



Report and Recommendation of the President to the Board of Directors

Project Number: 39225
July 2014

Proposed Loan and Grant Kingdom of Bhutan: South Asia Subregional Economic Cooperation Road Connectivity Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 17 June 2014)

Currency unit	–	ngultrum (Nu)
Nu1.00	=	\$0.016605
\$1.00	=	Nu60.224500

ABBREVIATIONS

ADB	–	Asian Development Bank
DOR	–	Department of Roads
EIA	–	environmental impact assessment
km	–	kilometer
O&M	–	operation and maintenance
SASEC	–	South Asia Subregional Economic Cooperation
SEWH	–	Southern East–West Highway

NOTES

- (i) In this report, "\$" refers to US dollars.

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PROJECT AT A GLANCE

1. Basic Data		Project Number: 39225-034	
Project Name	South Asia Subregional Economic Cooperation Road Connectivity Project	Department /Division	SARD/SATC
Country Borrower	Bhutan Kingdom of Bhutan	Executing Agency	Department of Roads, Phuentsholing Thromde
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		50.35
		Total	50.35
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Adaptation (\$ million)	1.60
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	Climate Change impact on the Project	High
Regional integration (RCI)	Pillar 1: Cross-border infrastructure		
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Organizational development	Some gender elements (SGE)	✓
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Regional	High
6. Risk Categorization:	Complex		
7. Safeguard Categorization	Environment: A Involuntary Resettlement: A Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		50.35	
Sovereign Project grant: Asian Development Fund		18.96	
Sovereign Project loan: Asian Development Fund		31.39	
Cofinancing		0.00	
None		0.00	
Counterpart		18.65	
Government		18.65	
Total		69.00	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on (i) a proposed loan, and (ii) a proposed grant, both to the Kingdom of Bhutan for the South Asia Subregional Economic Cooperation Road Connectivity Project.¹

2. The project will promote regional connectivity with neighboring countries through investments in road construction, a land port and a custom station that will facilitate cross-border trade. The project will also improve Bhutan's national road network in remote areas in the southeastern part of Bhutan near the border with India, providing people in that region with better access to economic opportunities and social services. The project will thereby support efficient and safe transport of goods within Bhutan and to and from neighboring countries.

II. THE PROJECT

A. Rationale

3. Landlocked Bhutan faces unique development challenges and opportunities. The country's small population of about 720,000 is dispersed throughout its mostly mountainous terrain.² The country is also vulnerable to moderate-to-high seismic risks. This and formidable weather conditions make it difficult to achieve economy of scale in delivering services and costly to build and maintain vital infrastructure, particularly roads. Bordered by India in the east, west, and south, Bhutan is heavily reliant on its much larger neighbor for international trade. India accounts for 84% of its exports, including electricity; and 73% of its imports.³ However, Bhutan's inadequate cross-border road network and infrastructure are hampering its international trade and logistics. It is important to lower high transport costs and improve poor accessibility, to spur the country's economic and social development.

4. Roads are the main mode of passenger and freight transport within the country and with neighboring states in India. The current network comprises about 10,577 kilometers (km) of roads, divided into six major classes: (i) 2,438 km of national highways, (ii) 6 km of expressways, (iii) 1,178 km of feeder roads, (iv) 350 km of urban roads, (v) 5,375 km of farm roads, and (vi) 1,230 km of access roads. Of this network, 93% of all national highways, 90% of urban roads, and 20% of feeder and access roads are sealed. However, use of the sealed network becomes difficult during the rainy season because narrow roads along steep hillsides are prone to landslides. The feeder and farm road network expanded significantly since 2000, and 201 of the country's 205 blocks of villages were connected by motorable roads in 2013. However, an estimated 20% of rural people still need to travel more than 1 hour to have access to essential services. Connecting people to the national highway network will further improve this accessibility.

5. The national highways are the main arteries in the road network. The Northern East–West Highway (553 km) passes through the center of the country and links Thimphu, which is the capital city of Bhutan, with the central and eastern regions. Several north–south national highways run between points on the border with India and the Northern East–West Highway. These include the main access highway between Thimphu and Phuentsholing, the largest border city with India. The Southern East–West Highway (SEWH) will run for 717 km along the

¹ The design and monitoring framework is in Appendix 1.

² ADB. 2013. *Basic Statistics 2013*. Manila.

³ Bhutan's international sea trade currently moves through Kolkata Port in India. Chittagong Port in Bangladesh is expected to become an alternative port in the future.

border with India in the south when it is complete, but only 185 km has been built so far. Another 194 km is under construction. Completion of the SEWH is critical. Transport between east and west in the country's south now often involves roundabout routes, either further south via India or through a long indirect journey using the Northern East–West Highway to the north. This constrains economic and social development in the southeastern parts of Bhutan that are poorer than most other regions, as well as in places along the border with India that have industrial estates and cross-border facilities. Building a national highway connection to Nganglam and Samdrup Jongkhar is important to developing southeastern Bhutan.

6. The main crossing points between Bhutan and India are at Phuentsholing, Gelephu, Nganglam, and Samdrup Jongkhar. These border crossings connect Bhutan's main north–south highways with India's national highway network. Phuentsholing, in the west, is the busiest, accounting for 40% of the passenger vehicles, 55% of the trucks, and 28% of the buses crossing between Bhutan and India each day. The inadequacy of the border facilities in dealing with this traffic causes heavy congestion in the city and is a constraint on trade through the city. About 26% of the cross-border traffic at Phuentsholing carries materials and products to and from the Pasakha industrial estate, located 15 km to the east. Provision of direct access between the Pasakha industrial estate and India, a mini dry port in Phuentsholing, and a bypass road between a mini dry port and a national highway will reduce the transport costs for this freight and increase the movement of goods, which would in turn improve Bhutan's trade competitiveness.

7. The government's strategic thrusts under the country's 11th five-year plan for 2013–2018 are inclusive social development, accelerated green economic development, and strategic infrastructure development.⁴ The main aim in the transport sector is to ensure safe, efficient, and reliable services. Improving efficiency in the sector will boost domestic and cross-border trade and allow better delivery and wider coverage of basic social services. The government also plans to promote eco-friendly transport. This will include the introduction of clean-energy vehicles.

8. The five-year plan's top priority is to finish the construction and upgrading of the entire length of the SEWH by the end of the plan period, which will cost almost \$122 million, or about 54% of the capital expenditures in the road sector under the plan. Together with planned improvement of the border trade facilities, this will remove the inefficiencies at international land border crossings, improve domestic and international trade, and make the country's remote southeastern communities more accessible.

9. In 2001, ADB supported the establishment of the South Asia Subregional Economic Cooperation (SASEC) between Bangladesh, Bhutan, India, and Nepal. During a series of meetings of the SASEC transport working group, the members made it a priority for Bhutan to develop a mini dry port in Phuentsholing and a direct access road between the Pasakha industrial estate and India. The South Asia Subregional Economic Cooperation Road Connectivity Project will improve one of the most important segments of the SASEC corridor 2 and is one of the projects aimed at strengthening road connectivity along SASEC corridors 4 and 8 and in adjoining areas. ADB-supported SASEC road connectivity investment program for India includes 126 km of Asian Highway 48, which connects Jaigaon City on India's border with

⁴ Government of Bhutan. Gross National Happiness Commission. 2013. *Eleventh Five Year Plan Volume I: Main Document*. Thimphu.

Bhutan with Changrabandha City on its border with Bangladesh.⁵ To enhance the effectiveness of transport infrastructure initiatives in the SASEC subregion, ADB is implementing a trade facilitation program loan and grant project and four technical assistance projects in Bangladesh, Bhutan, and Nepal.⁶ These will support efficient, secure cross-border trade processes in the subregion and include the development of modern, effective customs administration and streamlined, transparent trade procedures. These projects will help Bhutan comply with the Revised Kyoto Convention standards to simplify and harmonize customs procedures.

10. Bhutan has depended on external assistance to develop its road network, mainly from ADB, the World Bank, and the governments of Austria, India, Japan, the Netherlands, and Switzerland. ADB's contribution so far has been 7 loans and grants and 17 technical assistance projects, including 7 to prepare projects. The 2013 validation report by ADB's Independent Evaluation Department on the final review of the country partnership strategy for 2010–2012 stated that ADB contributed to inclusive social development through interventions that enhance rural connectivity.⁷ The report also identified a need for ADB to explore further technical support to strengthen the capacity of implementing agencies in the road sector. ADB's 2013 project completion report on its Road Network Project in Bhutan saw a need to provide continuous on-the-job training opportunities and to institutionalize the use of the road asset management system.⁸ Among the improvements required, the government must equip its officials with the practical skills needed to design roads with the necessary climate resilience and road safety standards and to maintain them once they are built.

11. The project and its outcome are consistent with the strategic objective set in ADB's country partnership strategy, 2014–2018 to assist the government in achieving broad-based economic growth by enhancing the main road network.⁹ The project also supports the government's plans to boost international and regional trade and to promote eco-friendly transport on a pilot basis. The project is included in the Bhutan country operations business plan, 2014–2016 and in the Regional Operations Business Plan: South Asia, 2014–2016.¹⁰

B. Impact and Outcome

12. The project's impact will be improved cross-border movement of goods between Bhutan and neighboring countries. The outcome will be improved road connectivity and transport efficiency in the project areas in Bhutan.

C. Outputs

13. The outputs will be (i) the construction of roads and the establishment of trade infrastructure; (ii) the improvement of road construction and maintenance capacity; and (iii) the

⁵ ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to India for SASEC Road Connectivity Investment Program*. Manila.

⁶ ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loans and Grants for SASEC Trade Facilitation Program*. Manila; ADB. 2013. *Technical Assistance for Trade Facilitation in South Asia*. Manila; ADB. 2013. *Technical Assistance to the Kingdom of Bhutan for Supporting Participation in the South Asia Subregional Cooperation Trade Facilitation Program*. Manila; ADB. 2013. *Technical Assistance to the People's Republic of Bangladesh for Supporting Participation in the South Asia Subregional Cooperation Trade Facilitation Program*. Manila; ADB. 2013. *Technical Assistance to Nepal for Supporting Participation in the South Asia Subregional Cooperation Trade Facilitation Program*. Manila.

⁷ ADB. 2013. *Validation Report: Bhutan Country Partnership Strategy Final Review, 2010–2012*. Manila.

⁸ ADB. 2013. *Completion Report: Road Network Project in Bhutan*. Manila.

⁹ ADB. 2014. *Country Partnership Strategy: Bhutan, 2014–2018*. Manila.

¹⁰ ADB. 2014. *Country Operations Business Plan: Bhutan, 2014–2016*. Manila; ADB. 2013. *Regional Operations Business Plan: South Asia, 2014–2016*. Manila.

promotion of eco-friendly transport. The first output will involve (i) construction of 68.3 km of the SEWH between Nganglam and Dewathang and about 1.2 km of access road between a point on Bhutan's border with India and the Pasakha industrial estate; (ii) establishment of a mini dry port in Phuentsholing City and a land custom station at Alay, which is the end of the new access road between a point on Bhutan's border with India and the Pasakha industrial estate and; (iii) construction of 2.7 km of road between the new mini dry port and a national highway to bypass traffic congestion in Phuentsholing City.

14. Key activities will include engagement of consultants to (i) prepare a detailed engineering design of the Alay land custom station and the bypass road in Phuentsholing City; (ii) supervise execution of civil works, including the procurement of related equipment, and (iii) help build the capacity of government engineers to manage road asset and design roads that incorporate appropriate road safety and climate resilience measures. The project will also engage contractors to execute the civil works, implement a pilot eco-friendly transport scheme, and procure the related equipment.

D. Investment and Financing Plans

15. The project is estimated to cost \$69.00 million (Table 1).¹¹

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Roads built and trade infrastructure established	53.00
2. Road construction and maintenance capacity improved	0.70
3. Eco-friendly transport promoted	0.45
Subtotal (A)	54.15
B. Contingencies^c	14.45
C. Financing Charges During Implementation^d	0.40
Total (A+B+C)	69.00

^a Includes taxes and duties of \$0.9 million to be financed from ADB loan and grant resources.

^b In January 2014 prices.

^c Physical contingencies computed at 5% for civil works. Price contingencies computed at 1.5% on foreign exchange costs and 7.5% 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, computed for ADB loan at 1% per annum during the grace period and 1.5% per annum thereafter.

Source: Asian Development Bank estimates.

16. The government has requested a loan in various currencies equivalent to SDR20.305 million and a grant not exceeding \$18.96 million from ADB's Special Funds resources to help finance the project.¹² The loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions set forth in the draft loan and project agreements.

17. The financing plan is in Table 2.

¹¹ ADB financing includes part of tax and duties of about \$0.9 million. The estimated expenditure is not excessive (1.8% of ADB financing amount) and will apply only to ADB-financed expenditures.

¹² A country's eligibility for Asian Development Fund grants under the revised grant framework is determined by its risk of debt distress. The latest debt sustainability analysis determined that Bhutan had a moderate risk of debt distress and was therefore eligible to receive 50% of its Asian Development Fund allocation as grants.

Table 2: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Special Funds resources (loan)	31.39	45.5
Special Funds resources (grant)	18.96	27.5
Government	18.65	27.0
Total	69.00	100.0

Source: Asian Development Bank estimates.

E. Implementation Arrangements

18. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual.

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	April 2013–June 2019		
Estimated completion date	30 June 2019		
Management			
(i) Oversight body	National Steering Committee Department of Public Accounts, MOF (chair) Department of Revenue and Customs, MOF; Department of Trade, Ministry of Economic Affairs; DOR and DES, Ministry of Works and Human Settlement; Phuentsholing Thromde (members)		
(ii) Executing agencies	DOR (for a new section of the Southern East-West Highway, Pasakha access road, eco-friendly transport promotion, and construction and maintenance capacity development) Phuentsholing Thromde (Phuentsholing Municipal Government) (for a bypass road, mini dry port, and land custom station)		
(iii) Implementation units	DOR, 6 staff; Phuentsholing Thromde, 6 staff		
Procurement	International competitive bidding	6 contracts	\$45.5 million
	National competitive bidding	1 contract	\$0.3 million
Procurement will be carried out in accordance with ADB's Procurement Guidelines (2013, as amended from time to time).			
Consulting services	Quality- and cost-based selection with full technical proposal and a 90:10 quality to cost proportion as the nature of the assignment requires priority consideration for quality.	2 contracts 1,028 person-months in total	\$6.4 million
	Recruitment of consulting services will be carried out in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time)		
Advance contracting	Civil works and consulting services		
Disbursement	Loan and grant proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2012, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, DES = Department of Engineering Services, DOR = Department of Roads, MOF = Ministry of Finance.

Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

19. **Engineering.** The engineering design is based on site condition surveys and field investigations. It will optimize the construction works for economy and use proven technology and standard materials compatible with local conditions. Measures to support road safety and climate resilience have been incorporated in the design for the new section of the SEWH.¹³

20. **Operation and maintenance.** Four agencies will be involved in the operation and maintenance (O&M) of the infrastructure to be constructed under the project: the Department of Trade for the mini dry port, the Department of Revenue and Customs for the mini dry port and the Alay land custom station, Phuentsholing Thromde for the bypass road, and the Department of Roads (DOR) for the new section of the SEWH and the Pasakha access road. Efficient custom clearance processes are being supported by an ADB-funded project (footnote 7) and associated technical assistance projects (footnote 8) that will build institutional capacity to promote sustainability. To ensure that the road component remains sustainable, consultants recruited under the project will help develop the skills and ability of the DOR and Phuentsholing Thromde to manage the road assets and oversee the road safety and climate-resilience aspects of the project throughout construction. This will provide on-the-job training to a sizable number of government officials and thereby institutionalize the skills required in this areas.

B. Economic and Financial

21. The economic assessment was carried out in accordance with ADB's Guidelines for the Economic Analysis of Projects.¹⁴ By constructing a new section of the SEWH and the Pasakha access road, the project will reduce the travel time and vehicle operating costs of road users. Construction of the mini dry port, land custom station, and the bypass road, in conjunction with the opening of the Pasakha access road, will ease the traffic in Phuentsholing. The economic internal rate of return for the project investment is estimated at 15.4%. Sensitivity analysis showed that the project would remain economically viable in the event of a 10% increase in cost, a 10% reduction in benefits, or a 1-year delay in project completion. In the unlikely event that all three of these risks occurred together, the economic internal rate of return would be 11.7%, close to the 12.0% benchmark.

22. The financial sustainability of the O&M was assessed for each subproject. This showed that expected revenues from the mini dry port will cover the O&M cost. Incremental recurrent costs associated with the new section of the SEWH and the Pasakha access road to be built under the project were estimated at 3.0% of the DOR's current O&M budget and at 0.2% of the overall DOR budget on an annual basis. Recurrent costs associated with the bypass road to be constructed in Phuentsholing were estimated to be 2% of its current budget. Since Bhutan's government has committed to provide adequate funding for the O&M of the project roads, it is reasonable to expect that funds will be available to meet these costs.

C. Governance

23. **Institutional capacity.** The DOR will be the executing agency for the project's SEWH and Pasakha access road components, and Phuentsholing Thromde will be the executing

¹³ ADB. 2013. *Enabling Climate Change Responses in Asia and the Pacific—Building Resilience to Disaster and Climate Change Impacts (Subproject 2): Climate Change Vulnerability Assessment and Adaptations*. Manila.

¹⁴ ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

agency for establishing the mini dry port, the Alay land custom station, and the bypass road in Phuentsholing City. The DOR has experience in ADB-financed projects as an executing agency and an implementing agency. Phuentsholing Thromde has not yet been an executing agency for an ADB-financed project. However, the Phuentsholing Thromde's technical staff are engineers who have been assigned to it by the Department of Engineering Services, which has been the executing agency for infrastructure improvement projects financed by ADB.

24. **Financial management.** An assessment of the accounting systems, financial reporting, and external audit procedures of the DOR and Phuentsholing Thromde concluded that their financial management systems are satisfactory. The accounting and reporting process in finance and accounting manuals developed by the Ministry of Finance will be followed. The DOR and Phuentsholing Thromde use the government's standardized budget and accounting system, which has been computerized since 2003, produces satisfactory financial reports, and ensures availability of data. Each project implementation unit of the DOR and Phuentsholing Thromde will include a suitably qualified accountant. Each will maintain its separate project records and accounts to identify financing resources received and expenditures made for the project and ensure an adequate audit trail. The Royal Audit Authority of Bhutan, an independent and nonpartisan institution authorized to perform audits on government agencies, will audit project financial statements annually in accordance with international auditing standards.

25. **Procurement.** The overall risk related to the procurement capacity of the DOR and Phuentsholing Thromde has been assessed as low. Both have implemented ADB-funded projects and have procured works and consulting services under ADB guidelines. The Public Procurement Policy Division under the Ministry of Finance oversees public procurement under the government's Procurement Rules and Regulations (2009). The division is mandated to recommend reforms of the procurement policy or laws to the government, prepare standard bidding documents, issue technical guidelines and manuals on procurement, liaise with government organizations to develop human resources and professionalism in procurement. The regulations recognize that the rules and procedures on procurement of development partners may prevail in projects funded by development partners.

26. **Anticorruption.** The Anti-Corruption Commission is empowered under the Anti-Corruption Act of Bhutan of 2006 with the authority to prevent and combat corruption and to investigate acts of corruption. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government, the DOR, and Phuentsholing Thromde. The specific policy requirements and supplementary measures are described in the project administration manual.¹⁵

D. Poverty and Social

27. **Poverty reduction and social impact.** Remoteness is the major cause of poverty in Bhutan. The SEWH subproject will have direct benefits for the local population in the remote parts of the project area, including the poor and such vulnerable groups as households headed by women. The SEWH subproject will provide improved access for five villages that are currently not connected by motorable roads. It is expected to improve the quality of life and bring new economic opportunities by giving these villages (i) easier access to external markets, (ii) increased retailing opportunities, and (iii) easier access to health care centers and education facilities. People in the immediate and wider project influence area are expected to increase their incomes through sales of local produce at the roadside of the SEWH. The subproject will thereby significantly reduce poverty and improve livelihoods in the two beneficiary districts of

¹⁵ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Pema Gatshel and Samdrup Jongkhar.¹⁶

28. **Gender.** A majority of the women respondents in a survey undertaken during the project preparation felt that the SEWH subproject would benefit them because it will enable them to transport their yield to market and increase their incomes. The survey revealed no significant discrimination against women in Bhutan and indicated that rural women are becoming more influential in household decision making. It also revealed that women are frequently taking on additional work to ensure a comfortable lifestyle for their families. Women may also benefit more than men from the increased access to schools that the new road will provide. Women-only facilities will be provided at the mini dry port subproject. The SEWH subproject will be built with soft shoulders to provide walkways for pedestrians and small rest areas and platforms for selling local produce at suitable locations after consulting with the local communities. At least 50% of those employed by the DOR for post-construction maintenance of the highway will be women. The capacity building for the DOR and Phuentsholing Thromde will help mainstream gender-sensitive design in future projects.

29. **HIV/AIDS, human trafficking, and labor.** The National Sexually Transmitted Disease/AIDS Control Program is a multisector initiative involving all sections of society in Bhutan and has been operating since 1988, assisted by bilateral and multilateral development agencies and the United Nations. The government has been successful in carrying out awareness campaigns and providing free health care to minimize the spread of HIV/AIDS in Bhutan. The social assessments undertaken in the project area did reveal significant risks of HIV/AIDS and human trafficking. However, the DOR will conduct sessions in the five newly connected project villages to raise awareness of HIV/AIDS, human trafficking, and health and hygiene matters. The DOR and Phuentsholing Thromde will also ensure that all civil works contractors disseminate information to their workers at project sites on the risks of sexually transmitted infections. Contracts for all subprojects will include specific clauses making this a requirement, and compliance will be strictly monitored during implementation by the DOR and Phuentsholing Thromde, with the support of construction supervision consultants. The bidding documents contain provisions requiring that the contractors ensure that all the civil works comply with core labor standards, including those banning child labor; bonded labor; work discrimination based on gender, race, and ethnicity; and restrictions on freedom of association and collective bargaining.

E. Safeguards

30. **Involuntary resettlement and indigenous peoples.** The project is classified under ADB's Safeguard Policy Statement (2009) as category A for involuntary resettlement. The project was designed to minimize land acquisition and involuntary resettlement. Two resettlement plans and one land acquisition due diligence report have been prepared in accordance with the Safeguard Policy Statement and Bhutan's Government Land Act 1979 (amended in 2007). A total of 25.73 hectare of private land will be required for the project, of which 25.42 hectare will be acquired for the SEWH subproject and 0.01 hectare for the Pasakha access road, using the land-for-land or cash-for-land compensation methods. Another 0.3 hectare will be donated voluntarily for the bypass subproject. A total of 206 households and 12 structures will be affected. Eight households will be displaced physically, and 206 households will experience economic displacement. Of the latter, 50 households will lose 10% or more of their productive assets. The displaced households will be entitled to compensation for the loss of land and structures at replacement cost or to a substitute plot of similar quality, as well as

¹⁶ Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).

shifting costs and other income restoration assistance. Resettlement is estimated to cost about \$0.6 million. Both the DOR and Phuentsholing Thromde are experienced in land acquisition and land pooling and are currently implementing ADB-financed projects. The preparatory study did not identify any impact on indigenous peoples, and the project is category C in this regard.

31. **Environment.** The project is classified as category A for the environment. The new section of the SEWH is category A, since 50.0 km of its overall 68.3 km of new road will be built through dense forests and critical wildlife habitat areas. The subprojects to construct the Pasakha access road, the bypass road, the land customs station, and the mini dry port are category B. The activities for the eco-friendly transport promotion output, which involve only design and procurement activities, are classified as category C. An environmental impact assessment (EIA) has been prepared for the new section of the SEWH. The draft EIA was disclosed on the ADB website on 2 December 2013. Three initial environmental examination reports have been prepared for the other four subprojects and disclosed on the ADB website. These assessment reports were prepared in accordance with the Safeguard Policy Statement requirements. Significant environmental issues are expected to arise from the building of the new stretch of the SEWH: the construction will pass through elephant corridors, involve the removal of a large number of trees and vegetation, increase the risks of poaching and illegal trade of wildlife by improving access to these areas, and present long-term issues of noise and pollution. The detailed design adjusted the road alignment to avoid passing through some critical wildlife habitat areas. In sections where this was unavoidable, measures and recommended mitigation actions have been incorporated in the engineering designs to facilitate elephant movement across the road and ensure no net loss of biodiversity. Measures to control the illegal trade of wildlife products in the project area are also included in the environmental management plan. Other typical environmental impacts of road construction are air, dust, and noise pollution; soil erosion and siltation; the generation of construction waste and waste from construction camps; and occupational health and safety issues. Steps to mitigate these impacts have been included in the environmental management plan to be attached to the bidding documents. Meaningful consultations were held with persons who will be affected during various stages of the project, as well as with such other key stakeholders as the Wildlife Conservation Division of the Department of Forests, the local governments in the project area, and the National Environment Commission. Concerns of affected persons and stakeholders will be addressed during project implementation through a grievance redress mechanism proposed in the EIA.

32. The environmental capacity of the DOR and Phuentsholing Thromde will be strengthened during project implementation. An environmental focal person will be appointed in the project implementation unit of each subproject. These focal persons will be supported by an environmental specialist engaged as part of the project consulting services. A wildlife specialist will be appointed to act as a technical advisor and external monitor for the biodiversity enhancement activities of the SEWH subproject. The project will further enhance the environmental capacity of the DOR and Phuentsholing Thromde through the procurement of equipment and training in collecting air, noise, and water quality data. Technical guidance and on-the-job training will be provided by the environmental specialist and wildlife specialist or ADB during project implementation, as necessary.

F. Risks and Mitigating Measures

33. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.¹⁷ The integrated benefits and impacts are

¹⁷ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

expected to outweigh the costs.

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Coordination between the relevant ministries and project executing agencies could be inadequate.	A steering committee representing all the project-related government institutions will be formed for project implementation, and regular meetings will be held twice a year.
Project implementation could be delayed.	Detailed designs for the national highway section and the Pasakha access road subprojects have been completed, and advance contracting is being conducted. Recruitment of design consultants is ongoing for the other subprojects.
The project outcome and assets may not be sustained.	A consultant to be recruited by the Department of Roads will provide continuous training to the staff on important aspects of road safety, road asset management, and climate-resilience maintenance.

Source: Asian Development Bank.

IV. ASSURANCES

34. The government, the DOR, and Phuentsholing Thromde 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 project administration manual and financing documents.

35. The government, DOR, and Phuentsholing Thromde have agreed with ADB on certain covenants for the project, which are set forth in the financing agreement and project agreement.

V. RECOMMENDATION

36. I am satisfied that the proposed loan and grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve

- (i) the loan in various currencies equivalent to SDR20,305,000 to the Kingdom of Bhutan for the South Asia Subregional Economic Cooperation Road Connectivity Project, from ADB's Special Funds resources, with an interest charge at the rate of 1.0% per annum during the grace period and 1.5% per annum thereafter; for a term of 32 years, including a grace period of 8 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft financing agreement presented to the Board; and
- (ii) the grant not exceeding \$18,960,000 to the Kingdom of Bhutan, from ADB's Special Funds resources, for the South Asia Subregional Economic Cooperation Road Connectivity Project, on terms and conditions that are substantially in accordance with those set forth in the draft financing and project agreements presented to the Board.

Bindu N. Lohani
Vice-President

9 July 2014

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Cross-border movement of goods between Bhutan and its neighboring countries improved.</p>	<p>By 2022:</p> <p>Cross-border cargo volume facilitated reaches 6.0 billion tons per year from 4.6 billion tons in 2012</p> <p>Trade volume in goods increases by 20% from 2012 level of \$1.66 billion (\$0.59 billion in exports and \$1.07 billion in imports)</p>	<p>For all indicators:</p> <p>Department of Revenue and Customs statistics</p>	<p>Assumptions</p> <p>Free trade agreement with India continues.</p> <p>Reform measures promoted under the SASEC Trade Facilitation Program are implemented successfully and on a timely basis.</p>
<p>Outcome</p> <p>Road connectivity and transport efficiency in the project areas in Bhutan improved</p>	<p>By 2019:</p> <p>Average travel time between Nganglam and Dewathang reduced by 80% from 12 hours in 2013</p> <p>Average travel time to Pasakha industrial area from Jaigaon junction reduced by 90% from 100 minutes in 2013</p> <p>Average daily vehicle-kilometers in the first full year of operation reaches 380 for new Pasakha access road, 30,000 for new Nganglam–Dewathang road section, and 3,000 for new Phuentsholing bypass road</p> <p>Annual fatality rate along the project roads remains less than 5 per 10,000 vehicles.</p> <p>All residents in 5 newly connected villages become aware of the issues of HIV/AIDS, human trafficking, and health and hygiene standards.</p>	<p>For all indicators:</p> <p>Post-implementation measurement by DOR and Phuentsholing Thromde</p>	<p>Assumption</p> <p>The government continues to provide adequate funds for routine and periodic maintenance for existing roads.</p> <p>Risk</p> <p>Access road on India's side of the border to connect to Pasakha will not be constructed in time.</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Outputs	By 2019:	For all indicators:	Assumption
1. Roads built and trade infrastructure established	68.3 km of the Southern East–West Highway between Nganglam and Dewathang and about 1.2 km of access road between Pasakha industrial estate and India constructed A mini dry port constructed in Phuentsholing and land custom station at Alay established About 2.7 km of bypass road constructed in Phuentsholing City	Monitoring reports and PCR by DOR and Phuentsholing Thromde.	The government releases counterpart funds on time.
2. Road construction and maintenance capacity improved	By 2019: Manuals and tool kits for road safety, road asset management, and climate-resilient design and maintenance of roads developed and adopted Road maintenance plans and budgets prepared, using the road asset management system Number of DOR staff members with certified skills in road safety, road asset management, and climate-resilient design and maintenance of roads reaches 30 (Baseline: fewer than 5 in 2013)	For all indicators: Monitoring reports and PCR by DOR Pre- and post-evaluation of training participants by DOR	
3. Eco-friendly transport promoted	By 2015: Pilot scheme for promotion of clean-energy vehicles completed (Baseline: none)	Midterm report on 11th five-year plan by the government	

Activities with Milestones	Inputs
<p>1. Roads built and trade infrastructure established</p> <p>1.1. Nganglam–Dewathang section of Southern East–West Highway and Pasakha access road constructed</p> <p>1.1.1 Mobilize supervision and capacity development consultant by October 2014</p> <p>1.1.2 Award civil works contract by December 2014</p> <p>1.1.3 Commence construction by January 2015</p> <p>1.1.4 Conduct awareness campaigns on HIV/AIDS, human trafficking, and health and hygiene standards in five newly connected villages at least twice by December 2018.</p> <p>1.2. Mini dry port in Phuentsholing and land custom station at Alay constructed</p> <p>1.2.1 Complete bidding documents by April 2015</p> <p>1.2.2 Award work contract for mini dry port by December 2015</p> <p>1.2.3 Commence construction of mini dry port by January 2016</p> <p>1.2.4 Award work contract for Alay land custom station by December 2016</p> <p>1.2.5 Commence construction of land custom station at Alay by January 2017</p>	<p>Loan ADB: \$31.39 million</p> <p>Grant ADB: \$18.96 million</p> <p>Government: \$18.65 million</p>

<p>1.3. Bypass road in Phuentsholing City constructed</p> <p>1.3.1 Mobilize design and supervision consultant by October 2014</p> <p>1.3.2 Complete detailed design and bidding documents by August 2015</p> <p>1.3.3 Award civil works contract by May 2016</p> <p>1.3.4 Commence civil works by June 2016</p> <p>2. Road construction and maintenance capacity improved</p> <p>2.1 Develop manuals and tool kits for road safety, road asset management, and climate-resilient design and maintenance of roads by December 2016.</p> <p>2.2 Start using road asset management system for maintenance planning and budgeting by December 2017.</p> <p>2.3 Conduct training programs on road safety, road asset management, and climate-resilient design and maintenance for at least 50 participants from DOR by June 2018.</p> <p>3. Eco-friendly transport promoted</p> <p>3.1 Finalize the implementation plan and design of the pilot scheme for clean-energy vehicles promotion by December 2014</p> <p>3.2 Start a pilot scheme for clean-energy vehicles promotion by July 2015.</p>	
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ADB = Asian Development Bank, DOR = Department of Roads, km = kilometer, PCR = project completion report, SASEC = South Asia Subregional Economic Cooperation.
Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://adb.org/Documents/RRPs/?id=39225-034-3>

1. Financing Agreement
2. Project Agreement
3. Sector Assessment (Summary): Road Transport
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Economic and Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Environmental Impact Assessment: Nganglam–Dewathang Road
11. Initial Environmental Examination: Pasakha Access Road
12. Initial Environmental Examination: Phuentsholing Bypass Road
13. Initial Environmental Examination: Phuentsholing Mini Dry Port
14. Resettlement Plan: Nganglam–Dewathang Road
15. Resettlement Plan: Phuentsholing Bypass Road
16. Risk Assessment and Risk Management Plan

Supplementary Documents

17. Due Diligence Report on Resettlement Activities for Phuentsholing Mini Dry Port
18. Climate Change: Project Adaptation Action Report
19. Cash Flow Streams for Project Components