent and combat fraud and corruption in Vietnam are governed by the 2005 Anti-Corruption (AC) Law, which introduced new approaches to anticorruption such as asset declarations for civil servants, job rotation, and a stronger focus on transparency. The law includes ambitious and all-embracing provisions on the prevention, detection, and handling of corruption, as well as the organization and mechanisms for concerned agencies (including media, international organizations, etc.). The guideline for implementing the 2005 AC-Law was issued through the Prime Minister's Decision 30/2006/QĐ-TTg (6 February, 2006) and Resolution No. 4-NQ/TW (21 August, 2006) of the Party's Central Committee (Session X). The AC Law was most recently amended in 2012, which introduced stricter transparency guidelines for public sector governance. Most notably, the amended AC Law is enhanced by Decrees No. 78 and 90 which clarify the implementation of provisions under the AC Law with regards to the assets and accountability of public officials.

22. The 2005 Anti-Corruption Law is also complemented and strengthened by the 2011 Laws on Complaints and Denunciations (Decrees 75/ND-CP and 76/ND-CP) which regulate the process and procedures for the handling and settlement of complaints. While the process is described and analyzed in more detail below, it is important to note the clarification of roles of different government bodies in charge of handling fraud and corruption complaints, as specified in Section 2 of this Law.

23. This is also in line with the 2004 Law on Inspection which governs the extensive Government Inspectorate (GI) system of Vietnam. The key roles of the GIs are to (i) carry out socio-economic inspections; (ii) examine and inspect the settlement of citizen's complaints and denunciations; and (iii) detect corruption cases and recommend how to handle them. This effectively establishes a multi-tiered system of non-financial oversight, with inspectorate bodies existing at the central, province and district administrative levels of government, together with specialist sector inspectorates at the central level (illustrated in the diagram below). This operates in parallel to the internal audit system being established under the 2005 State Audit Law (discussed above). Due to the establishment of numerous Inspectorates, their authority to process and settle complaints and denunciations are tightly defined vis-à-vis each other. If the denunciation does not fall under their jurisdiction, they must refer it to another authority.

Complaints Handling System

24. According to the Law on Complaints and Denunciations and the Anti-Corruption Law, citizens can provide fraud and corruption complaints to various offices, but they can be summarized into two main channels: (i) the People's Committee at the appropriate level of government; and (ii) the GI agencies. In the proposed Operation, complaints related to sub-projects, which could include allegations of fraud or corruption, will most likely be submitted to PDOT and DRVN.

25. Neither the existing Procurement Law (issued in 2005) nor the new revised Public Procurement Law (just approved in November 2013) have a separate procedure for handling allegations of fraud and corruption in procurement²⁰, although they include provisions on prohibiting fraudulent and collusive practices. Currently, procurement complaints are handled in accordance with the procedures stated in Decree No. 85/2009/NĐ-CP that require complaints to be duly signed and stamped by a legitimate representative of the complaining bidder (anonymous complaints are not considered). For complaints related to contract award, the complainant must deposit a fee equivalent to 0.01% of the contract's offered bid price (minimum VND2 million and maximum VND50 million) that will be forfeited if the complaint is not substantiated. Though the Government is in process of drafting a new implementing Decree following the issuance of the revised Public Procurement Law, which shall be applicable to the Program, the procedures for handling procurement complaints are expected to basically remain the same²¹.

26. Complaints are handled by procuring entities or program owners and appeals are reviewed by a competent agency – normally the Provincial People's Committee. Complaints are handled as follows. First, they are reviewed by the procuring entity (equivalent to PMUs under the Program), who is responsible for responding to the complaining bidder within 5 working days. If the procuring entity is incapable of resolving the complaint or if the bidder is dissatisfied, the bidder may submit their complaint to the employer; and the employer is responsible for replying to the bidder within 7 working days. If the bidder is still dissatisfied, it may escalate to the competent agency (equivalent to Provincial People's Committees under the Program). The competency agency is responsible for responding to the bidder within 10 working days. If the bidder remains unhappy, they may approach a court for redress. In case of complaints about bidding results, the complaints will be resolved based on the review and recommendation of a Consultative Committee, established on a case-by-case basis and headed by an authorized representative of the Department of Planning and Investment.

27. The Bank's experience in Vietnam shows that procurement complaints were frequently received under Bank-financed projects and most of them were anonymous. Bank policy requires anonymous complaints to be seriously considered and reviews of such complaints have helped to identify and address many procurement problems and unacceptable practices. The lack of a clear, consistent and affirmative policy and procedure for these complaints is a clear weakness in the Program's complaints handling system. Under the Program, DRVN and Provinces will therefore be encouraged to accept and review anonymous complaints.

28. There is a risk that proper governance practices, particularly cooperation between levels of government and between political and administrative arms of local government are eroded through the duplication of activities or an over-reach of authority by one party. These risks are inherent to many systems of governance globally, and are difficult to mitigate through a single program. The Program will provide support to government to continue with the evolution of the decentralized architecture for local governance through policy reviews, reforms, and preparations for the scaling up of the implementation of the Operation.

29. There is a risk that a lack of clarity in the relative authority of various inspectorates may lead to a lack of follow-up of complaints. Due to the establishment of numerous Inspectorates, their authority to process and settle complaints and denunciations is tightly defined vis-à-vis each other. For

²⁰ This is to distinguish fraud and corruption complaints with procurement petitions, for which the handling process is described under Integrity Aspects in the Procurement Section of this Assessment.

²¹ This fee applicable to complaints regarding contract award is being proposed to double (0.02% and VND100 million max) in the Decree on Selection of Contractors, issued in June 2014.

example, according to the Law on Construction, inspectors of MOC or local construction departments are only authorized to process complaints and denunciations relating to violation of the Law on Construction. If the denunciation does not fall under their jurisdiction, they must refer it to another authority. In fact, MOC and the department of construction have referred many cases to other authorities, especially cases related to land clearance or compensation issues which are typically referred to the local authority, e.g. the competent People's Committees, who may be in conflict of interest with the denunciators. The multiple agencies dealing with complaints and the interlocking "referral system" that connects them can create a confusing and difficult situation for citizens trying to file complaints with the right authority. The multiple-entry complaints system, while providing a number of options for citizens, may be confusing and may result in complaints being passed around agencies or lost in the transfer process making it difficult for citizens to follow up with their complaints. The use of written log books in some implementing provinces raises questions about the quality of the data collected. The overall reform of the complaints handling system is beyond the scope of the Program, due to its extensive nature. However, to mitigate these risks, it is recommended that improved and consolidated reporting on complaints be required on a regular basis. The lack of any relevant prior complaints on fraud and corruption has meant that the team is unable to identify other gaps or weaknesses that may appear during implementation of the Operation. Improved reporting would assist in monitoring this situation, and would allow adjustments to be made during implementation if proven to be necessary.

30. There is a risk that inadequate staffing of inspection agencies will constrain the ability of the Program to collect, manage and investigate allegations, especially when the scope of infrastructure investments expands significantly. It is recommended that the adequacy of staffing is reviewed at Program mid-term, alongside a review of reports on complaints handling, to assess whether additional capacity support or other interventions are required.

31. There is a risk that the formal denial of the submission of any anonymous complaints will prevent the discovery of procurement problems and compromise the quality of procurement work. It is recommended that all complaints, including anonymous ones, be duly considered and addressed. There is also a risk that the non-application of Bank debarment/suspension lists results in contract awards to debarred firms and/or individuals. It is recommended that agreements with the Government are reached to share Bank disbarment lists with participating Provinces, and that their compliance is supervised and audited during Program implementation.

Recommendations

32. **Procurement.** In accordance with the results of Fiduciary System Assessment presented above, the following Program Action Plan was agreed with the Government to be implemented during the Program:

- All proposals for detailed designs, construction supervision and bids for civil works, whether below or above cost estimates, shall be evaluated; proposals and bids shall not be rejected only on the basis of minor, non-substantive deviations.
- Dependent SOEs of MoT will not be allowed to participate for the contracts under the Program; and dependent SOEs of PPC under the Program Provinces will not be allowed to participate in the contracts in the provinces that they are dependent on, but can participate in the contracts in other provinces.
- At least 80 percent of total value of contracts for consulting services and 80 percent of the number of contracts for works awarded annually will be procured competitively.
- Firms on the local, national, or Bank debarment list will not be allowed to participate.

33. **Financial Management.** Action to require timely and appropriate budget allocation by PPCs, including adequate allocation to transport and communication as indicated in inter-ministry guidance and the following:

- Provinces (with guidance from PMU6) prepare an overall 5 year financial plan to implement the Program. Each year an accurate budget proposal shall be produced by Provinces based on the estimated work progress and cash flow of the coming year to ensure there is no gap in the funding necessary to achieve the Program results.
- MoF shall ensure that a mechanism for results-based financing is included in the Government annual budget cycle of related provinces, and that the annual budget allocation is adequate to achieve each year's objectives.
- The Ministry of Finance shall issue draft official letter on the financing mechanism of the Program, and the procedures to transfer funds from MOF to PMUs and Provinces through special accounts that needs to be opened at the provincial State Treasury. These special accounts shall only be used for the achievement of the Program results. This has been issued prior to the negotiations; and
- A system of pre-financing (advances) reconciled with results based disbursements needs to be introduced to avoid delays in Program funding during implementation at the local level (before results are achieved and verified).

34. There are moderate risks associated with insufficient scrutiny of budget proposals by the legislature and a lack of transparency in the budget process. The risk of budget appropriations being diverted to other activities or programs during the year is considered to be low. A final risk factor relates to unrealistic cost estimates that result in low quality works and services. Provinces are encouraged to prepare cost estimates based on cost norms that are reflective of market prices, and MoT may provide detailed guidance on cost estimation in the Operation Manual.

35. **Governance.** The following actions was agreed with the Government to be implemented during the Program:

- *Agreement on Information Sharing and Reporting on Fraud and Corruption Allegations:* Based on this assessment and the team's field visits, there does not appear to be a unified national system for collecting and reporting on how the authorities handle allegations of fraud and corruption. Therefore, in order to ensure that the client will be able to comply with its reporting obligations under the ACGs, the client has committed to provide this information from the participating provinces and DRVN. The MoT shall inform the Bank of the number of fraud and corruption allegations, as well as how they are handled (investigated, mitigated and/or sanctioned) per an agreed simple template. The information shall be collected from each province, as well as from concerned PMUs, and will be reported to the Bank team at least annually.
- *Clarify Debarments under the Program:* In light of the readily available debarment lists at the provincial and national levels, the Bank shall seek an agreement with the client to (1) share the respective debarment list and basic information including the name of the debarred entity, date and duration of debarment, and reason for debarment (the Bank shall make it readily available to MOT to share it with the participating Provinces); and (2) supervision and audit shall be carried out during implementation to establish actual performance on enforcing the debarment lists.
- *Client to ensure that Program Participants are obligated to cooperate with Bank Investigations:* In the Project Detailed Outline which the client submits for the Prime Minister's approval, the client has included provisions on the Bank's investigative rights over all sources of funds for the

implementation of the Program, including the Bank's Credit, counterpart fund, and other sources of funding. A document is also annexed in the Project Detailed Outline to lay out the content and language for an instruction which MOT will issue to the participating Provinces to ensure full awareness and cooperation from relevant agencies at the central and local levels during the Program's audit and investigation.

Annex 6: Summary Environmental and Social Systems Assessment

Purpose of Environmental and Social Systems Assessment (ESSA)

1. The purpose of this ESSA is to:
 - Document the environmental and social management procedures, standards and institutional responsibilities that will apply to the Program;
 - Evaluate the institutional capacity to manage the likely environmental and social systems in accordance with Vietnam's own requirements under the proposed Program;
 - Assess the consistency of the borrower's systems with core principles and attributes defined in the Program-for-Results Guidance Note on Environmental and Social Assessment; and
 - Recommend specific actions for improving institutional strengthening during implementation to ensure consistency with World Bank principles.

2. The Environment and Social Systems Assessment was conducted as per requirement of *Program for Result Financing Policy* to assesses the Program systems for managing environmental and social effects, taking into account, among other things, the capacity to plan, implement, monitor, and report on the environmental and social mitigation measures, the scope for improvements, and the risks and related mitigation measures. Key findings of this assessment will be used to improve environmental and social management outcomes of the Program through specific actions under the overall Program Action Plan (PAP), as well as through technical assistance and capacity building activities to be implemented under the Program. The action plan was agreed with the Government of Vietnam (GoV) and has been incorporated into legally binding agreements under the conditions of the new financing.

Environmental Benefits and Risks

3. An estimated 850,000 people living in the participating cities will benefit from improved infrastructure services and, indirectly over time, from improved local planning, implementation and financing capacity that will enable participating cities to scale-up the delivery of urban infrastructure. Direct benefits will also accrue to residents of surrounding rural areas who will utilize improved infrastructure and services when accessing commercial, administrative and social services in these cities.

4. The overall environmental impacts of the Operation would be significant and positive. Improved local roads or new bridges would bring about safer and more convenience access for local communities to basic services such as health care and education. Better access also enhances social connectivity between the benefited households, creates opportunities for remote households to be able to evacuate in flood events, and provides better connection to markets for farmers. Living standards of the benefited households are expected to be increased from such direct beneficial impacts.

5. For road rehabilitation and maintenance work, common potential negative construction impacts at subproject level are known, including: i) increased level of dust, noise and vibration; ii) disturbance to traffic and increased traffic safety risks; iii) disturbance to daily activities of road side households; v) health and safety risks for the workers and local community; These potential construction impacts are expected to be low to moderate levels, temporary, short term, localized, mostly reversible after construction is completed. During operation phase of road rehabilitation subprojects, no incremental negative environmental impacts are expected. Emissions from vehicles and traffic safety risk of rehabilitated roads are even expected to be reduced during operation phase.

6. For bridge construction or reconstruction, including access roads, the potential negative environmental impacts and risks at sub-project level would be: i) loss of vegetation cover, cutting down of trees during site preparation; ii) increased level of dust, noise and vibration; iii) disturbance to traffic and increased traffic safety risks; iv) disturbance to daily activities of road side households; v) water pollution related to increased sedimentation risks associated with construction material preparation, temporary loading of construction materials in rainy season; vi) pollution and visual impacts related to dumping of excavated materials; vii) interfere or disrupt the operation of existing infrastructure or services such as power supply, drainage, water supply etc. viii) health and safety risks for the workers and local community; During operation phase, the environmental issues of concerns would be: i) increased accessibility of human beings to protected areas or areas having high environmental/ biological values may eventually lead to biodiversity degradation; ii) traffic safety; iii) landslide risks in hilly areas; iv) obstruction to boats movements if bridges are built on waterway; As the scale of the road rehabilitation and bridge and access road construction under the Operation are relative small, the potential negative environmental impacts and risks would be mostly small to medium, and manageable.

7. In order to avoid the risks that construction of bridges in environmental sensitive areas may lead to environmental degradation associated with increased accessibility, a set of criteria has been proposed under the Operation to exclude subprojects that has potential adverse irreversible impacts.

8. Subproject impacts and risks would be manageable through the siting, engineering design, and construction of these facilities. For example, environmental friendly measures can be applied for slope protection in hilly areas, design outlet of drains included energy dispersion and erosion prevention structures, topsoil at the borrow pits are retained and reused for beneficial uses etc. Construction impacts are mostly mitigated through construction practices such as informing affected community about construction schedule, regular clean up the site and carry out of proper site management procedures, provide adequate accommodation for the workers, minimize waste generation and manage solid waste and wastewater properly, coordinate with relevant authority to relocate or repair the affected infrastructure, etc.

9. Vietnam has a relative good legal system for environmental management and adequate for identifying and managing of potential environmental impacts and risks of the investments provided under the Operation. The guiding principles for environmental management in the program are provided in: i) the revised Law on Environmental Protection no. 55/2014/QH13 dated 23 June 2014, ii) the Decree 18/2015//ND-CP guiding the implementation of LEP; and iii) Circular 27/2015/TT-BTNMT. Environmental management in Vietnam is also supported by related laws such as the Law on Cultural Heritage, the Law on Mineral Resources, the Law on Water Resources, the Labor Law, the Law on Natural Disaster Prevention and Responsive etc. According to LEP and these guiding legal documents, physical investments under the Operation will be required to prepare simplified environmental assessment in the form of Environmental Protection Plan (EPPs). EPPs are subjected to review and approval at the district level.

10. Available resources of state environmental management authority, particularly at district level, is limited. Environmental performance of a particular subproject depends greatly on environmental management capacity of the Project Owner, construction supervisors and the contractors. Therefore, the roles of DRVN, PMUs 3, 4, 5, 6 and 8 in managing the Operation are critical to ensure that the potential negative socio-environmental impacts are avoided or mitigated, and the positive impacts are promoted.

11. With 50 provinces to be covered and uneven environmental management of the Operation implementing agencies including DRVN, PMUs 3, 4, 5, 6 and 8, there would be a risk that the level

Risk Criteria	Risk Description	Risk Rating	Key Mitigation Measures
	agencies may lead to lack of safeguard coordination to ensure compliance in in the entire program		

Environmental Recommendations

13. The Operation includes a Technical Assistance Project (TA) which covers environmental and social management.

14. The Operation will not finance a subproject : i) Located within 2 km of any sensitive environmental area such as natural forest, national parks, nature reserve, bird sanctuary, primary forest, legally protected areas, biosphere conservation areas, national graded historical/landscape sites etc. listed in MONRE decision no. 1107/QĐ-BTNMT regarding the list of conservation area; ii) Located within 10 m of a physical cultural structure such as temples, monuments, pagodas, ancient graves, historical sites, worshiping place, sacred trees or any objects of spiritual important to local community etc.; iii) Road or access road alignment that requires land acquisition within an urban settlement or resulting on AHs been relocated in resettlement sites; iv) bridges that require significant alteration or adversely impact the hydrology or hydro-geology relating to the river such as significantly narrowing the wet cross section of river or require massive drilling and pile driving; and v) any new bridge construction that may cause potentially significant and adverse environment or social impacts.

15. Environmental management procedures will be clearly described and explained to the Operation stakeholders. The procedure will be inclusion of screening for environmental eligibility of subprojects in short-listing stage; preparation of Environmental Protection Plans (EPPs) for subprojects and obtain approval from relevant Vietnamese authorities in accordance with the Vietnamese Law on Environmental Protection. EPPs of bridges must cover access roads at both ends. Approval of EPPs must be obtained in feasibility stage; inclusion of mitigation measures including greening and environmental friendly measures into engineering design; incorporation of environmental codes of practices or specifications into construction bidding documents and contracts; inclusion of environmental supervision as part of engineering supervision and reporting. Such procedures will be implemented at subproject level, coordinated and monitored by PMUs 3, 4, 5, 6, 8 and DRVN. This procedure is also included in the Operation Manual (OM).

16. The OM and training under the TA Project will cover the typical potential environmental negative impacts, environmental mitigation measures, and ECOP and ES requirements including the World Bank Group EHS Guidelines as well as environmental friendly solutions for road and bridges rehabilitation/construction. Monitoring will be focused on compliance with OM.

Social Benefits and Risks

17. The Program will have significant positive impacts on the socio-economic environment in the short term, as they provide employment for laborers leading to increased income. In the long term, improved road conditions provide increased access to social services, markets and could improve employment overall in the localities. In terms of potential impacts/risks, first, although the Program supports relatively small rural infrastructure, land acquisition is unavoidable. Land donation is widely

accepted and implemented at local level in similar type of small rural infrastructure. Second, given the geographical scope of the Program, it will be very likely that it will be implemented in provinces with presence of Ethnic Minority (EM) communities. The Program challenge is how to maximize its accessibility and benefits in these lagging regions. The Program area will also entail many different ethnic groups, with differentiated cultural profiles and customary traditions. Thirdly, as typically in infrastructure investments, the planning investment process follows a top-down approach, limiting the participation of local people in the planning processes. And finally, the proposed Program will be implemented by various stakeholders from central level downward (DRVN, PMU6, PMU3, PMU4, PMU5, PMU8, PPMUs/PDOT at provincial level (50 provinces) as well as external stakeholders (fund for rural transport may come from different sources and managed by various investors). The involvement of multiple agencies can easily lead to the inconsistent approach in dealing with social related impact and associated mitigation measures.

Social Management System

18. First, on the resettlement side, the land acquisition, compensation payment and resettlement implementation are always the responsibility of the Government, particularly at the provincial and district levels. In the case of the transport sector, usually, the responsible PMUs, investors sign contracts with the District's Compensation, Support, and Resettlement Committee (CSRC). The activities are conducted in accordance with the Government's regulations (e.g., planning, disclosing, approving or paying compensation). In this program, PPMUs will play a key role in coordinating with local authority to perform the land acquisition, compensation and resettlement tasks. Second, on ethnic minority side, Vietnam has a relatively appropriated legal framework for Ethnic Minority affairs. At the constitutional level, article 5 of the 2013 Constitution confirms: (a) the equality of all Ethnicities living in the territory of Vietnam; (b) prohibition against discriminated behaviors; (c) rights of Ethnic Minority people toward their languages, scripts, traditional culture and custom; and (d) comprehensive policies of Vietnam to enable the development of Ethnic Minority areas. The principles when promulgating Ethnic Minority policies are: (a) equality and solidarity among all Ethnic Minorities; and (b) mutual support for progress. At lower level, decree No. 51/2011/ND-CP dated January 14, 2011 on Ethnic Minority affairs is the highest legal document. The Prime Minister has also approved the project "Cultural Preservation and Development of Ethnic Minorities in Vietnam toward 2020" with an estimated budget of 1.512 billion VND;²³ and the Ethnic Minority strategy to 2020²⁴. Third, on the legal requirements for public consultation/disclosure, Vietnam has relatively good legal framework on access to information and disclosure. These rights of citizen have been reflected in the 2013 Constitution as well as in specialized Laws and its associated guiding decrees.

19. The implementation arrangement is different in the two program's areas. In the local road area, local authority (PPC) is the owner of sub-projects in its locality. PPC is responsible to approve the subprojects, and arrange the counterpart fund for implementation. MOT (through DRVN) plays the role of overall coordination with the support from PMU6 in working with the World Bank and supporting the overall project management. In the bridge area, the program will be implemented by PMU3, PMU4, PMU5, PMU6 and PMU8 under the umbrella coordination of DRVN (MOT). PMUs and PPMUs have a mechanism well established in dealing with land acquisition, compensation issues.

²³ For more detail, refer to decision No. 1270/QĐ-TTg dated on July 27 2011.

²⁴ For more detail, refer to decision No. 449/QĐ-TTg date on March 12, 2013

20. The NSRTD and PLBC are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children. The assessment confirmed that these two programs have a very strong focus on ethnic minority people on several counts. However, while these two programs strongly focus on the question of “what” in EM regions, they are very thin on the question of “how”, especially how to make sure that all program activities are culturally appropriate. Participation of EMs in decision-making processes remains limited (UNDP, 2006; WB 2009, 2012; MDRI 2014). Experience in other governmental funded programs also indicated that “top-down” decisions and “one size fits all” solutions are not appropriate for EMs.

Gender

21. While Vietnam has made remarkable progress on gender outcomes and has put in place a strong legal framework, important gender differences remain and implementation of those policies has been incomplete. Women’s economic opportunities remain more limited than men’s, and their returns to economic activities are lower. Women are also less likely than men to participate in decision-making, in political and economic spheres. Ethnic minority women and girls experience even greater challenges in access to basic services and economic opportunities than those faced by ethnic minority men. Gender based violence and the sex ratio at birth (111 male births for every 100 female births) are of concern and highlight underlying social inequalities.²⁵

22. Viet Nam has passed important laws and policies on gender equality but implementation is far from satisfactory, due to a lack of knowledge of these laws, a lack of implementing capacity, and the limited presence of women in public decision-making forums and in politics more generally. The National Strategy on Gender Equality acknowledges the gap between policy and implementation and the Government and the Central Party have set specific targets for women’s participation in leadership and management.²⁶

23. A baseline survey for the Mekong Delta Infrastructure Development Project found that men and women have different travel patterns, uses of modes of transport, and access to and use of transport infrastructure and services based on their socially determined roles and responsibilities. Rural women’s travel times were longer than men’s but men travel longer distances. Women walked and used bicycles more than men; men use motorized transport more than women. Women had less information about transport projects than men and less voice in decision making about the projects.²⁷

24. The Provincial Women’s Union Woman Led Routine Road Maintenance program (2012-2014) was implemented by three Provincial Vietnam Women’s Unions, with technical support from PDOTS, through the Third Rural Transport Project. Provincial Women’s Unions (PWU) in Lao Cai, Quang Binh, and Thanh Hoa Provinces and their branches collaborated with transport officials and People’s Committees to raise women’s and men’s awareness of the importance of road maintenance, build commune and village level skills, and develop effective mechanisms to maintain and extend the life of commune roads. Using the content and skills gained in master trainer Routine Road Maintenance (RRM) workshops conducted in each province by UTC trainers, the Provincial Women’s Unions (PWU) and PDOTs launched provincial training of trainer workshops (TOT) for

²⁵ World Bank 2011. Vietnam Country Gender Assessment

²⁶ World Bank 2011. Vietnam Country Gender Assessment.

²⁷ Hai, Do Phu 2010. Addressing Gender Issues in the Mekong Delta and Northern Delta Transport. Monitoring and Evaluation. Presentation at the “Making Transport Work for Women and Men” Workshop

nearly 4000 participants including district level Women's Unions, Economic and Infrastructure Departments, and commune leaders. Some of the TOT participants organized 136 RRM skills workshops for over 7000 participants at the district and commune level. A total of 83,545 people provided 80,938 days of routine management on 3149 Km of commune and village roads. The economic gain from maintaining the road to ensure road access was much more significant than the money earned doing road maintenance. The Women's Union monitored the work and managed the payments of 9256 people in 1467 WMRRM groups as well as the organization of work through its branches in coordination with transport officials at the provincial and district level and People's Committee leaders at all levels.

25. While the income earned in road maintenance was valuable for the poor, especially ethnic minorities, the economic gains from having a well-maintained road were much greater. These gains included, increased opportunities for the development of economic activities, greater access to markets and market information leading to expanded crop production, and increased income. At the same time, travel time, accidents, and costs for fuel, maintenance, farm inputs, and consumer goods decreased. Local people viewed well maintained commune and inter-commune roads as means to facilitate the sale of their farm produce, easier access to health care, particularly when urgent care was needed, and cleaner, safer means for children to travel to school, particularly during the rainy season. Women's leadership role in the management of routine maintenance enhanced their status and self-esteem. Husbands were more respectful and willing to help with child care and housework. Women also began to offer their opinions in community meetings for the first time.²⁸

Recommendation for Social Management System

26. **Recommendation 1:** PMUs and program provinces must conduct social screening prior to actual investment to maximize project benefits and minimize adverse impact to local communities especially on land acquisition. The screening results must be properly documented and included in the relevant section of investment proposal. Specific information on social screening processes to be used under the Program will be included in the OM.

27. **Recommendation 2:** If land acquisition is unavoidable, PMUs and program provinces must ensure that people affected by loss of land and assets will be compensated so that they are no worse off than before that loss. Investments that cause physical relocation will be restricted to only those limited cases that are absolutely necessary for the Program's investment. The provision in 2013 Land Law on using independent land appraiser will be followed with appropriate M&E system of participating provinces.

28. **Recommendation 3:** PMUs and program provinces may not consider land donation as default option for land acquisition. Budget must be made available for compensation payment and regardless of the program implementation arrangement, implementing agencies must ensure that the donation decision will be made based on the informed consent of AHs and their own choice. A voluntary land donation guideline will be developed at the program level and adopted by participating provinces to guide the application of this practice in the Program's activities. Voluntary donation may only be used to support small-scale community infrastructure where the impacts are minor and where there are alternative options for the location of infrastructure²⁹. The guideline will be based on the recent

²⁸ World Bank 2014. Empowering Women to Build a More Equitable Future in Vietnam: Assessment of the Provincial Women's Union Women Managed Routine Road Management Program.

²⁹ Site specific infrastructure may lead to additional pressures on the donor from the community and Government and will therefore be precluded.

voluntary land donation protocol (developed by the Bank) as well as other safeguard enhancement related works in Vietnam. The procedure for this will be further detailed in the Program Operational Manual.

29. **Recommendation 4:** PMUs and participating Provinces will enhance transparency by maintaining databases on complaints/feedback and responses to those complaints/feedback. In addition, a database on the program's beneficiaries, disaggregated by gender and ethnicity shall be maintained and monitored. Detailed guidelines for the grievance redress mechanism, based on established existing systems, will be included in the Program Operational Manual.

30. **Recommendation 5:** PMUs and participating Provinces will ensure that all investments supported by the Program are subject to public consultation with local people and public disclosure at program area. Detailed guidelines for implementation and monitoring will be included in the Program Operational Manual.

31. **Recommendation 6:** PMUs and program provinces must ensure that the program's interventions are culturally appropriated. This is very important given the diversification of ethnic groups living in the Program areas to assure the Program benefits. Where relevant, PMUs and program provinces may provide a training/orientation to contractors working in the area having intensive presence of EMs peoples. The TA may include dedicated resource for this activity.

32. **Recommendation 7:** MOT/DRVN will develop community/citizen engagement guidelines (to be implemented by PMU and participating provinces) to enhance people's participation, especially for Ethnic Minorities to ensure their meaningful participation and consultation in every step of the Program implementation, including planning, sub-project design and implementation, compensation, resettlement and rehabilitation measures in land acquisition. The guideline will be community-driven, transparent, gender sensitive and in appropriate language. Given that the program will be implemented over a large geographic area with many different ethnic groups, specific guidance will be provided at the local level for each ethnic group. In addition, the guidelines shall fully operationalize existing Vietnamese Legislation with respect to Ethnic Minorities through a process of free, prior, and informed consultations. This is included as an action in the Program Action Plan.

33. **Recommendation 8:** The Program shall encourage the following social development measures: (a) ensuring unskilled (and to the extent feasible, skilled) labor is sourced locally; (b) ensuring access to the newly developed infrastructure for people with disabilities; (c) mobilization of community (especially women) in maintenance activities or community based supervision. The Women's Union and similar groups shall be incorporated into the institutional structure of implementation in order to assist in promoting gender-sensitive community mobilization, participation and grievance redress channels.

34. **Recommendation 9:** Using the current arrangement, PMUs must arrange adequate staff time to ensure that social-related issues (land acquisition, land donation, gender mainstreaming, EM participation ...) will be properly tracked, monitored and reflected in the relevant program report for documentation and tracking. A detailed scope or work for this unit/staff will be developed prior to the actual implementation of the Program.

Annex 7: Integrated Risk Assessment
RESULTS-BASED OPERATION FOR LOCAL BRIDGE CONSTRUCTION AND ROAD ASSET MANAGEMENT

Stage: Appraisal

1. PROGRAM RISKS				
1.1 Technical Risk		Rating:	Substantial	
<p>Description: Proposed Operation impact may be limited given the overall boundaries of the program and the length of the local road network, yet too broad to ensure compliance and proper monitoring. Surveys to be done to assess beneficiaries' satisfaction will be expensive, difficult to lead, or not representative of the scale and scope of activities led. Program does not comply with technical national design specifications, including on drainage and slope stabilization. VPRoMMS-RONET is not updated in data and road condition is not accurate or not updated.</p>		<p>Risk Management: While the Bank contribution and support to the GoV programs will be limited in financial terms, the risks associated with the substantially large geographical boundaries of the Operation will be mitigated with increased auditing through the IVA and support in supervision and evaluation.</p> <p>The proposed Operation may consider doing a measure by village, rather than by household, in order to cover a larger sample of beneficiaries, and reduce the overall cost and difficulties in conducting such a large scale beneficiary survey. In addition, mobile-based grievance and complaint mechanism may allow to reduce the overall costs of surveys, ensuring a substantial number of surveyed people.</p> <p>Technical audits will be conducted during the program implementation period in coordination with the Client so that it will ensure technical compliance.</p> <p>The proposed Operation may include incentive mechanisms to put in place specific budget for annual data collection. The success of the roll-out of the combined RNET-VPRoMMS system will ensure the sustainability of the data use for planning and programming.</p>		
		Resp: Client and Bank	Stage: Implementation	Due Date : not yet due
1.2 Institutional Capacity for Implementation and Sustainability Risk		Rating:	Substantial	
<p>Description: Risks linked with insufficient efforts, financing and engagement towards increased road maintenance. Late funds transfers from GoV budget may be impacting the implementation of the MTEP and delaying the overall programs. The capacity of the PDoTs is not adequate or enough to ensure proper program management and implementation of maintenance programs. The sustainability of the maintenance scheme is not ensured as the Bank supported Program does only cover part of the funding gap, and the RMF will not be sufficient to sustain further maintenance operations after the Program ends. Low capacity in accounting and financial reporting of district and commune levels causing inaccuracy and delay to the Program financial statements. Absence of internal audit function for MoT and absence of</p>		<p>Risk Management: DLIs and performance indicators will be linked with proper implementation of maintenance programs as per MTEP. MTEPs allow rolling implementation periods while the Bank support may be used to cover temporary delays and gaps in the GoV program's budgeting and allocation at the Provincial level. Bank team will support Provinces as required, while risk mitigation measure of performance incentives to promote maintenance practices will be ensured by DLIs and performance indicators. Analysis from the MTEPs suggests that capital works are generally well funded, therefore the Bank supported Program will primarily target maintenance activities. The monitoring framework will ensure that each Province maintains its existing level of programming for both capital and maintenance programs, so that the Bank supported program along with the RMF will finance extra-maintenance activities. The Program will also coordinate with a TA activity as conducted under the ongoing Bank funded VRAMP with the objective to optimize funding mechanism and incentive creation for maintenance</p>		

annual external audit may cause irregularities and errors undetected or detected and resolved in a delayed manner. Project appropriations often diverted: PPCs reallocated the Program funds to implementing agencies and activities different from the original allocation made.	work under the RMF. Program Action Plan (PAP) will ensure timely budget approval and appropriate budget allocation by ministry and PPCs. Ministry of Finance will monitor the Program fund using the established country system for budgeting and fund flow, and issue specific guidance to province to ensure appropriate budget reallocation by PPCs.			
	Resp: Client and Bank	Stage: Implementation	Due Date : not yet due	Status: on going
2.3 Disbursement linked indicator risks	Rating:	Moderate		
Description : DLIs are not able to capture the entire program complexity	Risk Management : DLIs are carefully discussed and agreed with implementing agencies to ensure payments reflect the investments done and guarantee its sustainability, while being quantitatively measurable and simple to capture the objectives of the Operation			
	Resp: Bank and Client	Stage: Implementation	Due Date : not yet due	Status: ongoing
3. OVERALL RISK RATING : Substantial				

Legend: L – Low
M – Moderate
S – Substantial
H – High

Annex 8: Program Action Plan

<p>1. Governance. Participating Provinces will enhance transparency by maintaining databases on public consultation/corruption/fiduciary/procurement/Program implementation complaints and responses to those complaints through grievance mechanisms and systems to be established. The information will be aggregated at the national level by MoT/DRVN and will be reported to the Bank on a periodic basis.</p>			
DLI or Loan Covenant	Due date	Responsible party	Completion Measurement
Covenant	First report submitted to the Bank on December 1 st 2016 and subsequent reports will be submitted every six months.	MoT/DRVN	Databases maintained and reports submitted
<p>2. Procurement. Procurement systems will be enhanced by ensuring that:</p> <ul style="list-style-type: none"> • All proposals for detailed designs, construction supervision and bids for civil works, whether below or above cost estimates, shall be evaluated; proposals and bids shall not be rejected solely on the basis of minor, non-substantive deviations, • Dependent SOEs of MoT will not be allowed to participate for the contracts under the Program; and dependent SOEs of PPC under the Program Provinces will not be allowed to participate in the contracts in the provinces that they are dependent on, but can participate in the contracts in other provinces, • At least 80 percent of the total value of contracts for consulting services and 80 percent of the number of contracts for works awarded annually will be procured competitively, • Firms on the local, national, or Bank debarment list will not be allowed to participate. 			
DLI or Loan Covenant	Due date	Responsible party	Completion Measurement
Covenant	Ongoing and continued for all actions, with intermediate targets that will be monitored every January 1 st	MoT/DRVN	Rules included in the Financing Agreement. Supervision and audits to establish actual performance.
<p>3. Financial Management. Government will build and implement effective financial and results audit capabilities for the Program. Components of this action include:</p> <ul style="list-style-type: none"> • Provinces will prepare an overall five year financial plan to implement the Program. Each year an accurate budget proposal shall be produced by Provinces based on the estimated work progress and cash flow for the coming year to ensure there is no gap in the funding necessary to achieve the Program results, • MoF will ensure that a mechanism for results-based financing is included in the Government annual budget cycle of related provinces, and that the annual budget allocation is adequate to achieve each year’s objectives, • Provinces will prepare annual Program financial statements, • The Implementing Agency will establish an internal audit function for the Program, 			

<ul style="list-style-type: none"> • An external IVA with generally accepted audit scope and approach will audit the Operation • An Operation Manual will be prepared and implemented. 			
DLI or Loan Covenant	Due date	Responsible party	Completion Measurement
Covenant	Ongoing and continued for all actions, with intermediate targets that will be monitored every July 1 st	MoT/DRVN	Financing Agreement. Supervision will review quality of the audit process.
<p>4. Environment and Social. Environment and Social aspects will be enhanced by ensuring that:</p> <ul style="list-style-type: none"> • The provinces will ensure that land acquisition and related adverse impacts are avoided or minimized and that people affected by loss of assets or land, or income streams, will be compensated so that they are no worse off than before that loss, and if possible better off. In addition, an efficient and independently verifiable mechanism, acceptable to the Bank, will be developed to assess the market value of lost land, other assets and income streams to determine adequate means to restore livelihoods of affected people. • The provinces will implement a set of guidelines common for all Provinces, and developed with the support of the Bank, consistent with national legislation, and acceptable to the Bank, to work with Ethnic Minorities, as well as to support community engagement vis a vis gender, that shall fully operationalize existing Vietnamese Legislation with respect to Ethnic Minorities through a process of free, prior, and informed consultations. 			
DLI or Loan Covenant	Due date	Responsible party	Completion Measurement
Covenant	Ongoing and continued for all actions, with intermediate targets that will be monitored every July 1 st , as well as the specific targets: Land valuation mechanism: December 1 st 2016 Guidelines December 1 st 2016	MoT/DRVN	Financing Agreement. Supervision will review implementation quality.

Annex 9: Technical Assistance Project Appraisal

Institutional and Implementation Arrangements

1. **Implementation Arrangements.** MoT will be responsible for overall project coordination and financial management of the Technical Assistance (TA) Project through DRVN, and PMU6 will be the Implementing Agency of the TA Project. For the entire Project, MoT will be responsible for (i) designing and maintaining the FM procedures and regulations for the project, (ii) facilitating the fund flow to the beneficiaries, (iii) meeting the reporting requirements of the project, and (iv) arrangement of the project auditing. The beneficiaries will have the ultimate responsibility of financial management for the sub-projects they implement. The Bank's assessment is that PMU6 has adequate capacity to fulfill its financial management responsibilities as defined under the OP/BP 10.00 and that the proposed arrangement as detailed below are adequate.
2. **Staffing.** The FM staff of PMU6 have adequate accounting background and relevant experiences with World Bank financed projects (Rural Transport 3- IDA 4150). In addition, the budget of the project is included in the budget of MoT which are prepared and approved on an annual basis following the budget procedures for ministries in Vietnam. According to MoT, their budgets are prepared and approved on time with sufficient allocated amount.

Financial Management

3. **Budgeting and Planning.** The budget of the project is included in the budget of MOT which are prepared and approved on an annual basis following the budget procedures for ministries in Vietnam. According to MOT, their budgets are prepared and approved on time with sufficient allocated amount.
4. **Accounting System.** In PMU6, the accounting system including accounting policies and procedures follows the Accounting System for Investment Projects Owners based on the Decision 195 of the Ministry of Finance, which is a full double entry system with modified cash basis. The chart of accounts however have been modified to account for and report of Project activities, components and sources of fund and the adequate accounting software is in place.
5. **Internal Controls.** The internal controls are formally documented in a Financial Management Manual (FMM) which (i) established clear defined Financial Management responsibilities, supervision, monitoring and reporting structures; (ii) observed the segregation of duties; (iii) defined and documented financial processes and procedures; (iv) set up adequate management reporting, including analysis of variances and findings with monthly and quarterly reporting to the management; (v) set up adequate control procedures to safeguard project's assets and funds and (v) set up proper procedures and documentation retention. From the experiences of the World Bank financed Rural Transport 3 Project, the application of internal controls were adequate.
6. **Disbursements.** Disbursements under the TA Project will be made primarily as Advances, though the Reimbursement and Direct Payment may also be made. Applications for withdrawal, except in the case of the initial Advance must be accompanied by Statements of Expenditure and Summary Sheets of with records evidencing eligible expenditures. Advances will be made to a segregated US dollar account denominated at a financial institution acceptable to the Bank with a variable ceiling based on forecast of two (2) quarters. The frequency for reporting expenditure paid from the DA is quarterly. The Minimum application Size for Reimbursements and Direct Payments will be US\$ 100,000 equivalent. The Disbursement Deadline Date will be 4 months after the closing date of the Project. Bank financing of the TA Project is 100% including taxes of eligible expenditures including consulting services.

7. **Reporting.** For the TA Project, PMU6 will be responsible for preparing the semi-annual interim financial reports within 45 days of the end of the reporting period. The project IFRs will cover all project activities, sources and uses of funds. PMU 6 will also prepare annual financial statements which are required to be audited and submitted to the Bank within 6 months of the end of each financial year.

8. **Audit Arrangements.** For the TA Project, PMU6 will appoint independent auditors acceptable to the Bank. The annual project financial statements prepared by PMU will be audited annually in accordance with international standards on auditing (ISAs) and acceptable terms of reference. The auditors' reports will be made available to the Bank within six months of the close of the fiscal year. The audited project financial statements and the auditor's reports will be published on the websites of the Operation.

Procurement

9. **Applicable Procurement Procedures.** Procurement for the Technical Assistance Project of the proposed Operation will be carried out in accordance with: 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, revised July 2014 (the Procurement Guidelines); *Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers* dated January 2011, revised July 2014 (the Consultant Guidelines); and the provisions stipulated in the Financing Agreement. For contracts procured through National Competitive Bidding (NCB), the additional provisions listed in the Attachment to Schedule 2 of the Financing Agreement will be applicable.

10. **Implementing agency.** All procurement processes will be handled by PMU6 under MoT, which will have the responsibility to prepare procurement related documents including requests for proposals and for expressions of interest, and evaluation reports. PMU6 will also monitor and update the procurement plan and submit the procurement plan to MoT for approval and to the Bank for review and no objection. It is noted that the PMU6 was the PIA for the Third Rural Transport Project, which was recently closed; it therefore is considered familiar with the Bank's procurement rules and procedures.

11. **Procurement Thresholds.** Procurement under the TA Project will include mainly Consulting Services, and potentially Goods. The TA Project will not finance civil works. Thresholds for procurement methods and Bank prior review under this TA Project are presented below, which can be changed during the implementation in accordance with the changes made by the Bank to such procurement thresholds. Short lists of consultants for services estimated to cost less than US\$ 500,000 per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Guidelines.

12. Direct Contracting for Goods and non-consulting services is normally subject to prior review except small value contracts (below \$200k for works and \$100k for goods). The Procurement Plan shall indicate DC or SSS method with justifications. If the justifications are sound, the contracts below the thresholds shall be subject to post review.

Table A9.1: Thresholds for Procurement Methods and Bank Prior Review

Category	Procurement Method Thresholds		Prior Review Thresholds	
	Contract value (US\$)	Remarks		Remarks
<i>Goods, IT Systems, Non Consulting Services</i>				
ICB	>=\$3 m		All contracts	Contracts below \$3 m but using ICB may be subject to post review.
NCB	< \$3 m	Where goods are not normally available from within Vietnam (such as certain electrical equipment and materials, medical equipment), the method of procurement will be ICB even if the contract value is below the threshold.	The first 1 contract	
Shopping	< \$0.1 m		None	
<i>Consultant Services</i>				
CQS	< \$0.3 m	Other methods (QCBS, QBS, FBS, LCS) shall be applied for contract equivalent or above \$0.3 m and may also be applied for contracts below \$0.3 m.	<ul style="list-style-type: none"> • Firms: >=\$0.5 m (for competitive selection) plus the first contract for each method regardless of value. For SSS, \$100k (Para 3.9 of Consultant Guidelines, January 2011); 	<ul style="list-style-type: none"> • For IC, prior review applies to long-term (project period) and large value (≥\$0.2 m) contracts. For legal or procurement work or critical project management consultants, TORs and CVs of selected candidates shall be prior reviewed but such reviews may not be considered as prior review of the transaction.
Shortlist of all national firms	< \$0.5 m	Para 2.7 of Consultant Guidelines (January 2011). The threshold applies to assignments for which there is adequate local capacity and sufficient number of qualified local firms (such as technical design, construction supervision).	<ul style="list-style-type: none"> • Individuals: only in exceptional cases (for competitive selection); for SSS, \$50k (Para 5.6 of Consultant Guidelines, January 2011); • SSS shall be reflected in Procurement Plans with proper justification. 	<ul style="list-style-type: none"> • Audit contracts shall be treated as any other contracts and subject to prior review only if value is above threshold. The TTL/FMS may prior review TOR, shortlist, etc from a technical perspective.

13. Procurement plan (PP). An initial Procurement Plan, dated March 11, 2016 for the TA area, acceptable to the Bank, has been prepared by the PMU6 and approved by MoT/DRVN, and is summarized in Table A9.2. The Procurement Plans will be updated annually (or as needed) by the PMU6 to: (a) reflect project implementation; (b) accommodate changes that needs to be made; and (c) add new packages necessary for the project. Each update will be subject to Bank prior review. Procurement Plans will be published in the World Bank website.

Table A9.2: Summary of Procurement under the TA Project

Contract No.	Description	Estimated Cost (US\$ thousand)	Procurement Method	Review by Bank	Expected Proposal Submission
1	Financial Audit and Independent Verification for DLIs	2,130	QCBS	Prior	Oct-16
2	Internal Audit	370	QCBS	Prior	Oct-16
3	Environmental and Social Safeguard Support	500	QCBS	Prior	Oct-16

4	Local Roads and Bridges Management Systems Development	1,000	QCBS	Prior	Oct-16
5	Climate Change Resilience Framework	200	CQS	Prior	Oct-16
6	Community-based Road Maintenance Support	300	QCBS	Prior	Oct-16
1	Financial Audit and Independent Verification for DLIs	2,130	QCBS	Prior	Oct-16

14. **Procurement Supervision and Post-review by the Bank:** Contracts not subject to prior-review will be subject to post-review. The Bank will carry out procurement post review on annual basis with an initial sampling rate of twenty percent. This rate will be adjusted periodically during project implementation based on the performance of the project implementing agencies. The Bank will also carry out regular procurement supervision missions on a bi-annual basis. On an annual basis, PMU6 will send to the Bank, a consolidated list of all contracts awarded under the TA Project that are subject to the Bank's post-review, including but not limited to: (i) reference number as indicated in the Procurement Plan and a brief description of the contract; (ii) estimated cost, (iii) procurement method; (iv) date of contract award; (v) name of awarded supplier, contractor or consultant; and (vi) final contract value.

Environment and Social

15. The potential impacts of the associated PforR Operation are addressed through the ESSA instrument OP 4.01 – Environmental Assessment, which is triggered as the proposed Operation is a PforR, therefore the assessment and management of environmental and socially related impacts will be dealt with through the Environmental and Social Systems Assessment (ESSA). Potential impacts on Indigenous Peoples are dealt through the ESSA. Given that a large part of the TA Project will be focused on capacity building and monitoring to take into account Indigenous Peoples, the OP 4.10 on Indigenous Peoples is triggered. The TORs of the Technical Assistance (TA) will cover activities with the aims of strengthening social and environmental management capacity of MOT/DRVN's PMUs in order to ensure compliance with Vietnamese environmental requirements and to ensure environmental guidance in the Operation Manual (OM) are followed.

16. No other safeguards policies are triggered. The TA does not entail any potential large scale, significant and/or irreversible negative impacts. The TA will support activities related to improving the capacity of implementing agencies in environment and social management. The potential impacts of the associated PforR Operation are addressed through the ESSA instrument. OP 4.01 – Environmental Assessment. The TORs of the Technical Assistance (TA) will indeed cover activities with the aims of strengthening social and environmental management capacity of MOT/DRVN's PMUs in order to ensure compliance with Vietnamese environmental requirements and to ensure environmental guidance in the Operation Manual (OM) are followed.

Fraud and Anti-Corruption

17. The IPF portion of the proposed Operation will use Bank procurement rules.

Annex 10: Implementation Support Plan

1. The Implementation Support Plan (ISP) for the proposed Operation outlines the approach the Bank will take to support MOT's efforts to implement the Program activities and manage the key risks to achieving results.
2. Key focus areas: In addition to ensuring compliance with Bank Policies (OP/BP) and the Program's financing agreement, and based on the main conclusions of the preparatory assessments, the following areas have been identified as most critical to concentrate the Bank's implementation support efforts:
 - *Introduction of the performance-based transfer system for road maintenance:* While the MoT/DRVN and its PDoTs have considerable experience in setting guidelines for Provincial Road Programs, MTPEFs and MTEPs and supporting them with road sub-projects, the performance-based transfer instrument and assessment mechanisms of the Program will be a new function. One of the goals of the first phase of the proposed Operation is to prepare the MoT to replicate the MTEPs and results-based approach nationwide in the future. The priority for strengthening within MoT shall be to institutionalize the capacity to manage the performance-based transfer mechanism and, more broadly, the capacity of MoT to assist decentralized entities for road maintenance to improve the cost-effectiveness of planning and implementation of road investments using clearly defined, measurable, and achievable results as a reference framework. The OM will serve as the guidelines for the Program and a key reference for participating provinces. The Bank's support for the development of the OM will be a key area of technical assistance. It is also anticipated that the MoT will also require support to analyze and integrate lessons learned in the first phase of the proposed Operation into the national roll-out.
 - *Environmental management and monitoring capacity in participating provinces:* Environmental risk is considered to be moderately low given the small scale of the infrastructure and limited environmental impact during the construction and operational phases of the sub-projects. However, an institutional strengthening program will be necessary for the implementing entities to focus on procedures for document preparation and implementation. Strengthening the capacity to monitor and evaluate environmental performance indicators and to improve public consultation is also needed.
 - *Limited fiduciary capacity in participating Provinces:* The Task Team will need to work with the MoT to ensure that city governments and their PMUs have capable procurement staff and receive necessary procurement training. The Fiduciary Systems Assessment identified specific measures to improve the fiduciary performance of the Program, and these have been included in the Program Action Plan.
3. During the first year of implementation, the Bank's support will focus on strengthening the Program systems, especially the MoT's ability to support participating provinces with their environmental, social, and fiduciary performance as they prepare road and bridge sub-projects and the institutional activities necessary to achieve the DLIs. The Bank will also support the MoT with national level development policy formulation and establishment of an M&E system for the Program. It is anticipated that the first year will require significant implementation support from the Task Team and selected specialists.
4. After the initial year, the Bank will begin to support the MoT in the verification aspects of its mandate, including its relationship with the IVA. Monitoring of the systems performance will switch from the sub-project preparation phase to works implementation.

5. The proposed operation in Vietnam will require considerable focused support from the Bank team particularly during the early stages. One challenge will be to coordinate the actions agreed in the Program Action Plan with operational activity on the ground, ensuring that information flows effectively between central policy makers and provincial implementation agents, as well as the District and Commune levels. While channels of communication are generally good within Vietnam, there will be a significant flow of new information to provinces during the early stages of the Program relating to the PforR Program and the additional focus on sustainable road maintenance. At the provincial level implementation agents will need to make a rapid shift in the focus of their planning to ensure that available funding can be absorbed and results delivered in time and within expected budget envelopes. The team recognizes that the PforR mode of operation, which transfers performance risk to the implementing agents, lays down a challenge to change numerous operational practices and norms, particularly at the local level.

6. MoT/DRVN shall be supported to provide targeted technical support to provinces on how to make effective and sustainable investments road maintenance and how to improve long term sustainability. The focus of Bank implementation support will be on implementation quality and on making the results-based incentive system work to its full potential. This will include: (a) reviewing implementation progress (including that of the Program Action Plan) and achievement of Program results and DLIs; (b) providing support on resolving emerging Program implementation issues and on building institutional capacity; (c) monitoring the adequacy of system performance, and monitoring compliance with legal agreements; (d) supporting the Government in monitoring changes in risks; and (e) ongoing technical support to MoT/DRVN.

7. Key to effective implementation support will be the coordination of its timing with critical points in the timelines of planning and verification of results for payment requests to the World Bank. The first implementation support mission will take place as soon as possible after effectiveness to provide direct feedback on the quality of plans developed by the provinces and their likely acceptability. It is critical to have early involvement of technical staff in addition to the environmental, social and fiduciary teams. Subsequent implementation support may have a stronger emphasis on verification/M&E skills.

Table A10.1: Task Team Skills Mix Requirements for Implementation Support

<i>Skills Needed</i>	<i>Number of Staff Weeks</i>	<i>Number of Trips</i>
<i>Legal</i>	6	0
<i>Fiduciary</i>	6	3
<i>Environmental</i>	8	3
<i>Social/Gender</i>	8	3
<i>Road Engineer</i>	18	8
<i>Bridge Engineer</i>	10	8

Table A10.2: Main focus of Implementation Support

<i>Time</i>	<i>Focus</i>	<i>Skills Needed</i>	<i>Resource Estimate</i>
<i>First twelve months</i>	Design of road and bridge detailed design and maintenance schemes – including considerations of long term sustainability; development of institutional strengthening plans; provincial and consolidated national planning; establishment of arrangements for independent verification; strengthening of the M&E system; baseline for M&E on the impact on the beneficiaries by gender	Legal; governance; procurement; financial management; social and environment; road engineer; bridge engineer	2 implementation support missions plus 2 technical missions 2 x 12 people x 2 weeks = 48 weeks Plus 2 x 5 people x 1 week = 10 weeks <u>Total 58 person weeks over 12 months</u>
<i>12-60 months</i>	Reviewing implementation progress, cross checking linkage between provincial planning and results, providing support in case of disputes relating to verification (national-provincial or between GoV and IVA)	Legal; fiduciary; social and environment; road specialist; monitoring and evaluation; economics and finance; road engineer; bridge engineer	2 implementation support missions per year plus midterm review 2 x 4 yrs x 8 people x 2 weeks = 128 weeks 2 x 12 people x 2 weeks = 24 weeks <u>Total 152 person weeks over 60 months</u>
<i>Other</i>	Independent audit/ assessment of verification of results; evaluation of the social and economic impact on participating communities	Independent technical expertise	2 people for 4 weeks <u>Total 8 person weeks</u>