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R162-18
20 November 2018

Proposed Loan
Northern Mountain Provinces Transport
Connectivity Project
(Viet Nam)

1. The Report and Recommendation of the President (RRP: VIE 50098-002) on the proposed loan to Viet Nam for the Northern Mountain Provinces Transport Connectivity Project is circulated herewith.
2. This Report and Recommendation should be read with (i) *Country Partnership Strategy: Viet Nam, 2016–2020: Fostering More Inclusive and Environmentally Sustainable Growth*, which was circulated to the Board on 9 September 2016 (DOC.Sec.M28-16); and (ii) *Country Operations Business Plan: Viet Nam, 2018–2020*, which was circulated to the Board on 16 November 2017 (DOC.IN.421-17).
3. In the absence of any request for discussion and in the absence of a sufficient number of abstentions or oppositions (which should be communicated to The Secretary by the close of business on 11 December 2018), the recommendation in paragraph 32 of the paper will be deemed to have been approved, to be so recorded in the minutes of a subsequent Board meeting. Any notified abstentions or oppositions will also be recorded in the minutes.

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Report and Recommendation of the President to the Board of Directors

Project Number: 50098-002
November 2018

Proposed Loan Socialist Republic of Viet Nam: Northern Mountain Provinces Transport Connectivity Project

Distribution of this document is restricted until it has been approved by the Board of Directors. Following such approval, ADB will disclose the document to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 31 October 2018)

Currency unit	–	dong (D)
D1.00	=	\$0.000043
\$1.00	=	D23,353

ABBREVIATIONS

ADB	–	Asian Development Bank
DED	–	detailed engineering design
DFAT	–	Department of Foreign Affairs and Trade
EIRR	–	economic internal rate of return
EMDP	–	ethnic minority development plan
GMS	–	Greater Mekong Subregion
HLVBNR	–	Hoang Lien Van Ban Nature Reserve
km	–	Kilometer
MOT	–	Ministry of Transport
NRMF	–	National Road Maintenance Fund
PAM	–	project administration manual
PMU2	–	Project Management Unit 2
PRC	–	People's Republic of China

NOTE

In this report, "\$" refers to United States dollars.

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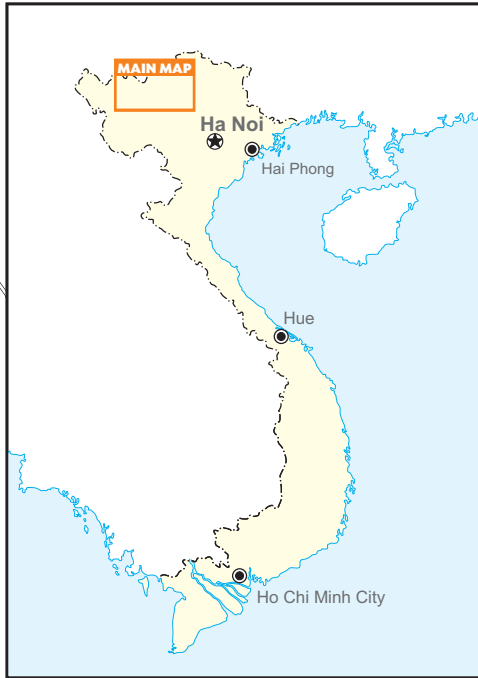
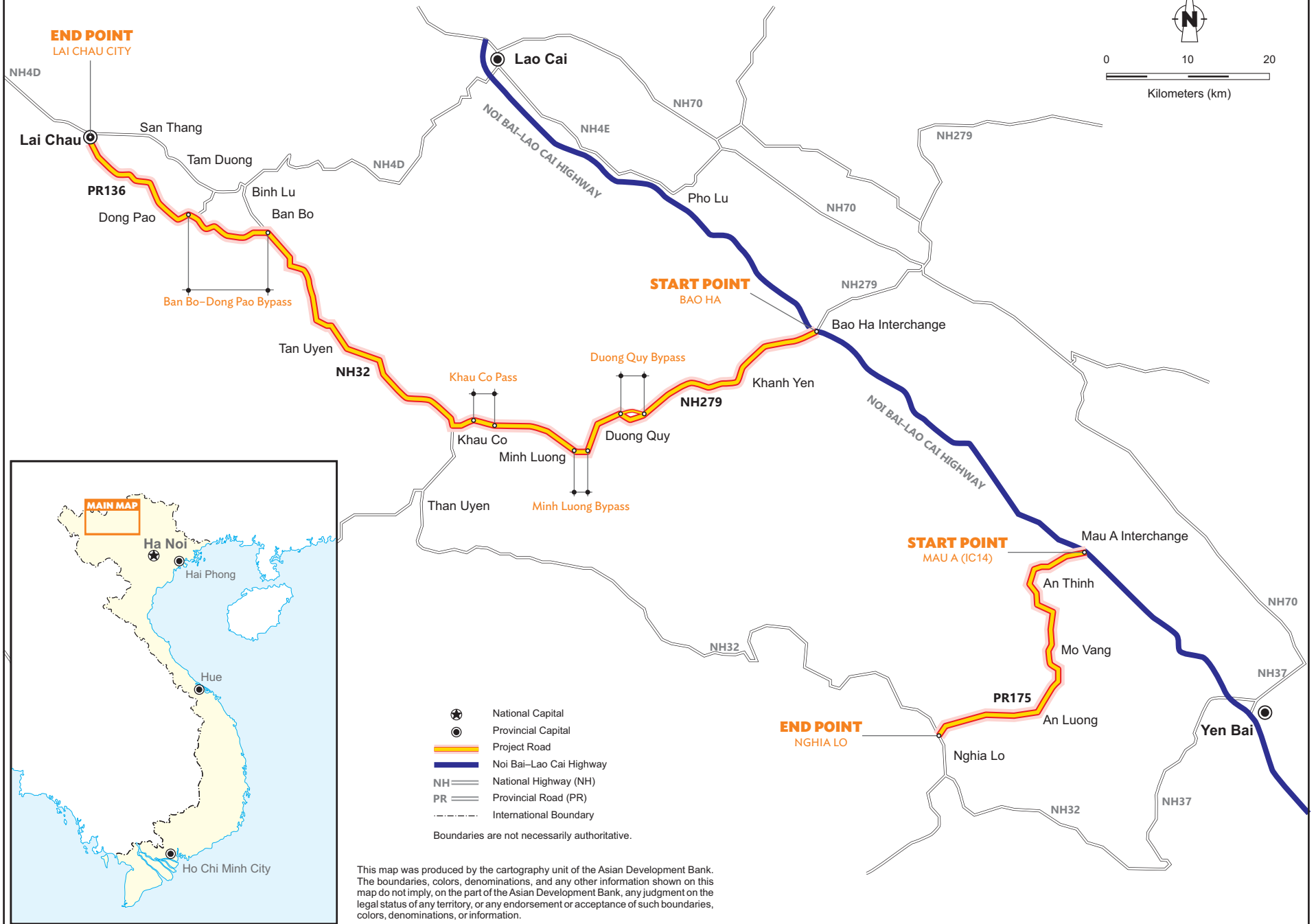
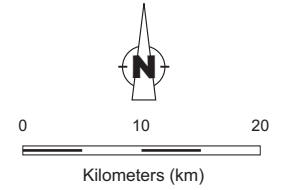
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PROJECT AT A GLANCE

1. Basic Data		Project Number: 50098-002	
Project Name	Northern Mountain Provinces Transport Connectivity Project	Department /Division	SERD/SETC
Country Borrower	Viet Nam, Socialist Republic of Government of Viet Nam	Executing Agency	Ministry of Transport
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		188.36
		Total	188.36
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	High
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	ADB Financing	
Regional integration (RCI)	Pillar 1: Cross-border infrastructure Pillar 4: Other regional public goods	Adaptation (\$ million)	10.20
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Anticorruption	Some gender elements (SGE)	✓
Partnerships (PAR)	Organizational development Bilateral institutions (not client government) Official cofinancing		
5. Poverty and SDG Targeting		Location Impact	
Geographic Targeting	No	Regional	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG8, SDG9		
6. Risk Categorization:	Complex		
7. Safeguard Categorization	Environment: A Involuntary Resettlement: A Indigenous Peoples: B		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		188.36	
Sovereign Project (Concessional Loan): Ordinary capital resources		188.36	
Cofinancing		4.48	
Government of Australia - Project grant (Not ADB Administered)		4.48	
Counterpart		52.23	
Government		52.23	
Total		245.07	
Currency of ADB Financing: USD			

VIET NAM NORTHERN MOUNTAIN PROVINCES TRANSPORT CONNECTIVITY PROJECT



- National Capital
 - Provincial Capital
 - Project Road
 - Noi Bai-Lao Cai Highway
 - National Highway (NH)
 - Provincial Road (PR)
 - International Boundary
- Boundaries are not necessarily authoritative.

This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Socialist Republic of Viet Nam for the Northern Mountain Provinces Transport Connectivity Project.

2. The proposed loan will finance the improvement of international and national transport connectivity of underdeveloped provinces of Viet Nam by improving their access to Greater Mekong Subregion (GMS) corridors. This project aims to expand the benefits of the GMS corridors to the northwestern provinces, where high poverty incidence is reported, by enhancing the road connectivity between the Noi Bai–Lao Cai Expressway and the provinces of Lai Chau, Lao Cai and Yen Bai. The project will improve National Highway 279 and National Highway 32, and upgrade Provincial Road 136 and Provincial Road 175 to national highways.

II. THE PROJECT

A. Rationale

3. The economic and political reforms under the Doi Moi policy, launched in 1986, resulted in rapid economic growth (averaging over 6.5% annually during 1991–2017) and development in the past 30 years. This growth has subsequently transformed Viet Nam from one of the world's poorest nations to a lower middle-income country, with a gross domestic product per capita of \$2,389 in 2017. Viet Nam's poverty rate was 7.0% in 2015, the second lowest among the ASEAN (Association of Southeast Asian Nations) countries.¹ Increased foreign direct investment and closer integration with the global economy have accompanied the increasing market orientation of Viet Nam's economic policy, and the growth in private domestic enterprise.²

4. The rapid economic growth of Viet Nam is largely because of the development of transport infrastructure. With the rigorous efforts of the government and the assistance of major development partners such as the Asian Development Bank (ADB), the Japan International Cooperation Agency, and the World Bank, a number of transport projects, mainly in the road subsector, have been completed. Presently, Viet Nam's road network has a total length of 268,787 kilometers (km) (0.81 km per square km). In the past 20 years, the government has prioritized the development of major highways and expressways, including part of the GMS Kunming-Haiphong Transport Corridor.³ To date, expansion of the GMS expressway network is nearing completion, and the government is increasingly considering the use of the public–private partnership modality or the build–operate–transfer modality for further expressway development. Moreover, the government's investment priorities have shifted to the other category roads, which will further spread the benefits of the existing road network throughout the country, especially to people living in less-developed regions.

5. Viet Nam's Northwest Region, a high mountainous region comprising the provinces of Dien Bien, Hoa Binh, Lai Chau, Lao Cai, Son La and Yen Bai, lags behind the rest of the country, with the highest poverty rate ranging from 18% to 45% in 2016.⁴ Over 50% of the region's population is made up of ethnic minority groups, including Tay, H'Mong, Thai, Dao, and Muong. The ethnic minorities, who make up only 15% of the country's population, constituted 73% of the

¹ Asian Development Bank (ADB). Data Library. <https://data.adb.org/dashboard/viet-nam-numbers>

² ADB. 2016. *Country Partnership Strategy: Viet Nam, 2016–2020—Fostering More Inclusive and Environmentally Sustainable Growth*. Manila.

³ ADB. 2007. *GMS Kunming–Haiphong Transport Corridor - Noi Bai–Lao Cai Highway Project*. Manila

⁴ World Bank. 2018. *Climbing the Ladder: Poverty Reduction and Shared Prosperity in Vietnam*. Washington, DC.

poor in 2016. Industrial production in the Northwest Region is less developed than in other regions, with many small-scale industrial companies. The major industries include stone, metal ore exploitation and processing, lime brick, and beer production. There are no large processing manufacturing enterprises in the region. The ethnic minority people in the region live with nomadic habits, and practice self-production and self-consumption. Their average per capita consumption remains less than 45% of the Kinh and Hoa (the two majority ethnic groups in Viet Nam). The poor, which comprised primarily of ethnic minorities, are also disadvantaged by their low education attainment and financial capacity; less than 60% of adults in poor households have primary education or less, and less than 7% have post-secondary education (footnote 4). Key factors causing the high poverty and slow development of the region include the following: (i) poorly developed infrastructure, particularly the infrastructure linking to markets and services; (ii) land that is comparatively not well suited to commercial agriculture; (iii) remoteness from commercial and industrial hubs; and (iv) undeveloped local economies with limited nonfarm livelihood opportunities.

6. With a relatively large area of land, high mountains, large rivers, fertile soil, beautiful landscapes, and a border with the Lao People's Democratic Republic and the People's Republic of China (PRC), the Northwest Region has great potential for development of agriculture, forestry, hydropower, mining, tourism, and border trade. However, the underdeveloped transport infrastructure has hindered the region's economic development, as it limits access of the local population to public services and economic opportunities. It also discourages private investment in the region. Currently, the region's overall road density is 0.71 km per square km, 13% less than the country's average, while the national highway density is 0.051 km per square km, 20% less than country's average of 0.064 km per square km. Therefore, improved connectivity within the region and improved access to the economic centers of the country are critical for the development of the region.

7. The Noi Bai–Lao Cai Expressway, considered the backbone of the Northwest Region's road network, is part of the GMS Kunming–Hai Phong Transport Corridor that connects the Ha Noi region to Yunnan Province in the PRC and passes through the provinces of Lao Cai and Yen Bai. This expressway was completed in 2014, but the provinces in the corridors' proximity have not fully benefited from it, showing a slower pace of development than the rest of the country. This is because the national highway and provincial road networks are largely incomplete, and the condition of the existing roads is generally poor. The existing roads are also prone to natural disasters namely flash floods, landslides, rockfalls and wild fire, of which likelihood and magnitude of impacts are increasing due to global warming. The average annual temperature in Viet Nam has increased by 0.4°C since 1960 and is projected to increase by 0.8-2.7°C by 2060.⁵ The climate change assessment projects that the magnitude of May precipitation will increase possibly up to 59-61%, and the magnitude of December precipitation will increase possibly up to 173%-208%.⁶

8. The project will improve and upgrade two road stretches totaling 198 km that connect several towns and districts in the provinces of Lai Chau, Lao Cai and Yen Bai to the Noi Bai–Lao Cai Expressway. These road stretches will connect to other main roads under the Lao Cai province transport development master plan to improve network connectivity with the Noi Bai-Lao Cai Expressway.⁷ The existing roads pass through very difficult terrain with high mountains or

⁵ Irish Aid. 2017. *Vietnam Climate Action Report for 2016*. Ha Noi

⁶ Climate Change Assessment (accessible from the list of linked documents in Appendix 2).

⁷ Government of Viet Nam. 2015. *Decision No. 3802/QĐ-UBND, 30 October 2015: Approving Transport Development Master Plan of Lao Cai Province by 2020 and Orientation towards 2030*. Ha Noi.

large rivers, so many substandard curves and grades have been adopted. Their conditions are poor; the average travel speed is 25 km per hour and several sections are not passable year-round. Therefore, a major rehabilitation or improvement is required to accommodate the expected traffic growth due to the current economic development of the region.

9. The improved connectivity will (i) provide reliable access to basic social services such as education, health care, job training, and emergency disaster relief, and (ii) increase economic and employment opportunities for the people of the northwestern provinces, especially the poor ethnic minorities. The enhanced connectivity to the Noi Bai–Lao Cai Expressway will provide further opportunities of cross-border trade with the Lao People’s Democratic Republic and the PRC. The improved roads will help save travel time and costs, hence reducing fuel consumption and carbon dioxide emissions. The improvement and upgrade works will ensure consistency of standards over the entire road stretches, including climate resilience features namely slope protection measures in areas prone to landslides and rockfalls, raising and/or reconstructing highway embankments and bridges along road sections prone to dangerous flooding, and increasing cross-drainage capacity. The project will include awareness campaigns for road safety, HIV/AIDS, and human trafficking which will enable the vulnerable ethnic minorities to cope with possible negative impacts of the project roads. The government’s rigorous efforts to enforce laws and regulations on road safety have resulted in decrease of fatalities caused by road traffic accidents from more than 11,000 in 2011 to less than 9,000.⁸ However, creation of road safety awareness for the people in the project area, especially the poor ethnic minorities, is still necessary considering the expected increased traffic speed and volume.

10. The project supports the government’s implementation of Viet Nam’s national transport strategy 2020 to provide efficient and safe transportation to international and domestic markets, tourism destinations, and social services facilities; all project roads are listed under the national transport strategy.⁹ The improvement of project roads fits ADB’s country partnership strategy for Viet Nam, 2016–2020. The project is aligned with ADB’s Strategy 2030 (Table 1).¹⁰

Table 1: Alignment with Strategy 2030

Strategy 2030 Priority	Project’s Contributions
1. Addressing remaining poverty and reducing inequalities	(i) Increasing the emphasis on human development and social inclusion. The improved roads will make access to economic opportunities and social services including health care, education, and agricultural advice services possible and more affordable to the poor. Migration of the workforce to major towns and cities for higher-paying jobs will be easier. (ii) Improving education and training. The improved roads will facilitate establishment of education institutions and mobilization of professional advice services and production knowhow in the project area.
2. Promoting rural development and food security	(i) Improving market connectivity and agricultural value chain linkages. The improved roads will allow faster and more cheaply transportation of agriculture products to distant markets, including markets that are currently inaccessible. (ii) Increasing agricultural productivity and food security. The improved roads will allow easier access to agricultural inputs such as fertilizer, seeds, tools and machinery, innovation, and production knowhow. The shortened transport time and improved rideability will reduce product losses during transportation, hence reducing the transportation cost.

⁸ United Nations. 2018. Road Safety Performance Review, Viet Nam. New York and Bangkok

⁹ Government of Viet Nam. 2013. *Decision No. 356/QĐ-TTg. 2013: Adjusted Planning for Road Traffic Development in Viet Nam by 2020 and the Orientation towards 2030*. Ha Noi.

¹⁰ ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

Strategy 2030 Priority	Project's Contributions
3. Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability	(i) Scaling up support to address climate change, disaster risks, and environmental degradation. The road design will consider the impacts of climate change and possible natural disasters such as earthquakes and landslides, and will provide adaptation measures such as strengthened substructures, and additional drainage structures and slope protection. The Asian Development Bank will finance 100% of the climate adaptation cost. (ii) Accelerating low greenhouse gas emissions development. The improved road alignment and surface conditions will reduce vehicle operation costs, including fuel consumption, hence carbon dioxide emission.

Source: Asian Development Bank. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

11. **Value added by ADB assistance.** Climate adaptation measures, including reinforced slope protection, rockfall protection galleries, and increased drainage capacity, will be incorporated in the engineering design to improve climate resilience of the project roads. ADB will work closely with the Australian Department of Foreign Affairs and Trade (DFAT), who will provide a grant to finance the detailed engineering design (DED) of the project roads on behalf of the Government of Australia, as a collaborative cofinancier of ADB. The DFAT grant will also support the awareness campaigns for road safety, HIV/AIDS, and human trafficking; and the development of an axle load control program to enhance inclusiveness and sustainability of the project. This cofinancing was made possible by ADB's catalytic role.

12. **Lessons learned.** ADB has supported Viet Nam and its neighboring countries on improvement of national and regional connections mainly through the enhancement of GMS corridors, national highways, and rural road networks. Previous project completion reports highlighted the need for ADB to monitor the implementation of adequate road maintenance through (i) funds allocation to the Viet Nam National Road Maintenance Fund (NRMF) and (ii) measures related to enforcement of axle load control. The NRMF is being supported by the World Bank, and the axle load control program development will be incorporated in the activities under the DFAT grant as a part of the detailed design. ADB will coordinate with these development partners to achieve the project impact and facilitate development of the road sector in Viet Nam. Other lessons include the need to account for lengthy decision-making processes, significant lead time for approval procedures, and extensive administrative procedures. The project's time line was prepared to accommodate these constraints.

B. Impact and Outcome

13. The project is aligned with the following impact: economic, sociocultural, and environmental development in lagging and border areas accelerated (footnote 9). The project will have the following outcome: road connectivity to GMS corridors in northwestern provinces of Viet Nam improved.¹¹

C. Outputs

14. **Output 1: Safe and climate-resilient national highways in lagging provinces of northwestern Viet Nam completed.** This output will be achieved through (i) improvement of two national highway sections (National Highway 279 from Bao Ha to Khau Co, and National Highway 32 from Khau Co to Ban Bo) and upgrading of Provincial Road 136 from Ban Bo to Dong Pao and from Dong Pao to San Thang to class IV national highway, a total of 147 km; and (ii) upgrading

¹¹ The design and monitoring framework is in Appendix 1.

of the current Provincial Road 175 section from Mau A to Nghia Lo to a class III and IV national highway, a total of 51 km.¹² The road works will incorporate climate resilience and road safety measures by introducing sound slope protection measures in areas prone to landslides and rockfalls, raising highway embankments and bridges along road sections prone to flooding, increasing cross-drainage capacity, and installing road safety devices and pavement markings.

15. **Output 2: Awareness for road safety, HIV/AIDS, and human trafficking created.** This output will be achieved through the preparation and implementation of awareness campaigns for the communes and villages along the project roads.

D. Summary Cost Estimates and Financing Plan

16. The project is estimated to cost \$240.59 million (Table 2). ADB financing will cover civil works and consulting services for construction supervision and financial audit. Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).¹³

Table 2: Summary Cost Estimates
(\$ million)

Item	Amount ^a
A. Base Cost^b	
Safe and climate-resilient national highways in lagging provinces of northwestern Viet Nam completed	200.56
Subtotal (A)	200.56
B. Contingencies^c	31.63
C. Financial Charges During Implementation^d	8.40
Total (A+B+C)	240.59

^a Includes taxes and duties of \$19.83 million, which will be financed by the government.

^b In mid-2018 prices as of 31 July 2018.

^c Physical contingencies computed at 10% of the base cost. Price contingencies computed at average of 1.5% on foreign exchange costs and 5% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest during construction of 2% per annum.

Source: Asian Development Bank estimates.

17. The government has requested a concessional loan of \$188.36 million from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years; an interest rate of 2.0% per year during the grace period and thereafter; and such other terms and conditions set forth in the draft loan agreement. The summary financing plan is in Table 3. The government will provide counterpart funds necessary for taxes and duties, land acquisition and resettlement, income restoration, external safeguard monitoring, project management expenses for the project implementation unit, and other consulting services and project implementation in a timely manner, including additional funding required for any shortfalls. The Government of Australia will provide a grant of \$4.481 million as parallel collaborative cofinancing through its Aus4Transport program to finance the detailed design and programs for axle load control and awareness campaigns for road safety, HIV/AIDS and human trafficking (para.20). The grant will be administered by DFAT.

¹² Government of Viet Nam. 2005. *Highway – Specifications for Design (TCVN 4054: 2005)*. Hanoi

¹³ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Table 3: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (concessional loan)	188.36	78.29
Government of Viet Nam	52.23	21.71
Total	240.59	100.00

Source: Asian Development Bank estimates.

18. The project is classified as high climate risk. The project's climate risk and vulnerability assessment concluded that the major climate risk is the likelihood of increased flash floods, landslides and rockfalls resulting from a projected increase in precipitation (footnote 6). Climate adaptation is estimated to cost \$10.2 million. ADB will finance 100% of the climate adaptation cost.

E. Implementation Arrangements

19. The Ministry of Transport (MOT) will be the executing agency. The MOT's Project Management Unit 2 (PMU2), with the support of the construction supervision consultant, will serve as the implementing agency. The provincial people's committees of the provinces of Lai Chau, Lao Cai and Yen Bai will carry out land acquisition, and each committee will implement the resettlement plan (RP) and ethnic minority development plan (EMDP) for its own province, with MOT oversight. The implementation arrangements are summarized in Table 4 and described in detail in the PAM (footnote 13).

Table 4: Implementation Arrangements

Aspects	Arrangements		
Implementation period	July 2019–June 2025		
Estimated completion date	December 2024		
Estimated loan closing date	June 2025		
Management			
(i) Oversight body	Ministry of Finance (chair and member)		
(ii) Executing agency	MOT		
(iii) Key implementing agencies	PMU2 will be responsible for implementing civil works construction; Lao Cai PPC, Yen Bai PPC, and Lai Chau PPC will be responsible for land acquisition and resettlement (implementation of resettlement and ethnic minority development plans) with MOT oversight		
(iv) Implementation unit	PMU2		
Procurement ^a	International competitive bidding	7 contracts	\$167,810,000
Consulting services	Quality- and cost-based selection	1 contract, 993 person-months (119 international and 874 national)	\$8,390,000
	Consultants' qualifications selection	1 contract, 22 person-months (national)	\$130,000
Retroactive financing and/or advance contracting	Not applicable		
Disbursement	The loan proceeds will be disbursed following ADB's Loan Disbursement Handbook (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, MOT = Ministry of Transport, PMU2 = Project Management Unit 2, PPC = provincial people's committee.

^a All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). All consultants will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

Source: ADB.

III. DUE DILIGENCE

A. Technical

20. The project was prepared based on the feasibility study conducted under ADB's technical assistance for the Greater Mekong Subregion Corridor Connectivity Enhancement Project.¹⁴ Most of the rehabilitation and improvement works will follow existing road alignments. Three partial road realignments (totaling 15 km) were proposed for bypassing highly populated village centers. These realignments were deemed necessary to avoid or minimize involuntary resettlement, improve traffic safety, and reduce noise and emissions in these areas. Some improvement works (horizontal and vertical curve adjustment, road widening, repaving, slope stabilization, raising of embankments, increasing of drainage capacities, and bridge reconstruction) will be included as part of climate adaptation measures. The DED will be prepared under a parallel collaborative financing grant from the Government of Australia through the Aus4Transport program. The DED consultant will update environment and social safeguards documents as necessary and support the programs for axle load control and awareness for road safety, HIV/AIDS and human trafficking. The grant will be administered by DFAT. The DED consultant will be mobilized by May 2019 and a complete DED package will be available by June 2020. Further details of the programs will be prepared during DED in consultation among the PMU2, DFAT, and ADB.

B. Economic and Financial

21. **Economic analysis.** The economic evaluation of the project was conducted in accordance with ADB's guidelines by comparing life cycle costs in with- and without- project cases,¹⁵ using a 9% discount rate and the economic internal rate of return (EIRR) as decision criteria and using the Highway Development and Management Model (HDM-4). The benefits considered in the economic appraisal are savings in vehicle operation costs, improvements in travel time, and reduction in accidents. The estimated EIRR for the project is 14.24%, with a net present value of \$98.6 million at the discount rate of 9%. Sensitivity analysis was carried out to investigate the economic viability of the project with the following adverse changes in costs and benefits: (i) capital costs increased by 15%, (ii) vehicle operating cost benefit reduced by 15%, (iii) value of time benefit reduced by 15%, (iv) benefit of reduced casualties excluded, and (v) capital costs increased by 15% and benefits reduced by 15%. In all scenarios, the EIRR of the project remains above 9%, demonstrating the project's robustness. The economic viability of the project is most sensitive to a 15% increase in capital costs and a 15% reduction in benefits, which decreases the EIRR to 11.24%. In addition to quantified benefits, the project will have intangible benefits, as it will contribute to the economic growth of the relatively poor populations in the vicinity of the project through the provision of improved access to income opportunities, as well as social, health, and education facilities. Carbon dioxide reduction benefits are calculated as \$0.07 million per annum as a climate mitigation impact of the project.

22. **Financial sustainability.** The project will not generate revenue. The government established the NRMF and local road maintenance funds in 2012 for better management of road maintenance in the country. The NRMF's revenue comes from road user fees and supplementary national budget while the local road maintenance funds come from road user fees and supplementary provincial budget. With the NRMF, the national road maintenance budget

¹⁴ ADB. 2016. *Technical Assistance to the Socialist Republic of Viet Nam for the Greater Mekong Subregion Corridor Connectivity Enhancement Project*. Manila (TA 9252-VIE).

¹⁵ ADB. 2017. *Guidelines for the economic analysis of projects*. Manila.

increased from 2013 to 2016, and the per km maintenance cost for national roads under maintenance increased by about 70% in the same period. This indicates that the budget allocation for regular maintenance of priority national roads is adequate.¹⁶ The MOT confirmed that prioritized allocation of operation and maintenance budget from the NRMF will be made to the project roads. Provincial Road 175 in Yen Bai Province will be upgraded to a national highway, which will be maintained using the NRMF budget allocation. Further, with the sustained economic growth and increase in the number of vehicles, the government plans to gradually expand the revenue base of the road user charges, aiming at full coverage of the road maintenance and major rehabilitation needs in the long term. The effective utilization of the NRMF for this purpose is being supported by the World Bank.

C. Governance

23. Having undertaken several ADB-financed projects in the past, the MOT has good experience and understanding of ADB's procurement and financial management policies and procedures. Based on the financial management assessment carried out under the PPTA (footnote 14), the MOT has adequate capacity for procurement and financial management. The grievance redress mechanism and project website will be developed and included under the current website of the PMU2.¹⁷ ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and MOT. The financial management risk is *moderate* since the oversight by the MOT finance section has proven effective and the PMU2 has its own accounting staff to meet MOT requirements. An external financial auditor will be engaged for the audits of the project financial statements under the project to ensure full compliance with ADB's requirements. The specific policy requirements and supplementary measures are described in the PAM (footnote 13).

D. Poverty, Social, and Gender

24. Poverty reduction and social benefits include indirect economic benefits and direct benefits of improved rural livelihood productivity through the livelihood development program integrated in the RPs as well as enhanced community welfare through improved awareness of road safety, and HIV/AIDS and human trafficking.¹⁸ The project design enhances social utility of the roads for poor ethnic minorities, including women and children. Meaningful consultation will be conducted throughout final project design and implementation. The social development and mitigation activities will be carried out principally in partnership with community-based organizations. The RPs and EMDPs provide targeted interventions to improving living standards of vulnerable people.¹⁹ Details of the HIV/AIDS and human trafficking awareness program; the road safety awareness program; and the consultation, participation, and communication plan will also be provided for the people in the project area. The project is categorized as having some gender elements. Key gender-related activities include (i) project detailed design and implementation based on gender and social responsiveness, (ii) unskilled jobs for women generated from road construction, (iii) gender-responsive social protection for the labor force, (iv) women's involvement in and benefits from road safety awareness and enforcement, and (v) mitigation of HIV/AIDS and human trafficking risks because of improved connectivity.

¹⁶ World Bank. Viet Nam: Viet Nam Road Asset Management Project. Unpublished.

¹⁷ Government of Viet Nam, MOT, PMU. <http://www.pmu2.com.vn>.

¹⁸ Resettlement Plans (accessible from the list of linked documents in Appendix 2).

¹⁹ Ethnic Minority Development Plans (accessible from the list of linked documents in Appendix 2).

E. Safeguards

25. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are as follows.²⁰

26. **Environment (category A).** An environmental impact assessment (EIA) was prepared and disclosed on the ADB website in April 2018.²¹ Without mitigation measures, the project's environmental impacts have the potential to be significant. It is anticipated that the project will affect 3 hectares of protected forest, including 1 hectare of protected forest in the Hoang Lien Van Ban Nature Reserve (HLVBNR). This impact will be fully offset in compliance with the Viet Nam Forestry Law (2018) and ADB's Safeguard Policy Statement. The project design is consistent with the HLVBNR master plan (2012).²² The project's impacts on the HLVBNR and its protection objectives will not be significant. Suitable disposal sites outside HLVBNR will need to be identified for the disposal of the estimated 6.3 million cubic meters of spoil. Training will be provided to construction workers on the HLVBNR's sensitivities.

27. Other anticipated construction-related environmental impacts include fugitive dust, construction noise, temporary traffic disturbance, and occupational and community safety at construction sites. Adherence to the environmental management plan (EMP) will reduce residual impact significance to an acceptable level. Incremental effects of operational traffic on ambient noise and air quality are expected to be insignificant. The capacity of the PMU2 to oversee the EMP implementation will be strengthened through the training provided by the construction supervision consultant and external monitoring consultant. Public consultation involving 1,100 potentially affected people and more than 50 representatives from relevant local authorities was carried out during EIA preparation to inform the project design and environmental assessment process. A grievance redress mechanism has been defined.

28. **Involuntary resettlement (category A).** A total of 776,897 square meters of private and public lands in Lai Chau, Lao Cai and Yen Bai provinces will be acquired, affecting 957 households (4,370 affected people). Of these, 115 households (454 individuals) will be severely affected, 6 households (28 individuals) will experience physical displacement, and 634 households (2,669 individuals) will experience economic displacement because of loss of income from affected land or business. Three RPs compliant with ADB's Safeguard Policy Statement and Viet Nam's laws have been prepared to mitigate the impacts, in consultation with the affected households. The RPs were disclosed on ADB's website on 23 August 2018. Mitigation of involuntary resettlement impacts includes compensation at replacement cost for affected property; assistance with resettlement within existing communities; a livelihood development program; and ongoing meaningful consultations, including detailed needs assessment for livelihood development. Details of the grievance redress mechanism are included in the RPs. Capacity building for PMU2 and local authorities will be provided by the supervision consultants.

29. **Indigenous peoples (category B).** Ethnic minority peoples are the overwhelming majority in the project areas (70% to 86% of the total population).²³ Both positive and negative impacts have been identified. The ethnic minorities will be mainly affected by involuntary land acquisition and resettlement. Other identified risks include HIV transmission, human trafficking, and risks associated with road safety. Positive impacts include economic benefits from improved

²⁰ ADB. Safeguard Categories. <https://www.adb.org/site/safeguards/safeguard-categories>.

²¹ Environmental Impact Assessment (accessible from the list of linked documents in Appendix 2).

²² Lao Cai Province People's Committee. 2012. *Hoang Lien Van Ban Nature Reserve Master Plan*. Lao Cai.

²³ Ethnic groups identified living in the project areas are Tay, Thai, H'Mong, Xa Pho, Giang Dao, Nung, Hoa, Muong, Cao Lan, and Kho Mu. The ethnic minorities most affected by the project activities are Tay, Thai, Hmong, and Dao.

access for mobility, and the opportunity to participate in the planned livelihood development program, as detailed in the RPs. The project will not involve physical displacement of affected ethnic minority households. EMDPs in compliance with ADB's Safeguard Policy Statement and other relevant programs and plans (i.e., HIV and human trafficking awareness program; road safety program; and consultation, participation, and communication plan) were prepared to mitigate the impacts. During the preparation of the plans and programs, 29 public consultations and 52 focus group discussions were conducted with the affected ethnic minority communities. The EMDPs were disclosed on ADB's website on 31 August 2018.

F. Summary of Risk Assessment and Risk Management Plan

30. Significant risks and mitigating measures are summarized in Table 5 and described in detail in the risk assessment and risk management plan.²⁴

Table 5: Summary of Risks and Mitigating Measures

Risks	Mitigation Measures
Insufficient allocation of counterpart funds	Close contact with the Ministry of Transport to confirm timely provision of counterpart funds
Delays in land acquisition and resettlement	Frequent meetings with the Ministry of Transport's Project Management Unit 2 and provincial people's committees of Lai Chau, Lao Cai, and Yen Bai
Inadequate budget allocation for road O&M	The effective utilization of the NRMF is being supported by the World Bank; the provincial road to be improved under the project will be upgraded to a national highway and the NRMF will be used for the maintenance

NRMF = National Road Maintenance Fund; O&M = operation and maintenance

Source: Asian Development Bank.

IV. ASSURANCES

31. The government and MOT have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents. The government and MOT have agreed with ADB on certain covenants for the project, which are set forth in the draft loan agreement.

V. RECOMMENDATION

32. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$188,360,000 to the Socialist Republic of Viet Nam for the Northern Mountain Provinces Transport Connectivity Project, from ADB's ordinary capital resources, in concessional terms, with an interest charge at the rate of 2% per year during the grace period and thereafter; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board.

Takehiko Nakao
President

19 November 2018

²⁴ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with			
Economic, sociocultural, and environmental development in lagging and border areas accelerated (Viet Nam National Transport Strategy 2020) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>Outcome Road connectivity to GMS corridors in northwestern provinces of Viet Nam improved</p>	<p>By 2025:</p> <p>a. Freight transport increased by 8.3% annually on national roads connected to GMS corridors (2017 baseline: 7,818 tons)</p> <p>b. Passenger transport increased by 1.3% annually on national roads connected to GMS corridors (2017 baseline: 29,311 passengers)</p> <p>c. Average travel speed on project roads increased to 45 km per hour (2017 baseline: 25 km per hour).</p>	<p>a–c. Project benefit monitoring reports by supervision consultant</p>	<p>Inadequate budget allocation of road operation and maintenance</p>
<p>Outputs</p> <p>1. Safe and climate-resilient national highways in lagging provinces of northwestern Viet Nam completed</p> <p>2. Awareness for road safety, HIV/AIDS, and human trafficking created</p>	<p>By 2024:</p> <p>1a. National Highway 279, National Highway 32, and Provincial Road 136, (147 km in total), rehabilitated and/or upgraded to class III/IV national highways (2017 baseline: 0 km)</p> <p>1b. 51 km of Provincial Road 175 upgraded to class IV national highway (2017 baseline: 0 km)</p> <p>1c. At least 35% of contractors' accumulative unskilled labor days prioritized for women in the project area during construction works (2017 reference point: 30%)^b</p> <p>2. Awareness of 68,000 people in project area, 50% of whom are women, improved through awareness campaigns for road safety, HIV/AIDS, and human trafficking (2017 baseline: 0)</p>	<p>1a. Annual reports of the Ministry of Transport</p> <p>1b–1c. Progress reports of the Ministry of Transport's PMU2 and supervision consultant</p> <p>2. Progress report of PMU2 and supervision consultant</p>	<p>Delays in land acquisition and resettlement</p> <p>Insufficient allocation of counterpart funds</p>

<p>Key Activities with Milestones</p> <p>1. Safe and climate-resilient national highways in lagging provinces of northwestern Viet Nam completed</p> <p>1.1 Recruit detailed design consultant by Q3 2019</p> <p>1.2 Recruit supervision consultant by Q1 2020</p> <p>1.3 Complete detailed design by Q3 2020</p> <p>1.4 Procure civil works packages by Q2 2021</p> <p>1.5 Complete civil works by Q4 2024</p> <p>2. Awareness for road safety, HIV/AIDS, and human trafficking created</p> <p>2.1 Recruit consultant (for program design) by Q3 2019</p> <p>2.2 Complete program design by Q3 2020</p> <p>2.3 Recruit implementation consultant by Q3 2020</p> <p>2.4 Complete program implementation by Q3 2023</p>
<p>Inputs</p> <p>ADB: \$188.36 million loan</p> <p>Government of Viet Nam: \$52.23 million</p>
<p>Assumptions for Partner Financing</p> <p>The Government of Australia, through its Aus4Transport program, has agreed with the Government of Viet Nam to provide a grant amounting to \$4.481 million to finance (i) the detailed engineering design; (ii) awareness campaigns for road safety, HIV/AIDS, and human trafficking; and (iii) development of an axle load control program. The grant will be administered by the Government of Australia's Department of Foreign Affairs and Trade. ADB will review the detailed project scope and the terms of reference of the detailed design consultant jointly with the PMU2 and the Government of Australia to ensure harmonization during implementation.</p>

ADB = Asian Development Bank, GMS = Greater Mekong Subregion, km = kilometer, PMU = Project Implementation Unit 2, Q = quarter.

^a Government of Viet Nam. 2013. Decision No. 356/QD-TTg: *Adjusted Planning for Road Traffic Development in Viet Nam by 2020 and the Orientation towards 2030*. Ha Noi.

^b "Reference point" refers to the current practice as identified by ADB. 2016. *TA-9252 VIE: Greater Mekong Subregion (GMS) Corridor Connectivity Enhancement Project Consulting Services for the PPTA (50098-001) Poverty and Social Assessment in the North-Western Region, 2018*. Manila.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=50098-002-3>

1. Loan Agreement
2. Sector Assessment (Summary): Transport
3. Project Administration Manual
4. Contribution to the ADB Results Framework
5. Development Coordination
6. Economic and Financial Analysis
7. Country Economic Indicators
8. Summary Poverty Reduction and Social Strategy
9. Risk Assessment and Risk Management Plan
10. Climate Change Assessment and Management
11. Environmental Impact Assessment
12. Resettlement Plan: Lai Chau Province
13. Resettlement Plan: Lao Cai Province
14. Resettlement Plan: Yen Bai Province
15. Indigenous Peoples Plan (Ethnic Minority Development Plan): Lai Chau Province
16. Indigenous Peoples Plan (Ethnic Minority Development Plan): Lao Cai Province
17. Indigenous Peoples Plan (Ethnic Minority Development Plan): Yen Bai Province