



Technical Assistance Report

Project Number: 52097-001
Transaction Technical Assistance (TRTA)
September 2018

Nepal: Institutional Strengthening of Road Safety and Gender Equality

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 11 August 2018)

| | | |
|---------------|---|--------------------------|
| Currency unit | – | Nepalese Rupee (NRe/NRs) |
| NRe1.00 | = | \$0.009080 |
| \$1.00 | = | NRs110.30 |

ABBREVIATIONS

| | | |
|-------|---|---|
| ADB | – | Asian Development Bank |
| DOR | – | Department of Roads |
| EWB | – | East–West Highway |
| GESI | – | gender equality and social inclusiveness |
| km | – | kilometer |
| MOPIT | – | Ministry of Physical Infrastructure and Transport |
| RBN | – | Roads Board Nepal |
| SASEC | – | South Asia Subregional Economic Cooperation |
| TA | – | technical assistance |

NOTES

- (i) The fiscal year (FY) of the Government of Nepal ends on 15 July. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2018 ends on 15 July 2018.
- (ii) In this report, "\$" refers to United States dollars.

| | |
|-------------------------|---|
| Vice-President | Wencai Zhang, Operations 1 |
| Director General | Hun Kim, South Asia Department (SARD) |
| Director | Ravi Peri, Transport and Communications Division, SARD |
| Team leader | Johan Georget, Transport Specialist, SARD |
| Team members | Bhupendra Bhatt, Project Officer (Transport), SARD |
| | Eloise Fluet, Social Development Specialist, SARD |
| | Yanying Li, Counsel, Office of the General Counsel |
| | Yang Lu, Transport Specialist, SARD |
| | Ma. Theresa Prado, Associate Project Officer, SARD |
| | Dinesh Shiwakoti, Procurement Specialist, Procurement, Portfolio, and Financial Management Department |
| | Suman Subba, Senior Social Development Officer (Gender), SARD |
| | Mitzi Tamayo, Operations Assistant, SARD |
| | Francesco Tornieri, Principal Social Development Specialist, SARD |
| | Karma Yangzom, Senior Environment Specialist, SARD |
| Peer Reviewer | Pawan Karki, Senior Transport Specialist, Central and West Asia Department |

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I. THE PROPOSED PROJECT

1. The Government of Nepal requested the assistance of the Asian Development Bank (ADB) to support the improvement of the east–west highway (EWH). The project will rehabilitate and upgrade the capacity, quality, and safety of about 87 kilometers (km) of the EWH between Kanchanpur and Kamala in southeastern Nepal. The EWH is the main domestic and international trade corridor of Nepal and forms part of the South Asian Association for Regional Cooperation and South Asia Subregional Economic Cooperation (SASEC) corridor 4, linking Kathmandu to Dhaka and Chittagong through India.¹

2. The project will promote economic growth and contribute to enhancing the competitiveness of Nepal’s exporting industries by (i) improving interprovincial, national, and regional connectivity; (ii) providing greater access to social services, markets, and employment opportunities; (iii) supporting the development of the agriculture, industry, energy, and tourism sectors; and (iv) easing growing traffic congestion. The project will be supported by attached technical assistance (TA) that will improve road safety, road maintenance, gender equality and social inclusion (GESI) on the 1,027 km-long EWH corridor, and strengthen the capacity of the executing and implementing agencies in road safety and road maintenance.

II. THE TECHNICAL ASSISTANCE

A. Justification

3. **Road safety.** While vehicle ownership in Nepal remains comparatively low, with only 0.08 vehicles per capita, vehicles sales have increased at an annual rate of 20.1% during FY2007–FY2017, with the number of registered vehicles expected to quadruple by 2027.² The growth in vehicle ownership is primarily driven by motorcycles, which account for 79.6% of all vehicles but increase road safety concerns. The number of recorded accidents increased from about 3,800 in FY2002 to 13,580 in FY2013 (an average annual growth rate of 12.3%), while recorded fatalities increased from 879 in FY2002 to 2,385 in FY2017 (an average annual growth rate of 6.8%).³ Traffic fatalities are estimated at 302 fatalities per 100,000 vehicles—one of the highest rates in Asia.⁴ In response, the government prepared a Road Safety Action Plan (2013–2020) aligned with the five pillars of road safety identified by the United Nations: (i) improved road safety management, (ii) safer roads and mobility, (iii) safer vehicles, (iv) safer users, and (v) improved post-crash response.⁵ The road safety action plan lacks a safety policy, and needs to be updated and complemented by a specific investment plan.

4. The EWH connects the eastern and western borders of Nepal with India, and is the main domestic and international trade corridor of Nepal. It provides a vital link to major economic centers and neighboring countries, and carries the highest traffic volumes in the country. On the majority of its length, the EWH has a two-lane design with an undivided median, and does not segregate slow-moving vehicles and pedestrians in urban sections. The traffic mix features a variety of road users, including motorcycles, freight vehicles, private cars, light goods vehicles,

¹ SAARC Secretariat. 2006. *SAARC Regional Multimodal Transport Study*. Kathmandu; and SASEC Secretariat. 2016. *Operational Plan 2016–2025*. Manila.

² Department of Transport Management. 2018. *Vehicle Registration Details up to Fiscal Year 2073-74*. Kathmandu. This compares to 0.42 vehicles per capita in India and 0.80 vehicles per capita in the United States.

³ Nepal Police, Traffic Directorate. 2015. *Accidents database*. Kathmandu.

⁴ World Health Organization. 2015. *Global Status Report on Road Safety 2015*. Geneva.

⁵ Government of Nepal, MOPIIT. 2013. *Nepal Road Safety Action Plan (2013–2020)*. Kathmandu; and World Health Organization. 2010. *Global Plan for the Decade of Action for Road Safety 2011–2020*. Geneva.

minibuses, bicycles, pedestrians, and carts; this results in speed differentials and dangerous driving behavior, which are further exacerbated by weak enforcement of traffic rules.

5. **Gender equality and social inclusion.** The Ministry of Physical Infrastructure and Transport (MOPIT) executes sector programs in the strategic roads, railways and transport management sectors through its three departments, Department of Roads (DOR), Department of Railways (DORW), and Department of Transport Management (DOTM). A review of MOPIT's GESI policies, institutional structures, programs, budgets and monitoring practices indicated that these sectors had not adequately incorporated GESI and other social development concerns, and required practical guidance to address GESI issues. With ADB support, MOPIT subsequently developed operational guidelines for mainstreaming and institutionalizing GESI in its portfolio and operations, which were finalized in 2017 and launched in March 2018.⁶ The TA will further support the review of the institutional framework required for implementation of the GESI operational guidelines through a range of capacity development initiatives targeting all divisions, branches and sections of MOPIT, DOR, DORW, and DOTM.

6. **ADB's intervention.** The proposed project will address infrastructure bottlenecks in southeastern Nepal. The proposed transaction TA will complement infrastructure improvements by supporting capacity building and institutional strengthening of MOPIT and its departments, and facilitating the preparation and implementation of road safety and GESI activities. The TA will implement the following key activities: (i) review of institutional arrangements related to road safety, (ii) preparation of a national road safety policy, of a road safety strategy for 2021–2030, and of an investment plan for 2021–2023; (iii) the strengthening of the road safety council comprising DOR, DOTM, Nepal Traffic Police, Roads Board Nepal (RBN), and other relevant agencies; (iii) the review and formulation of recommendations regarding a suitable road safety assessment framework; (iv) the preparation and implementation of a road safety assessment for 1,027 km of the EWH to mitigate accident blackspots, in coordination with project preparatory consultants engaged under the loan; (v) a road safety campaign along the EWH; (vi) a prefeasibility study to identify and design service areas along the EWH; (vii) a review of the institutional arrangements required for the implementation of GESI guidelines across the departments of MOPIT; (viii) the dissemination of GESI operational guidelines within MOPIT; and (ix) capacity strengthening of MOPIT, DOR, DORW, and DOTM in road safety and GESI.

7. **Technical assistance modality.** The transaction TA has been prepared at the request of MOPIT, which sought the assistance of ADB to increase the capacity of DOR and other agencies in road safety and GESI, and support the preparation and implementation of road safety projects on the EWH. The TA objectives, scope, and implementation arrangements were defined by MOPIT and ADB. Use of the TA modality is proposed, rather than a loan subcomponent, to (i) continue the long-term partnership of the government and ADB on policy dialogue and capacity development, (ii) strengthen the capacity of MOPIT and DOR with regard to identified knowledge and management gaps, (iii) increase cross-agency cooperation, and (iv) enhance project monitoring and improve the likelihood of achieving the proposed outputs and outcome. The TA is included in ADB's country operations business plan 2018–2020 for Nepal.⁷

⁶ MOPIT. 2017. *Gender Equality and Social Inclusion Operational Guidelines*. Kathmandu.

⁷ ADB. 2017. *Country Operations Business Plan: Nepal, 2018–2020*. Manila.

B. Outputs and Activities

8. The TA will support the implementation of the road safety action plan (footnote 5) on the EWH, and improve the capacity of the implementing agency in road safety. The outputs of the TA are consistent with output 2 of the loan: planning and management for road safety strengthened and output 3: facilities and project readiness of the Project Directorate (ADB) improved.

9. **Output 1: Gender-inclusive road safety policy and action plan developed.** The TA will strengthen the national road safety policy and prepare a pragmatic road safety investment program, and will support increasing DOR capacity with regard to road safety by:

- (i) reviewing the current institutional and legal framework, including MOPIT, DOR, RBN, and other relevant agencies;
- (ii) strengthening the inclusive operation of the National Road Safety Council comprising DOR, DOTM, RBN, Nepal Traffic Police, Ministry of Education, Ministry of Health and Population, and other relevant agencies;
- (iii) reviewing and strengthening the gender-inclusive road safety policy;
- (iv) developing a gender-inclusive road safety strategy for 2021–2030, and a detailed investment plan for 2021–2023;
- (v) reviewing road safety practices and recommending improvements;
- (vi) reviewing and recommending a suitable road safety assessment framework;⁸ and
- (vii) training about 20 engineers in conducting road safety economic analyses using the highway development model 4 (HDM-4).

10. **Output 2: Road safety of the east–west highway improved.** The TA will pilot the following activities to improve the safety of the EWH and support technical capacity building for the government and private sector:

- (i) train over 20 Nepalese engineers in conducting road safety assessments;
- (ii) carry out a road safety assessment of the 1,027-km long EWH, using the recommended road safety assessment framework and including about 20 trained Nepalese engineers, under the supervision of the consultants;
- (iii) identify safety blackspots, prepare long-term and short-term investments plans, with the short-term plan recommending remedial measures to eliminate at least 20 critical blackspots (detailed design to be undertaken by the project preparatory consultants);
- (iv) prepare and maintain a road safety database for the EWH, to be scalable and incorporated within the existing road asset management software; and
- (v) conduct a prefeasibility study to identify potential locations and prepare design standards for over 20 service areas along the EWH.⁹

11. **Output 3: Road safety awareness increased.** The TA will improve the road safety awareness level of road users on traffic rules and regulations, with the objective of substantially reducing road fatalities. The TA will:

- (i) prepare an interagency coordination plan for a road safety awareness campaign with support of the National Road Safety Council;
- (ii) carry out a survey of road users' attitudes to identify areas of intervention;
- (iii) prepare gender-inclusive road safety awareness materials such as booklets, pamphlets, stickers, presentation materials, and video clips;

⁸ Such as the international road assessment program (iRAP) or other data- or evidence-based assessment framework.

⁹ Service areas shall include features catering to elderly people, women, children, and people with disabilities; and may include restrooms, gas stations, parking areas, shelters, restaurants, or convenience stores.

- (iv) train the trainers of road safety campaigners; and
- (v) conduct a pilot road safety campaign for various road users such as students, motorcyclists, pedestrians, car and truck drivers, or community workers.

12. **Output 4: Gender equality and social inclusion guidelines implemented.** The TA will strengthen the capacity of MOPIT and its departments in GESI activities, and support the dissemination and implementation of the operational GESI guidelines, by:

- (i) reviewing and supporting the implementation of adequate institutional arrangements, processes, and mechanisms in MOPIT, DOR, DORW, and DOTM to mainstream GESI guidelines in project programming, design, implementation and monitoring.
- (ii) rolling out MOPIT GESI guidelines from the central level of MOPIT to regional, divisional, and sub-divisional offices in all provinces;
- (iii) preparing an action plan to mainstream GESI in day-to-day activities of DOR, DORW, and DOTM for each level of MOPIT;
- (iv) training 25 MOPIT personnel for the implementation of the action plan; and
- (v) ensuring the inclusion of gender-mainstreaming best practices in the road safety activities described in outputs 1, 2 and 3, particularly for the road safety policy and action plan, the preliminary designs of the road service areas, the road safety materials, and the road safety awareness campaigns.

13. The TA outputs will be provided in addition to the following safety and maintenance outputs included under the loan: (i) civil works contracts to finance road safety remedial measures on the EWH; (ii) appropriate safety design features for the project road, particularly for pedestrians, bicycles, and motorcycle users in urban areas (carried out by the design consultants); (iii) road safety awareness campaigns, which will be conducted at 50 schools and for 1,000 community members (to be carried out by the construction supervision consultants during the civil works phase of the contracts); and (iv) 5-year performance-based maintenance contracts, which will be included to strengthen road maintenance implementation, and the road maintenance capacity of DOR. Finally, the detailed design of the service areas will be prepared under a separate consulting services package financed by the loan, while civil works for service areas will be included in a subsequent project.

C. Cost and Financing

14. The TA is estimated to cost \$825,000, of which \$750,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-6). Key expenditure items are listed in Appendix 1. The government will provide counterpart support in the form of counterpart staff, information materials, data, maps, and other in-kind contributions estimated to account for 10% of the TA total cost. The government was informed that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

15. ADB will administer the TA and be responsible for the selection, supervision, and evaluation of consultants. The executing agency of the TA will be MOPIT. A steering committee will be formed with representatives from major ministries including the traffic safety and GESI units of DOR, DORW, DOTM, MOPIT, RBN, Nepal Traffic Police, Ministry of Education, Ministry of Health and Population, and other relevant agencies. The TA will be implemented over 36 months, from February 2019 to January 2022. Blackspot remedial measures will be implemented through a separate contract package under the loan.

16. The implementation arrangements are summarized in Table 1.

Table 1: Implementation Arrangements

| Aspects | Arrangements | | |
|---|--|---|-----------|
| Indicative implementation period | February 2019–January 2022 | | |
| Executing agency | Ministry of Physical Infrastructure and Transport | | |
| Implementing agencies | Department of Roads, Department of Railways, Department of Transport Management | | |
| Consultants | To be selected and engaged ADB | | |
| | Firm: quality- and cost-based selection with a 90:10 quality to cost ratio. | 14 international and 55 national person-months. | \$750,000 |
| Procurement | To be procured by consultants | | |
| | Shopping for office equipment | 1–10 contracts | \$15,000 |
| | Shopping for road safety materials | 1–3 contracts | \$30,000 |
| Advance contracting | Advance contracting is proposed for the recruitment of firm. | | |
| Disbursement | TA resources will be disbursed following ADB's <i>Technical Assistance Disbursement Handbook</i> (2010, as amended from time to time). | | |
| Asset turnover or disposal arrangement upon TA completion | All assets and equipment procured under the TA will be handed over to the executing agency after completion of TA activities. | | |

ADB = Asian Development Bank, TA = technical assistance.

Source: Asian Development Bank estimates.

17. **Consulting services.** ADB will engage the consultants and carry out procurement following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions. Consultants will administer training, surveys, workshops, and seminars under the TA budget, and procure equipment as applicable. The TA will require a total of 14 person-months of international consultant and 55 person-months of national consultant services (Table 2).

Table 2: Summary of Consulting Services Requirement

| Position | Number | Person-months | Total Person months |
|---|--------|---------------|---------------------|
| International Experts | | | |
| Team leader & road safety policy expert | 1 | 6 | 6 |
| Road safety audit expert | 1 | 5 | 5 |
| Road safety awareness campaign expert | 1 | 3 | 3 |
| Sub-Total | | | 14 |
| National Experts | | | |
| Deputy team leader & safety expert | 1 | 14 | 14 |
| Road safety auditors | 2 | 8 | 16 |
| Social (GESI) expert | 1 | 20 | 20 |
| Civil engineer | 1 | 5 | 5 |
| Sub-Total | | | 55 |
| Total | | | 69 |

GESI = Gender equality and social inclusion.

Source: Asian Development Bank.

18. **ADB's procurement.** Procurement will follow the ADB Procurement Policy (2017, as amended from time to time) and the Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

COST ESTIMATES AND FINANCING PLAN
(\$'000)

| Item | Amount |
|--|--------------|
| A. Asian Development Bank^a | |
| 1. Consultants | |
| a. Remuneration and per diem | |
| i. International consultants | 292.5 |
| ii. National consultants | 137.5 |
| b. Out-of-pocket expenditures | |
| i. International and local travel | 41.0 |
| ii. Office space rental and related facilities | 21.0 |
| iii. Reports and communications | 3.0 |
| 2. Surveys | 40.0 |
| 3. Equipment ^b | 45.0 |
| 4. Training, seminars, and conferences | 100.0 |
| 5. Contingencies | 70.0 |
| Total | 750.0 |

Note: The technical assistance is estimated to cost \$825,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of counterpart staff, information materials, data, maps, and other in-kind contributions. The value of government contribution is estimated to account for 10% of the total cost of the technical assistance.

^a Financed by Asian Development Bank's Technical Assistance Special Fund (TASF-6).

^b Including road safety surveying equipment and office equipment.

Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=52097-001-TARreport>

1. Terms of Reference for Consultants