

# Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 12-Jul-2019 | Report No: PIDC27068



# **BASIC INFORMATION**

# A. Basic Project Data

Country Nepal	Project ID P170409	Parent Project ID (if any)	Project Name Nepal Strategic Road Connectivity and Trade Improvement Project (P170409)
Region SOUTH ASIA	Estimated Appraisal Date Apr 24, 2020	Estimated Board Date May 20, 2020	Practice Area (Lead) Transport
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance	Implementing Agency Ministry of Physical Infrastructure and Transport, Ministry of Industry, Commerce and Supplies	

**Proposed Development Objective(s)** 

To improve transport efficiency on selected project corridors and strengthen institutional capacity to improve connectivity and facilitate trade.

# **PROJECT FINANCING DATA (US\$, Millions)**

#### SUMMARY

Total Project Cost	650.00
Total Financing	650.00
of which IBRD/IDA	525.00
Financing Gap	0.00

# DETAILS

#### World Bank Group Financing

International Development Association (IDA)	525.00
IDA Credit	525.00
Non-World Bank Group Financing	
Counterpart Funding	125.00



Borrower/Recipient	125.00	
Environmental and Social Risk Classification	Concept Review Decision	
High	Track II-The review did authorize the preparation to	
	continue	

Other Decision (as needed)

# **B. Introduction and Context**

**Country Context** 

1. Over the past decade, Nepal's economy has performed reasonably well. Real growth domestic product (GDP) growth averaged 4.9 percent (at market prices) over 2010-19. Although declining as a share in the economy, agriculture continues to play a large role, contributing over 29 percent of GDP in FY2019. The service sector has grown in importance, accounting for 46 percent of GDP in FY2019. Industry and manufacturing have grown more slowly and their relative share in the economy has averaged 14 percent of GDP over the past decade. Similarly, exports continue to struggle, while imports are fueled by remittances. Remittances have remained stable, with its share as a percentage of GDP averaging 24.5 percent, supported by an increased transfer of funds through formal channels in recent years. Inflation has been in single digits for most of the past decade, with the peg of the Nepalese rupee to the Indian rupee providing a nominal anchor. Fiscal balances remained sustainable owing to strong revenue growth and modest spending. However, the federal government is now sharing revenue and transferring grants to provincial and local governments, as part of the recent reforms linked to federalism. The poverty headcount ratio (at the international \$1.90 / day line) is estimated to have fallen to 10 percent in 2017 (from 15 percent in 2010). At a higher line of \$3.20 a day, poverty is estimated at 43 percent in 2017, down from 51 percent in 2011, indicating widespread vulnerability. According to the 2018 Multidimension Poverty Index (MPI), about 29 percent of Nepal's population is multidimensionally poor. However, these gains remain vulnerable to shocks and setbacks, as evidenced by the 2015 earthquakes which were followed by trade disruptions resulting, in GDP growth of 0.6 percent in 2016, the lowest in 14 years.

2. Data released by the Central Bureau of Statistics (consisting of a revision of the FY2018 growth rate coupled with the preliminary estimate for FY2019), show that growth has been strong. Good monsoons together with increased commercialization of agriculture, the availability of fertilizers and seeds, and irrigation facilities helped raise production of paddy, maize, and wheat to historic highs and increased the contribution of the agriculture sector to GDP growth from 0.9 percentage points in FY2018 to 1.6 percentage points in FY2019. As a result, GDP growth increased from 6.7 percent in FY2018 to the estimated 7.1 percent in FY2019. Government revenue continued to perform well but spending also picked up significantly in FY2018 and FY2019 compared to previous years. Nevertheless, ambitious expenditure targets envisioned in the budget have not been met and the quality of spending has not improved with 60 percent of the capital spending occurring in the last quarter of FY2018. Federalism has also exacerbated the challenges linked to weak budget



execution; and spending pressures have increased in FY2018 and FY2019 due to federal transfers to provincial and local governments.

3. Updated inflation estimates show it slowed to 3.5 percent year on year (y/y) in October 2018 but increased to 5.3 percent (y/y) in May 2019 owing to a sharp uptick in vegetable prices. Meanwhile, credit growth slowed to 21.5 percent (y/y) in May 2019 compared to its peak of 25.2 percent in October 2018. However, it remains higher than the growth in deposits, causing the credit to core capital plus deposit ratio to breach the regulatory limit of 80 percent. On the external side, the cumulative effect of a sharp trade balance deterioration and a slow growth of remittances is putting significant pressure on the current account.

4. **A new government, backed by an unprecedented majority in Parliament, which took office on February 15, 2018 has recently completed one year.** This follows successful elections for all three tiers (local, state and federal) of the new state architecture defined by the 2015 constitution, marking a protracted-but-successful conclusion of a political transition that began with the signing of the Comprehensive Peace Agreement in November 2006. State governments largely mirror the coalition at the center. At the sub-national level, funds, functions and functionaries hitherto managed by the central, district and village authorities are moving to the seven new provinces and 753 local governments for which new legislation, institutions and administrative procedures are being formalized as constitutionally prescribed. Meanwhile, the central level authority is being streamlined with a focus on national policies and oversight. This profound level of state restructuring is expected to result in improved outreach and service delivery in the medium term but is likely to take time before becoming fully operational.

# **Regional Context**

5. The South Asia Region is commonly referred to as the least integrated region of the world, but there is significant potential from improved integration, particularly in the eastern sub-region comprising Bangladesh, Bhutan, India and Nepal (BBIN countries). Gravity models show that total goods trade within South Asia could be worth US\$67 billion rather than the actual trade of only US\$23 billion. While India and Nepal trade shows overtrading of more than \$1 billion, further disaggregation between exports and imports reveals that Nepal under-exports to India.<sup>1</sup> The large gaps between actual and potential trade have occurred because countries in the region have erected barriers against each other. These include disproportionately high costs of transport and trade within the region reflecting poor transportation and logistics infrastructure, inefficient trade facilitation, and high tariffs, para-tariffs and complicated and nontransparent nontariff measures (NTMs). High levels of informal trade between Nepal and India, which are estimated as large as the formal trade between the two countries, are also a reflection of trade barriers, including inappropriate infrastructure and a lack of efficient land border crossing procedures.

6. However, growing recognition of the benefits of economic integration has helped build up momentum for closer cooperation, especially among BBIN countries. In 2015, the four countries entered into a Motor Vehicle Agreement (MVA) which is intended to ease restrictions on cross-border road transit for vehicles, passengers and cargo. While the governments are still working out<sup>2</sup> how to implement the MVA, it provides a framework for action whereby approved vehicles would be allowed to enter territories within the BBIN with the goal of reducing transport costs and foster the development of multimodal transport and transit facilities that in turn is expected to promote greater intra-regional trade.

<sup>1</sup> Kathuria, S. 2018. A Glass Half Full: The Promise of Regional Integration in South Asia. World Bank. Washington, DC; World Bank

<sup>&</sup>lt;sup>2</sup> The MVA has been ratified by Bangladesh, India, and Nepal, but was rejected by the Bhutan's upper house (National Council).



Other notable examples of regional cooperation initiatives include Bangladesh granting Nepal, Bhutan, and India access to the ports of Chittagong and Mongla, and Nepal and India agreeing to develop inland waterways from Indian ports to the Nepali border. Nepal is also seeking to improve connectivity and trade with China. As part of the Transit and Transport Agreement (TTA), Nepal has been granted access to four Chinese seaports<sup>3</sup> and three dry ports<sup>4</sup>, thereby reducing its dependence on Indian ports for third country trade.

Sectoral and Institutional Context

7. **Poor transport connectivity and trade facilitation are two notable reasons for Nepal's low competitiveness, a key factor limiting its growth.** In the recent league tables of *Ease of Doing Business, Trading Across Borders and Logistics Performance Index (LPI),* Nepal is ranked well behind most of its South Asian Neighbours (see Table 1 below). In the case of LPI, Nepal not only ranks at 114 out of 167 countries, but also at 20 even among the 33 land-locked States. As these rankings underscore, infrastructure – one of the sub-elements of the LPI, wherein the country performed with an even lower rank of 123 – and trading across borders are two significant factors limiting Nepal in pursuit of its strategy pivoted on private sector-led growth and competitiveness. Both transport connectivity and trade facilitation sub-sectors are, in turn, plagued by a variety of structural constraints, inadequacies and inefficiencies, as detailed below.

Logistics Performance Index – 2018			Ease of Doing	Trading Across	
Rank	Score	Infrastructure	Customs	Business - 2019	Borders - 2019
100	2.58	2.39	2.30	176	176
149	2.17	1.91	2.14	81	28
44	3.18	2.91	2.96	77	80
86	2.67	2.72	2.72	139	155
114	2.51	2.19	2.29	110	82
94	2.6	2.49	2.58	100	93
	Logis Rank 100 149 44 86 114 94	Logistics Perform           Rank         Score           100         2.58           149         2.17           44         3.18           86         2.67           114         2.51           94         2.61	Logistics Performance Index – 20           Rank         Score         Infrastructure           100         2.58         2.39           149         2.17         1.91           44         3.18         2.91           86         2.67         2.72           114         2.51         2.19           94         2.64         2.49	Logistics Performance Index – 2014           Rank         Score         Infrastructure         Customs           100         2.58         2.39         2.30           149         2.17         1.91         2.14           44         3.18         2.91         2.96           86         2.67         2.72         2.72           114         2.51         2.19         2.29           94         2.6         2.49         2.58	Logistics Performance Index – 201         Ease of Doing Business - 2019           Rank         Score         Infrastructure         Custom         Business - 2019           100         2.58         2.39         2.30         1076           149         2.17         1.91         2.14         881           44         3.18         2.91         2.96         777           86         2.67         2.72         2.72         139           114         2.51         2.19         2.29         1100           94         2.66         2.49         2.58         100

 Table 1: Nepal in comparison with South Asian Neighbours

Source: https://www.sasec.asia/index.php?page=nepal

# **Transport Connectivity**

8. **Moving goods and people** <u>within the borders</u> of Nepal is a complex endeavour mainly because of its unique topography. The terrain raises sharply from a low of 59 meters in tropical Terai (plains) region in the south to over 7,000 meters in Himal (mountain) region in the north, within a span of 150-250 km. It is also divided by three major river systems, from east to west, viz., Koshi, Gandaki/Narayani and Karnali. Consequently, providing *transport connectivity* is a challenging and high cost endeavor, with the added increase in vulnerability to climate risks like floods and landslides.

9. Within Nepal's transport system, the Strategic Road Network (SRN) is the backbone for the physical and economic integration of the country and with its neighbours. Besides carrying majority of passengers and goods, it enables year-round administrative, political and social connectivity throughout Nepal, and also provides critical connections to India, the country's largest trading partner and principal conduit for third-country trade, and China.<sup>5</sup> The

<sup>&</sup>lt;sup>3</sup> Tianjin, Shenzhen, Lianyungang and Zhanjiang.

<sup>&</sup>lt;sup>4</sup> Lanzhou, Lhasa and Xigatse.

<sup>&</sup>lt;sup>5</sup> The other major part of the road system – the Local Road Network (LRN, 58,000 km) – provides essential rural access. In addition, main trails, tracks and suspension bridges continue to be important elements in supporting mobility in the country. Several villages,

SRN, featuring eight major north-south and three east-west corridors, assumes central role in reducing cost of logistics (including cost of imports and exports) and holds significant potential for providing direct stimulus for growth and creating jobs. The principal responsibility for the development and management of the SRN is vested with the Department of Roads (DoR) under the aegis of the Ministry of Physical Infrastructure and Transport (MoPIT). The capital and Operation & Maintenance (O&M) expenditure related to the SRN is financed mostly from the national budget; a part of the maintenance needs is also met through the Road Board Nepal (RBN).<sup>6</sup> DoR manages the SRN through various divisions based in Kathmandu<sup>7</sup> and 34 Divisional Road Offices (DROs) maintaining field presence.

10. The condition of the SRN does not reflect the substantial increase in budget allocations to the Department of **Roads in the recent years.** The government spending on SRN increased at 61 percent compound annual growth rate (CAGR) between FY16-FY18, reaching up to \$663 mn in FY18. Yet,

- The SRN comprising 13,060 km of roads is in poor condition with an estimated 20% of it is in need of urgent repair. In a 2015 survey of 2,626 km of National Highways, only 8 percent of the roads were found to be 'good' condition as measured in terms of International Roughness Index (IRI); the condition of feeder roads is much worse with only 3 percent in 'good' condition.
- Only about half of the SRN is bituminous-paved and 16 percent is gravelled roads and maintenance is a formidable challenge; because of neglect, gravelled roads suffer excessive losses of gravel each year, everting them into earthen condition within 3-4 years. The remaining 31 percent are earthen roads that provide connectivity only in fair weather.<sup>8</sup> Also, it is noteworthy that a significant portion of the network remains notably underutilized only about 1/6<sup>th</sup> of the SRN has traffic levels of around 10,000 vehicles per day (vpd) and an estimated 42 percent of the network has less than 50 vpd underscoring the importance of optimizing the capacity expansion lock-in-step with the needs to maximize return on investment.<sup>9</sup>
- Capacity addition is lagging even among roads providing the pivotal north-south and east-west connectivity. For instance, out of the 29 highways that provide the principal north-south linkages, as many as 6 are having daily traffic volumes of over 15,000 PCUs indicating an urgent need for upgrading them to a 4-lane standard. Similarly, out of 27 highway-segments together constituting the East-West Highway, nearly 2/3rds from Kakarbhitta in the East to Butwal in the mid-west are having 10,000 or more PCUs/day, indicating the case for a higher-lane standard.<sup>10</sup>

11. **The paradox of increased government spending and the poor state of the existing SRN is attributable to several reasons.** To begin with, the increase in government spending is mostly channelled towards capital expenditures. During FY14-FY18, the capex on SRN increased at a CAGR of 40%, whereas the maintenance expenditure increased only at a CAGR of 13%.<sup>11</sup> Worse, the expenditure on maintenance, as a percentage of total expenditures on SRN, dropped from 16% in

especially in the hills and mountains, are linked to administrative centres and the national road system only via main foot trails and mule tracks, together estimated at 30,000+ km.

<sup>&</sup>lt;sup>6</sup> Funding of RBN mainly includes fuel levies, vehicle registration fees and tolls.

<sup>&</sup>lt;sup>7</sup> These include the Project Management Units/Divisions for implementing/coordinating external-aid Projects and a Bridge Branch with overall jurisdiction over bridge assets.

<sup>&</sup>lt;sup>8</sup> Source: Statistics of Local Road Network (SLRN), Department of Local Infrastructure and Agriculture Roads (DOLIDAR), 2016.

 <sup>&</sup>lt;sup>9</sup> Source: SSRN Traffic Count and Vehicle Classification for 2016/17, <u>http://ssrn.aviyaan.com/traffic\_controller</u>, Department of Roads.
 <sup>10</sup> Source: SSRN Traffic Count and Vehicle Classification for 2016/17, <u>http://ssrn.aviyaan.com/traffic\_controller</u>, Department of Roads.

<sup>&</sup>lt;sup>11</sup> Source: Discussions with the Department of Roads.



FY14 to 7% in FY18. According to an estimate, annual funding allocation for SRN maintenance in the last five years is, on an average, 60 percent short of the requirements. The capital expenditure, too, is not uniformly efficient or productive. Budget allocated for SRN is often not fully spent and a sizeable portion of the expenditure is directed towards roads prioritized based on non-economic factors, e.g., strategic or visionary aspirations, or spread thinly across various needs with little positive impact on reducing the time or costs of travel on a given section or corridor.<sup>12</sup> Even the projects that move from planning to procurement stage are often taken up as traditional item-rate contracts that are small and known to suffer from significant limitations, viz., (i) not easily amenable for harnessing economies of scale or new technologies; and (ii) offer little incentives for increased efficiency or cost reduction. *The maintenance expenditure, which is already meagre, also suffers from similar limitations.* It often leaves out sizeable portions of the network and is spent via small, annual contracts that are also administratively onerous. Although this problem was sought to be addressed through the laudable initiative of establishing the Roads Board Nepal (RBN) in 2002, the cashflows it is endowed with continued to remain significantly short of the requirements.

# 12. To improve SRN, Nepal should embrace a focused programmatic approach<sup>13</sup> as detailed below:

- (a) Identify high-priority corridors through prioritization and launch a program with a credible funding plan. Apply 80:20 principle to segregate the part(s) of network that is carrying bulk of the traffic (60 percent or more) and ensure that the O&M expenditure needs of this Core Network are fully funded and capital expenditures needs of it are given high priority;<sup>14</sup>
- (b) Adopt contracting structures that provide stronger incentives for pursuit of efficiency, reduce cost and time overruns and significantly enhance the implementation capacity of the Government;
- (c) Create sustainable funding, including through mobilization of additional revenues through tolling and earmarking of levies (e.g., cess on fuel); and
- (d) Establish suitable institutional mechanisms to retain exclusive focus on the Core Road Network and develop capacities to design, structure, finance and implement large complex and transformative projects such as, for example, Multi-Year Performance-based Contracts for maintenance of large parts of networks, tunnels, viaducts, etc.

13. **Road Safety:** According to official statistics, 2,541 road deaths were recorded in Nepal in fiscal year 2017-18 (40% of them less than 26 years old), which is very likely an underestimate as compared to the WHO estimate of 4,713 fatalities in 2015. The number of road fatalities in Nepal, where only 1 in every 10 individuals own a vehicle, remains disproportionately high compared to countries with much higher levels of motorization. Road traffic accident in Nepal result in an annual cost of 0.8% of GDP (WHO, 2015). In the context of the transport sector, where prior focus has been on increased connectivity and motorization has further contributed to the burden of road injuries as an externality of the economic growth in the region without adequately investment in safety.

14. Some of the notable achievements of the Bank support to the road safety agenda in Nepal included (i) comprehensive road safety audit of 736 km of national highways; (ii) installation of safety crash barrier in a total of 70 km

<sup>&</sup>lt;sup>12</sup> For example, in FY17, the government allocated \$1 mn for Karnali Corridor, with a balance investment requirement of \$37 mn, and \$9 mn for Kaligandaki Corridor, with a balance investment requirement of \$266 mn. At this rate of investment, these projects will take more than 25 years to complete.

<sup>&</sup>lt;sup>13</sup> Key recommendation from the Nepal Infrastructure Sector Assessment (InfraSAP), World Bank Group, 2019.

<sup>&</sup>lt;sup>14</sup> The same principle can be applied to screen the SRN for the burden of externalities like road injuries and GHG emissions. Typically for national networks, 20% of the network are responsible for 80% of the overall crash related deaths and serious injuries.



of critical sections; (iii) establishment of the National Road Safety Council (NRSC); (iv) inputs for the drafting of the new Road Safety Act and amendments to selected Acts; (v) development of the first web-based road accident database system in the country; and (vi) development of various standards, manuals, directives and guidelines. Currently, the Bank is providing capacity building and implementation support for the NRSC, with particular focus on institutional framework assessment and gap analysis, updating road safety action plan, preparatory work for operationalization of the (draft) Road Safety Act, and developing an organizational and business plan for NRSC.

15. *Climate Change:* The International Panel on Climate Change suggests that Himalayan regions like Nepal will experience significant changes in weather patterns due to climate change. There are high risks of extreme precipitation, flooding and landslides facing SRN infrastructure, especially during the monsoon seasons as witnessed recently. Maintenance and construction of transport infrastructure must always consider the possibility of landslides, slope failures, flooding and other hazards. Building disaster-resistant highway corridors is critical to minimize impact of disasters on social and economic activities, and after a disaster has occurred to ensure evacuation and access. However, there is a (i) clear lack of strategic land-use and investment planning to mitigate the climate change risk in Nepal; (ii) need to manage environmental challenges brought by industrialization, increased trade and urbanization (for example, air pollution in urban areas, waste management, deforestation and road construction in river basins and mountainous areas which can trigger landslides) to ensure growth is environmentally sustainable and does not compromise development goals; and (iii) lack of coordination and institutional capacity across relevant agencies to assess and prepare integrated plans for reducing climate and other environmental risks – exacerbated by the federalism context.

# **Trade Facilitation**

16. **Nepal suffers from the problems affecting most landlocked countries.** Located between China in the north and India in the east, west and the south, Nepal's trade competitiveness suffers from delays when passing through sea ports in neighboring countries, inefficiencies at land border crossings, and limitations on routes for transit cargo. Lack of efficient transit increases the costs of transportation and logistics, pushing up the prices of imported, essential, and nonessential consumer goods, as well as the prices of inputs. This constraint is compounded by the less-than-optimal environment for doing business within Nepal.

17. The Nepal Trade Integration Strategy of 2016 identifies trade facilitation as key to export growth and diversification. The Strategy highlights that in addition to inadequate transport connectivity, supply chain and regulatory bottlenecks hinder effective cross-border movement of goods, especially exports. This is particularly the case for agricultural products, where Nepal has great potential, which suffer from poor logistics and weak Sanitary and Phyto-Sanitary (SPS) management. This is validated by detailed surveys<sup>15</sup> among traders involved in Nepal-India trade which indicate that significant delays in trading stems from inadequacies in border infrastructure, cumbersome procedures, and complex certification requirements.

18. **Sharing an 1,800 km long border and 22 border points, India is Nepal's most important trading partner**. About 60 percent of Nepal's trade is going to or coming from India, which is also a major transit point for Nepal's third-country trade. The trade flows are dominated by imports. In fact, despite its proximity and deep economic relations with India, Nepal's exports to India is well below its potential. The Government of India is supporting Nepal in the development of cross-border rail links at Jogbani-Biratnagar and Jaynagar-Bardibas and the establishment of Integrated Check Posts (ICPs)

<sup>&</sup>lt;sup>15</sup> Kathuria, S. 2018. A Glass Half Full: The Promise of Regional Integration in South Asia. World Bank. Washington, DC; World Bank



at Birgunj, Biratnagar, Bhairahawa, and Nepalgunj. There are many other customs check posts in need of upgrading, some of which are on the Government's priority list<sup>16</sup>.

19. The advent of Federalism and the expected growth in export potential from different Provinces (especially the eastern provinces with vast agriculture potential) is expected to place greater demand on Nepal's trade related infrastructure on its southern border. This would require expanding the number of land customs stations and other facilities to clear goods, with adequate infrastructure, and efficient processes and procedures. Furthermore, well equipped internationally accredited laboratories with adequate technical capacity will be required. For example, currently there are no accredited laboratory facilities to conduct Pesticide Residue Analysis—a major issue in export markets. Without such capacity any consignment of goods from Nepal would need to be tested for pesticide residues in destination countries. Third, providing support for capacity building and training of staff involved in various parts of the value-chain, especially at the provincial levels, consistent with the new 3-tier government structure.

# Theory of Change

20. The proposed operation focuses on alleviating two key constraints to GoN's strategy of fostering private sectorled growth and competitiveness, viz., poor transport connectivity and sub-optimal trade facilitation, through improving transport efficiency on selected corridors and strengthen institutional capacity to improve connectivity and facilitate trade. The proposed investments in roads are aligned in way that would help Nepal harness economies of corridors by bridging critical gaps in two pivotal corridors providing north-south and east-west connectivity within the country and regional connectivity with India, China and Bangladesh and Bhutan (via Northeast India). These will be complementary to investments being made or planned across the border in India in enhancing the connectivity via road, rail and waterways, as well investments in border crossing infrastructure (e.g. ICP program). The Project shall also address the critical challenges plaguing the Strategic Road Network, in the form of variety of sub-optimal practices in key areas ranging from planning and allocation to contracting and implementation. This will be done through inter alia supporting strategic reorientation of expenditure towards priority areas such as periodic maintenance of the core elements of SRN and institutional strengthening in targeted areas. The investments related to trade facilitation will also be selected to achieve similar complement. The proposed interventions together are envisaged to reduce time and costs of transport and trade facilitation, increase safety and resilience of road improvements and enhance market access, as detailed below. Improving trade facilitation also provides opportunity to enhance road safety outcomes on the regional corridors.<sup>17</sup>

<sup>&</sup>lt;sup>16</sup> The Government has identified eight priority check posts that handle most international trade. These include Biratnagar, Birgunj, Bhairahawa, Krishnagar, Nepalgunj, and Mechi (Kakarbhitta).

<sup>&</sup>lt;sup>17</sup> Road safety initiatives on this corridor would mirror country strategic priorities and provide a practical pathway to scale-up and accelerate targeted interventions to achieve safety gains as well as broader regional integration objectives of improved freight productivity, de-carbonization and infrastructure asset protection.





# Rationale for Regional IDA

21. The proposed Project plays a significant role in improving Nepal's transport and trade connectivity with its neighbors India and China and also Bangladesh and Bhutan (via India). The proposed intervention on Nagdhunga-Naubise-Mugling (NNM) Road is aimed at improving 96 km out of the 270 km Kathmand-Birgunj corridor that is vital for trade between Nepal and India<sup>18</sup> and China (via Rasuwagadi, see Figure 1 below). In a similar vein the proposed improvement of Kamala-Dhalkebar-Pathlaiya (KDP) Road will complement the investments being made in the contiguous sections of the East-West Highway (also a part of Asian Highway No. 2) that connects Nepal to India and Bangladesh and Bhutan (via India).<sup>19</sup> For example, according to the South Asia Sub-regional Economic Cooperation (SASEC) Operational Plan 2016-2025, the Kathmandu-Kakarbhitta connection via East-West Highway will have potential synergies with Bangladesh-Dhaka-Chittagong corridor on the Bangladesh-side, with various possible industry links, viz. (i) textile exported from Bangladesh to Nepal for manufacturing of end-textile products; (ii) Nepal exports limestone to Bangladesh, where end product (cement) is manufactured; and (iii) Port access of Bangladesh to Nepal.

# Figure 2: Regional Connectivity Context of Proposed Interventions

 <sup>&</sup>lt;sup>18</sup> As it is part of Asian Highways No. 2 & 42, and the SAARC Corridors No. 2 (Kathmandu-Kolkata Corridor and a priority route for Bangladesh-Bhutan-India-Nepal Motor Vehicles Agreement (BBIN MVA) and No. 10 (Kathmandu-Bhairawa-Sonauli-Lucknow).
 <sup>19</sup> As part of SAARC Corridor No. 4 and a priority route for BBIN MVA.





22. The proposed project is part of the World Bank's Eastern Corridor Connectivity Program, which since 2012 has financed a continually evolving regional program, including the Nepal India Regional Trade and Transport Project (NIRTTP), to improve connectivity and trade in the BBIN countries. It meets the four regional IDA funding eligibility criteria:

- (i) The project involves three or more countries. The project is part of a broader coordinated regional effort to enhance cross-border connectivity among the four BBIN countries (links to SAARC corridors, Asian Highway, BBIN MVA priority corridors described above. The NNM road also connects to the Chinese border at Rasuwa; this road is being financed by the Government of China.
- (ii) The Project is expected to generate significant benefits that spill over country boundaries. The project along with ongoing regional WB projects as well as ADB's complementary SASEC program - is expected to reduce the time and cost of regional and international trade and benefit transporters, traders and consumers in BBIN countries.
- (iii) There is clear evidence of regional commitment. The four BBIN governments have agreed to develop strategic corridors that are important for intra-regional trade and the implementation of the MVA. The project Corridors have been identified as a priority corridor under the MVA. Further, as part of the TTA, China is committed to enhance connectivity with Nepal and is financing improvements to the road section from the Chinese border at Rasuwa (connects to NNM road).
- (iv) The Project provides a platform for policy harmonization. The Project leverages existing regional coordination mechanisms. These include: (i) Asian Highway Network, (ii) SASEC, (iii) BCIM-EC, (iv) BIMSTEC, (v) SAARC, and (vi) BBIN MVA, and bilateral fora to promote harmonization of transit measures.



Relationship to CPF

23. The Country Partnership Framework (CPF, 2019-23) seeks to pursue Private Sector-led Jobs and Growth, one among its three focus areas, through the twin objectives of increasing transport connectivity and improving trade. Specifically, the CPF envisages support for (i) regional transport connectivity and facilitating trade integration; and (ii) addressing persistent shortcoming in the SRN through strengthening planning and management of projects, improving the quality and resilience of infrastructure and enhancing implementation capacity. Increasing physical infrastructure including connectivity is also one of the priority areas of GoN's 14<sup>th</sup> Periodic Plan (2017-19). Furthermore, as the country has made a successful transition from a decade of conflict to a government with unprecedent majority, the sector is better positioned to aim – and achieve – fundamental sector reforms, more efficient institutional architecture and shift to a more sustainable and programmatic approach to network development & maintenance. Such a shift would help enhance Nepal's capacity to undertake large, complex and transformative projects such as, for example, major tunnels and viaducts, that have hitherto remained mostly elusive.

24. **The proposed operation would also be a logical next step in the Bank's development partnership in respective sub-sectors.** The DoR has considerable experience in designing and implementing large and complex projects with financing support from the Bank, Asian Development Bank (ADB) and Japan International Cooperation Agency (JICA). In partnership with the Bank, the DoR implemented both IPF and PforR instruments; the first PforR for improvement and maintenance of bridges on SRN was successfully completed and its sequel has become operational in FY19. The proposed operation aims to widen and deepen this engagement with DoR in the *Strategic Road Network* sub-sector, by making available the Bank's knowledge and expertise in ushering in more efficient contracting approaches and institutional strengthening to help DoR better plan and manage the SRN. In a similar vein, the proposed support in the area of trade facilitation complements the assistance made available as part of an earlier Project and the ongoing Nepal-India Regional Trade and Transport Project (NIRTTP), that is, border infrastructure at Birgunj and Bhairahawa, Inland Container Deport (ICD) at Kathmandu, Regional Plant Protection Lab, launch of Trade Information Portal, and the National Single Window.

25. **Development Partner Co-ordination.** The proposed road improvement works strongly complement the interventions being supported by ADB and JICA. For example, in the case of NNM Road, JICA is already supporting the construction of a tunnel on the Kathmandu-end and ADB is gearing for supporting expansion on the Mugling-end, towards Pokhara.<sup>20</sup> The works being proposed with the World Bank support will be viable independent of the works being supported by JICA and ADB. The KDP Road, on the other hand, is a part of the East-West Highway, wherein ADB is supporting similar expansion to 4-laning of the Kamala-Kanchanpur (KK, 110 km)and Lauki-Kakarbhitta (LK, 141 km) sections on the Eastern-side and Pathlaiya-Narayanghat (PN, 106 km) and Narayanghat-Butwal (NB, 110 km) sections on the Western-side, targeting completion of all of them by 2026. The Bank team held discussions and will be collaborating with them during preparation and implementation.

# C. Proposed Development Objective(s)

To improve transport efficiency on selected project corridors and strengthen institutional capacity to improve connectivity and facilitate trade.

Key Results (From PCN)

<sup>&</sup>lt;sup>20</sup> Pokhara, the largest city in Nepal in terms of area and the second largest in terms of population, is country's number one adventure and leisure destination.



26. The key indicators will include (a) achievement of resource efficiency in pilot sections, (b) piloting and demonstrating contracting structures that reduce time and cost overruns and more effectively address the negative externalities of road injuries and environmental impact; (c) stepping-up and/or realignment of expenditures on SRN in keeping with the objective prioritization; (d) enhancing institutional capacity of the DoR in comprehensive road asset management and other selected areas; (e) reducing clearance time at selected border crossings and enhancing market access for selected commodities; and (f) reduction in costs of certifying goods for export to specific markets.

# **D. Concept Description**

27. In line with the PDO, this operation is proposed to support the GoN's strategy of increasing competitiveness and growth through better transport connectivity and trade facilitation. The Project will support improvement of two selected road sections, one each in the pivotal north-south and east-west highway corridors that are providing critical linkages within the country and beyond via regional connectivity with India, China and further with Bhutan and Bangladesh (via India). The Project will also support *road sector reform* in terms of realignment of the public expenditure more towards core elements of the Strategic Road Network (SRN) and *institutional strengthening* of the Department of Roads (DoR) to enhance its capacities to better manage the SRN. In area of *trade facilitation*, the level and quality of border infrastructure will be improved in select locations in keeping with expected growth in trade volumes via those points, selected labs will be enhanced with equipment and/or accreditation to enhance market access for agricultural commodities. Specifically, the Project will support the GoN through the following three components.

- **Component 1: Road Improvement Works:** This component will support (a) Improvement of the existing Nagdhunga-Naubise-Mugling (NNM) Road (96 km on the pivotal north-south trade corridor connecting Kathmandu and Birgunj, plus construction of a new 2-lane bypass from Sisne Khola to Dharke (~12 km); and (b) Upgrading of the Kamala-Dhalkebar-Pathlaiya Road (KDP) Road of the East-West Highway from 2-lane to 4-lane. Through these works, the Project shall also pilot and demonstrate use of contracting approaches that are more effective in reducing time and cost overruns and with provisions for ensuring road maintenance as well as better management of climate change and road safety related issues and risks over a 6 to 8 year period after the construction phase. The component will also include consultancy services for design and supervision activities;
- Component 2: Sector Reform, Institutional Strengthening and Project Management: This component will support (a) realignment of the road sector expenditure to more fully meet the needs of the core elements of the SRN and expand the sector resource base through mobilization of additional revenues, through direct and/or indirect user charges; and (b) improving capacity of the Department of Roads to improve for better management of SRN with particular focus on the areas of Road Asset Management, Quality, Procurement, Design of Advanced Structures (like Tunnels and Bridges), and Management of Environmental & Social risks and impacts. The activities will be further discussed and refined during the project preparation and will complement and build on the efforts supported by IDA and other developing partners. The component will include support for DLIs aimed at encouraging better realignment of expenditures towards economic priorities, and financing for the project operation costs, goods, consultancy services, audits, monitoring and evaluation; and
- **Component 3: Trade Facilitation**: This component will support (a) investments to enhance trading and border infrastructure at selected locations; (b) equipping and accreditation of selected laboratories; and (c) training and capacity building. The component will also include consultancy services for design and supervision activities. The border facilities to be improved will be those along the border with India that are not already targeted for improvement through bilateral or other cooperation agreements. The facilities will be selected based on their potential to: (a) reduce time and transport cost of crossing the border; (b) facilitate small scale trade, especially



exports; (c) enhance customs revenues; and (d) limit the need for incidence of facilitation payments to expedite clearance. Improvements will encompass facilities for all agencies at the border, equipment and related capacity building.

Relevance of Proposed Road Improvement Works: NNM road is part of a vital regional trade corridor connecting 28. Kathmandu to India (via Birgunj and Bhairahawa border crossings) and China (via Rasuwa), that carries a substantive portion of the Country's trade (which, in turn, accounts for ~40% of GDP). According to the latest feasibility study, the current traffic levels are such that the road should have been already upgraded to a 4-lane standard. The study also notes that a portion of this traffic may switch to the Fast Track Road (a 76 km new alignment connecting Kathmandu to Nijgarh) but even so, the residual traffic on NNM road would still demand its upgradation, to a 4-lane standard in the Nagdhunga-Galchi section (35 km) by 2022 and in the balance Galchi-Mugling section (60 km) by 2027. This is because this will continue to be the primary link from Kathmandu to mid-West and far-West regions of the country, with important destinations such as Pokhara, Butwal, Nepalgunj, etc. Accordingly, the current proposal aims to (a) improve the entire existing road to a standard two-lane configuration, with service lanes in inhabited areas, improving/replacing bridges and sharp curves and creating separate climbing lanes (for heavy vehicles) at select locations, and thereby ease congestion and improve road safety as much as possible; and (b) construct a 12 km 2-lane bypass in Naghunga-Galchi section fraught with particularly heavily traffic. KDP road, on the other hand, is part of the East-West Highway, the longest highway in Nepal running across Terai (low land region that lies south of the outer foothills of the Himalayas). The traffic volumes along the different segments of the East-West Highway vary significantly, from a low of ~4,000 PCUs to a high of ~18,000 PCUs (2016-17 survey). The KDP road falls among the sections with traffic of ~9,250 PCUs and with several bridges that are smaller than the existing carriage-way and are already proving to be a constraint. GoN considers East-West Highway as a strategic corridor and is firmly committed to upgrading the entire length to a standard 4-lane configuration. Towards this end, GoN have already tied-up funding with the Asian Development Bank for upgrading of other major sections such as Kanchanpur-Kamala (87 km, ~12,500 PCUs) and Narayanghat-Butwal (110 km, ~12,900 PCUs). In tandem with the completion of these expansions of the contiguous sections, and the completion of the Fast Track Road (from Kathmandu to Nijgarh, where it joins the KDP road), traffic on KDP road is expected to witness a significant ramp up.

29. **Climate Change:** For both NNM and KDP roads, it is important to ensure early collection of relevant climate and accident related data and use it as a basis for incorporation of appropriate road safety and climate resilient features in their designs. This is of special significance given that the NNM road is vulnerable to landslides and KDP road is vulnerable to flooding given it spans multiple rivers/streams (around 70 times in a length of 126 km), and both are highly prone to accidents. The Team is planning to carry out (a) a Climate and Disaster Risk Screening before the Project Concept Note (PCN) review meeting; and (b) the Greenhouse Gas (GHG) accounting (with Shadow Price of Carbon in economic analysis) as part of project appraisal. The Project will demonstrate the positive economic impact of greening of the NNM and KDP roads. For this, results from the *Nepal Hazard Mapping and Risk Assessment* (2018) and the ongoing *Environmental Sector Diagnostic (ESD)*, intended to identify gaps and green growth opportunities, will be utilized.

*30.* **Gender Analysis:** Improved transport connectivity can bring immense benefits to women and socially excluded. Direct benefits include decrease in travel time and increase in reliable, safe and dependable transport services. Indirect benefits include improved access to products and services, including social services such as health, education and other government services and participation in economic activities, including trade. For many women, trade has brought economic empowerment and higher wages. The project will undertake a gender assessment to identify gender differentials in strategic roads connectivity and trade improvement. The assessment will identify key gender gaps in the



sector and opportunities in relation to economic empowerment, access and mobility, jobs creation, safety and security including GBV issues, infrastructure design and key challenges to inform project interventions.

31. **Citizens' Engagement (CE):** The Citizens' Engagement mechanism was found to be limited to informal consultations with affected communities during the planning phase. At the construction phase CE was found to be done through Compensation Determination Committee at the district level, and Local Consultation Forums at the village level but was not done systematically. Interface with community was limited to land acquisition issues and not in the design and planning of project level activities. Proper integration of CE will be done in the SRCIP, including identification of beneficiary-focused indicator in the PD, development of a full-fledged stakeholder engagement plan (SEP), support to PIU in standardizing instruments of engaging community and affected groups along the project cycle, and strengthened documentation and reporting.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

Based on the primary review of detailed ESIA, RAP and VCDP for the NNM Road and the Environmental and Social Assessment and the Biodiversity Assessment for the Kakarbhitta-Pathlaiya Road Section of the East West Highway, the following key risks and impacts have been identified: (i) impact on biodiversity and wildlife mobility and transboundary migration; (ii) cutting of trees during construction especially in the new 12km bypass and along some sections of the KDP Road; (iii) health & safety of workers and communities along the road corridors where works will be carried out but also along transport routes of construction supplies, materials and equipment; (iv) exposure of population along the ROW and transport routes to noise, dust, vibrations and air pollution; (v) siltation and sedimentation of waterways close to the construction works; (vi) landslides resulting from works and vibrations; (vii) land acquisition along the ROW; (viii) physical and economic displacements along the ROW; (ix) increase risks of gender-based violence. In Nepal, most of the project workers are from outside the project areas because of most of its labor force have gone overseas to work. Thus labor influx and social issues that come with it maybe pose a serious risk to the project. During operation, E&S risks and impacts are largely positive with increased trade and economic activities and safer roads.

Based on the above risks and impacts, E&S risk is assessed to be high.

Note To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document.

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