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**The World Bank**  
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Report No: ICR00005789

IMPLEMENTATION COMPLETION AND RESULTS REPORT  
(IDA Grant No. H863-NP and IDA Credit No. 5273-NP)

ON A CREDIT

IN THE AMOUNT OF SDR 45.8 MILLION

(US\$69 MILLION EQUIVALENT)

AND A GRANT

IN THE AMOUNT OF SDR 19.9 MILLION

(US\$30 MILLION EQUIVALENT)

TO

NEPAL

FOR A

NEPAL-INDIA REGIONAL TRADE AND TRANSPORT PROJECT (NIRTP)

June 22, 2022

Transport Global Practice  
South Asia Region

## CURRENCY EQUIVALENTS

(Exchange Rate Effective May 31, 2022)

Currency Unit = Nepali Rupee  
(NPR)

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NPR 124.23 = US\$1

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US\$ 1.349699 = SDR 1

FISCAL YEAR

July 15 – July 14

Regional Vice President: Hartwig Schafer

Country Director: Faris H. Hadad-Zervos

Regional Director: Guangzhe Chen

Practice Manager: Shomik Raj Mehndiratta

Task Team Leader(s): Deepak Man Singh Shrestha, Jan Erik Nora

ICR Main Contributor: Antoine Avedis Kunth/ Deepak Man Singh Shrestha/  
Raja Iyer

## ABBREVIATIONS AND ACRONYMS

|         |   |            |   |
|---------|---|------------|---|
| ACCESS  | : Accelerating Transport and Trade Connectivity in Eastern South Asia | GBV        | : Gender Based Violence                               |
| ADB     | : Asian Development Bank  | GoI        | : Government of India                                 |
| ASYCUDA | : Automated System for Customs Data                                   | GoN        | : Government of Nepal                                 |
| BBIN    | : Bangladesh, Bhutan, India and Nepal                                 | GPS        | : Geo-positioning System                              |
| BOQ     | : Bill of Quantities  | GRM        | : Grievance Redress Mechanism                         |
| CAL     | : Central Agricultural Laboratory                                     | ICD        | : Inland Container Depot                              |
| CAS     | : Country Assistance Strategy   | ICP        | : Integrated Check Post                               |
| CFS     | : Container Freight station   | ICR        | : Implementation Completion Report                    |
| CNI     | : Confederation of Nepalese Industries                                | ICT        | : Information and Communication Technology            |
| COVID   | : Coronavirus Disease   | IDA        | : International Development Association               |
| CPF     | : Country Partnership Framework                                       | IFC        | : International Finance Corporation                   |
| CPS     | : Country Partnership Strategy  | INCO terms | : International Commercial Terms                      |
| CTD     | : Customs Transit Declaration   | IP         | : Inspection Panel                                    |
| DFTQC   | : Department of Food Technology and Quality Control                   | IRD        | : Inland Revenue Department                           |
| DoC     | : Department of Custom  | ISR        | : Implementation Status Report                        |
| DoLS    | : Department of Livestock Services                                    | IT         | : Information Technology                              |
| DoR     | : Department of Roads   | IUFR       | : Unaudited Interim Financial Reports                 |
| DoTM    | : Department of Transport Management                                  | KPI        | : Key Performance Indicator                           |
| DRM     | : Disaster Risk Management  | LDP        | : Local Area Development Plan                         |
| E&S     | : Environmental and Social  | LPCO       | : Licenses, Permits, Certificates and other Documents |
| EIRR    | : Economic Internal Rate of Return                                    | LPI        | : Logistics Performance Index                         |
| ESIA    | : Environmental and Social Impact Assessments                         | M&E        | : Monitoring and Evaluation                           |
| ESPM    | : Environmental and Social Management Plan                            | MIGA       | : Multilateral Investment Guarantee Agency            |
| FCGO    | : Financial Comptroller General Office                                | MIRR       | : Modified Internal Rate of Return                    |
| FHAN    | : Federation of Handicraft Associations of Nepal                      | MoALD      | : Ministry of Agriculture and Livestock Development   |
| FIDIC   | : International Federation of Consulting Engineers                    | MoF        | : Ministry of Finance                                 |
| FNCCI   | : Federation of Nepalese Chamber of Commerce and Industries           | MoHA       | : Ministry of Home Affairs                            |
| FY      | : Fiscal Year   | MoICS      | : Ministry of Industry, Commerce and Supplies         |
|         |   | MoPIT      | : Ministry of Physical Infrastructure and Transport   |
|         |   | MoU        | : Memorandum of Understanding                         |
|         |   | NCC        | : Nepal Chamber of Commerce                           |
|         |   | NIRTTP     | : Nepal India Regional Trade and Transport Project    |

|        |   |         |  |
|--------|---|---------|--|
| NITC   | : National Information Technology Center                    | UNDP    | : United Nations Development Program                                     |
| NITDB  | : Nepal Intermodal Transport Development Board              | UNESCAP | : United Nations Economic and Social Commission for Asia and the Pacific |
| NLTA   | : Nonlending Technical Assistance                           | VCDP    | : Vulnerable Community Development Plan                                  |
| N-M    | : Narayanghat-Mugling                                       | VFTC    | : Vehicle Fitness Testing Center   |
| NNSW   | : Nepal National Single Window                              | VTS     | : Vehicle Tracking System  |
| NPR    | : Nepali Rupee  | WB      | : World Bank   |
| NSW    | : National Single Window                                    | WBG     | : World Bank Group   |
| NPV    | : Net Present Value   | WTO     | : World Trade Organisation   |
| NRB    | : Nepal Rastra Bank   |         |  |
| NTIP   | : Nepal Trade Information Portal                            |         |  |
| NTIS   | : Nepal Trade Integration Strategy                          |         |  |
| NTTFC  | : National Trade and Transport Facilitation Committee       |         |  |
| OGA:   | Other Government Agency                                     |         |  |
| OP     | : Operational Policy  |         |  |
| OPMCM  | : Office of the Prime Minister and Council of Ministers     |         |  |
| PAD    | : Project Appraisal Document                                |         |  |
| PAP    | : Project Affected People                                   |         |  |
| PCO    | : Project Coordination Office                               |         |  |
| PDO    | : Project Development Objective                             |         |  |
| PDR    | : People's Democratic Republic                              |         |  |
| PIU    | : Project Implementation Unit                               |         |  |
| PQPMC  | : Plant Quarantine and Pesticide Management Center          |         |  |
| PTMO   | : Provincial Transport Management Office                    |         |  |
| RAIMS  | : Road Accident Information Management System               |         |  |
| RAP    | : Resettlement Action Plan                                  |         |  |
| SAR    | : South Asia Region   |         |  |
| SDR    | : Special Drawing Rights                                    |         |  |
| SECPO  | : Corporate Secretary Policy Operations Unit                |         |  |
| SPS    | : Sanitary and Phytosanitary                                |         |  |
| SRCTIP | : Strategic Road Connectivity and Trade Improvement Project |         |  |
| TEPC   | : Trade and Export Promotion Center                         |         |  |
| TTL    | : Task Team Leader  |         |  |
| UN     | : United Nations  |         |  |
| UNCTAD | : United Nations Conference on                              |         |  |

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**DATA SHEET**

**BASIC INFORMATION**

**Product Information**

|                      |  |
|----------------------|--|
| Project ID           | Project Name                                     |
| P144335              | Nepal-India Regional Trade And Transport Project |
| Country              | Financing Instrument                             |
| Nepal                | Investment Project Financing                     |
| Original EA Category | Revised EA Category                              |
| Full Assessment (A)  | Full Assessment (A)                              |

**Organizations**

|          |  |
|----------|--|
| Borrower | Implementing Agency  |
| NEPAL    | Ministry of Industry, Commerce and Supplies, Ministry of Physical Infrastructure and Transport |

**Project Development Objective (PDO)**

Original PDO

The Project Development Objective is to decrease transport time and logistics costs for bilateral trade between Nepal and India and transit trade along the Kathmandu-Kolkata corridor for the benefit of traders by reducing key infrastructure bottlenecks in Nepal and by supporting the adoption of modern approaches to border management.



**FINANCING**

|                                 | Original Amount (US\$) | Revised Amount (US\$) | Actual Disbursed (US\$) |
|---------------------------------|------------------------|-----------------------|-------------------------|
| <b>World Bank Financing</b>     |                        |                       |                         |
| IDA-H8630                       | 30,000,000             | 13,672,104            | 11,767,975              |
| IDA-52730                       | 69,000,000             | 63,033,649            | 58,769,796              |
| <b>Total</b>                    | <b>99,000,000</b>      | <b>76,705,753</b>     | <b>70,537,771</b>       |
| <b>Non-World Bank Financing</b> |                        |                       |                         |
| Borrower/Recipient              | 0                      | 0                     | 1,500,000               |
| <b>Total</b>                    | <b>0</b>               | <b>0</b>              | <b>1,500,000</b>        |
| <b>Total Project Cost</b>       | <b>99,000,000</b>      | <b>76,705,754</b>     | <b>72,037,771</b>       |

**KEY DATES**

| Approval    | Effectiveness | MTR Review  | Original Closing | Actual Closing |
|-------------|---------------|-------------|------------------|----------------|
| 28-Jun-2013 | 10-Sep-2013   | 13-Feb-2017 | 31-Dec-2019      | 30-Nov-2021    |

**RESTRUCTURING AND/OR ADDITIONAL FINANCING**

| Date(s)     | Amount Disbursed (US\$M) | Key Revisions  |
|-------------|--------------------------|--|
| 23-Dec-2019 | 51.10                    | Change in Results Framework<br>Change in Loan Closing Date(s)<br>Change in Implementation Schedule |
| 22-Nov-2021 | 70.00                    | Cancellation of Financing<br>Reallocation between Disbursement Categories                          |

**KEY RATINGS**

| Outcome      | Bank Performance        | M&E Quality |
|--------------|-------------------------|-------------|
| Satisfactory | Moderately Satisfactory | Modest      |

**RATINGS OF PROJECT PERFORMANCE IN ISRs**

| <b>No.</b> | <b>Date ISR Archived</b> | <b>DO Rating</b>          | <b>IP Rating</b>          | <b>Actual Disbursements (US\$M)</b> |
|------------|--------------------------|---------------------------|---------------------------|-------------------------------------|
| 01         | 14-Oct-2013              | Satisfactory              | Satisfactory              | 0                                   |
| 02         | 05-May-2014              | Satisfactory              | Moderately Satisfactory   | 8.00                                |
| 03         | 19-Nov-2014              | Moderately Satisfactory   | Moderately Unsatisfactory | 8.34                                |
| 04         | 12-Jun-2015              | Moderately Satisfactory   | Moderately Satisfactory   | 11.13                               |
| 05         | 14-Sep-2015              | Moderately Satisfactory   | Moderately Satisfactory   | 11.24                               |
| 06         | 21-Mar-2016              | Moderately Satisfactory   | Moderately Satisfactory   | 13.56                               |
| 07         | 04-Oct-2016              | Moderately Satisfactory   | Moderately Satisfactory   | 19.94                               |
| 08         | 03-Apr-2017              | Moderately Satisfactory   | Moderately Satisfactory   | 22.83                               |
| 09         | 10-Oct-2017              | Moderately Satisfactory   | Moderately Satisfactory   | 27.07                               |
| 10         | 10-May-2018              | Moderately Unsatisfactory | Moderately Unsatisfactory | 33.91                               |
| 11         | 27-Jul-2018              | Moderately Satisfactory   | Moderately Satisfactory   | 40.18                               |
| 12         | 09-Feb-2019              | Moderately Unsatisfactory | Moderately Unsatisfactory | 45.51                               |
| 13         | 28-Mar-2019              | Moderately Unsatisfactory | Moderately Unsatisfactory | 45.74                               |
| 14         | 02-Oct-2019              | Moderately Unsatisfactory | Moderately Unsatisfactory | 51.10                               |
| 15         | 25-Nov-2019              | Moderately Unsatisfactory | Moderately Unsatisfactory | 51.10                               |
| 16         | 27-Mar-2020              | Moderately Satisfactory   | Moderately Satisfactory   | 56.07                               |
| 17         | 02-Oct-2020              | Moderately Satisfactory   | Moderately Satisfactory   | 59.48                               |
| 18         | 01-Apr-2021              | Moderately Satisfactory   | Moderately Satisfactory   | 63.53                               |
| 19         | 29-Sep-2021              | Moderately Satisfactory   | Moderately Satisfactory   | 73.00                               |





**SECTORS AND THEMES**

**Sectors**

Major Sector/Sector (%)

**Transportation 52**

Public Administration - Transportation 3

Rural and Inter-Urban Roads 49

**Industry, Trade and Services 48**

Public Administration - Industry, Trade and Services 3

Trade 21

Other Industry, Trade and Services 24

**Themes**

Major Theme/ Theme (Level 2)/ Theme (Level 3) (%)

**Economic Policy 25**

Trade 25

Trade Facilitation 25

**Private Sector Development 58**

Jobs 8

Job Creation 8

Regional Integration 50

**Urban and Rural Development 16**

Urban Development 8

Urban Infrastructure and Service Delivery 8

Rural Development 8

Rural Infrastructure and service delivery 8

**ADM STAFF**

| Role                     | At Approval        | At ICR                |
|--------------------------|--------------------|-----------------------|
| Regional Vice President: | Isabel M. Guerrero | Hartwig Schafer       |
| Country Director:        | Johannes C.M. Zutt | Faris H. Hadad-Zervos |



|                          |                         |   |
|--------------------------|-------------------------|---|
| Director:                | John Henry Stein        | Guangzhe Chen                               |
| Practice Manager:        | Karla Gonzalez Carvajal | Shomik Raj Mehndiratta                      |
| Task Team Leader(s):     | Diep Nguyen-Van Houtte  | Deepak Man Singh Shrestha,<br>Jan Erik Nora |
| ICR Contributing Author: |                         | Antoine Avedis Kunth                        |

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## I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

### A. CONTEXT AT APPRAISAL

#### Context

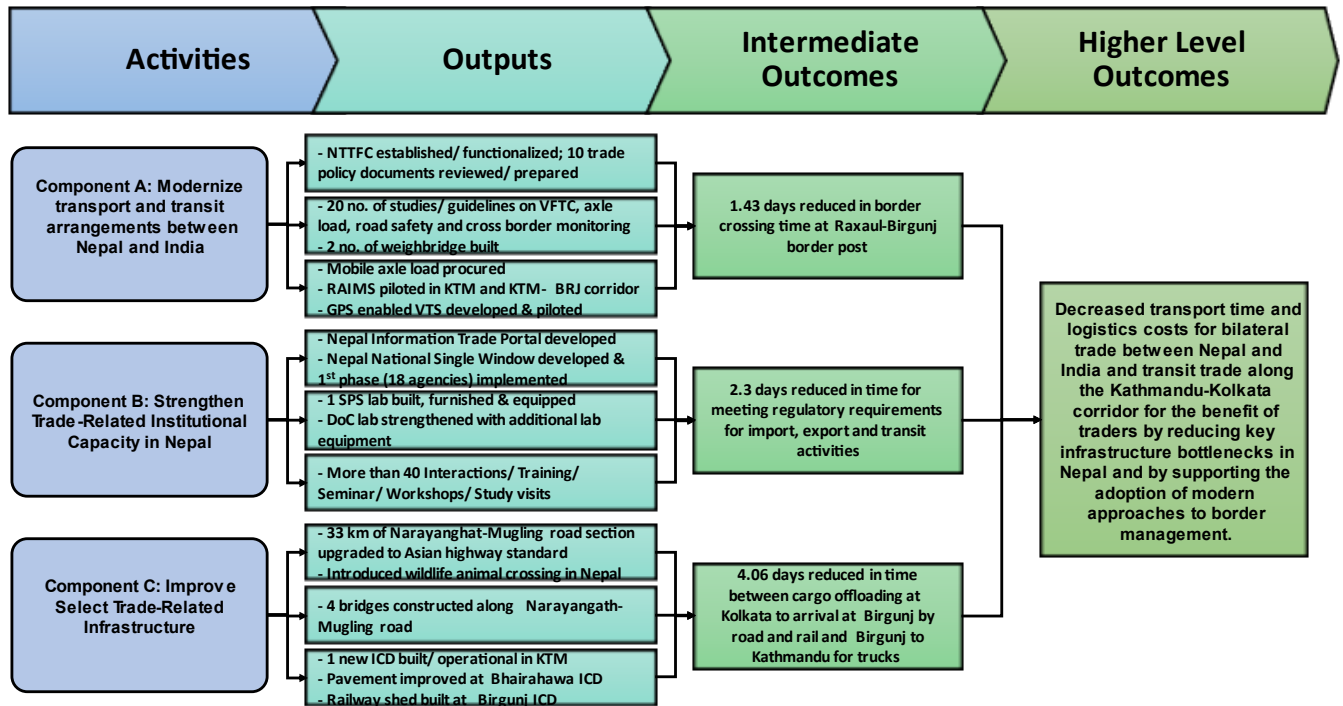
- 1. Improved trade-logistics was a critical issue for Nepal's development at the time of appraisal (and remains important today).** Land-locked and mountainous, Nepal has an existential reliance on efficient trade and transport logistics for the competitiveness and basic functioning of its economy. The country mostly depends on India for transit routes. Sharing an approximately 1,800 km long border and 26 border points, India is often considered Nepal's 'natural' trading partner. The port complex of Kolkata-Haldia in India has been serving as Nepal's access to the sea and is a major transit point for Nepal's third-country trade. India also provides a large market for Nepali goods and services, and is Nepal's largest trading partner, with about 60 percent of Nepal's trade going to or coming from India at the time of appraisal. Despite its proximity and deep economic relations with India as well as its other neighbour China, Nepal's trade outcomes at the time of appraisal were poor. Since 2007, exports had been stagnant while imports increased by more than 50 percent and the perception was that there was an urgent need for an action plan to improve export competitiveness particularly by focusing on reducing inefficiencies and bottlenecks that increase the cost of exports on regional and international markets.
- 2. Logistics costs within Nepal were recognized as unacceptably high.** Nepal ranked as one of the worst performers in the world in the global Logistics Performance Index, ranking 151 of 155 countries ranked. Infrastructure bottlenecks and inadequate trade policies, systems and procedures contributed to high logistics costs for imports and exports. The Nepal Investment Climate Assessment (ICA) 2011 noted that exports suffered from low productivity, high tariffs, and poor transportation infrastructure. The report recommended a few measures to address trade-related issues facing trading enterprises, including among others: i) improving terms of trade with its neighbors; ii) supporting exporters and traders in terms of technical standards, sanitary and phyto-sanitary (SPS) measures, and intellectual property rights; iii) in the short term, bringing shipping lines to the Inland Clearance Depots (ICDs); and iv) in the medium term, providing a comprehensive program of capacity building to the Customs Department to minimize the time and documentation needed to clear customs. In terms of transport infrastructure, the 276 Km stretch of road from Birgunj on the Indian border to the capital Kathmandu was the largest trade route of Nepal and the most critical infrastructure element. Of particular importance was the Raxaul - Birganj border crossing, which processed 60 percent of all Nepal India trade.
- 3. There existed a strong analytical foundation that laid the foundations for action.** A World Bank-managed multi-year Non-Lending Technical Assistance (NLTA) program had led to recommendations to enhance the legal and regulatory framework for transit and trade facilitation; prepare options for the most effective governance and operational models; prepare the technical and functional architecture for a National Single Window (NSW); carry out preliminary work on business process simplification; and capacity development of relevant stakeholders.
- 4. Political context.** Finally, though Nepal was still a country in a political transition recovering from years of civil strife prior to the 2006 Comprehensive Peace Agreement, the Project Appraisal Document (PAD) recognized the resiliency of the country's institutions for service delivery. The PAD noted that with a Country Policy and Institutional Assessment (CPIA) of 3.3, Nepal measured favorably with non-FCS low-income countries.
- 5. Regional context.** India was obviously an important stakeholder for transit trade on the Kolkata-Kathmandu corridor. Though its trade with Nepal was relatively minor, India viewed its relationship with Nepal as strategic and the two countries had a history of cooperation on transit issues. They met regularly at technical and intergovernmental fora to discuss issues related to transit and regional connectivity. India was supportive of Nepal's efforts to improve transit along the corridor (including this Bank-financed project). India was also funding Nepal's costs associated with upgradation of 8 border crossings including the Raxaul-Birgunj border post which processed 60% of Nepal India trade.



6. The Project PDOs reflect a high priority agenda of the Government of Nepal. At appraisal, the Project aimed to contribute to the Government of Nepal's (GoN's) focus to strengthen economic growth by enhancing trade competitiveness. The Nepal Trade Integration Strategy (NTIS) of 2010<sup>1</sup> sought to enable inclusive growth in Nepal through enhancing the competitiveness of Nepal's exports and reducing the cost of trade. The priorities of this strategy included: (i) reducing the time and cost of trade-related transactions through simplification, harmonization, and automation; (ii) building the capacity of domestic trade-related institutions including for sanitary and phytosanitary inspections, trade negotiations, logistics, and monitoring and regulating trade-related sectors; and (iii) enhancing the Government's ability to coordinate with trade-related institutions and development partners.

7. There is also a strong link between the PDO and the World Bank strategies and programs in Nepal and India. The FY2012-2013 Nepal Interim Strategy Note<sup>2</sup> identified both regional cooperation in trade and transit and promoting Nepal's export competitiveness as priorities. Improving export competitiveness and regional cooperation were also two areas of focus of the World Bank Nepal Country Partnership Strategy (CPS 2014-2018) which was being prepared at the time of the project appraisal. The FY2013-2015 India CPS<sup>3</sup> included regional cooperation as one of its three strategic pillars.

Figure 1. Theory of Change (Results Chain prepared for the ICR):



Key assumptions:

<sup>1</sup> The Strategy was the product of an effort led by the Ministry of Industry Commerce and Supplies (MoICS), with financial and substantive support from the WBG, the United Nations Development Program (UNDP), and various development partners.

<sup>2</sup> No. 63381-NP, 06/30/2011

<sup>3</sup> No. 76176-IN, 04/11/2013



- i) Capacity enhancement activities through National Trade and Transport Facilitation Committee (NTTFC) and Ministry of Industry, Commerce and Supplies (MoICS), and support for Nepal Information Trade Portal (NITP), National Single Window will help reduce the time associated with meeting regulatory requirements for import, export and transit activities.
- ii) Capacity enhancement activities in the field of Sanitary and Phyto-Sanitary (SPS), Custom labs, and improvement of border infrastructure will help reduce the border crossing time at Raxaul-Birgunj border post.
- iii) Capacity enhancement of NTTFC and MoICS for policy level and bilateral issues, introduction of Customs Transit Declaration (CTD), use of National Single Window, and improvement of Narayanghat Mugling road as key bottleneck will help reduction in total time between cargo offloading at Kolkata to arrival at Birgunj and Kathmandu.

### Project Development Objective (PDO)

8. The Project Development Objective (PDO) as stated in the Financing Agreement and the PAD, was to decrease transport time and logistics costs for bilateral trade between Nepal and India and transit trade along the Kathmandu-Kolkata corridor for the benefit of traders by reducing key infrastructure bottlenecks in Nepal and by supporting the adoption of modern approaches to border management.

### Key Expected Outcomes and Outcome Indicators

9. At appraisal, the expected outcome as a result of project interventions was a reduction of transport time and logistics costs for Nepal's international trade. This was to be achieved through reductions of the following PDO indicators:

- (a) Time associated with meeting regulatory requirements for import, export and transit activities.
- (b) Border crossing time at Raxaul-Birgunj border post.
- (c) Total time between cargo offloading at Kolkata to arrival at Birgunj by road and rail and Birgunj to Kathmandu for trucks.

### Components

10. The project had three components as defined in Schedule 1 of the Financing Agreement as well as in substance in the PAD:

**Component A. Modernize transport and transit arrangements between Nepal and India (US\$9m: US\$2m IFC, US\$7m IDA).** *The project supported improving the efficiency of the trade systems, through the provision of technical assistance to:* (1) introduce a modern and effective transit regime including technical assistance in enhancing the capacity to negotiate trade and transit treaties; (2) simplify and harmonize customs and border management procedures, processes and systems, especially to provide for electronic interchange of transit data; (3) strengthen and modernize the regulation of national and international trucking services including axle load control and road safety from a transport management perspective.

**Component B. Strengthen Trade-Related Institutional Capacity in Nepal (US\$23m).** This component, included three subcomponents as follows:

- (i) *The design, development and implementation of information communication technology systems and related business process improvements to enhance transparency and integrity lower trade transaction costs, and reduce the time taken to clear goods.* This included the Nepal Trade Information Portal (NTIP) and the National Single Window (NSW). The NTIP was to provide a website where comprehensive and up to date information on all tariff and non-tariff measures (including all relevant rules, regulations, procedures and fee schedules) applied at the time of import, export or transit is readily accessible to traders. The NSW was included to allow traders to submit and have processed all required import, export



and transit documentation electronically via a single gateway instead of submitting essentially the same information numerous times to different government entities.

- (ii) *Improvement of the capability of trade-related laboratories; provision of change management support to agencies and stakeholders involved in testing and certification; and facilitation of arrangements for mutual recognition of certifications.* This included capacity development in testing, certification, human resources and financial management, as well as financing of IT and lab equipment for Customs and SPS testing including food, plant, and animal quarantine.
- (iii) *Strengthening the NTTFC and strengthening the capacity of MOICS and the Project Coordination Office (PCO) to coordinate the implementation of the different activities under the Project, through the provision of technical advisory services, and development of skills on procurement, financial management, environmental and social safeguards, and monitoring and evaluation.* This component supported hiring key experts to deliver all activities, e.g., procurement, financial management, environmental and social safeguards, and monitoring and evaluation (M&E), as well as Trade and Transit related studies and experts to support policy strategies and negotiations between governments.

**Component C. Improve Select Trade-Related Infrastructure (US\$69m). This component had three sub-components.**

- (i) *Upgrading and expanding the Narayanghat-Mugling (N-M) road section to Asian Highway Standard; and carrying out of studies for environmental sustainability, road safety and corridor improvement along the Birgunj-Kathmandu Corridor.* The primary work in this component consisted of upgrading and expanding 33 km of the N-M road section to Asian Highway Standard. It also included studies to address road safety, axle load control and environmental sustainability issues along the trade corridor. The N-M road section experienced the heaviest traffic load in Nepal, carrying 90 percent of Nepal's international trade traffic.
- (ii) *Construction of a CFS or an ICD in the Kathmandu valley* to provide a facility for exporters to consolidate shipments to take advantage of lower transport costs.
- (iii) *Improving the infrastructure at Birgunj and Bhairahawa ICDs, including the preparation of a maintenance plan.* Improvements were deemed necessary at these two key ICDs to facilitate further trade and to improve the efficiency of current trade. At Birgunj, there was insufficient space for the loading and unloading of existing and anticipated future goods trade, which prolonged the idle time and clearance/border crossing time. The new extra space was especially needed for edible oil. The improvement of the Bhairahawa ICD mainly consisted of reconstruction of the pavement surfacing to facilitate smooth operation.

**B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)**

**Revised PDOs and Outcome Targets**

- 11. The PDO and outcome targets were not revised during implementation.

**Revised PDO Indicators**

- 12. The PDO indicators were not revised during implementation.

**Revised Components**

- 13. The project components were not revised during implementation.

**Other Changes**

- 14. Other changes during implementation include:
  - While identified as a potential environmental concern as part of the Environmental and Social Impact Assessment (ESIA), slope protection works were added to the scope of the N-M road upgrade based on risk



assessments during monsoons and in the aftermath of the 2015 earthquake.

- Construction of four additional bridges along the N-M road alignment.
- Training activities for the Department of Roads could not be utilized mainly due to no approvals from the Ministry of Finance (MoF) to use the project credit funds for training. However, essential trainings were conducted in-country including a training on slope stabilization subject.
- The initially planned Railway Track Modification at Birgunj ICD had to be abandoned by Nepal Intermodal Transport Development Board (NITDB), as bids were not received from qualified bidders even after two attempts.
- The planned cargo monitoring system for NITDB was not developed, as there was no mechanism to receive the data generated by the Kolkata Port Authority, Indian Customs, and Indian Railways. Instead, a study to design a Data Capture Framework for Kolkata-Kathmandu Corridor Monitoring was undertaken.

#### Rationale for Changes and Their Implication on the Original Theory of Change

15. The above minor changes did not have direct implication to the original Theory of Change. Addition of the four new bridges and slope protection works did improve the N-M road upgrade.

16. **Closing Date.** The Project's closing date was extended by 23 months from December 31, 2019 to November 30, 2021, to complete two critical activities under the trade component, viz., development and implementation of National Single Window (NSW) and the construction of the ICD at Kathmandu.

17. **Cancellations and reallocation between disbursement categories.** On November 22, 2021, SDR 2.00 million of IDA Credit and SDR 11.00 million of IDA Grant were cancelled based on an assessment of projected disbursements. At end of the project closure ie; in March 2022 a further SDR 2.3 million from the IDA Credit and SDR 669,000 from the IDA Grant were cancelled due to the unutilized balance in the designated account. It is to be noted that the surplus amount which need to be cancelled is mainly due to savings from the exchange rate gain of about 35% and no full expenditure for NSW.

## II. OUTCOME

### A. RELEVANCE OF PDOs

#### Assessment of Relevance of PDO and Rating

18. The Project PDO reflects a high priority agenda of the Government of Nepal. At time of ICR preparation, the GoN continues to recognize the importance of trade facilitation as a key reform agenda. The priorities that helped in designing and implementing the project and the policies and investments supported by the project remain strategic for Nepal's ongoing development plan. Nepal's Long-Term Vision for this sector in the ongoing 15th Plan (2019-2024) highlights the continued relevance of the project. The Vision notes the importance of trade for significant growth in production and productivity and identifies the development of trade infrastructure, the need to continue to focus on additional measures for trade facilitation and strengthening of institutional capacity, as key priorities.

19. **The strong link between the PDO and the World Bank strategies and programs in Nepal and India remains at project completion.** The World Bank Group's Nepal Country Partnership Framework for FY2019-2023 highlights transport connectivity for Nepal and especially across borders as a key priority. Regional connectivity remains a key priority supported by the Bank in South Asia Region and for landlocked Nepal. The current World Bank South Asia Regional Strategy recognizes regional cooperation and integration as a key strategic objective. It pinpoints limited intraregional trade and connectivity, cumbersome procedures, non-tariff barriers, and costly road transport and logistics services as key impediments to increasing trade in the region.

20. **In summary, the project PDO continues to be highly relevant to GoN and World Bank priorities.** The relevance of the PDO is therefore rated High.



## B. ACHIEVEMENT OF PDOs (EFFICACY)

### Assessment of Achievement of Each Objective/Outcome

**21. The PDO has two elements: decrease transport time and logistics costs for bilateral trade between Nepal and India; and decrease transport time and costs for transit trade along the Kathmandu - Kolkata Corridor for the benefit of traders.** This was to be achieved through: reducing key infrastructure bottlenecks in Nepal (transport component); and supporting the adoption of modern approaches to border management (trade component).

**22. The two PDO indicators measuring border crossing and travel times measured outcomes related to the PDO on decreasing transport time and logistics costs for bilateral trade between Nepal and India.** These indicators measure only travel times, while the PDO includes reductions in both transport time and logistics costs. While some measure of logistics costs would have been ideal, such costs are difficult to measure directly as logistics costs are a combination of transport and inventory costs. Inventory costs for a product depend on product value (which is difficult/costly to estimate economy-wide) and total time of travel. As such, reduction in total time of travel proportionately reduces inventory costs and travel times has been considered an adequate proxy for logistics costs.

**23. Based on these PDO indicators, the project objective to decrease transport time and logistics costs for bilateral trade between Nepal and India has been achieved.** Border crossing times at Raxaul-Birgunj have reduced from 2.3 to 0.87 days, significantly exceeding the target of 1.5 days. Total time between cargo offloading at Kolkata to arrival at Birgunj by road and rail and Birgunj to Kathmandu for trucks has also reduced. These improvements were a result of various project supported activities including:

- **Policy improvements to facilitate transport and trade facilitation.** The project helped the GoN by drafting policies on logistics and amending trade-related policies to reduce paperwork and documentation as part of NSW implementation. It also included improvements in key regulations, such as for banking (developing facilities at ICD and ICPs and developing e-payment alternatives) and for insurance mechanisms which are now common across countries along the transit routes, and resulted in a reduction in delays, costs, and red tape.
- **Measures to facilitate the movement of cargo at Kolkata port, including through improved regulations and simplification of procedures and documentation.** The project supported a number of studies on Kolkata port which helped to identify the root causes of issues related to high logistics costs and time, as well as cumbersome procedures and documentation. The identified issues were discussed bilaterally between the governments of India and Nepal, and agreements were reached to develop the automation of processes, reduce the number of administrative documents, and streamline procedures. The outcomes of the studies were disseminated to all stakeholders, including the private sector.
- **Measures to facilitate the movement of cargo at borders.** An integrated checkpost was constructed on the Raxaul-Birgunj border, with the Nepal side being financed by a grant from the Government of India. Though this facility was already under construction at the time of appraisal, its completion combined with the ICD facilities supported by the Project at Birgunj as well as the project supported technical activities led to: (i) reorganizing the flows at the border, allowing for proper cargo segregation and consolidation; (ii) automation of documents and procedures as part of the NSW and automated system for customs data (ASYCUDA) activities; and (iii) delivering e-customs and coordination of border management for terminal operators.
- **Institutional improvements through capacity building of existing institutions and through high-level institution** the NTTFC to coordinate relevant agencies involved in trade and transport logistics. The NTTFC, which was established as per WTO requirement, functioned as Steering Committee for the NIRTTP. The NTTFC brought together all key public and private stakeholders involved in transport and trade facilitation. This platform helped to monitor and implement the project itself, as well as monitored issues related to trade





and transport that arose and timely addressed them through candid discussions with all high-level stakeholders.

- **Nepal's logistics ecosystem also benefitted from direct capacity development as part of the project.** At the GoN level, the study on the issues in trade policy and agreements, supporting related trade experts and training staff in negotiation skills with the neighboring countries (such as the lack of application of best international practices, improper use of international commercial (INCO) terms, improper packing and handling methods, and marking/labeling of goods) is acknowledged as a major contribution of the project.
- Improvement of the Birgunj-Kathmandu Road corridor, including the upgrading of a 33 km section and spot improvements on bridges and slope stabilization, reduced travel times and increased the resilience of this critical link.

**24. The PDO to 'decrease transport time and costs for transit trade along the Kathmandu - Kolkata Corridor for the benefit of traders' has also been substantively met as measured by the project's PDO indicators'.** As noted earlier, travel times for transit have improved dramatically due to project activities and have significantly exceeded the project's targets. The PDO indicator 'Time associated with meeting regulatory requirements for import, export and transit activities' directly measures the transaction costs to traders and reductions in these transaction costs directly measures benefits to traders. The value of this indicator at project closing (2.5 days) has substantially met the target of 2.4 days relative to a baseline of 4.8 days. Project activities supported the achievement of these impressive benefits for traders through: (i) simplification and amendment of trade regulations as part of the NSW work; (ii) policy and regulatory changes on banking, and insurance that eased the process for traders to recover goods from ICDs; and (iii) delivering e-customs.

**25. All key transport components were completed, and intermediate results achieved.** These included: (i) upgrading the 33 km long Narayanghat-Mugling section of the Birgunj-Kathmandu corridor; (ii) construction of four new bridges; (iii) implementation of slope stabilization works and introduction of new methods; (iv) feasibility and design studies for the improvement of Nagdhunga- Naubise- Mugling Road (N-M) (about 95 km, within the 276 km Kathmandu Birgunj corridor, now financed by a follow-on IDA supported Strategic Road Connectivity and Trade Improvement Project, SRCTIP: P170409); and (v) successful piloting of the Road Accident Information Management System in Kathmandu valley and the Kathmandu-Birgunj corridor. Successful implementation of road safety and maintenance measures were also added to the initial project scope, such as building comprehensive axle load weigh bridge stations at two locations by the Department of Transport Management office (DoTM) using GoN's fund but based on studies initiated from the project. Axle load checks and controls are being enforced by DoTM through the road traffic police. In the N-M road works, the last additional contract for the valley side slope stabilization works at km 17 and 26 spilled over beyond the Credit/Grant closing date, mainly due to the impact of the COVID-19 pandemic but have since been successfully completed by the GoN using their own resources. Considering the additional activities achieved the intermediate results were surpassed.

**26. Most key trade components were completed, and intermediate results achieved.** Achievements under the Trade components include: (i) the achievement of the indicator target related to the completion/improvement of three ICDs with the completion of the ICD at Kathmandu (substantially completed by Project closing and in operation from April 2022), and the improvement of the ICDs in Bhairahawa (pavement works), and Birgunj (railway shed); (ii) completion of the Sanitary and Phyto-Sanitary (SPS) building in Kathmandu with all required lab equipment and furnishings; (iii) launching of the Nepal Trade Information Portal (NTIP)<sup>4</sup> and the growth of the hit rate by 119 percent, exceeding the target of 40 percent; and (iv) the launch of Phase 1 of the National Single Window (NSW) and the successful integration of 13 agencies (significantly exceeding to a target of five agencies). The remaining phases of the NSW are being completed by the GoN using their own resources. The intermediate indicator

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<sup>4</sup> NTIP publishes all trade-related regulatory information under one roof to enable traders and other interested parties to access it. The portal also helped Nepal implement some transparency-related commitments under the WTO Trade Facilitation Agreement.



on percentage of transit goods cleared through electronic customs transit declaration (CTD) is no longer relevant, as it has been superseded by introduction of Electronic Cargo Tracking System (ECTS).

27. It is worth noting that these project achievements have occurred despite major issues which were out of the project's direct control, such as the Nepal earthquake of April 2015, restrictions from India on border crossings from September 2015 to February 2016, and the COVID-19 pandemic from March 2020.

#### **Justification of Overall Efficacy Rating**

28. **Overall efficacy.** Based on the above analysis, the overall efficacy of the project is rated **Substantial**.

### **C. EFFICIENCY**

#### **Assessment of Efficiency and Rating**

29. **Economic analysis.** The economic impact of the project is high. The ex-post economic evaluation and the sensitivity tests (see Annex 4 for details) indicate that the results at completion are better than the evaluation at appraisal and are above the benchmarks for investment. The EIRR has increased from an estimated 30 percent at appraisal to 41 percent at the time of the project closing. The revised economic evaluation indicates that a larger share of the benefits is attributable to transit benefits within Nepal (almost all from the N-M road improvements and largely because of the longer assessment period for benefits), and to the Kathmandu ICD. The project included several institutional and operational measures that required little investment but contributed to increasing benefits. The revised economic rate of return of the project remains high and the revised net present value is now double that estimated at appraisal (from US\$29.8 million to US\$60.3 million). The conclusion of the ex-post economic evaluation is that the project is well justified, and this result is sustainable even after under pessimistic assumptions.

30. **Design Efficiency.** The design efficiency of the project is substantial. The selected locations of the border crossing posts, road alignment and ICDs all address the need to focus on the main trade corridor through which Nepal trades more than 80 percent of goods. In addition, the decision to upgrade the existing N-M road and the location of the ICD infrastructure were made in an effort to limit E&S impacts, as compared to greenfield projects. The innovative road design features for wildlife animal crossings and the added support to slope protection works to mitigate disaster risks added to the project's delivery efficiency. Early action to mobilize the bio-engineering methods and the use of new technology through domestic contractors to carry out slope works allowed for an efficient implementation of these additional project features.

31. **Implementation Efficiency.** Both trade and transport agencies were able to carry out timely procurement changes and adapt to external challenges, such as those related either to the monsoon or the 2015 earthquake, the closing of the border with India in 2015, and the impact of the COVID-19 pandemic. These efforts to continue implementing the project despite major challenges were doubled by a willingness to limit further project delays through sound traffic safety measures during construction, and efforts to coordinate with the traffic police. However, implementation required an extension of the closing date by 23 months and only US\$70 million of the original Credit of US\$99 million was disbursed. The lower disbursements were due to a combination of savings from exchange rate changes (US\$1 was equal to NPR 87 at appraisal, whereas NPR 120 at project closing); cancellation of some of the Component 3 works at Birgunj ICD due to unsuccessful procurement; and because the NSW implementation is not yet complete.

32. **Overall efficiency.** Based on the above analysis, the overall efficiency of the project is rated **Substantial**.

### **D. JUSTIFICATION OF OVERALL OUTCOME RATING**

33. Given the Project's high relevance, substantial efficacy and substantial efficiency, the overall outcome is considered **Satisfactory**.



## E. OTHER OUTCOMES AND IMPACTS (IF ANY)

### Gender

**34. Gender.** The resettlement action plan (RAP) included a Gender Development Plan. As part of the transport component, the project targeted local communities, and in particular vulnerable people including women, to enhance their incomes and livelihoods. An income restoration training program on agro-farming was delivered to 32 participants, of whom 13 were women. The project also provided skill training on tailoring, plumbing and electrician to 80 persons, of whom 44 were women.

**35. Gender Based Violence (GBV).** Though GBV risks related to labor influx at the ICD in Kathmandu were identified as moderate, the two contracts were retrofitted to include: (i) training/orientation sessions to the project team and the Supervision consultant; (ii) mapping of service providers; (iii) community awareness and consultations; (iv) preparation and implementation of a GBV risk mitigation action plan; (v) preparation of codes of conduct; (vi) orientation to contractors and laborers and signing of the code of conduct; and (vii) establishment of a GBV GRM.

### Institutional Strengthening

**36.** By financing both transport and trade facilitation activities, the Bank further engaged in policy dialogue with the relevant Nepali officials. This resulted in good global practice sharing, revisions of the institutional framework in both trade and transport, acquisition of DRM and E&S design techniques, technologies, study tours etc. The above support contributed to developing both transport and trade institutional capacities which were useful over the course of the project and will further help with the design and implementation of similar domestic and regional connectivity initiatives.

### Poverty Reduction and Shared Prosperity

**37. Transit and trade facilitation costs/times are critical to Nepal's development,** The project benefited areas which suffered from high transport costs. This was assessed to be especially relevant for lagging areas of India and for landlocked Nepal, for which high transport costs played a significant role in limiting competitiveness and the diversification of its economy, including towards higher value goods. As such the project would help reducing poverty and shared prosperity by diversifying Nepal's economy and allowing for job creation.

## III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

### A. KEY FACTORS DURING PREPARATION

#### Assessment of Achievement of Each Objective/Outcome

**38. The project design reflected lessons learned from previous transport and trade facilitation projects.** This was the case for the trade components, where global lessons from successful Trade Portal and National Single Window systems (such as Lao PDR for the Trade Portal and Singapore, Philippines, and Indonesia for the Single Window) had been incorporated in the project design. This was also the case for the transport component, where the application of E&S policies and the inclusion of key governance and sustainability features were incorporated. The Bank had carried out two comprehensive environmental and social missions in March and December 2012. The Bank team also coordinated effectively with development partners, shared information with them, and carried out some joint preparation missions. Field surveys facilitated positive communication with local communities, and some features were directly incorporated during preparation based on suggestions received.

**39. Well advanced readiness for implementation at approval.** Implementation readiness enabled the Credit to become effective just 2.5 months after Board approval. The project was designed as a joint transport and trade project, with the respective stakeholders involved at the counterpart level, but also good coordination at the Bank level between the then-Transport and Trade and Effectiveness Global Practices. GoN prepared detailed



implementation and procurement plans. Nonetheless, the feasibility did not include the needed upgrades to the four bridges or slope stabilization; these had to be incorporated during implementation.

**40. The decision to support NTTFC to coordinate the key stakeholders,** along with the Bank's ability to reach out to both transport and trade counterparts, created the necessary strategic framework to design and later deliver the project. The non-lending technical assistance (NLTA) activity implemented before the project had established this coordination modality; this was maintained and further strengthened by technical experts. The NTTFC and the Project Coordination Office of MoICS were both instrumental in coordinating the transport and trade components.

**41. Hiring of key external and capable staff to manage the changes by PIUs.** During project preparation it was recommended that specific focal persons should be nominated to be in charge of various aspects of the project implementation. The focal persons were nominated timely.

## **B. KEY FACTORS DURING IMPLEMENTATION**

**42. The National Trade and Transport Facilitation Committee played a significant role in project coordination.** Project activities were implemented by four different government ministries. The Department of Roads, Ministry of Physical Infrastructure and Transport (MoPIT) oversaw the implementation of the N-M Road segment and the Department of Transport Management, MoPIT oversaw the implementation of transport management measures, including road safety and axle load control. The Department of Customs, MoF, managed the development of the Single Window System; the Ministry of Industry, Commerce and Supplies (MoICS) implemented the Trade Portal and the ICDs (by NITDB within MoICS); and the Central Agricultural Lab under the Ministry of Agriculture and Livestock Development implemented the SPS laboratory. NTTFC monitored and supervised all the project activities at the policy level. Despite this multiplicity of implementing agencies, the project was completed on time largely as designed, except for full completion of the NSW. This is in large part reflects successful coordination by the NTTFC.

**43. The Project's activities to support capacity building were by-and-large effective in supporting project implementation.** The risks related to political instability did not get materialize. Substantial capacity building activities, targeting both policy and technical levels, combined with sound project implementation mechanisms (in particular sound coordination among various agencies), contributed to mitigate capacity and governance risks. In addition, as mentioned earlier, sound project preparation and careful application of E&S safeguards contributed to limit the safeguard risks. Good planning and implementation of innovative monitoring and maintenance also contributed to sustainability.

**44. Various factors affected the project directly or indirectly.** These include the earthquake in 2015, the unstable political situation during the preparation of the Constitution followed by undeclared embargo from India, the COVID-19 pandemic, the complaints on land issues in the ICD Kathmandu that halted work for about six months, and the difficulty in introducing the two-stage bidding process for NSW. In addition, the high traffic volume along combined with the topography of the project alignment (surrounded by steep mountains and the proximity of the Narayani River) also created major construction challenges, especially during the 2015 earthquake and monsoons. The project also suffered a delay of over 10 months in procuring the road works contracts which required rebidding due to an error made by several bidders. Despite these challenges, most activities were completed in a satisfactory manner timely, as recorded in the project Aide-Memoires.



## IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

### A. QUALITY OF MONITORING AND EVALUATION (M&E)

#### M&E Design

45. **The M&E focused on tangible and measurable project outcomes and outputs.** The corridor monitoring system, a significant part of the M&E framework, had already been designed and implemented during project preparation with the collaboration of stakeholders in both India and Nepal.<sup>5</sup> The PDO indicators were appropriately identified to reflect the combination of both hard and soft components, as well as the joint supervision by transport and trade officials. However, the PDO indicators did not discuss or properly measure logistics costs (though as noted, travel times on transit were acceptable proxies). While the intermediate indicators clearly segregated transport and trade outputs, the PDO indicators combined them, reflecting the nature of the project that combined transport and trade interventions. Intermediate indicators on reduced retail prices for consumers and on export competitiveness (as stated in the PDO) could have been useful in assessing the achievement of this part of PDO. Finally, no gender indicators were included in the Results Framework.

#### M&E Implementation

46. **Monitoring and evaluation was the responsibility of the PCO in MoICS, under the overall supervision of NTTFC.** Each implementation agency monitored indicators relevant to its own sub-project and submitted reports to the PCO, who coordinated the collection of the data. The M&E data was collected appropriately, although with regular delays and required follow up from the project team. The data on time reduction was not always made timely available and when it was, did not include all required origins/destinations.

#### M&E Utilization

47. **The NTTFC reviewed and discussed semi-annual data and monitoring reports and suggested actions for addressing identified problems.** The World Bank Group supervision team also monitored semi-annual data during regular supervision missions. M&E utilization allowed the project team to monitor project performance; however, the reductions in time and costs for freight forwarders were not monitored.

#### Justification of Overall Rating of Quality of M&E

48. Based on the above discussion of M&E design, implementation, and utilization, the overall M&E quality is rated Modest.

### B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

#### Environmental Compliance

49. **The project triggered the following environment related policies:** Environmental Assessment (OP 4.01); Natural Habitats (OP 4.04); Physical & Cultural Resources (OP 4.11); and Forests (OP4.36). ESIA's were developed to address the environmental impacts by adopting an "avoid, minimize, mitigate, compensate or offset" approach.

50. **The core of the environmental measures related to the N-M road upgrading.** The N-M road upgrading, as well as the construction of the ICD at Kathmandu, included contractual provisions to provide compensatory tree plantation for the tree losses, with 25 trees to be planted for each tree felled. Along the N-M road upgrading alignment, bio-engineering techniques were introduced to stabilize the hill slopes, valley side slopes, and the disposal areas. The project developed innovative environmental measures, such as wildlife animal crossing along the N-M road. It also

<sup>5</sup> A customized methodology was used for baseline data collection, in collaboration with Kathmandu University School of Management (KUSOM), with a regular and rigorous schedule for ongoing data collection, monitoring and evaluation. Partnership with KUSOM allowed the training of university students in the skills of surveying, data collection, and M&E for Nepal as a whole. Some of these students will be working with NITDB on M&E on a rotating internship basis.



rehabilitated four water holes (two on either side of the road) for quenching the thirst of wildlife animals inside Barandabhar forest.

**51. The selection of the Kathmandu ICD site was based on alternative analysis,** with the selected site estimated to have the least E&S risks and impacts. A dedicated Local Area Development Plan (LDP) was prepared as an integral part to the ESMP and incorporated ways of addressing identified issues based on stakeholder consultation during the preparation of the ESIA.

**52. Project implementation faced three challenges:** a high turnover of E&S staff and capacity constraints to implement and manage E&S issues, especially in sub-projects under the Trade component; safeguards capacity and commitment/ownership of the contractors were a challenge; and compliance-monitoring by the Bank was affected by the impact of the COVID -19 pandemic related restrictions.

### Social Compliance

**53. At project preparation, social impacts and concerns included the potential for land acquisition, involuntary resettlement, and impacts on indigenous people.** Two Bank social safeguard policies were triggered: Involuntary resettlement (OP/BP 4.12) and Indigenous Peoples (OP/BP 4.10). About 131 private structures – both residential and commercial - belonging to 103 households were affected by N-M Road upgrade works and landslide impacts. Twenty community structures, mainly public toilets, and passenger sheds were also affected by the road works. The ESIA of 2018 for the Kathmandu ICD site noted requests from communities for social enhancement and local area development, including the protection and preservation of historical and cultural heritage sites in the vicinity of the ICD. The following social management plans were prepared to mitigate the adverse project impacts: a RAP for the N-M Road (2013); a Vulnerable Community Development Plan (VCDP) for the N-M Road (2013); an ESMP for the ICD site, as well as a LDP for communities living adjacent to the ICD site. The RAP was subsequently updated in 2014, 2016, and 2017, to address landslides impacts during implementation.

**54. Cash compensation, displacement allowance, stipend for rental, and business disturbance allowance were paid to the project affected households in line with the RAP,** except one absentee household. Project affected persons (PAPs) received an economic rehabilitation grant to help restore their livelihood activities and also benefited from an income restoration training. All 20 community structures affected by the road upgrading works were reinstated successfully. The VCDP was implemented to address project impacts on 91 households, mostly Dalit people and other minority ethnic groups. As part of the LDP, some physical infrastructural enhancements were implemented around the Jal Binayak temple area, including street lighting, pavements, toilets, and access roads to the cremation site. About 80 youth were provided skills training and five orientation events were organized for 125 local school/college students on the importance of conserving the environment, health, hygiene & Sanitation.

**55. Inspection Panel.** The Inspection Panel received and registered a request for inspection of the Kathmandu ICD, with the requesters claiming to have been adversely affected by the ICD and land related issues. The requesters alleged non-compliance with World Bank’s policies on Involuntary Resettlement, Indigenous Peoples, Physical Cultural Resources and Environmental Assessment. The Panel, after an initial visit to the project site and consultations with the requesters, did not find sufficient grounds to investigate the complaint. However, the Panel recommended that consultations with local communities be strengthened in future projects.

### Fiduciary Compliance

**56. The financial management performance of the project has been rated as “moderately satisfactory”** due to some internal control deficiencies<sup>6</sup>. The project designated account was established in which advance was provided

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<sup>6</sup> like no vouchers of designated account, “PAID” stamp not affixed on supporting documents, payment of reimbursable expenses not as per actual expenses, no payees’ signatures on some payments, claimed retention amount of NPR 32.64 million with the Bank before payment to the contractors, payment of full daily allowance to individual consultants for the day of return, payment of second installment to the contractor without obtaining work schedules and cash flow and establishment of quality control laboratory.



from the Bank. The government provided sufficient counterpart funding for the project. The project maintained the required account books and documents related to the statement of expenditures in an acceptable manner. The unaudited interim financial reports (IUFs) and the annual project audit reports with unqualified opinions were generally submitted on time.

**57. Procurement.** Project procurement complied with Bank Procurement Guidelines; there were no INT cases. Three large works contracts were executed for the improvement of the N-M Road. In the case of slope works, the final contract for km 17 and km 26 could not be completed within the project period due to the covid-19 pandemic related lockdowns; however, the remaining work under this contract has been completed by GoN under its own financing. Significant delays occurred in the two-stage procurement for NSW, despite the support of a project-financed international consultant. GoN will implement the remaining Phases 2 and 3 of the NSW using its own resources. Project implementation was impacted by the lack of contract management capacity of non-engineering teams of MoICS and to a lesser extent at DoR. The Bank technical and safeguards teams had to provide substantial technical support to resolve issues. Project implementation was also affected by the strict government rules on issuing variation orders, even for time-based contracts.

## C. BANK PERFORMANCE

### Quality at Entry

**58. The choice to focus on both investments and policy issues covering both transport and trade issues was instrumental and aimed to maximize benefits from the infrastructure investments.** For the trade component, a significant amount of preparatory work had already been undertaken under the Bank-managed NLTA program, including an assessment of the legal and regulatory framework, preparation of options for the most effective governance and operational models, preparation of the technical and functional architecture for the NSW, preliminary work on business process simplification, change management and communication as well as capacity building for officials and the trading community. Lessons from successful Trade Portal and National Single Window systems elsewhere in the world (such as Lao PDR for the Trade Portal and Singapore, Philippines, and Indonesia for the Single Window) were incorporated in the project design. The need for capacity building was identified and partly implemented before the Credit became effective. The choice of including an in-house international consultancy support for DoC in the project design was sound. Under the transport component, the good early dialogue on maintenance, road safety and E&S contributed to good project preparation. Decisions made to engage specialized domestic contractors for slope works was relevant. Nonetheless, the capacity assessment of the MoICS vs MoPIT could have identified further training needs at MoICS in large contract management, although it was expected that the NTTFC would responsively assess the allocation of training needs. However, the quality at entry was affected by a weak M&E design.

**59. The project was prepared rapidly.** The project was prepared in nine months (from October 2012 to June 2013) and the Credit became effective in two and a half months after Board approval. This was made possible by the Bank transport and trade teams having been active in Nepal, their familiarity with key stakeholders, and having gained the trust of key stakeholders on complex transport and trade issues. These helped in achieving a sound project design and supported coordination between Nepal and India. The Bank team also built on the work done by other development partners, including UNESCAP, UNCTAD and the ADB; some preparation missions were carried out jointly with the UN.

**60. Given the complexity of delivering upon both transport and trade, which involved various stakeholders, the Bank was right in supporting NTTFC to be Steering committee for the Project and coordinating various implementing agencies.** The Bank also requested early that several critical positions be secured to launch and implement the project, such as a Project Director, a Procurement Specialist, and a Financial Management Specialist. Although there were some delays in hiring these positions, the upfront action on identifying, selecting and hiring these candidates probably avoided further delays.



### Quality at Supervision

61. The Bank's transport and trade teams worked closely with the GoN and implementing agencies to ensure that the project was delivered to high quality standards and in compliance with the Bank policies and requirements. The Bank team provided direct capacity building support and *ad hoc* technical inputs even during periods of political instability, the 2015 earthquake, and the COVID-19 pandemic related disruptions. Mission documentation and reporting was timely and comprehensive. However, the PDO and the M&E were not updated during implementation through restructuring, thereby missing an opportunity to address issues in the appraised project.

62. **In addition to the required regular project implementation monitoring, the Bank team provided proactive support, including by engaging with multiple stakeholders on a regular basis.** The Bank team recruited Short Term consultants to provide additional support on technical and contract management issues through regular interactions with key stakeholders. Regular site visits, meetings with consultants, personnel of the MoICS and contractors, and the provision of technical inputs helped to ensure the quality of the trade-related infrastructures through inputs in technical design, costs and technical specifications as well as monitoring of construction quality. The Bank task team also arranged monthly review meetings with the client and contractors to provide support in contract management. For the road component, the Bank team provided the necessary technical support to guide the clients in dealing with bio-engineering and slope protection works, including the introduction of the new techniques. The Bank team also provided direct inputs to develop and implement a state-of-the-art NSW. Study tours were also arranged by the Bank team to third countries on NSW good practices.

### Justification of Overall Rating of Bank Performance

63. Based on the above analysis of Bank performance in ensuring quality at entry and quality of supervision, overall Bank performance is rated Moderately Satisfactory.

### D. RISK TO DEVELOPMENT OUTCOME

64. **The risk to development outcome is rated moderate.** The government has a strong ownership of the outputs and outcomes of the Project. The main risk has to do with the successful completion of the NSW – the one activity that is not substantially complete. GoN is financing the remaining about \$US5 million related to this activity. While work is proceeding and GoN has reiterated their commitment to the activity, the Bank's support on managing the contracts and on quality assurance could have been useful. There are no other material risks to development outcome. The Nagdhunga- Naubise - Mugling Road (95 km) is part of the SRCTIP, while the Narayanghat to Pathalaya road (in the Kathmandu - Birgunj trade corridor of 276 km) is being considered for upgrading to four lanes under ADB finance. These will ensure that the overall trade corridor is upgraded. Given the importance of this corridor, GoN is prioritized it for maintenance allocations and any needed repairs. The trade information portal and the NSW are operating under the respective organizations and GoN has ensured the necessary funds required for the completion and maintenance of NSW. The ICD Kathmandu has been in operation since April 2022.

### V. LESSONS AND RECOMMENDATIONS

65. **This was a first transport and trade facilitation project in Nepal, with the right mix of policy and physical interventions.** The NLTA program had allowed the Bank to formulate recommendations to enhance the legal and regulatory framework, prepare options for the effective governance and operational models, prepare the technical and functional architecture for the NSW, carry out preliminary work on business process simplification, and capacity development of relevant stakeholders. Implementation arrangements allowed for effective project delivery. Building on solid analytical work is key to successful design and implementation of such projects.

66. **While complex, coordination among various government agencies is essential to deliver such transport and trade projects.** As a Steering committee the NTTFC reviewed project progress semi-annually and played a key role in monitoring performance and resolving governance issues. Nonetheless, a more regular review, for instance quarterly or even bi-monthly, may have been more suitable and could be considered for future engagements. Similarly, a more regular project performance monitoring by GoN could help timely resolution of implementation





issues. A communication strategy targeting all project stakeholders could have been incorporated as part of NTTFC's mandate.

**67. World Bank guidance and support for the project's technical and E&S design allowed for high quality standards, which the GoN is seeking to incorporate in other similar projects.** Given the importance of tourism in Nepal and its rich biodiversity, the systematic incorporation of environmental features, such as the construction of the animal passes and the development of water holes for wildlife, constitutes good practice. Similarly, the early design of road safety components and slope stabilization can minimize road safety risks during implementation. Throughout construction works and immediately after the opening of roads, a month-long safety awareness programs is required to avoid higher accident rates in the initial period after road opening.

**In terms of social safeguards, the following lessons learned can be highlighted:** (i) the timely implementation of the RAP enabled civil works on road upgrades to commence with no public resistance; (ii) adequate records on workers at project sites facilitated the easy implementation of COVID-19 protocols and helped in managing work schedules, while ensuring safety. The Inspection Panel recommendation to further strengthen consultation to fully incorporate diverse views is being implemented in ensuing projects.



ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS INDICATORS

A.1 PDO Indicators

Objective/Outcome: Decrease transport time and logistics costs for bilateral trade between Nepal and India

| Indicator Name  | Unit of Measure | Baseline            | Original Target     | Formally Revised Target | Actual Achieved at Completion |
|---|-----------------|---------------------|---------------------|-------------------------|-------------------------------|
| Time associated with meeting regulatory requirements for import, export and transit activities (days) | Days            | 4.80<br>08-Apr-2013 | 7.00<br>31-Dec-2019 | 2.40<br>30-Nov-2021     | 2.50<br>30-Nov-2021           |

Comments (achievements against targets):

The target achieved by the Project closure date i.e. November 30, 2021 is 2.50 days for meeting regulatory requirements for import, export and transit activities.

Note: The earlier baseline value (14 days) was revised as the Doing Business methodology was changed in 2016 to utilize data collected – which is a more sustainable approach to data collection. Accordingly, the target values were revised to keep consistency with the Doing Business estimates for time to meet documentary requirements and to fulfill procedures at the border.

Source: Doing Business data for meeting document and regulatory requirements for import.



| Indicator Name                                     | Unit of Measure | Baseline    | Original Target | Formally Revised Target | Actual Achieved at Completion |
|--|-----------------|-------------|-----------------|-------------------------|-------------------------------|
| Border Crossing time at Raxaul-Birgunj border post | Days            | 2.30        | 1.50            | 1.50                    | 0.87                          |
|  |                 | 08-Apr-2013 | 31-Dec-2019     | 30-Nov-2021             | 30-Nov-2021                   |

**Comments (achievements against targets):**

The end-target achieved by the Project closure date i.e. November 30, 2021 is 0.87 days for the border crossing time at the Raxaul-Birgunj border post.

*Source: Based on average time difference between gate entry and exit time at Birgunj ICP for consignments except petroleum of data from August 1-29, 2021 for 18,975 vehicles.*

| Indicator Name   | Unit of Measure | Baseline    | Original Target | Formally Revised Target | Actual Achieved at Completion |
|--|-----------------|-------------|-----------------|-------------------------|-------------------------------|
| Total time between cargo offloading at Kolkata to arrive in Birgunj by road, and Birgunj to Kathmandu for trucks | Days            | 10.00       | 8.00            | 8.00                    | 5.94                          |
|  |                 | 08-Apr-2013 | 31-Dec-2019     | 30-Nov-2021             | 30-Nov-2021                   |

**Comments (achievements against targets):**

The end-target achieved by the Project closure date i.e. November 30, 2021 is 5.94 days for cargo offloading at Kolkata to arrive in Birgunj by road, and Birgunj to Kathmandu for trucks

*Note: Calculation of 5.94 days [1.1 day cargo offloading time at Kolkata (data not available hence, past data used from ???); Kolkata – Birjung: avg 4.19 days based on survey of 48 vehicles at Birgunj ICP; and Birjunj – Nagdhunga: avg 0.65 day (15.44 hours) based on survey of 122 vehicles at Nagdhunga].*



Source: Data based on HTPL-Birgunj ICD and sample survey of vehicles at Birgunj ICP and Nagdhunga.

| Indicator Name   | Unit of Measure | Baseline             | Original Target      | Formally Revised Target | Actual Achieved at Completion |
|--|-----------------|----------------------|----------------------|-------------------------|-------------------------------|
| Total time between cargo offloading at Kolkata to arrive in Birgunj by rail, and Birgunj to Kathmandu for trucks | Days            | 22.00<br>08-Apr-2013 | 17.60<br>31-Dec-2019 | 17.60<br>30-Nov-2021    | 3.70<br>10-Sep-2021           |

**Comments (achievements against targets):**

The end-target achieved by the Project closure date i.e. November 30, 2021 is 3.70 days for cargo offloading at Kolkata to arrive in Birgunj by rail, and Birgunj to Kathmandu for trucks.

*Note: Calculation of 3.7 days [1.1 day cargo offloading time at Kolkata (data not available and used past data); Kolkata – Birjung: avg 1.95 days based on data of 24 rakes at Birgunj ICP; and Birjung – Nagdhunga: avg 0.65 day (15.44 hours) based on survey of 122 vehicles at Nagdhunga]*

Source: Data based on HTPL-Birgunj ICD and sample survey of vehicles at Birgunj ICP and Nagdhunga.

**A.2 Intermediate Results Indicators**

**Component:** Strengthen Trade-Related Institutional Capacity in Nepal

| Indicator Name               | Unit of Measure | Baseline | Original Target | Formally Revised Target | Actual Achieved at Completion |
|------------------------------|-----------------|----------|-----------------|-------------------------|-------------------------------|
| Growth in Hit Rate for Trade | Percentage      | 0.00     | 40.00           | 119.00                  | 119.00                        |



|  |  |             |             |             |             |
|--|--|-------------|-------------|-------------|-------------|
| Portal   |  | 08-Apr-2013 | 31-Dec-2019 | 30-Nov-2021 | 30-Nov-2021 |
| <p><b>Comments (achievements against targets):</b><br/>                 The end-target achieved by the Project closure date i.e. November 30, 2021 is 119% growth in hit rate for trade portal.</p> <p><i>Note: The earlier calculations of hit rate were not uniform due to ongoing upgradation works in NTIP. The latest hit rate now has been calculated based on original version and final upgraded version of the NTIP. Accordingly, the monthly average hits have been identified as 2235 based on year 4 data and the average monthly hit for year YR5, YR6, YR7, YR8 were 3144, 2044, 1813, 4894 and hence, the growth in hit rate is re-calculated as 39%, -9%, -19%, 119% respectively.</i></p> <p><i>Source: Nepal Trade Information Portal.</i></p> |  |             |             |             |             |

| Indicator Name  | Unit of Measure | Baseline    | Original Target | Formally Revised Target | Actual Achieved at Completion |
|---|-----------------|-------------|-----------------|-------------------------|-------------------------------|
| Agencies Integrated into Single Window  | Number          | 0.00        | 5.00            | 5.00                    | 13.00                         |
|   |                 | 08-Apr-2013 | 31-Dec-2019     | 30-Nov-2021             | 30-Nov-2021                   |
| <p><b>Comments (achievements against targets):</b><br/>                 The end-target achieved by the Project closure date i.e. November 30, 2021 is 13 agencies integrated into single window.</p> <p><i>Note: 10 agencies namely DFTQC, DLS, PQPMC, FNCCI, CNI, NCC, FHAN, NRB, Banks "A" and Banks "B" operating different modules developed in NNSW. 3 agencies namely DoC, FCGO and IRD are integrated with NNSW along with their existing system.</i></p> <p><i>Source: Project Implementation Progress and Supervision reports.</i></p> |                 |             |                 |                         |                               |



| Indicator Name                             | Unit of Measure | Baseline    | Original Target | Formally Revised Target | Actual Achieved at Completion |
|--|-----------------|-------------|-----------------|-------------------------|-------------------------------|
| Labs Developed or Improved and Operational | Number          | 0.00        | 1.00            | 1.00                    | 1.00                          |
|  |                 | 08-Apr-2013 | 31-Dec-2019     | 30-Nov-2021             | 30-Nov-2021                   |

**Comments (achievements against targets):**

The end-target achieved by the Project closure date i.e. November 30, 2021 is 1 SPS lab building completed and taken over by Central Agricultural Lab.

*Source: Project Implementation Progress and Bank Site Supervision reports.*

**Component: Improve Select Trade-Related Infrastructure**

| Indicator Name             | Unit of Measure | Baseline    | Original Target | Formally Revised Target | Actual Achieved at Completion |
|----------------------------|-----------------|-------------|-----------------|-------------------------|-------------------------------|
| Roads rehabilitated, Rural | Kilometers      | 0.00        | 33.00           | 33.00                   | 33.00                         |
|                            |                 | 08-Apr-2013 | 31-Dec-2019     | 30-Nov-2021             | 30-Nov-2021                   |

**Comments (achievements against targets):**

The end-target was achieved in 2019 through improvement of Mugling-Narayanghat road spanning 33 km as per the Asian Highway Standard

*Source: Supervision Consultant and Bank Site Supervision reports*

| Indicator Name | Unit of Measure | Baseline | Original Target | Formally Revised | Actual Achieved at |
|----------------|-----------------|----------|-----------------|------------------|--------------------|
|----------------|-----------------|----------|-----------------|------------------|--------------------|



|   |        |             |             | Target      | Completion  |
|---|--------|-------------|-------------|-------------|-------------|
| ICDs Built or Improved  | Number | 0.00        | 3.00        | 3.00        | 3.00        |
|   |        | 08-Apr-2013 | 31-Dec-2019 | 30-Nov-2021 | 30-Nov-2021 |
| <b>Comments (achievements against targets):</b><br>The end-target achieved by the Project closure date i.e. November 30, 2021 is 3 ICD at Birgunj, Bhairahawa Improved and ICD Kathmandu built.<br><br><i>Source: Supervision Consultant and Bank Site Supervision reports.</i> |        |             |             |             |             |

**B. KEY OUTPUTS BY COMPONENT**

| Component   | Key Outcomes or Outputs   |
|---|---|
| <b>Component A: Modernize transport and transit arrangements between Nepal and India</b>  |   |
| CA.1. introduce a modern and effective transit regime including technical assistance in enhancing the capacity to negotiate trade and transit treaties                            | - <b>20 no. of studies/ guidelines on VFTC, axle load, road safety and cross border monitoring</b>  |
| CA.2. simplify and harmonize customs and border management procedures, processes and systems, especially to provide for electronic interchange of transit data                    | <i>note: transit goods cleared through electronic CTD has been superseded by introduction of Electronic Cargo Tracking System (ECTS) and not relevant</i>                           |
| CA.3. strengthen and modernize the regulation of national and international trucking services including axle load control and road safety from a transport management perspective | - <b>2 no. of weighbridge built</b><br>- <b>Mobile axle load procured</b><br>- <b>RAIMS piloted in KTM and KTM-BRJ corridor</b><br>- <b>GPS enabled VTS developed &amp; piloted</b> |
| <b>Component B: Strengthen Trade-Related Institutional Capacity in Nepal</b>  |   |
| CB.1. Trade Portal and Single Window System Development   | - <b>Nepal Information Trade Portal developed</b><br>- <b>Nepal National Single Window developed &amp; 1st phase (18 agencies) implemented</b>                                      |
| CB.2. Improvement of Trade-Related Laboratories   | - <b>-1 SPS lab built, furnished &amp; equipped</b><br>- <b>-DoC lab strengthened with additional lab equipment</b>   |
| CB.3. Institutional strengthening for Interagency Coordination including financing of Project Coordination Office (PCO)   | - <b>NTTFC functionalized; 10 trade policy documents reviewed/ prepared</b>   |
| <b>Component C: Improve Select Trade-Related Infrastructure</b>   |   |
| CC1. Expand and upgrade the Narayanghat-Mugling road section and implement measures for improvement of entire Birgunj-Kathmandu   | - <b>33 km of Narayanghat-Mugling road section upgraded to Asian highway standard</b>   |





| Component  | Key Outcomes or Outputs   |
|--|---|
| Corridor   | <ul style="list-style-type: none"><li>- <b>4 bridges constructed along Narayangath-Mugling road</b></li><li>- <b>Introduced wildlife animal crossing in Nepal</b></li></ul> |
| CC2. Build a Container Freight Station (CFS) or ICD in Kathmandu | <ul style="list-style-type: none"><li>- <b>1 new ICD built/ operational in KTM</b></li></ul>  |
| CC.3. Improve the infrastructure at Birgunj and Bhairahawa ICDs  | <ul style="list-style-type: none"><li>- <b>Pavement improved at Bhairahawa ICD</b></li><li>- <b>Railway shed built at Birgunj ICD</b></li></ul>                             |

**ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION****A. TASK TEAM MEMBERS**

| <b>Name</b>   | <b>Role</b>                     |
|---|---------------------------------|
| <b>Preparation</b>                                      |                                 |
| Diep Nguyen-Van Houtte                                  | Task Team Leader(s)             |
| Shambhu Prasad Uprety                                   | Procurement Specialist(s)       |
| Yogesh Bom Malla  | Financial Management Specialist |
| Neena Shrestha  | Team Member                     |
| Jan Erik Nora   | Team Member                     |
| Neha Pravash Kumar Mishra                               | Social Specialist               |
| Parthapriya Ghosh                                       | Social Specialist               |
| Shubu Thapa   | Team Member                     |
| Deepak Man Singh Shrestha                               | Team Member                     |
| Rupa Shrestha   | Team Member                     |
| Ramesh Raj Bista  | Team Member                     |
| <b>Supervision/ICR</b>                                  |                                 |
| Deepak Man Singh Shrestha, Jan Erik Nora                | Task Team Leader(s)             |
| Shambhu Prasad Uprety, Neena Shrestha, Rahmoune Essalhi | Procurement Specialist(s)       |
| Bishwa Raj Basaula                                      | Financial Management Specialist |
| Victor Boakye-Bonsu                                     | Financial Management Specialist |
| Shubu Thapa   | Team Member                     |
| Hari Prasad Bhattarai                                   | Social Specialist               |
| Ramesh Raj Bista  | Procurement Team                |
| Sunita Shakya Chitrakar                                 | Team Member                     |
| Antoine Avedis Kunth                                    | Team Member                     |



|                          |                          |
|--------------------------|--------------------------|
| Bibash Shrestha          | Procurement Team         |
| Tema Alawari Kio-Michael | Team Member              |
| Prakash Awasthi          | Environmental Specialist |
| Alidu Babatu Adam        | Social Specialist        |
| Satya Prasad Sahu        | Team Member              |
| Sujata Bhandari          | Team Member              |
| Sri Kumar Tadimalla      | Team Member              |
| Charles Kunaka           | Team Member              |
| Josefo Tuyor             | Environmental Specialist |

**B. STAFF TIME AND COST**

| Stage of Project Cycle | Staff Time and Cost |  |
|------------------------|---------------------|--|
|                        | No. of staff weeks  | US\$ (including travel and consultant costs) |
| <b>Preparation</b>     |                     |  |
| FY13                   | 15.623              | 80,440.15                                    |
| FY14                   | 0                   | - 0.06                                       |
| <b>Total</b>           | <b>15.62</b>        | <b>80,440.09</b>                             |
| <b>Supervision/ICR</b> |                     |  |
| FY14                   | 27.712              | 109,790.91                                   |
| FY15                   | 21.769              | 142,110.48                                   |
| FY16                   | 27.232              | 132,415.36                                   |
| FY17                   | 39.354              | 210,760.86                                   |
| FY18                   | 36.856              | 201,685.60                                   |
| FY19                   | 39.944              | 231,396.72                                   |
| FY20                   | 40.600              | 208,349.62                                   |
| <b>Total</b>           | <b>233.47</b>       | <b>1,236,509.55</b>                          |

**ANNEX 3. PROJECT COST BY COMPONENT**

| Components   | Amount at Approval (US\$M) | Revised during 2 <sup>nd</sup> restructuring | Actual at Project Closing (US\$M) | Percentage of Approval (US\$M) |
|--|----------------------------|--|-----------------------------------|--------------------------------|
| Modernize transport and transit arrangements between Nepal and India | 7.00                       | 2.10   | 1.65                              | 23.57                          |
| Strengthen Trade-Related Institutional Capacity in Nepal             | 23.00                      | 13.30  | 10.12                             | 44.00                          |
| Improve Select Trade-Related Infrastructure                          | 69.00                      | 66.00  | 58.77                             | 85.17                          |
| <b>Total</b>   | <b>99.00</b>               | <b>81.40</b>                                 | <b>70.54</b>                      | <b>71.25</b>                   |

## ANNEX 4. EFFICIENCY ANALYSIS

### Summary of revised economic evaluation of the NIRTTP project

#### Method and basic results

1. This ex-post project economic evaluation uses the same methodology that was used for the Appraisal Report evaluation<sup>7</sup>. The evaluation period has been extended from six to ten years to account for the delay in completing some of the project components.

**Table 1. Summary evaluation results**

| Evaluation parameter | Value at Appraisal | Revised Value |
|----------------------|--------------------|---------------|
| EIRR                 | 30%                | 41%           |
| MIRR <sup>8</sup>    | n.a.               | 25%           |
| NPV                  | U\$29.8m           | U\$60.3m      |

*Source: Project Appraisal Report and Revised Economic Evaluation Model*

2. Since the project includes several institutional and operational measures that require little investment, the revised economic rate of return of the project remains high (41%) and the revised net present value is now double that estimated at appraisal.

#### Opening dates

3. The improvements to the ICDs at Bhairahawa and Birunj were completed in 2016 and 2019, respectively and the Nepal Trade Information Portal become available in 2017. Most of the improvements to the Narayanghat-Mugling (N-M) road were completed by mid-2018. The National Single Window phase 1 with 15 various stakeholders was completed in November 2021 and already more than 85% of import licenses, permits, certificates and other documents ('LPCOs') are now approved via the single window in less than three days.<sup>9</sup> The ICD facility at Kathmandu was completed in June 2021 and became operational in April 2022 i.e., after the project closing date.

4. The Sanitary and Phyto-Sanitary (SPS) laboratory building including the necessary refurbishment and procurement of laboratory equipment was completed by November 2021, however, it is yet to have the required staffing and operational. Considering the recent development of Customs declaration, it is expected be operational by April 2022. The revised disbursement schedules and opening dates have been taken into account in revised economic evaluation.

**Table 2. Completion dates of project components**

| Activity                                     | Completion of activity |
|--|------------------------|
| Pavement improvements at Bhairahawa ICD      | January, 2016          |
| Railway shed extenuation at Birunj ICD       | June, 2019             |
| Nepal Trade Information Portal               | September, 2017        |
| N-M road                                     | June, 2018             |
| SPS Laboratory, refurbishment, lab equipment | November, 2021         |
| National Single Window                       | November, 2021         |

*Note: Completion date does not necessarily indicate entry into service date*

*Source: Implementation Status Reports*

<sup>7</sup> With prices updated to end-2021 values and some assumptions being changed to reflect actual rather than projected outcomes

<sup>8</sup> The IRR assumes that the benefits of the project will be reinvested at the rate of return of the project. If the project rate of return is very high (as in this case) this assumption is implausible. The modified economic rate of return (MIRR) allows the user to specify the rate at which the project benefits will be reinvested. In the application of the MIRR used here a reinvestment rate of 12% has been used.

<sup>9</sup> Nepal National Single Window KPI report, July 2021.

## Transit times

5. The main reason for the improved economic outcomes is that the total transit times are shorter than projected at Appraisal. Along the studied logistics routes, only the clearance time for rail containers in the port of Kolkata did not achieve nor exceed its expected time savings. The reduction in dwell time for container transported by road was of two days as expected. There have also been reductions in the rail transit times between Kolkata and Birgunj and at the Indian ICP at Raxaul but these have not been taken into account in the revised economic evaluation as they are not attributable to the project.

6. Although the project financed SPS laboratory at Kathmandu is now complete, it will only become operational later in 2022 so there is not yet confirmation on the time savings they will produce. It has been assumed that the 1.5 days of time saving anticipated in the Appraisal Report will be achieved.

**Table 3. Transit times (days)**

| Stage of transit                    | Transit times (days) |                    |                           |                       |
|-------------------------------------|----------------------|--------------------|---------------------------|-----------------------|
|                                     | Mode of transport    | At Appraisal, 2013 | Target for end of project | Actual September 2021 |
| Container handling in Kolkata port  | Rail                 | 11.0               | 9.0                       | 10.0                  |
| Inspections in Kolkata port         | Rail                 | 2.5                | 2.5                       | 2.5                   |
| Transit from Kolkata port to Raxaul | Rail                 | 6.0                | 5.0                       | 3.0                   |
| Raxaul-Birgunj border crossing      | Rail                 | 2.3                | 1.5                       | 0.9                   |
| <b>Total time</b>                   | <b>Rail</b>          | <b>21.8</b>        | <b>18.0</b>               | <b>16.4</b>           |
| Container handling in Kolkata port  | Truck                | 6.0                | 4.0                       | 4.0                   |
| Inspections in Kolkata port         | Truck                | 2.5                | 2.5                       | 2.5                   |
| Transit from Kolkata port to Raxaul | Truck                | 5.0                | 5.0                       | 4.0                   |
| Raxaul-Birgunj border crossing      | Truck                | 2.3                | 1.5                       | 0.9                   |
| <b>Total time</b>                   | <b>Truck</b>         | <b>15.8</b>        | <b>13.0</b>               | <b>11.4</b>           |

*Source: Project Appraisal Report and Implementation Status Report, September 2021*

## Evaluation period

7. The original economic evaluation covered the years six years 2013 to 2018, the period from the expected first to last years of project disbursement. The project closing date was extended to November 2021, and some of the components will not be operational until 2022. So that the revised economic evaluation can include a reasonable operating period of these components, the evaluation period was extended to 2026. The original evaluation period was plausible for the institutional components of the project and also for the N-M road as this was expected to reach capacity by 2024.

## Traffic growth rates

8. In the Feasibility Study, the projected traffic growth on the N-M road was between 5.6% and 6.5% per year. With these growth rates the traffic was projected to reach its design capacity of about 12,000 vehicles per day by 2024. In practice the average growth rate between 2011 and 2019 was about 5.2% for heavy and medium trucks and about 4.5% for other motorized traffic. At these rates the design capacity will not be reached until about 2028. A sensitivity test on extending the evaluation period to 2028 significantly improved the estimated economic outcome of the project, giving an NPV of more than US\$100b and an EIRR of more than 60%.<sup>10</sup>

9. For the revised assessment of the N-M road, the updated growth rates have been used to assess the road user benefits up to 2028, after which year they were assumed not to change as road congestion would outweigh any further increase in traffic volumes.

10. In the economic evaluation of the project components other than the N-M road, it was originally assumed that the growth rate of trucks crossing the border would be 15% per year, and that the 60% of the trucks using the

<sup>10</sup> These results have not been included in Table 5 as that only shows the outcomes of assessing downside risks of the project, not potential additional upside gains.

highway would also use the Kathmandu ICD and that their number would increase at the same rate as the highway traffic the ICD was open. Similar assumptions have been used in the revised economic evaluation, except that the ICD opening date is now assumed to be 2022 and the rate of increase of truck traffic is assumed to be 5.2%.

### Base year for prices

11. All unit costs and benefits for the revised evaluation have been updated to end 2021 prices by using the Nepal consumer price index. Where these are compared to the Appraisal evaluation results, the latter have been retained at the 2013 prices used, and the comparisons expressed on percentages.

### Sources of costs and benefits

12. There is a close inter-relationship between the various components of the project – more than one sub-component of the project contributes to each of the sources of benefit. So, it is only possible to determine the allocation of gross and not net benefits between the various benefiting users. The revised economic evaluation indicates a larger share of the benefits attributable to transit benefits within Nepal (almost all from the N-M road improvements and largely because of the longer assessment period for benefits), and to Kathmandu ICD (even though it is late opening, the extended evaluation period gives more time for its benefits to accrue). Improvements and to improved laboratory testing have a lower share than at appraisal but their actual benefits are little changed. The late implementation of some cost sources was largely a result of the difficulties in implementing institutional changes.

**Table 4. Source of present value of costs and benefits**

| Source of cost               | Present value costs |         | Source of benefit | Present value of benefits |         |
|------------------------------|---------------------|---------|-------------------|---------------------------|---------|
|                              | Appraisal           | Revised |                   | Appraisal                 | Revised |
| Transport regulation reforms | 9%                  | 2%      | Kolkata port      | 21%                       | 10%     |
| Bilateral transit reforms    | 3%                  | 2%      | Birgunj border    | 38%                       | 45%     |
| Trade Portal                 | 1%                  | 1%      |                   |                           |         |
| Single window                | 14%                 | 14%     |                   |                           |         |
| Capacity building            | 0%                  | 3%      |                   |                           |         |
| N-M road                     | 48%                 | 51%     | Nepal transit     | 18%                       | 31%     |
| ICD, M&E                     | 21%                 | 24%     | Kathmandu ICD     | 33%                       | 12%     |
| Multi-functional labs        | 3%                  | 3%      | Lab tests         | 2%                        | 2%      |
|                              | 100%                | 100%    | Total             | 100%                      | 100%    |

### Sensitivity tests

13. Although most of the costs of the project are now known, the estimates of benefits are still subject to a large range of uncertainty. Four benefits have been subject to downside risk sensitivity tests. An important component of the project benefits is the reduction in uncertainty in transaction times particularly at Kolkata port – not only were the transaction times long, they were very uncertain. Recipients of the traded goods have to hold buffer stocks sufficient to cover the long-expected transaction times (based on the average plus an allowance for the uncertainty). Despite their importance it has not been possible to measure these, so a lower assumed reduction in uncertainty (from 4 days to 2 days) was the first sensitivity test. The second sensitivity test was on the time savings at Birgunj border crossing since these have only been measured over two months of the year. The third sensitivity test was on the values of time savings to freight, since these are based on a series of assumptions of delay times, value of the goods, and costs of stockholding and insurance against loss, and not on actual measures of the values. The final sensitivity test was on the number of trucks that will use the Kathmandu ICD, which is only an estimate as the ICD is not yet operating.

14. None of these sensitivity tests by themselves have a significant impact on the outcome of the economic evaluation, and even when considered in pairs, the reduction in NPV and EIRR is only of the order of 15% to

20%. The outcome is much lower when all the sensitivity tests are considered together but the result is still a positive NPV and the EIRR is above the 12% benchmark value (12% was used in the Appraisal economic evaluation, a lower benchmark of about 8% would now be considered appropriate). Even the lowest MIRR is above the benchmark value<sup>11</sup>.

**Conclusion to economic evaluation**

15. The basic evaluation and the single and double sensitivity tests all give results that are better than the basic evaluation at Appraisal and that are above the benchmarks for acceptability. Even taking all three sensitivity assumptions together gives a result that is above the benchmark values. The conclusion of the economic evaluation is that the project is highly justified, and this result is sustainable even taking account of pessimistic assumptions about three key parameter values.

**Table 5. Downside Risks - Sensitivity tests**

| Sensitivity test |  | NPV<br>(U\$m) | EIRR<br>%  | MIRR<br>%  |
|------------------|--|---------------|------------|------------|
|                  | Appraisal  | 29.8          | 30%        | n.a.       |
|                  | <b>Basic evaluation</b>  | <b>60.3</b>   | <b>42%</b> | <b>25%</b> |
| a                | Reduction in uncertainty benefits  | 55            | 38%        | 22%        |
| b                | Reduction in time savings at Birgunj   | 41            | 24%        | 15%        |
| c                | Lower value of freight time savings  | 50            | 36%        | 21%        |
| d                | Fewer trucks to ICDs   | 50            | 37%        | 21%        |
| a+b              | Lower uncertainty benefits and lower time savings at Birgunj                             | <b>38</b>     | <b>22%</b> | <b>14%</b> |
| a+c              | Lower uncertainty benefits and lower value of freight time savings                       | <b>45</b>     | <b>27%</b> | <b>17%</b> |
| a+d              | Lower uncertainty benefits and fewer trucks to ICDs                                      | <b>46</b>     | <b>28%</b> | <b>18%</b> |
| a+c+d            | Lower uncertainty benefits, lower value of freight time savings and fewer trucks to ICDs | <b>34</b>     | <b>18%</b> | <b>12%</b> |

<sup>11</sup> With an EIRR above the benchmark value, the MIRR usually gives a lower value but still above the benchmark.



## ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

The GoN submitted a detailed Borrower's Completion Report both with updated data and information included in the main body and annexes of this ICRR. Below are the key summary of the Borrower's Completion Report that provide a concise overview of Borrower and Bank performance, lessons learnt, and overall observations.

### 1. Bank and Borrower Performance

#### Transport Component

##### **Performance of Borrower**

Government of Nepal is the borrower and Ministry of Physical Infrastructure and Transport is the executive agency and Department of Roads is the implementing agency for component C.1 of the Project. On behalf of Departments of Roads, Deputy Director General of Development Cooperation Implementation Division manages the project and Senior Divisional Engineer is the Project Coordinator. Project Coordination Team includes engineers, account staffs and other supporting staffs. A separate Project office at Mugling headed by a first-class Project Manager supported by SDE, Engineer and Account team was established to manage and supervise the NM road works.

##### **Performance of Government**

Government as per its road transport policy has approved NIRTTP as a key infrastructure development project improvement and widening of Narayanghat-Mugling-Road. The main responsibility of the government is to ensure adequate annual budget for the project and to create conducive environment at project site and in project management office for smooth implementation of the project activities. Likewise, the government plays a vital role in coordinating inter-ministerial, inter-departmental and inter-agencies for resolving project issues and problems related to them. Related safeguard issues including land acquisition, resettlement action plan, necessary clearance from forest, utility shifting, traffic management and coordination with locals were also under the Government responsibility which was carried out by the Project office with support from the DOR.

In most cases government and local administration has extended maximum support to the project and encouraged for speedy implementation. During the peak season of construction, the local administration agreed to stop traffic for some time of the day to expedite the necessary works along the road. The road section being high importance to the supply line for Kathmandu valley and trade perspectives frequent visits from the Bank team, MoPIT/ DOR, from the local administration including a high-level visit by the Prime minister helped the project team and contractors to push the works progress and resolve issues, if any. Allocation of overall annual budget and government counterpart fund was never a problem. However, the budget amendment process through LMBIS (Line Ministry Budget Information System) and approval process is bit time consuming.

In overall performance of the government towards the execution of NIRTTP is always positive, encouraging and sensitive.

##### **Performance of Executive Agency**

Ministry of Physical Infrastructure and Transport (MoPIT) as an executive agency plays a pivotal role in implementing the project in smooth manner. Guidance and instruction from MoPIT were always found to be very fruitful and constructive. It has provided important support to prepare annual work program, financing plans and other policy level activities. Deputation of required project staffs is also done by the ministry. MoPIT carries out monitoring and evaluation of the project in regular basis. Since MoPIT being a line ministry all important communication between project and government are done through this office.

However, there is lack of sufficient number of technical staffs at MoPIT which may hinder the frequent monitoring process. Monitoring and evaluation mechanism adopted by the ministry is not adequate and it needs basic improvement for better feedbacks to the project.

Frequent transfer of project staffs in different levels has hampered the project progress in many occasions. This has been mentioned in Bank's aide memoires several times. Project staffs should be designated for fixed time period so that the activities can run in systematic manner.

## **Performance of Implementing Agency**

Implementing agency has established a separate project coordination team at Development Cooperation Implementation Division headed by the Deputy Director General. Senior Divisional Engineer is the Project Coordinator for NIRTTP. The team is supported by a separate Project office at Mugling and subordinate staffs and equipped all logistic facilities. However, the team has been disturbed repeatedly by discontinuity of staffs and having less experience in donor funded projects and even frequent transfer of higher authorities within the Department. This has resulted in delayed preparation of implementation progress reports, audit reports and other technical and financial reports. The Project office was responsible for overall management of construction supervision works of Road and Bridges, Slope stabilization works including account management. There was proper coordination and decision-making processes and environmental and social sensitivity among different staffs were coordinated by Individual Social / Environmental Experts. Due to lack of well experienced staffs, financial management and even other works management had been cumbersome job and reporting system was occasionally late and incomplete. Monitoring of such activities was a problem. Department has to improve the monitoring and evaluation mechanism in order to streamline widespread activities and to achieve the project goal. It is to note that the Bank financed projects usually need to follow the Bank guidelines for the procurement and safeguard requirement which is new for the Engineers and Account staff at DOR. Frequent training and handholding from the Bank team is must to support the Project team at DOR considering the staff changes.

## **Trade Component**

The trade related activities under the Project were executed by MoICS under various Implementing Agencies such as NITDB, DoC, CAL, TEPC.

The PCO supported MoICS and NTTFC with logistics and expert inputs for the sub-components. Workshops with stakeholder agencies, meetings: especially with Government of India agencies have been conducted. In addition, several studies were undertaken, and study visits were made. DoC took over the responsibility for development and operationalization of NNSW through a rarely used two-stage bidding procedure. The system was launched on 26 January 2021. DoC is still required to spend considerable energy in convincing and supporting OGAs to use the system. Although the development of the Trade Portal was completed under the same service packages for NNSW, a sub-system was developed to import data from the ASYCUDA system used by DoC. The database is hosted from TEPC server located at NITC. The sub-component A.3 detailed in was implemented by DOTM. Following the piloting, the mobile axle load weighing cells, truck weighing stations, RAIMS and GPS-VTS have been handed over to Nepal Police for operation. The guidelines and study reports have been sent to the 7 PTMO for implementation. In addition, based on the studies conducted under the project, the department has established 2-truck weighing stations, and 2-resting facilities for long distance bus drivers. NITDB managed the improvement of existing ICD at Birgunj and Bhairahawa as well as construction of a new CFS in Kathmandu. The planned Railway Tracks Modification at Birgunj ICD, and Construction of Ballast-less Railway Track had to be abandoned as even upon soliciting twice, bids from qualified bidders could not be received. The planned cargo monitoring system for NITDB was not developed as no mechanism existed to receive the data generated by Kolkata Port Authority, Indian Customs and Indian Railway. Nevertheless, as the first step to identify data generation points and mode of data, a study on Data Capture Framework for Kolkata-Kathmandu Corridor Monitoring was undertaken. Although the equipped SPS laboratory was supposed to be developed and used by PQPMC as stated in the PAD, sub-component B.2 was implemented by CAL following a decision by MOALD. Nevertheless, PQPMC participated in drafting of specifications and operation training. The ownership of the procured assets is now being transferred to PQPMC.

## **Performance of the Bank**

The World Bank is always supportive to the NIRTTP and has provided necessary assistance to make the project success. Bank's persistent and continuous effort has helped to resolve many issues and problems raised during the implementation. Particularly safeguard compliance issues were minutely addressed by Bank mission team while visiting the site and discussing with concerned authorities. The monitoring work carried out by the Bank is commendable. Comments, remarks, advices and recommendations provided in aide memoire after each mission were very fruitful for solving issues, expediting project works and streamlining the outstanding problems and lagging behind activities. Bank's endeavor for maintaining the technical, financial, institutional, social and environmental discipline as agreed in PAD and grant/credit agreements has established definite norms and motivated the project staffs including consultants and contractors. As a result, despite of various impediments

project objectives have been achieved to great extent. All the time missions' attitude and their suggestions were within the agreed standards and norms and were directed to the success of the project.

## **Lessons Learnt**

### **Transport Component**

NIRTTP is being implemented since July 2013 and its scope includes mainly the improvement/widening of 33 Km of Naraynghat-Mugling Road including 4 bridges and slope stabilization works. Road upgrading and slope stabilization and Bridge Construction are dynamic activities and DOR is regularly performing and updating with new technology. Likewise national construction industry has also gained substantial experiences and opportunities for enhancing its capacity and capabilities. Some of the major lessons learnt from the project are as follows:

- i. Sufficient time for Project Preparation while preparing Project Appraisal Document should be allocated before finalizing the project scope and budget. As some of the important aspects of the project like construction of all the 14 bridges were not incorporated in the initial scope. However, later it was realized and added 4 new bridges with the saved amount of the Project. Due to not addressing all the existing 14 bridges of intermediate lane (6m) there is still congestion at existing bridge approaches though the road width is for standard two lane (7 m). Now at present all the remaining bridges are being constructed by the DOR through BIMP II financing.).
- ii. Although component of Road Improvement of Naraynghat Mugling-section seems smaller compared to the overall project cost of NIRTTP, the improvement of Road from intermediate lane to Asian highway standard two lane road has provided smooth flow of traffic of more than 20000 number of vehicles per day resulting in reduction of travel time for this section from 70 minutes to 45 minutes with safety measures. The alignment of this Road section is a very difficult terrain with respect to steep mountain slope and very deep river in other side recurring huge slides every year. However, it was successfully accomplished, and this is a remarkable achievement of DoR.
- iii. By adopting suitable work packages, the local contractors were inspired to participate in JV partner and thus helped to promote the national construction industry as well. Contracts involving international contractors can help to develop national construction industry through transfer of knowledge in terms of project management, site management, resource management and technology transfer. Joint venture provision in civil contract should be elaborated in the sense that capable and lead partner manages the contract at site. Otherwise, in many occasions it was found that the inferior/junior partner handles the contract and lots of problems and issues crop up due to lack of experience and competency resulting delay in completion and even termination of the contract. Therefore, the strict provision of enrollment of both the JV partners should be enforced in the bidding documents in future projects so that the capacity enhancement and innovativeness in the construction could have been achieved.
- iv. Construction of all new bridges and Slope Stabilization Project should have been incorporated within the same Road Construction Contracts which could have saved different procurement process as well save money, time and overcome several hurdles.
- v. The design consultant's team and supervision consultant team were separate as the financing and schedule for the project was not clear at Design time. Considering various hurdles during the implementation time it is desired that the design and supervision consultant must be same in order to avoid lacking institutional memory and also to ensure the correctness of the design and liability of supervision in consultant.
- vi. Out of the three contracts two contracts came up with claims and later resulted in disputes. Timely actions on such claims from the supervision consultant (engineer) and the project management team would have reduced the dispute cases. The Engineer and project management team must be proactive and responsive to minimize the claims and its timely resolution to avoid the disputes. The Project team / Client team should also not hesitate to follow the standard procedures specified in the contract for Claim and Dispute handling as well as honor the award made by the Dispute Board and/or Arbitration.
- vii. The contractors suffered timely payment for Claims and disputes even after the due process and award from the DAB and Arbitration as the Client team further went to Civil Court challenging the Arbitration award. However, the Court did not enter into the subject matter as Arbitration award was final one. This delay in payment after Arbitration award has now resulted additional cost to the client/ government due to need for interest payment to the contractor.

- viii. Project development objective adopted by NIRTTP is very relevant in the context of helping reduce the transport time, enhance road safety and environmental sustainability in roads, and also reduce key infrastructure bottlenecks in the trade sector. Similar objectives have to be continued in future as well by the government policies to enhance the regional trade and particularly to enhance the export.
- ix. The periodic maintenance of the Road Pavement Surface including timely routine/recurrent maintenance should be adopted to maintain its sustainability and optimum utilization of resources. Similarly, close monitoring of potential slide zones and its proper investigation along with remedial measures should be adopted by the Borrower to make the road safer.
- x. The original project duration is almost 6.5 years, and the revised duration is almost 8.4 years, mainly due to delay in the trade related activities under the project, which seems slightly longer compared to other running donor funded projects in Nepal. This long duration might be the cause of comparative less sensitiveness for optimization and strict follow up of timely completion of different activities.
- xi. Road safety component and slope stabilization to be designed part of earlier design in all roads upgrading contracts such that the accident rates and road closure time could be minimized. During construction and after completion of road works safety awareness programs to be conducted to all the road users in different levels and groups. In fact, in every road projects it is observed that road accidents increases just after completion of road pavement works mainly due to high speed of traffic. Appropriate guard rail protection, cable wire protection, and rumble strips used before the narrow bridges to caution drivers were found to be very effective and need to continue.
- xii. Coordination and clear communication with all stakeholders including road users, road neighbors, government offices, private agencies and other public institution is very essential for the success of project. Project information should be transparently disseminated to all stakeholders in every stage of project so that they can understand the project objectives and accordingly contribute their effort for the success of project. Use of public media, FM radio, road information portals at appropriate locations, and the face book account giving all the progress related information and road closure notice were found to be effective and to be followed in all major projects.
- xiii. Acquisition of land, public and private properties required for the project is very difficult task, which needs lots of coordination and cooperation among various agencies. Concerned district administration office, land revenue office, district survey office, forest office, project affected persons and local consultative forums should be made aware of all project objective, construction activities, schedules and plans for carrying out the project works. They should be convinced that without successful completion of land acquisition and resettlement action plan construction work cannot be implemented.
- xiv. For the smooth implementation of any donor assisted construction project it is very essential that the concerned government offices such as Ministry of Finance, Finance Comptroller Office, and Auditor's General Office etc. are aware of project details including grant/loan agreements and their conditions. The Project Designated Account provision for 5 million USD was found to be very helpful in making timely foreign currency payments to the consultants/ contractors where needed. However, considering the needed interest payment from the Government the amount in such PDA could be reduced to 2 Million USD.
- xv. Programme approach for the implementation of the project will help to solve many issues developed during the project period. Institutional commitment from concerned agencies shall be assured so that implementation process can be expedited.
- xvi. There are many incidents which affected the implementation of project such as adverse weather condition, earthquake of year 2015, strike/bandh called by different local and national groups, pandemic of COVID 19, shortage of construction materials including fuel due to various reasons and even unforeseen site conditions. Conditions of contract of civil works and consulting services should explicitly spell out the provisions on such risks and solutions such that there will be less claims/disputes.
- xvii. The project's Institutional Strengthening component could not utilized fully due to credit fund available and MoF did not allow to use credit fund for such activities. This caused no professional trainings and capacity building activities for the DoR staff. In future, either grant fund to made available for such capacity building activities or MoF should agree to use credit fund in the financing agreement, itself.
- xviii. The existing approval procedure to import essential major construction materials (e.g., Bitumen) needs to be reviewed to make it simplified and time bound to avoid any conflict, delay in execution and completion of works with leading to extension of time with consequential financial implications / contractual complications.

- xix. Bioengineering activities to be started even after the first year of construction using a specific qualified person. There is very less knowledge in the field level as well as workers so the DOR need to apply on the job trainings to multiply the expertise as well as small contractor's group.
- xx. For the better management of traffic during construction the project management team need to have good coordination and cooperation with the local traffic police. Necessary vehicle/ motor cycles, safety related and or instruments to guide and check the traffic and drivers need to be provided to police. If it is long section and high accident hazard it is recommended to have standby ambulance and truck for towing sick vehicles.
- xxi. While planning and design for roads passing through forest area a specific studys using expertise is required on the biodiversity and needed interventions. To avoid any criticism later, need to coordinate with the related stakeholders and get consensus on the practical solutions, as possible. As DOR is not having expertise the related Ministry or Department may be involved for better results.

### **Trade Component**

- i. In the beginning of the project itself, the staff need to be trained on the WB procurement procedure to avoid confusions with the GoN procedures.
- ii. At the onset of financial audits, the auditors need to be explained on the Financial Agreement for the Project, procurement processes followed, the PAD, the financial reporting obligations and so on to avoid audit objections at a later date requiring considerable effort in striking them out.
- iii. Forming a smaller Bid Evaluation Committee and freeing its members from other tasks for faster evaluations.
- iv. Involving multiple agencies in project implementation is easy to implement various programs simultaneously.
- v. Project Coordination Office needs high level of Coordination with different agencies having different line-ministries.
- vi. Regular review meeting needs to be carried out in all the respective agencies to implement the project effectively.
- vii. Continuation of capacity enhancement programs is essential for PCO staff since the frequency of their transfer is high.
- viii. Consultants involving in the support for PCO should also be made accountable for the progress and non-progress of the PCO and Sub PCU.
- ix. Training on FIDIC contract conditions and processes to a large number of staff enhances the procurement capacity. Processes such as two-stage bidding, design-build contracts and specific requirements for IT goods/services are not adequately covered in the local Procurement Act.
- x. Regular capacity Building Program needs to be carried out in all the respective OGAs to promote the digital governance.
- xi. PIU has experienced that if the implementation unit was under ministry level, the inter-agencies coordination would have been much effective.
- xii. The PCU has experienced that this type of project should be piloted in minimum number of agencies, and their success only should pave the next number of OGAs in a bulk scale.
- xiii. The trade portal itself is not very complicated and thus could be updated and maintained by the local service providers.
- xiv. It is much more economic to use the data storage and hosting facility provided by NITC than establishing own data center.
- xv. While drafting the specifications, the quality control processes, especially for the IT computer hardware and software which have a tendency to get hanged fast, needs to be ascertained as well.
- xvi. Additional consideration needs to be given in specifying goods and processes with respect to the volume of parameters to be processed.
- xvii. Designs prepared by consultants need to be thoroughly checked by office staff against the BOQ and Drawings before soliciting bids to avoid design mistakes affecting contract execution. If the office staff do not have the required expertise for this, even the services of appropriate consultants need to be taken.
- xviii. Weekly informal meetings and monthly formal meetings with the Supervision Consultants and the Contractor to review progress and to solve pending issues is necessary to keep the work execution on schedule.
- xix. The first task in project implementation is ensuring adequate staffing.

## **Conclusion**

Implementation of Nepal-India Regional Trade and Transport Project has revealed that such infrastructure development project has drastically reduced the traffic congestion problem along Naryanghat Mugling-Road and ensured the free flow of around 20000 AADT with safety and at merely 45 minutes time. Government should encourage preparing such infrastructure development projects in cooperation with bi-lateral and multi-lateral donor agencies so that more and more all weather and safer road must be improvised for Life line roads like Narayanghat- Mugling Road.

The World Bank as an important and major development partner should continue to work together with the government in such types of vital projects which will support to enhance trade improvement alleviate poverty in remote rural areas and help to promote the overall social and economic development of the area. It is glad to note that a follow up project namely, Strategic Regional Trade and Transport Project (SRCTIP) on both transport and trade theme has been already approved and under implementation. SRCTIP has taken improvement of the section from Mugling to Kathmandu.

## ANNEX 6. List of Project Report

### A. List of reports prepared during Project Preparation

- Nepal Trade Facilitation and Logistics Improvement Study, 2013
- Nepal Customs - Human Resources Strengthening Plan, 2013
- Technical Assistance for Preparation of a Nepal National Single Window (NNSW) and Trade Information Portal (NTIP), 2013
- Report on design of Raxaul-Birgunj ICPs and Birgunj ICD, Michel Zarnowiecki, February 2017,
- SPS and Customs Laboratories in Nepal, VanderMeer, January 2015

### B. List of reports prepared during project implementation stage

Besides the Full time Trade related experts input for the MOICS and the NTTFC the project conducted various studies and prepared reports for the project related activities and related to improvement of road safety, axle load control, trade enhancement activities supporting the NTTFC and MOICS, DOC to take the right decisions and strategy.

- Feasibility and detail design of Nagdhunga- Naubise- Mugling road;
- Slope stability analysis and detail design reports for Narayanghat Mugling road;
- Road transport safety and Axle load control report
- Environmental Assessment report for the ICD Kathmandu considering five potential locations;
- Feasibility and detail design of the Kathmandu ICD;
- design of railway shed for the Birgunj ICD;
- design of pavement works at Bhairahawa ICD
- design of SPS lab building at Hahri Bhavan, Kathmandu
- Report on the lab equipment for the SPS lab
- Study on Data Capture Framework for Kolkata-Kathmandu Corridor Monitoring
- Study on Transshipment modalities ports of Calcutta and Mumbai
- Study on the SPS lab requirements in Nepal
- Study on the VFTC at Kathmandu and potential at seven provinces
- Study on Cruising Speed of Vehicles including identification of locations with unsafe speed
- Study on bus route survey and Development of Standard Criteria on Bus Route Permit,
- Development of technical guidelines on (1) Vehicle fabricators and workshops, (2) Bus route allocation, (3) Truck overloading control, (4) Operation of driver training center, (5) Vehicle inspection, (6) Vehicle testing, (7) Vehicular pollution testing, (8) Bus body building, (9) School bus.
- (i) A reference document on Nepal-India Trade Status including a review of Trade Policy and Trade Integration Strategy, import and export procedure, trade treaties with India, operational negotiation strategies as well as negotiation positions prepared. (ii) Training curriculum on International Trading System developed and training to staff of trade and transit related government agencies rendered. (iii) A Glossary of International Trade Terminology and Acronyms published. Report on Nepal-India Trade Status includes operational negotiation strategies and negotiation positions as well as background information to help government officials.
- Several publications in this regard have been made to prepare groundwork for future negotiations both with India and China on simplification and harmonization of customs and border management procedures. (ii) The Study on Data Capture Framework for Kolkata-Kathmandu Corridor Monitoring details the trade and transit related data generation points in India, the systems in India using the data and possible data sharing mechanism
- Road safety education activities through (1) Production and dissemination of posters with safety messages, (2) Production and broadcasting of safety related video and audio clips, (3) Training to Traffic Police and DOTM personnel

- (i) A compendium on Transit Treaties and Agreements of Nepal since 1950 published. (ii) Publication of Nepal-India Rail Services Agreement-2004 and Letter of Exchanges. (iii) Publication of A Collection of Nepal China Agreements
- Feasibility study of Service trade with India and SAARC Countries on strategies regulatory reform and promotional requirements of Nepal
- Study on reorganizing the Nepal Transit and Warehousing Company Limited (NTWCL) and the Nepal Intermodal Transport Development Board (NITDB)
- Various trade enhancement studies between Nepal and the other countries.