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Report No: PAD4877

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US$250 MILLION

TO

INDIA

FOR AN

INDIA STATE SUPPORT PROGRAM FOR ROAD SAFETY

PROGRAM-FOR-RESULTS

June 2, 2022

Transport Global Practice
South Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective May 12, 2022)

Currency Unit =	Indian Rupee (INR)
INR 77.28 =	US$1

FISCAL YEAR
April 1 - March 31

Regional Vice President:	Hartwig Schafer
Regional Director:	Guangzhe Chen
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Task Team Leader(s):	Dipan Bose, Arnab Bandyopadhyay, Suresh Kunhi Mohammed

ABBREVIATIONS AND ACRONYMS

ACG	Anti-Corruption Guidelines
ADB	Asian Development Bank
ALS	Advanced life support
BLS	Basic life support
CPF	Country Partnership Framework
CAG	Comptroller and Auditor General
COVID-19	Coronavirus Disease 2019
CPMU	Central Project Management Unit
CSC	Central Steering Committee
CSR	Corporate Social Responsibility
DLI	Disbursement Linked Indicator
DLR	Disbursement Linked Result
DRSC	District Road Safety Committee
E&S	Environmental and Social
ESH	Environmental Health and Safety
ESSA	Environmental and Social Systems Assessment
F&C	Fraud and Corruption
FR	First Responder
GDP	Gross Domestic Product
GFR - 2017	General Financing Rule – 2017
GHG	Greenhouse Gas
GMS	Grant Management System
GoI	Government of India
GRM	Grievance Redressal Mechanism
GRS	Grievance Redress Service
IAHE	Indian Academy of Highway Engineers
IBRD	International Bank for Reconstruction and Development
IFC	International Finance Corporation
IFSA	Integrated Fiduciary Systems Assessment
IRAD	Integrated Road Accident Database
ISM	Implementation Support Mission
ISSPRS	India State-Support Program for Road Safety
IVA	Independent Verification Agency
LA	Loan Agreement
M&E	Monitoring & Evaluation
MIS	Management Information System
MoRTH	Ministry of Road Transport and Highways
MoHFW	Ministry of Health and Family Welfare
MoHUA	Ministry of Housing and Urban Affairs
MOU	Memorandum of Understanding
MHA	Ministry of Home Affairs
MVAA	Motor Vehicles (Amendment) Act
NGO/CSO	Non-Governmental Organization/Civil Society Organization
NH	National Highway

NHAI	National Highway Authority of India
KPI	Key Performance Indicator
NRSB	National Road Safety Board
OC	Operating Costs
PAP	Program Action Plan
PDO	Program Development Objective
PFMS	Public Financial Management System
PforR	Program for Results
PMC	Project Management Consultant
POM	Program Operations Manual
PPP	Public Private Partnership
PWD	Public Works Department
R&B	Roads and Buildings
RA	Result Area
RS	Road Safety
RSCBP	Road Safety Capability Building Program
SCCRS	Supreme Court Committee on Road Safety
SDG	Sustainable Development Goal
SH	State Highway
SRSLA	State Road Safety Lead Agency
SSPSRS	State Support Program for Strengthening Road Safety
TR&B	Transport, Roads, and Building
T&CB	Training and Capacity Building
WB	World Bank

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
India	India State Support Program for Road Safety	
Project ID	Financing Instrument	Does this operation have an IPF component?
P177668	Program-for-Results Financing	No

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Fragile State(s)
[ ] Contingent Emergency Response Component (CERC)	[ ] Fragile within a non-fragile Country
[ ] Small State(s)	[ ] Conflict
[ ] Alternate Procurement Arrangements (APA)	[ ] Responding to Natural or Man-made Disaster
[ ] Hands-on Enhanced Implementation Support (HEIS)	

Expected Project Approval Date	Expected Closing Date
30-Jun-2022	30-Jun-2028

Bank/IFC Collaboration

No

Proposed Program Development Objective(s)

The Program Development Objective is to strengthen the capacity for results-based management and improve road safety outcomes in the Participating States

Organizations

Borrower :	India
Implementing Agency :	Ministry of Road, Transport and Highways (MORTH)

Contact:	Mahmood Ahmed
Title:	Joint Secretary-Road Safety
Telephone No:	011-23351280
Email:	mahmood.ahmed@nic.in

COST & FINANCING

SUMMARY

Government program Cost	1,000.00
Total Operation Cost	500.00
Total Program Cost	499.38
Other Costs	0.62
Total Financing	500.00
Financing Gap	0.00

Financing (USD Millions)

Counterpart Funding	**250.00**
Borrower/Recipient	250.00
International Bank for Reconstruction and Development (IBRD)	**250.00**

Expected Disbursements (USD Millions)

Fiscal Year	2022	2023	2024	2025	2026	2027	2028	2029
Absolute	0.00	18.38	26.00	66.00	39.00	19.00	81.00	0.62
Cumulative	0.00	18.38	44.38	110.38	149.38	168.38	249.38	250.00

INSTITUTIONAL DATA

Practice Area (Lead)
Transport

Contributing Practice Areas
Health, Nutrition & Population

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Other	Moderate
10. Overall	Substantial

COMPLIANCE

Policy

Does the program depart from the CPF in content or in other significant respects?

[ ] Yes [✔] No

Does the program require any waivers of Bank policies?

[ ] Yes [✔] No

Legal Operational Policies

	Triggered
Projects on International Waterways OP/BP 7.50	No
Projects in Disputed Areas OP/BP 7.60	No

Legal Covenants

Sections and Description
(Section I.B.2 of Schedule 2 to the Loan Agreement (LA))
The Borrower shall, not later than three (3) months after the Effective Date establish and thereafter maintain, until the completion of the Program, a Central Steering Committee.

Sections and Description
(Section I.B.3 of Schedule 2 to the LA)
The Borrower shall: (a) maintain, until the completion of the Program, a Central Program Management Unit (CPMU); and (b) ensure that not later than three (3) months after the Effective Date the CPMU is fully staffed.

Sections and Description
(Section I.B.4 of Schedule 2 to the LA)
The Borrower, through MoRTH, shall ensure that each Participating State shall vest Program implementation and oversight to the State Road Safety Lead Agency, with a mandate, functions, composition and resources, as set forth in the Program Operations Manual (POM).

Sections and Description
(Section I.D of Schedule 2 to the LA)
The Borrower, through MoRTH, shall, no later than twelve (12) months after the Effective Date, enter into a written agreement ("Memorandum of Understanding (MOU)") with each Participating State for the Borrower to provide performance-based financing to the Participating States.

Sections and Description
(Section I.E of Schedule 2 to the LA)
The Borrower, through MoRTH, shall: (a) ensure that the Speed Cameras under Result Area 4 of the Program shall be used for speed enforcement; (b) ensure that the Program's activities involving collection, storage, usage, and/or processing of Personal Data are carried out with due regard to the Borrower's existing legal framework and appropriate international data protection and privacy standards and practices; (c) in the event that, during the implementation of the Program, the approval of any new legislation regarding Personal Data protection may have

an impact on the activities financed by the Program, ensure that a technical analysis of said impact is conducted, and that the necessary recommendations concluding the assessment and adjustments deemed necessary to efficiently protect Personal Data, are implemented, as appropriate; and (d) in sharing any information, report or document related to the activities described in Schedule 1 to the Loan Agreement, ensure that such information, report or document does not include Personal Data.

Sections and Description

(Section I.F of Schedule 2 to the LA)

The Borrower shall maintain, at all times during the implementation of the Program, an independent verification agent under terms of reference acceptable to the Bank, to verify the evidence supporting the achievement of one or more DLRs and certify the fulfillment of such DLRs as set forth in the Loan Agreement.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	The Program Operations Manual has been adopted in a manner acceptable to the Bank.
Type	Financing source	Description
Disbursement	IBRD/IDA	No withdrawal shall be made (a) on the basis of DLRs achieved prior to the Signature Date of the Loan Agreement, except that withdrawals up to an aggregate amount not to exceed $12,500,000 may be made on the basis of DLRs achieved prior to this date but on or after November 16, 2021; or (b) for any DLR under Category (1) to (9) in the Disbursement table in the Loan Agreement, until and unless the Borrower has furnished evidence satisfactory to the Bank that said DLR has been achieved.

I. STRATEGIC CONTEXT

A. Country Context

1. **In India, growth rebound in FY22 has been quick, pulled up by investment, recovering consumer demand and, more importantly, a low base.** Real Gross Domestic Product (GDP) growth moderated from an average of 7.4 percent during FY14/15-FY18/19 to an estimated 3.7 percent in FY19/20, mostly due to (i) shocks to the financial sector, and (ii) decline in private consumption growth.[1] Against this backdrop, the outbreak of Coronavirus Disease (COVID-19) had a significant impact, with real GDP contracting by 6.6 percent in FY20/21.[2] On the fiscal side, the general government deficit widened significantly in FY20/21, owing to higher spending and low revenues.[3] However, with the easing of COVID-19 restrictions, Goods and Services Tax (GST) collections have crossed INR 1.1 trillion mark every month since July 2021 reaching as high as INR 1.67 trillion mark as of April 2022. The robust GST revenues are expected to continue as the economic recovery gathers momentum. World Bank (WB) forecasts that real GDP growth for FY21/22 is likely to be 8.3 percent,[4] on the back of increased capital expenditure by the government and recovering consumer demand. The real GDP in FY21/22 is expected to reach the FY19/20 level. Given the global concerns on significant uncertainty around the pandemic, elevated inflation, geo-political tensions, and extended supply disruptions, growth in FY22/23 is expected to be 8 percent.[5] Nonetheless, the expected recovery will put India among the world's fastest-growing economies over the next two years.

2. **Although India has made remarkable progress in reducing absolute poverty in recent years, including due to the allocation of significant resources for social assistance programs, the COVID-19 outbreak has delayed the course of poverty reduction.** Between 2011-12 and 2020-21, India's poverty rate has declined from 22.5 percent[6] to values estimated to range between 9 to 12.3 percent. However, projections of GDP per capita growth suggest that this estimated decline also includes a reversal of poverty reduction due to the pandemic. Labor market indicators from high frequency surveys -including from the Centre for Monitoring Indian Economy- suggest that vulnerability has increased after the pandemic, particularly for urban households, with a moderate recovery in 2021. Overall, the pandemic and its economic impacts are estimated to have raised urban poverty, creating a set of "new poor" that are relatively more likely to be engaged in the non-farm sector and to have received at least secondary education. To respond to the pandemic, the Government of India (GoI) has deployed significant resources as part of the Prime Minister Garib Kalyan Yojana for social assistance, including for urban poor households and migrants.

3. **Road crash deaths in India, which are the highest in the world, are a burden to its demographic dividend and have a tangible impact on poverty and hard-won economic gains.** Official data from the GoI suggest that crashes on India's roads claim the lives of about 150,000 people and injure another 450,000 people each year. More than half of the crash victims are pedestrians, cyclists, or motorcyclists (together termed as "Vulnerable Road Users"), often the poorer members of society. Road crashes also affect poor rural families disproportionately, with a greater percentage falling into economic distress after road crashes than other parts of the population. Economic losses from inaction could be substantial – a

[1] National Accounts Data, National Statistical Office, MOSPI.
[2] National Accounts Data, National Statistical Office, MOSPI.
[3] Union budget 2021, 2022, Ministry of Finance.
[4] WB estimate compared to the GoI's second advance estimate of 8.9 percent.
[5] WB real GDP forecasts for FY22/23 published in April 2022;
[6] Consumption Expenditure Survey 2011-12, National Sample Survey Office (NSSO), Government of India

WB report estimates that the costs related to traffic crashes can be as high as 7.5 percent of the national GDP.[7] Road users of working age (18-60 years) comprise 84 percent of all fatalities, with loss of income and medical expenses often bringing financial distress to victims and their families, especially as social safety nets are limited. Larger investments in effective road crash prevention will contribute to the accumulation of human capital in India, sustainable and inclusive economic growth, and improve transport productivity, universal accessibility, and opportunities for climate change mitigation and adaptation.

4. **India is committed to improving road safety outcomes**. Through the adoption of the landmark Motor Vehicles Amendment Act (MVAA), 2019, and commitment to the Stockholm Declaration on road safety (2020), the country aims for enhanced governance and accountability of all stakeholders involved in the road safety system and supports the National Road Safety Strategy 2018-2030. Towards this goal, key constraints need to be addressed: insufficient national and state budget allocations; lack of systematic support to states in establishing and implementing road safety interventions and policies; weak capacity of national and state-level stakeholder institutions to systematically address the issues; and limited use of data-driven systems for crash data collection, analysis, and benchmarking of road safety performance.

B. Sectoral (or Multi-Sectoral) and Institutional Context

5. **The responsibility for road safety management at the national and subnational levels is dispersed across government tiers and departments.** The transport and road safety regulations and infrastructure standards are managed by the Ministry of Road Transport and Highways (MoRTH) at the national level, while the state governments execute and enforce the road safety interventions, regulations, and access issues. Apportionment of responsibilities in road safety-related health and enforcement matters is also split across central and state governments through the Ministry of Health and Family Welfare (MoHFW) and Ministry of Home Affairs (MHA), respectively. A National Road Safety Council, chaired by the MoRTH, with ministerial representatives from key departments, states, and other sub-sectors meets annually to coordinate and advise on road strategy and to review programs implemented by the state and district level agencies. Further, the MVAA has mandated the creation of an independent apex body – the National Road Safety Board (NRSB) – responsible for advisory to the central and state governments on road safety aspects including design and construction of vehicles, licensing and registration, and safety of vulnerable users. Most states, following the guidelines of the Supreme Court Committee on Road Safety (SCCRS), have established state-level and district-level committees to address road safety issues. However, the existing federal institutional structure on road safety, notwithstanding the operationalization of the NRSB, requires improved adequate statutory backing, technical capacity, budgetary resources, and the mandate to effectively execute road safety plans.

6. **Initiatives to improve road safety have been hampered by a lack of institutional accountability, coordination, and data-driven management.** India has launched several initiatives, programs, and action plans over the past decade, but these have been largely ineffective in curbing the upward trend of fatalities (up 13 percent between 2010 and 2019). Most of these have emphasized either raising user awareness or creating infrastructure, without broader linkages to health, vehicle, and enforcement programs. International experience shows that cross-sectoral coordination is essential for successful road safety programs. The dispersed and siloed nature of central and state-level institutions dealing with

[7] World Bank (2019). Guide for Road Safety Opportunities and Challenges: Low- and Middle-Income Countries Country Profiles. Washington, DC., USA

transport, enforcement, and health requires a collaborative environment that is required to tackle the inherently complex and multi-sectoral road safety issue in a coordinated and systematic manner.

7. **Traditional sources of funding allocation for road safety interventions need to be supplemented through innovation and private sector engagement.** Road safety programs are primarily funded through central budgetary support, Central Road Fund, state budgetary allocations, and road safety funds. Perennial shortfalls in budgetary resources for transport infrastructure that cover only around 75 percent of the requirements imply a dearth of funds for road safety as well. This requires strengthening of institutional management and budgetary coordination for efficient utilization of dedicated road safety funds and their distribution across the relevant stakeholders based on results-driven priorities. The impact of COVID-19 has further reduced the availability of funding for road safety activities. As such, there is scope to improve the availability of funds by encouraging the private sector to invest more in road safety and improving the overall governance model for data management at the same time.

8. **India's unique and diverse topography leads to varying degrees of vulnerability to floods, droughts, cyclones, tsunamis, earthquakes, urban flooding, landslides, avalanches, and forest fire. These have significant impacts not only on road infrastructure but also on road safety.** About 58.6 percent of the Indian landmass is prone to earthquakes of moderate to very high intensity, and India's long coastline of about 7,516 km, which has some of its largest and most densely populated Indian cities, increases the risks of road users to sea-level rise and exacerbated infrastructural damage. The threat of cyclones and tsunamis to 5,700 km of India's coastline, the risk of landslides, and avalanches in hilly areas have in the past had devastating impacts on road users. These impacts are worsened further in the case of an extreme weather event when damage to road infrastructure hampers the reach of first aid in the case of a crash. Thus, the relation between road safety and climate change works two ways: (i) impact on roads and the resultant threat to safety because of extreme weather events, and (ii) impact of driving practices, vehicular usage having an impact on climate change and vehicular Greenhouse Gas (GHG) emissions.

9. **Few states in India have demonstrated that positive outcomes can be achieved through systematic coordination and better governance models.** Tamil Nadu, Gujarat, and Rajasthan are already leading the way in demonstrating measurable success in reducing deaths and crashes through unique and complementary approaches: Tamil Nadu has reduced crash fatalities by 25 percent between 2014 and 2019, using data to target multi-sectoral interventions focused on health and enforcement; Gujarat's top-down approach and creation of an empowered and independent Road Safety Authority, that can hold any entity in the state accountable for road crashes, has yielded a 9 percent fatality reduction (2016-19). Rajasthan's bottom-up approach in ensuring the role of communities in road safety audits, awareness building, and first responder and trauma care has reduced its road crashes by almost a third (2014-19). The successes in these states and the launch of a national integrated road crash database jointly by MoRTH and the MHA have demonstrated what is possible through strong executive and operational level leadership and coordination, even within existing institutional structures. An effort to replicate successful models of road safety management requires sustained resources and capacity building across states to improve the country's road safety outcomes.

10. **India's State Support Program for Strengthening Road Safety (SSPSRS or 'Government program'), currently under preparation, is aimed at strengthening institutional framework and management functions of the government, necessary for achieving the national vision and targets on road safety.** Given recent developments, notably the enactment of MVAA and the establishment of the SCCRS, states across India have ramped up investments and implementation of multi-sectoral road safety

interventions. However, as evidenced through the performance of the successful states, the key gap which persists both at the center and state level is the lack of an accountable, empowered institutional framework that would coordinate across departments, plan strategic investments based on data-driven priorities, improve the governance and data management model for road safety, and overall strengthen the road safety ecosystem in India. It is in this context, that India has conceptualized the SSPSRS as a grant-based program to support states in road safety management and the implementation of MVAA provisions. The fourteen states under the program, selected based on their high road safety burden, will be monitored, and evaluated under a common harmonized framework, with results aligned with the national targets in the medium to long term. SSPSRS is envisioned to provide the incentive mechanism and standards for states to scale up innovative road safety actions and programs, including knowledge transfer of best practices, and replicate the same framework and fiscal transfer mechanism downstream, thus maximizing impact.

11. **India's agenda on road safety provides a unique opportunity to address gender issues in transportation.** There is limited policy attention and weak institutional capacity to understand and develop institutional responses to the priorities and needs of women road users in transport. Three gender gaps are relevant to the proposed Program. First, inadequacy of gender-disaggregated data on road crashes, victims and their families, injuries, post-crash care, road behavior, and data on men and women involved in non-fatal crashes differentiated by driver and passengers and characterized as vulnerable users (pedestrians, cyclists, and motorcyclists) leads to gaps in quantifying the differentiated effects of road safety on women and men users[8]. Second, weak state capabilities have a direct bearing on mobility and access to quality jobs for women[9]. Third, the representation of women decision-makers in road safety lead agencies, sub-state level agencies, and women caregivers in post-crash care remains poor, across states. Evidence suggests that post-crash care remains largely dominated by male service providers, and data from assessments demonstrates that women from economically weaker sections prefer receiving post-crash care and/or information from female providers[10]. Sectoral estimates indicate that women leaders, gender/GBV specialists, and women-led groups are marginally represented as decision-makers in state transport units (including road safety) and district-level road safety units. Addressing these issues requires better representation of women at decision-making levels, enhancing their employment in road safety-related services, and gender sensitization of health and transport workers and first responders.

C. Relationship to the CPS/CPF and Rationale for Use of Instrument

12. **The proposed Program for Results (PforR) operation is consistent with the World Bank Group Country Partnership Framework (CPF) FY18-22 discussed by the Board of Executive Directors on September 20, 2018 (Report 126667-IN).** Road safety improvements to help save lives and reduce the disability burden have a significant bearing on CPF Objective 3 of investing in human capital. Through its focus on enhancing the climate resilience of road infrastructure, the Program is also aligned with the CPF Objective 1.5 of improving Disaster Risk Management and resilience to climate change. Further, a focus on enhancing employment opportunities for women in post-crash care aligns the Program well with CPF Objective 2.5 of enabling more quality jobs for women. The Program also adopts all four catalytic

[8] A business case for road safety data with a gender perspective; Asian Development Bank, 2022
[9] A qualitative approach to the intangible cost of road traffic injuries; Ricardo Pérez-NúñezCentro de Investigación en Sistemas de Salud del Instituto Nacional de Salud Pública , Cuernavaca , Morelos , México; 2011
[10] Traffic Crash Injuries and Disabilities: The Burden on Indian Society; 2021

approaches outlined in the CPF to achieve its objectives: (i) leveraging the private sector in digital enforcement, safer vehicles, and post-crash care (ii) engaging a Federal India, (iii) strengthening the public sector institutions for road safety at all levels, and (iv) disseminating lessons learned by states as part of Lighthouse initiative in India.

13. **The program will support India in achieving the road safety targets set out in the Sustainable Development Goals (SDGs).** Scaled-up road safety investment in India is an urgent priority and an important focus of the global dialogue on regional and country performance expectations. This program will help achieve a halving of global road deaths and universal access to safe transport in cities by 2030 (SDG 3.6) and to make cities and human settlements inclusive, safe, resilient, and sustainable (SDG 11.2).

14. **The PforR financing instrument was determined to be appropriate due to its ability to link institutional, governance, and fiscal reforms in road safety with verifiable results-based outcomes.** Traditionally in India, Investment Project Financing (IPF) operations have financed road safety reforms through capacity building and technical advisory support with considerable success. The proposed Government program builds on the Bank's earlier engagements to use a results-based approach to incentivize states to adopt evidence-based interventions and a uniform protocol to validate road safety outcomes. A programmatic results-based approach better matches the Government program's framework and parallel financier Asian Development Bank (ADB)'s lending instrument.

II. PROGRAM DESCRIPTION

A. Government Program

15. **Through SSPSRS India is prioritizing road safety outcomes through a first-of-its-kind stand-alone national scheme to support states realizing the country's vision for road safety.** SSPSRS is a US$1 billion program for the 14 states that together contribute 85 percent of the national road crash deaths, to be implemented over the next 6 years (2023-2028). The eligible grant quantum for each of the states under the program has been proportionately determined based on: (i) the number of fatalities in the state; (ii) the number of registered vehicles in the state; and (iii) total road network length. The program encompasses a programmatic approach to support states through a center-to-state performance-linked grant transfer program that aims to enhance their institutional capacity, policy, and fiscal framework. It has been designed to drive key reforms under institutional mechanisms, road safety engineering, education, enforcement, and emergency care, recognize state-level performance, support trailing states with capacity-building measures, and reward groups and individuals for road safety performance.

16. The scheme specifies the outputs and outcomes to be achieved under each of the thematic areas on a semi-annual basis. The scheme will provide a mobilization grant to all states every year accounting for up to 50 percent of the allocated scheme fund for the first year and scaling down to 30 percent in the subsequent years. The scheme includes key performance indicators (KPIs), of which 12 are mandatory and eight out of twelve can be chosen as electives, which are to be met by the states to receive from 50 percent to 70 percent of the total allocation in subsequent years of the program. Both mandatory and elective KPIs aim at targeted interventions across 4 themes i.e., road engineering, vehicle safety and driver training, enforcement, and post-crash care which will encourage states to adopt best practices at the ground level and to prioritize investments on critical issues to achieve scheme targets. The outcome linked performance indicator with up to 20 percent scheme fund allocation, is aimed at achieving year-wise targets for reduction in fatalities with an end goal of a 30 percent reduction by 2028. Any balance from

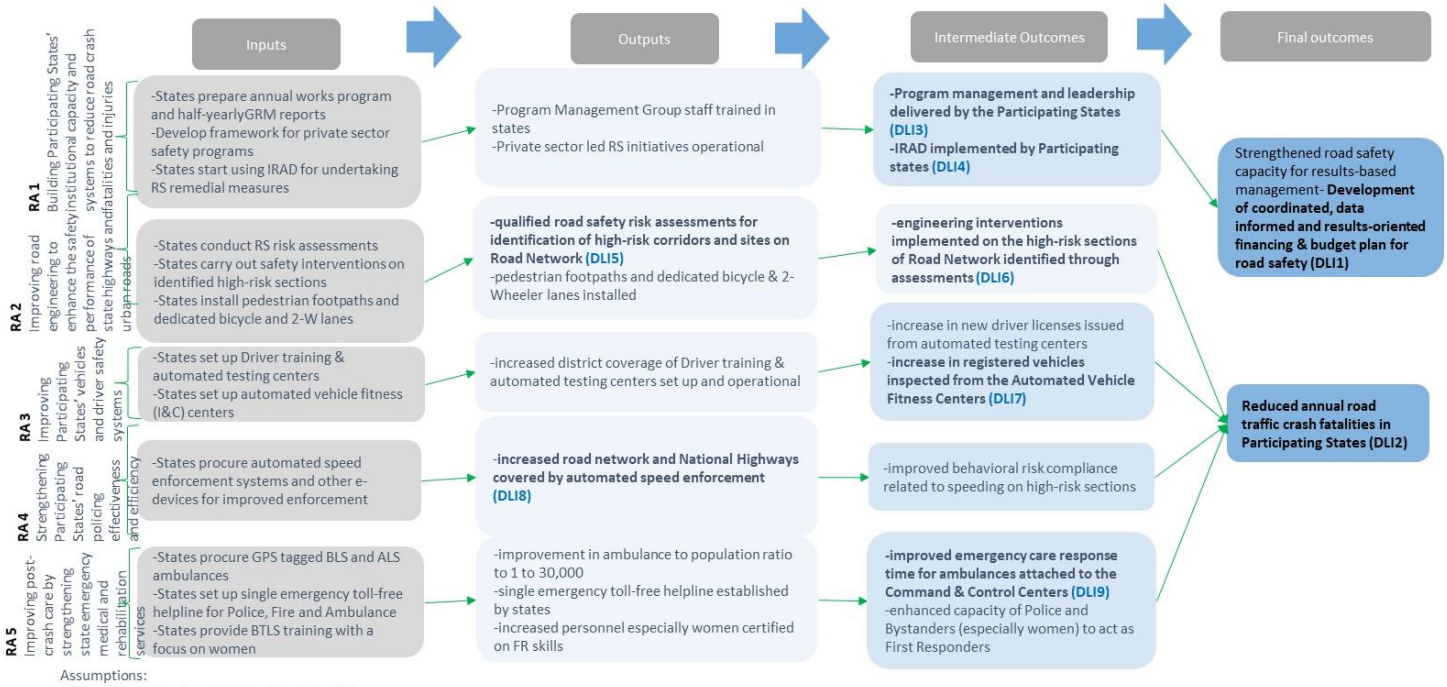
the program will contribute towards a "Challenge Fund" to be accessed by any of the states under the program in implementing additional innovative investments for road safety performance.

17. In addition to the allocation to the 14 states under the program, the SSPSRS has allocated US$35,000,000 of the program budget to support capacity building, training, monitoring and evaluation and administrative support to the program including two key consultancies – the Independent Verification Agency (IVA) and Project Management Consultants (PMC). The capacity building and training component will be administered by MoRTH to strengthen the institutional capacity and governance at the center and the state level. To complement the SSPSRS, MoRTH is supporting, through WB-financed Green National Highways Corridor Project, the nationwide launch of a unified and harmonized crash database management system (Integrated Road Accident Database, IRAD) by early 2023.

B. Theory of Change

18. Figure 1 below presents the Theory of Change for the proposed Program. Critical assumptions include having the political support to improve road safety at the highest levels, availability of funds for road safety interventions, including for upkeep of digital equipment, willingness to coordinate and collaborate across sectors, adequate focus on regular capacity-building efforts, and especially on adequate training, support, and facilities for women, along with a change in the attitude of the road users towards road safety.

Figure 1. Theory of Change for the India State Support Program for Road Safety.



C. PforR Program Scope

19. **The Government program is the cornerstone underpinning the WB's PforR Program, the India State-Support Program for Road Safety (ISSPRS or 'PforR Program').** The Government program includes 14 states and has been split into two parts, covering seven states each to be financed through parallel loan programs administered by the WB and the ADB, respectively. The division of states under the two loan programs (WB and ADB) is based on the strategic prior engagement with the states, ensuring an even mix of low and high-capacity states in terms of road safety management and geographical distribution. This PforR Program will focus on the following Participating States: Andhra Pradesh (AP), Gujarat, Odisha, Tamil Nadu, Telangana, Uttar Pradesh (UP), and West Bengal. Bank's PforR loan will finance US$250 million of the ISSPRS (US$500 million) the remaining portion will be funded by India. ISSPRS will support all areas of the Government's program except for high-value contracts and civil works that pose significant social and environmental challenges and risks. The design of ISSPRS will provide the opportunity to catalyze and champion various thematic reforms, priority areas, institutional development, and innovations for sustaining the efforts and goals toward India's national and international road safety commitments.

20. **ISSPRS will focus on strengthening the institutional framework to mainstream best management practices on road safety.** The Participating States are to establish a lead road safety agency with requisite financial and administrative autonomy that will coordinate and collaborate with various state and local government departments and other non-state stakeholders. This would help prepare the ground for integrated and results-focused strategic planning and budgeting for road safety in states, the desired outcome of the ISSPRS. Another critical focus of the interventions is to create an enabling environment for sustainable financing of road safety through mobilization of private capital and investment in the areas of resilient infrastructure development, enforcement, and post-crash care.

21. **The PforR Program will support the implementation of the Government program by adopting an integrated framework to enhance road safety achievements in select seven states over the Program period of 6 years.** As a subset of the SSPSRS, the boundaries of the ISSPRS have been defined as per Table 1 below. Table 2 provides the ISSPRS' Program Financing Summary:

Table 1. PforR Program Boundary

Title	**The Government program (p)** *State Support Program for Strengthening Road Safety (SSPSRS)*	**The PforR Program (P)** *India State Support Program for Road Safety (ISSPRS)*	**Comments on alignment**
Objective	State Support Programme for strengthening Road Safety incentivizing states for performance with grant disbursement based on efforts and outcomes with annual targets for reduction in fatalities.	Strengthen the capacity for results-based management and improve road safety outcomes in Participating States	The objective of the PforR program is aligned with the government program and additionally emphasizes on strengthened institutional framework including state and center management functions on road safety

Title	The Government program (p) *State Support Program for Strengthening Road Safety (SSPSRS)*	The PforR Program (P) *India State Support Program for Road Safety (ISSPRS)*	Comments on alignment
Duration	6 Years (2023-2028)	June 2022 – June 2028	Fully aligned
Geographic Coverage	14 States	7 states: Andhra Pradesh, Gujarat, Odisha, Tamil Nadu, Telangana, Uttar Pradesh, and West Bengal	The PforR program focuses on results of seven states out of the fourteen states. The other seven states will be covered through a parallel ADB financed loan.
Results Areas	Program KPIs for grant disbursement to the states are based on four themes: 1. Road Engineering 2. Vehicle Safety & Driver Training 3. Enforcement 4. Post-Crash Care	Supports all four themes of the government program and includes an additional results area focused on institutional management and governance	Aligned to strengthen state road safety institutions and their management capacity
Overall Financing	The overall budget of the government program is US$1 billion.	The total cost of PforR Program (a subset of the government program focusing on seven out of fourteen states and capacity building component) is US$500 million. ISSPRS excludes high-value contracts, and activities posing a significant environmental and social risk. The Bank loan will finance US$250 million of the ISSPRS. The key consultancies, IVA and PMC are outside of the PforR Program and will be funded by the Borrower	The government program will be supported through parallel financing of US$250 million by the ADB. The remainder of the SSPSRS, US$500 million, will be funded by India.

Table 2. PforR Program (ISSPRS) Financing Summary

Source	Amount (US$, Million)	Percentage of total PforR Program
International Bank for Reconstruction and Development (IBRD)	**250.00**	50
Total Program Financing	**250.00**	

22. The detailed descriptions of the results areas (RAs) and the associated activities are provided in the following paragraphs:

23. **RA 1: Building Participating States' institutional capacity and systems to reduce road crash fatalities and injuries.** Strengthening Participating States' institutional capacity and systems to roll out and implement the policy and institutional reform agenda engendered through the Program, through: (a) operationalizing the State Road Safety Lead Agencies, including with representatives from the relevant Stakeholder Departments in the Participating States; (b) implementing the IRAD crash database management in all Participating States and use it for identifying high-risk areas; (c) promoting women's representation in management roles in the road safety sector; (d) carrying out of training to Program management staff and road safety stakeholders for better road safety results; (e) improving efficiency and enhanced utilization of state budget for road safety programs in all Participating States; and (f) developing a capacity building and training program administered by MoRTH.

24. **RA 2: Improving road engineering to enhance the safety performance of state highways and urban roads.** Improving road engineering by conducting risk mapping of existing State Highways and urban roads in Participating States to systematically identify road safety issues, by: (a) risk mapping through a reactive approach utilizing crash data to identify high-risk sections and spots, and/or proactive risk mapping through road safety audits or equivalent; (b) supporting innovative pilots of women's safety plans to integrate urban design, spatial planning, and infrastructure elements of women's safety, including, inter alia: (i) infrastructure-based interventions such as improvements in street lighting, upgrading sidewalks for greater pedestrian safety and installing emergency alarms; (ii) gender-disaggregated planning, monitoring, and reporting systems; (iii) engaging women-led civil society and community groups in road safety stakeholder consultations; and (iv) including gender sensitization in training for staff of Participating States.

25. **RA 3: Improving Participating States' vehicles and driver safety systems.**

(a) Improving vehicle and driver safety through: (i) the issuance of new driver licenses through automated testing centers; and (ii) the improvement of vehicle fitness and reduction of emissions by setting up Automated Vehicle Fitness Centers including through private sector engagement.

(b) Facilitating support to the Participating States to create a medium-term human resources roadmap for improving women's recruitment in job roles in the Driver Training and Automated Testing Centers and Automated Vehicle Fitness Centers.

26. **RA 4: Strengthening Participating States' road policing effectiveness and efficiency.** Strengthening Participating States' capacity for automated enforcement of applicable traffic laws related to vehicle speed including through the deployment of Speed Cameras.

27. **RA 5: Improving post-crash care by strengthening state emergency medical and rehabilitation services.** Improving pre-hospital emergency care for road crash victims in the Participating States, through: (a) setting up a single accident reporting number in the Participating States for crash victims to access emergency services; (b) reduction in the response time for ambulances to reach the crash spot by increasing the network of basic and advanced life support ambulances in the Participating States; (c) carrying out of training for personnel from Stakeholder Departments to provide first responder care to road crash victims on the spot; and (d) ensuring an increase of the number of women employed as staff in the Command and Control Centers.

D. Program Development Objective (PDO) and PDO Level Results Indicators

28. The objective of the Program is to strengthen the capacity for results-based management and improve road safety outcomes in the Participating States.

29. PDO level results indicators include the following:

- Development of coordinated, data informed, and results-oriented financing and budget plan for road safety
- Annual road traffic crash fatalities in the Participating States

E. Disbursement Linked Indicators and Verification Protocols

30. **Program resources will be disbursed based on the achievement of nine** Disbursement-Linked Indicators (**DLIs). These DLIs have been chosen to reflect five Results Areas** that contribute to the overall outcomes of the Government Program. A description of Program activities, proposed DLIs, and associated actions from the broader Government program are provided below, and the detailed DLI matrix is provided in Annex 2. Table 3 lists the DLIs and the associated funding allocations.

Table 3. The PforR Program DLIs and Allocation of External Resources (US$, million)

DLI	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
PDO: Strengthen the capacity for results-based management and improve road safety outcomes in the Participating States							
DLI 1: Development of coordinated, data informed, and results-oriented financing and budget plan for road safety	19.38	3		7		15	**44.38**
DLI 2: Annual road traffic crash fatalities in Participating States			10	15		15	**40**
RA 1: Building Participating States' institutional capacity and systems to reduce road crash fatalities and injuries							
DLI 3: Program management and leadership delivered by the Participating States	5	4	4	4	4	4	**25**
DLI 4: IRAD (Integrated Road Accident Database) implemented by Participating States	3	2	2	3			**10**
RA 2: Improving road engineering to enhance the safety performance of state highways and urban roads							
DLI 5: Qualified road safety risk assessments for identification of high-risk corridors and sites on Road Network	1			2		2	**5**
DLI 6: Engineering interventions implemented on the high-risk sections of Road Network identified through assessments			20		15	10	**45**
RA 3: Improving Participating States' vehicles and driver safety systems							
DLI 7: Registered vehicles inspected from the Automated Vehicle Fitness Centers				10		20	**30**
RA 4: Strengthening Participating States' road policing effectiveness and efficiency							
DLI 8: Road Network and National Highways covered by automated speed enforcement		5		7		8	**20**
RA 5: Improving post-crash care by strengthening state emergency medical and rehabilitation services							
DLI 9: Emergency care response time for ambulances attached to the Command and Control Centers			20			10	**30**
Total	**28.38**	**14**	**56**	**48**	**19**	**84**	**249.38**

31. **The achievement of DLIs and Disbursement Linked Results (DLR) will be verified by an Independent Verification Agency, according to verification protocols agreed upon between India and the WB.** MoRTH will recruit the IVA which will conduct verification of Program DLIs and DLRs based on

the verification protocol given in Annex 2. The IVA will be responsible for conducting third-party independent evaluations to review the progress of States and verification of expenditure proofs submitted by the States and shall submit its assessment reports to MoRTH, which in turn will submit the report to the WB for disbursement of funds.

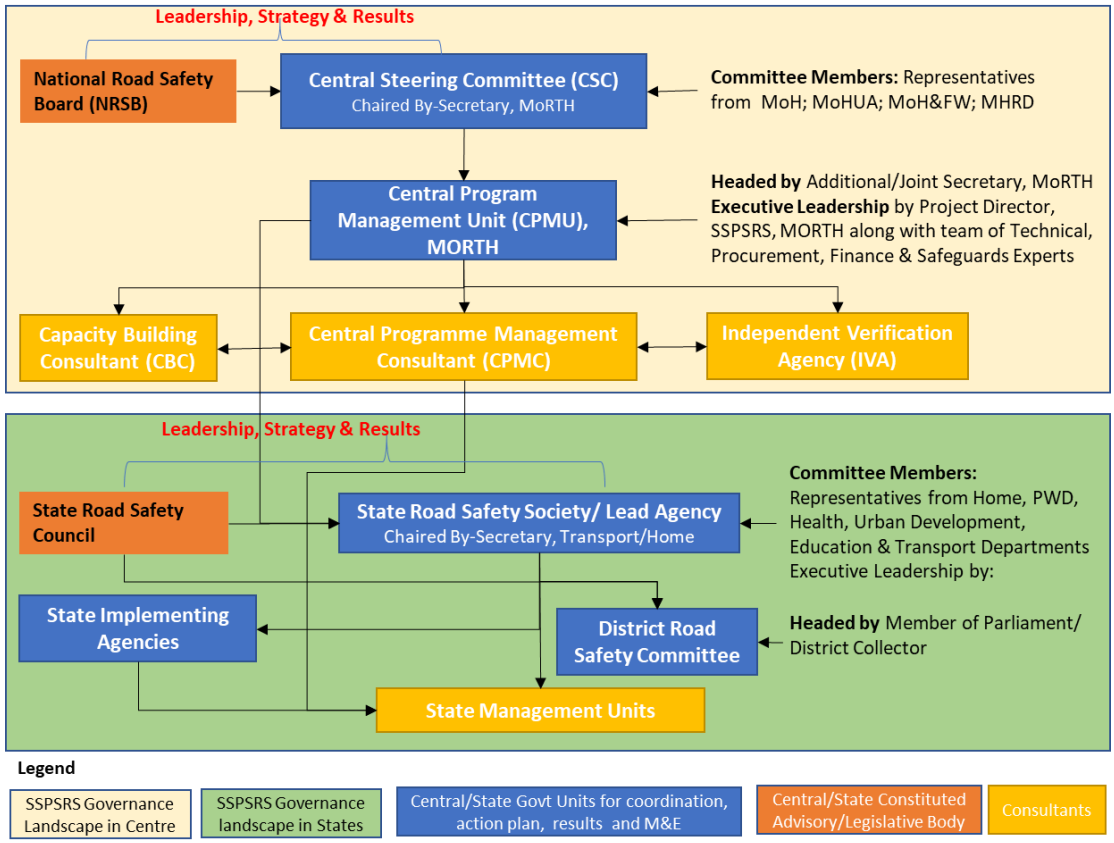
III. PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

32. MoRTH will be the apex body at Central level, with a Central Steering Committee (CSC) chaired by Secretary, MoRTH, comprising representatives from stakeholder ministries and departments such as MHA, Ministry of Housing and Urban Affairs (MoHUA), and MoHFW. CSC will be supported by a Central Project Management Unit (CPMU), headed by Additional or Joint Secretary, MoRTH and will be responsible for day-to-day monitoring the progress of various road safety interventions being undertaken by the states, and managing interim outcomes of the same and ascertaining whether they align with the targets under proposed performance indicators. CPMU team will be further supported by staff with expertise in technical, procurement, fiduciary, and safeguard issues. Central PMU will also be supported by PMC for project coordination with the Participating States. CSC at any time during the duration of program, may revise the KPIs, scheme guidelines and verification protocols based on the priorities of the government or effectiveness of the program, in mutual agreement with WB.

33. At the State-level, program implementation and oversight shall be led by a State Road Safety Lead Agency (SRSLA) chaired by the Secretary of either Transport or Home Department of the State and a member Secretary at the level of Joint Secretary appointed by the State Government. The SRSLA will also have representatives from the respective departments of Transport, Home, Public Works or Roads and Building, Health, Urban Development, and Education. Under the SSPSRS a state may nominate an existing agency or authority or department as the SRSLA, if the broad institutional structure and management functions can be met as proposed under the Government program. The SRSLA will coordinate with the existing District Road Safety Committees (DRSC) as needed for the implementation of the program. The broad management functions of the SRSLA, expected to meet at least quarterly, include: (i) providing policy advice and guidance for the effective implementation of the SSPSRS; (ii) ensuring and promoting coordination and collaboration across involved government stakeholders and levels; (iii) approving work programs, budgets, and program implementation reports; (iii) monitoring program implementation and results and address any issue related to program implementation and achieving its results; (iv) ensuring adequate transparency of program implementation i.e. publishing work program and budget, program implementation reports, program results and (v) ensuring private sector and civil society stakeholders engagement.

Figure 2. Proposed Implementation Arrangement[11]



34. The management of SSPSRS and coordination between the Steering Committee at MoRTH, Central PMU, and State Lead agencies will be further supported by a PMC hired under the Government program. The PMC will have dedicated State Management Units in all Participating States which will support the States in program coordination, actions, results, and Monitoring and Evaluation (M&E). A comprehensive Grant Management System (GMS) will be developed by a CPMU support consultant, which will be central to monitoring the program.

B. Results Monitoring and Evaluation

35. **The Government program will employ a M&E system, which will be critical for the coordinated and data-driven results-based management of the SSPSRS.** PMC will develop a comprehensive web-based integrated GMS-Management Information System (MIS) with linkages to IRAD and geo-localized data, which will be central to monitoring the program. The State Apex body and implementing departments down to the local level will be responsible for reporting progress on program implementation and achievement of results by tracking progress in their respective results areas. The CPMU will coordinate with all relevant stakeholder departments to collate the data and supporting documents and upload the same on the GMS-MIS. At the state level and local levels, quarterly monitoring

[11] NRSB and CBC are not operational yet.

and evaluation reports will be prepared while overall program progress reports will be prepared at a central level on a bi-annual basis.

36. MoRTH shall undertake the following impact evaluation activities: (a) Program impact evaluation to assess the long-term impacts of the operations wherein the impact assessment will be supported through baseline, mid-term, and end-of-program surveys; (b) regular reviews of innovative elements of the Road Safety program across various thematic areas i.e. environmental, social and gender aspects, leveraging IRAD, low-cost impact-evaluation tweaks combined with cost-benefit and cost-effectiveness analysis to refine interventions and institutional design; and (c) process monitoring and periodic tracking surveys and compiling of good practices emerging from the Program for knowledge sharing among stakeholders.

C. Disbursement Arrangements

37. MoRTH is expected to pre-finance Program expenditures using its budgetary resources through the identified budget lines of the expenditure framework. However, MoRTH may request advances up to an aggregate amount of 25 percent of the WB financing, that is, US$62.5 million upon loan effectiveness for DLIs that have yet not been achieved. When the DLI(s) against which an advance has been disbursed is achieved, the amount of the advance will be adjusted from the total amount due to be disbursed under such DLI(s). The Program funds will be disbursed by the WB to India upon satisfactory achievement of the DLIs, as verified following the agreed verification protocol. Upon certification, MoRTH will communicate the achievement of the DLIs to the WB. Based on the WB's approval letter, disbursement requests will be submitted to the WB office through the Controller of Aid, Accounts, and Audit, using the WB's e-Business platform. The funds will be disbursed by the WB to India, which in turn will be made available as 100 percent grants to the Participating States, based on the extant arrangements between the central and state governments. Most DLIs are scalable, enabling partial disbursement of the amount allocated. Where actions are not achieved in any particular year, the allocated amount will be carried over to subsequent years. In case of early achievement of targets, disbursement requests may be submitted after clearance from the WB. Prior results financing achieved up to an aggregate number of US$12.5 million will be possible for results achieved between the date of concept approval, November 16, 2021, and the date of loan signing.

D. Capacity Building

38. **Road Safety Capability Building Program (RSCBP)**. The critical success factor for the SSPSRS program and, more broadly, the roll-out of the MVAA 2019 reforms will be robust institutional capability and accountability, derived from a pool of road safety practitioners and stakeholders, adequately skilled in design, implementation, evaluation of programs, and associated road safety strategies. The technical assessment carried out for the Program also highlights the need for skill development and capacity building across the road safety institutions. Ideally, such a capacity-building endeavor should be founded on 'evidence-based' policies, processes, and practices that lead to superior road safety outcomes, levering 'best practices' within India and internationally. While there are well-established training programs in India in specialty fields (such as road safety audits), there is a need to build generalist/management skills and capabilities in road safety, targeting the wider group of people involved in the above programs. This is envisaged to be achieved through the development of this RSCBP, a skills-based training program that is practically focused and aligned to stakeholder needs, with accreditation of qualifications to a minimum

standard that is recognized across the country. RSCBP, developed under the Program, would also enable building partnerships with the recently launched National Highway Authority of India (NHAI) and Indian Academy of Highway Engineers (IAHE) road safety training and capacity building initiative, academia, research institutions, and Civil Society Organizations (CSOs) to deliver on specific management areas of research and development, continuous learning, and M&E. In the medium-term, it is envisaged that this will help support the recognition of 'road safety' as a profession, which will lead to the development of a cadre of road safety professionals and other career opportunities. WB and ADB would jointly support the development and roll-out of the RSCBP, steered by MORTH.

IV. ASSESSMENT SUMMARY

A. Technical

Strategic Relevance:

39. **SSPSRS envisioned as the country's first stand-alone scheme on road safety is vital to reducing deaths and injuries on India's roads.** It is in line with India's national road safety strategy and vision and with the WB's India Transport Strategy, which includes road safety as one of the five key pillars of country engagement. In addition to financing, it will create a bridge for enhanced state-level institutional ownership and accountability, governance, centralized data management, and monitoring, all proven instrumental elements for improved outcomes globally. This operation's scope results from areas and targets that have been designed based on previous analysis carried out by MoRTH, relevant sector knowledge, lessons learned, achievement of results, and the capacity building exercises spanning over several years of active engagement by The WB at national and state levels on road safety, both from the transport and health GPs.

Technical Soundness:

40. **Based on the Technical Assessment, it can be concluded that the activities designed under the ISSPRS are evidence-based interventions critical towards achieving the outcomes and that the proposed capacity building measures will further enhance the state's ability for road safety management.** During the Technical Assessment, detailed consultations were undertaken with key stakeholders of Transport, Highways, Health, and Home Departments in Participating States to determine their current programs, baselines, and capacities and to determine exclusions. These assessments were also complemented by the WB team's understanding of states' overall road safety situation and preparedness to implement the SSPSRS from the Bank's ongoing and closed IPF engagements in several states. States expressed keen interest in participating in the SSPSRS - most states have confirmed the program management and funding structures and some have initiated actions toward formalizing them: Gujarat has designated its Road Safety Authority as the lead agency and has already formulated its Strategic Plan (2020-21) for road safety; Andhra Pradesh has set up a high-level committee for the program and already identified ten high-risk corridors to be taken up for comprehensive safety treatments; Tamil Nadu has prepared a 5-year road safety investment plans for each of the stakeholder departments. Overall, the Participating States have the technical capacity and know-how to implement the Program but would require further strengthening through better institutional management and coordination.

41. **State-level technical capabilities to implement activities under ISSPRS are improving.** Several Participating States have already started initiatives under each of the safety pillars of (a) engineering (road safety audits, corridor improvements, and black spot rectification), (b) enforcement (speed cameras for

detecting violations and handheld devices for on-the-spot fining in cities), (c) safer users (automated driver testing tracks, awareness), and (d) post-crash care (call-center based ambulance systems). Andhra Pradesh has linked driver licenses to individual national identity cards to ensure that tickets are sent to the violator and has started a scheme to reduce fatigue for truckers; Tamil Nadu has established standard operating procedures for crash investigation. All Participating States are also rolling out the national Integrated Road Accident Data System for enhanced crash data management to facilitate the identification and prioritization of interventions and are regularly reporting on the progress of their activities to the SCCRS.

42. **ISSPRS has built-in measures to address some of the identified gaps in management and implementation.** The operation incorporates strong, well-resourced, functional, empowered, and autonomous institutional state-level frameworks for program management and monitoring. The Program will also support targeted capacity building of designated lead agencies and other key stakeholders in the state through the RSCBP module. At the operational level, risk assessment of roads is largely reactive and focuses on blackspot rectification. Digital enforcement of compliance to speed and traffic rules is virtually non-existent on national and state highways that account for almost 60 percent of the overall fatalities. Automated fitness (inspection and certification) testing of vehicles is yet to be implemented, leading to unsafe vehicles on the road. ISSPRS emphasizes measures such as proactive infrastructure risk ratings, automated speed enforcement, and the set-up of automated vehicle testing centers to tackle these lacunae. ISSPRS also includes technical assistance in these areas along with 2-tier program implementation support to MoRTH and states through dedicated Project Management Consultants. Monitoring would be streamlined through the Independent Verification Agency and an electronic GMS for tracking all progress.

Economic Rationale

43. **The Program is expected to have substantial economic benefits by way of reducing road crash-related deaths and serious injuries.** Due to the multi-sectoral nature of road safety interventions selected covering different pillars of road safety, a Cost-Benefit Analysis was carried out to derive benefits from Program interventions. For economic analysis, a discount rate of 8 percent was used in alignment with the recommendations of NITI Aayog. As discussed in section I, economic losses due to road fatalities and injuries can be as high as 7.5 percent of the nation's GDP, implementation of targeted road safety interventions when applied across the country will help support the economy by reducing these preventable losses.

44. The interventions targeted in ISSPRS do not include major civil works, affecting traffic growth, modal shift, or improved travel time. Thus, the economic analysis of this component does not include benefits from travel time savings, reductions in GHG emission, or savings from vehicle operating costs, even though some benefits are expected as byproducts of the road safety interventions, such as speed management and speed reductions, mainly from the GHG emission reduction and vehicle operating cost. Rather, economic benefits stem from traffic safety benefits in terms of reduced crashes and related direct costs associated with the interventions. For example, safety benefits are calculated based on the number of crashes prevented due to the implementation of countermeasures under road engineering, enforcement, and post-crash care, for which Crash Modification Factors are available. To estimate the economic cost of deaths and injuries, the Value of Life proposed by the MoHUA Economic Appraisal Guidelines is used. The economic rate of return for various interventions under three result areas in the seven selected States is given below in Table 4.

Table 4. Economic Rate of Return for Interventions under Result Areas

Result Area	Included Intervention	Expected EIRR (in percent)
RA 2: Improving road engineering to enhance the safety performance of state highways and urban roads	Risk mapping and rectification of SH and urban road network	**250**
	Reduce speed limits to 30 kmph in school zones, & in designated public places involving children, & deploy appropriate infrastructure and enforcement	**79**
	Development of pedestrian footpaths along major urban arterials roads	**NA**
	Development of dedicated lane for 2 wheelers/ carpooling in cities with a million-plus population	**69**
RA 4: Strengthening Participating States' road policing effectiveness and efficiency	Increased Enforcement for violation of traffic rules (over-speeding) through the use of speed management devices	**183**
RA 5: Improving post-crash care by strengthening state emergency medical and rehabilitation services	Improved ambulance response time to 30 mins	**661**
	Undertake first responder (FR) training during onboarding for all types of police personnel	**485**

45. Further, road crashes also have a tangible impact on freight transport and logistics that are crucial to a country's economy; reducing these crashes would help reduce revenue losses by minimizing days lost by trucks not being on the road (due to repairs, damage to cargo, impounding, etc). Besides these, there will be several other non-tangible benefits as well: Setting up Vehicle Inspection and Certification centers, Institutes of Driver Training, and Research and Driver Training Centers will not only generate significant employment but will also make youth more employable and help support manufacturing industry. Further details of Crash Modification Factors are in Annex 3.

Data privacy and risk mitigation

46. **Risks over misuse of personal data collected on-site at crash locations through the iRAD system or by speed cameras are low.** Collection, storing, and processing of crash data through the IRAD system would be guided by the National Crime Records Bureau framework wherein all data security and sharing provisions, user access protocols, and administrative privileges are already entrenched. Activities financed under the ISSPRS will include data collected by speed cameras which do not collect facial images or biometric information. Personal data security is built-in through a layered data sharing and control system - crash data access is managed by both role-based and geography-based controls and through established standard operating procedures for data protection. The rulemaking under the Information Technology Act of 2000[12] provides guidelines for the security practices and procedures regarding personal information as may be applicable for information captured by the speed cameras and other IT-based systems. Existing electronic ticketing systems for traffic violations in states are subject to a mandatory security audit every two years by third-party agencies and this is also a pre-requisite for integration of these systems with the national vehicle portal as well; digital enforcement would be also guided by India's upcoming Data Protection Bill.

Climate Resilience/Co-Benefits:

47. The opportunity to lead to positive climate Co-Benefits arises through both mitigation and adaptation actions which can also enhance road safety. ISSPRS will maximize its potential to embed critical climate-resilient design and engineering in new and existing road infrastructure. This will include the identification of hazardous locations in the highway network through climate vulnerability and safety

[12] https://www.dataguidance.com/sites/default/files/in098en.pdf

assessments and develop solutions to jointly address climate adaptation and safety measures (e.g., footpaths constructed for vulnerable road users would also address urban flooding challenges by combining with roadside drainage system). Moreover, the program will also involve strengthening emergency post-crash response system (through provision of call-center-attached ambulances and improving response time) and associated trainings help improving response system for natural hazards and climate disasters. Among mitigation measures, the program will also include improving driver and vehicle safety standards; promoting safe pedestrian and cycling facilities; vehicle inspection schemes for emissions reduction, IRAD, purchase of an electric ambulance, automated speed enforcement systems, and a strict enforcement regime. All these interventions will endorse India's commitment to climate change adaptation and mitigation.

Leveraging the Private Sector

48. **The proposed operation aims to develop an enabling environment for private capital mobilization and innovative funding for road safety investments.** Considering the public funding gap mentioned earlier, it is imperative for MoRTH and states to explore innovative sources of funding. The PforR will support and incentivize the states to leverage private funding to complement public finances through Public Private Partnership (PPP) concessions and pilot initiatives in the development, management, and operation of infrastructure with high road safety risks. Under the capacity building program in Result Area 1, the Program in partnership with NHAI and Indian Road Congress will support to development of the road safety codes and standards for integration of performance-based incentives in the road sector PPP contracts. Bank will support MoRTH and NHAI in developing a framework for the issuance of road safety bonds and aggregation of Corporate Social Responsibility (CSR) funds to lead the path for private investors. Such modalities can be used for: replicating the successful "Zero Fatality Corridor" on Mumbai Pune Expressway; inclusion of incentives linked to road safety performance in PPP contracts; building and operation of vehicle inspection centers through private partnerships aligned with current government initiative[13]; and enhancement of post-crash care services i.e., ambulances (Advanced Life Support-ALS/Basic Life Support-BLS).

Program Expenditure Framework (PEF)

49. The PEF includes expenditure incurred by MoRTH under the identified budget lines including through the Participating States and their departments, as per the approved annual work plan under the SSPRS on Road Safety, however excluding large value contracts as defined in POM and Loan Agreements. A fund flow analysis (with advance payment incorporated) indicates that the DLI cash flow will not be a liability for the Government program. The expenditure incurred by the Participating States under the Program is outlined in table 5 below.

Table 5. Program Expenditure distribution by the Participating States

#	Entity	Program Funding by Year (*all in USD million*)						
		2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total*
	MoRTH	2.00	2.00	2.00	2.00	2.00	1.00	**11.00**
1	Uttar Pradesh	16.29	8.04	32.15	26.41	10.91	49.37	**143.15**
2	Telangana	5.21	2.57	10.28	8.45	3.49	15.79	**45.79**
3	Gujarat	7.37	3.64	14.54	11.95	4.93	22.34	**64.77**
4	Andhra Pradesh	6.20	3.06	12.23	10.04	4.15	18.78	**54.46**

[13] NITI Aayog guidelines for Model Concession Agreement for setting up I&C Centers, 2019

#	Entity	Program Funding by Year (*all in USD million*)						
		2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total*
5	Odisha	5.23	2.58	10.31	8.47	3.50	15.84	**45.93**
6	Tamil Nadu	9.73	4.80	19.21	15.78	6.52	29.50	**85.53**
7	West Bengal	5.62	2.77	11.09	9.11	3.76	17.02	**49.37**
Total		**57.64**	**29.45**	**111.81**	**92.20**	**39.26**	**169.64**	**500.00**
*Note: * 50% of the total SSPSRS ($500 million) will be financed by the WB*								

50. The capital expenditure is estimated at around 95 percent and operational expenditure at around 5 percent. More than 60 percent of the total expenditure will be towards the implementation of various road works such as rectification/corrective measures on high-risk corridors, development of pedestrian footpaths, and dedicated two-wheeler lanes. Around 13 percent of total expenditure will be towards the procurement of goods & equipment for automated vehicle fitness centers, driver training centers, traffic, and speed management devices, etc. Consulting services including training provided by the state implementing agencies comprise 5 percent of the expenditure. The key consultancies for the program managed by MoRTH, IVA, and PMC are outside of the PforR program and will be funded by India. The summary PEF is provided in table 6 below.

Table 6. Summary PEF by implementing agencies of the Participating States.

Entity	Implementing agency	Nature of expenditure / Economic Classification	Program for Results (PforR) [P]	Total*
	MoRTH	Capacity building, training, and related consulting services for states	**10.9**	**10.9**
Uttar Pradesh	PWD	Risk Mapping, Road Safety Audits, Training and Capacity Building (T&CB)	**40.0**	**143.2**
	Transport	Consulting Services, Equipment, Software Development, Construction, OC, T&CB	**63.07**	
	Police	Consulting, Equipment, IT Hardware and Software, T&CB	**20.07**	
	Health	Infrastructure, Equipment (Procurement), OC, T&CB	**20.07**	
Telangana	PWD	Risk Mapping, Road Safety Audits, T&CB	**12.78**	**45.8**
	Transport	Consulting Services, Equipment, Software Development, Construction, OC, T&CB	**20.17**	
	Police	Consulting, Equipment, IT Hardware and Software, T&CB	**6.42**	
	Health	Infrastructure, Equipment (Procurement), OC, T&CB	**6.42**	
Gujarat	PWD	Risk Mapping, Road Safety Audits, T&CB	**18.08**	**64.8**
	Transport	Consulting Services, Equipment, Software Development, Construction, OC, T&CB	**28.53**	
	Police	Consulting, Equipment, IT Hardware and Software, T&CB	**9.08**	
	Health	Infrastructure, Equipment (Procurement), OC, T&CB	**9.08**	
Andhra Pradesh	PWD	Risk Mapping, Road Safety Audits, T&CB	**15.20**	**54.5**
	Transport	Consulting Services, Equipment, Software Development, Construction, OC, T&CB	**23.99**	
	Police	Consulting, Equipment, IT Hardware and Software, T&CB	**7.63**	
	Health	Infrastructure, Equipment (Procurement), OC, T&CB	**7.63**	
Odisha	PWD	Risk Mapping, Road Safety Audits, T&CB	**12.82**	**45.9**
	Transport	Consulting Services, Equipment, Software Development, Construction, OC, T&CB	**20.23**	
	Police	Consulting, Equipment, IT Hardware and Software, T&CB	**6.44**	
	Health	Infrastructure, Equipment (Procurement), OC, T&CB	**6.44**	
Tamil Nadu	PWD	Risk Mapping, Road Safety Audits, T&CB	**23.87**	**85.5**
	Transport	Consulting Services, Equipment, Software Development, Construction, OC, T&CB	**37.68**	
	Police	Consulting, Equipment, IT Hardware and Software, T&CB	**11.99**	
	Health	Infrastructure, Equipment (Procurement), OC, T&CB	**11.99**	
	PWD	Risk Mapping, Road Safety Audits, T&CB	**13.78**	**49.4**

Entity	Implementing agency	Nature of expenditure / Economic Classification	Program for Results (PforR) [P]	Total*
West Bengal	Transport	Consulting Services, Equipment, Software Development, Construction, OC, T&CB	**21.75**	
	Police	Consulting, Equipment, IT Hardware and Software, T&CB	**6.92**	
	Health	Infrastructure, Equipment (Procurement), OC, T&CB	**6.92**	
Grand Total			**500.00**	**500.00**

*Note: * 50% of the total SSPSRS ($500 million) will be financed by the WB*

B. Fiduciary

51. Based on the Integrated Fiduciary System Assessment (IFSA), it can be concluded that the fiduciary systems proposed for the Program together with proposed mitigation measures are expected to provide reasonable assurance that the financing proceeds will be used for the intended purposes, with due attention to the principles of economy, efficiency, transparency, and accountability. The IFSA of the Program is based on a representative sample consisting of MoRTH and three (Andhra Pradesh, Uttar Pradesh, and Gujarat) of seven Participating States proposed to be involved in Program implementation (see Annex 4). All Participating States will be subject to follow a minimum agreed fiduciary arrangement using a framework approach as described in the POM. The Participating States will implement the Program through a state lead agency and the four-state departments of Public Works Department (PWD)/Roads & Buildings, Transport, Health, and Police, including at the district level. The IFSA is based on the PEF provided in the technical assessment.

52. **Financial Management arrangements.** The FM systems at the central level emanate from the Constitution of India and are guided by Central Government policies and processes. The Program Expenditure will be incurred from the budget lines created by MoRTH, based on the SSPSRS guiding documents and approved annual work plans submitted by the Participating States. The fund flow and payment for all activities will be managed by MoRTH and state agencies using the GMS which will be integrated with Public Financial Management System (PFMS). The funds will be provided in a dedicated bank account of the State Lead Agency. The said bank accounts shall be registered under PFMS to receive funds from MoRTH. In line with the internal control framework within PFMS, the state agencies would need to nominate the maker and checker to prepare and approve transactions in the PFMS/GMS. The payments are made by state agencies to the vendors and consultants from this bank account. The utilization certificates (UC) will be submitted by the state agencies through the PFMS/GMS portal. The Internal Audit of the Program covering activities at the MoRTH and state level will be carried out as per GOI prescriptions on internal audit. For the purposes of the SSPSRS, internal audit will be carried out at least on a half-yearly basis. The annual financial statements of the Program will be prepared by MoRTH and audited by the CAG. The audit report will be submitted by MoRTH to the WB within 12 months from the end of each FY.

53. **Procurement arrangements.** Following the PEF, procurement activities covered under Grant-in-Aid General are to be procured by Implementing Agencies at the Central and State Government levels. The Grant-In-Aid will be transferred as per the Sanction Order, which stipulates General Financing Rule – 2017 (GFR-2017) as the applicable procurement framework. Procurement is guided by the GFR-2017, the Delegation of Financial Powers and Rules, Government Orders, and the broader framework of the Indian Contract Act, the Sale of Goods Act, and the guidelines issued by the Central Vigilance Commission. Manual on Policies and Procedures for Goods, Works, and Consultancy contains generic guidelines applicable to Government procurements. Under the Program, the activities shall not include any major civil work or any

high-value contracts as applicable for the applicable risk threshold. The focus is on the procurement of goods, works, and services as per various scheme guidelines.

54. **Governance and accountability systems.** Under the larger governance framework of India, all government departments and agencies are covered under the Right to Information (RTI) Act 2005. The Comptroller and Auditor General (CAG) also carries out compliance and performance audits annually, and audit-related queries are reported to the Legislature and Public Accounts Committee for recommendations and actions. Central and State Vigilance units have jurisdiction and power to undertake an inquiry or cause an inquiry/investigation to be made on any information that a public servant has exercised or refrained from exercising his powers, for improper or corrupt purposes.

55. **Applicability of the WB's Anti-Corruption Guidelines to the Program.** The Program will be subject to the WB's Governance and Anti-Corruption Guidelines (ACG). As there is no distinction between WB and Government-funded activities within the ISSPRS (of US$500 million), these guidelines shall be applied in an unrestricted manner to all activities within the ISSPRS. Guideline requirements include but are not limited to: (a) the borrower's obligation to inform the WB about all fraud- and corruption-related allegations and investigations; (b) the WB's right to conduct administrative inquiries regarding fraud and corruption allegations; and (c) the ineligibility of WB debarred firms for contract awards. To operationalize the ACG, MoRTH will undertake the steps as defined in Annex 4.

56. Where MoRTH or the WB determines that fraud and corruption has occurred in connection with the ISSPRS, MoRTH will take timely and appropriate action, satisfactory to the WB, to remedy the situation and prevent its recurrence. If WB determines to conduct an administrative review into allegations or other indications of fraud and corruption in ISSPRS, MoRTH and all implementing agencies will cooperate fully with representatives of the WB.

C. Environmental and Social

57. **The proposed Program will have positive health and safety impacts by reducing road accident-related deaths and injuries.** Nonetheless, there are the following areas where potential environmental and social (E&S) risks and impacts are expected: (i) construction-related Environment Health and Safety (EHS) risks and impacts as the result of corrective measures taken at identified black spots/crash risk hotspots and construction/rehabilitation of driver training and automated testing/Inspection & Certification centers; (ii) disposal of e-devices/tools used for road safety and traffic rules including used batteries; (iii) scrapping of old vehicles including ambulances; (iv) potential environmental risks/impacts due to crashes involving vehicles carrying hazardous chemicals; and (v) weak community engagement process. The program does not allow any land acquisition or resettlement.

58. **An Environmental and Social Systems Assessment (ESSA) has been undertaken by the WB for the proposed Program to assess the systems for management of environmental and social risks and impacts.** The draft ESSA report was disclosed by the borrower on April 22, 2022, at a public stakeholder consultation event and was subsequently disclosed by WB on May 6, 2022. The current environmental legislation of the GoI under the Environment (Protection) Act, 1986 as well as the Motor Vehicles (Amendment) Act, 2019, and their relevant rules have adequate provisions to mitigate the environmental risks arising from the expected activities under the key result areas. The SSPSRS is designed to exclude new major construction of civil projects involving land acquisition such as the construction of flyovers and foot-over-bridges. The proposed Program also sets out clear exclusion criteria to avoid supporting activities that would cause likely significant adverse impacts including any land acquisition, physical

relocation and/or involuntary resettlement. Small scale civil works for road safety anticipated under this proposed Program, are exempt from EIA as per EIA Notification, 2006. However, the state PWD follows the guidelines of Central PWD for all civil works including those supported under the proposed Program. Four of the Participating States have prior experience in applying safeguard policies/Environmental and Social Framework through Bank-financed Road sector projects. Although the project PMUs in the states have had dedicated environment safeguard personnel in the ongoing/previous Bank-financed projects, key gaps remain including the absence of dedicated environment and social safeguards specialists at state departments, lack of comprehensive E&S risk screening for small scale civil works, inconsistent disposal of e-waste through the authorized recyclers, insufficient review of vendors' compliance with applicable environmental legislation in the bidding process, and regular monitoring mechanism to ensure adherence to labor-related contract clauses. Additional Environment and Social risk mitigation gaps, Program exclusion criteria and recommended actions is described in Annex 5.

59. **Gender:** The proposed Program attempts to improve limited policy attention, leadership, and weak institutional capacities across states to cater to the needs of women road users in transport. Program interventions include: (1) supporting employment opportunities for women in post-crash care; (2) under RA-1, the program will support incentivizing women's representation in management in the road safety sector; (3) the program will support gender-disaggregated planning, monitoring, and reporting systems and continuous engagement with women-led civil society groups in road safety stakeholder consultations; (4) as a recurring action, the program will include gender sensitization in training for staff of Participating States on gender and diversity at the workplace in compliance with the Evidence and Data for Gender Equality Framework.

60. **Citizen Engagement**: Central and State Road Safety Agencies and Societies with participation and partnership from transport, police, health, urban, and education, at central and state levels provide the required platform for consultations among these key public department representatives and facilitate consultative and collective decision making on road safety. To enhance road users and community awareness of road safety, states conduct regular road safety awareness campaigns primarily through their Transport and Police Departments. These are delivered through messaging on TV, FM radio, distribution of pamphlets, screening of audio-visual materials, street plays for commercial vehicle drivers and truckers, and public consultation workshops. Increasingly, social media applications have been tailored for citizens' reporting of unsafe road infrastructure or other risk factors. Community generated information is often disseminated on social media platforms to bring to the attention of concerned authorities and public awareness.

61. ISSPRS plans to further strengthen the engagement with road users and the community through: 1) increased participation of the civil society organizations providing feedback to the central and state road safety lead agencies; 2) improving the design and rolling out campaigns for improved road user behavior (speed management, following traffic rules, avoiding drink driving, among other road safety risk factors) under Result Area-3; 3) increased driver awareness for safer vehicles and safe road user's behavior, shall be further informed by periodic assessment of change in behavior and feedback from road users on perceived benefits; 4) private sector engagement and Corporate Social Responsibility programs, provide an opportunity for enhanced engagement (perception surveys) with non-state actors and road users including road user associations, and the community in general during risk mapping and site-specific planning for any blackspots and shared with the WB; and 5) designing the M&E arrangements of the program such that IVA has provisions for consulting the stakeholders on overall program delivery

62. The current Road Safety programs in Participating States leverage the existing country system to receive, resolve and manage grievances, and includes (a) Chief Minister's (CMs) grievances portals; (b) State and Department - specific Grievance Redressal Mechanism (GRM); (c) Centralized Public Grievance Redress and Monitoring System (CPGRAMS) at national level; and (d) using of Right to Information (RTI) Act. The current GRM in the Participating States have multiple options to register grievances and get redressal which includes both online and manual systems. Most of the road users and community in general largely use the CM's grievance portal and/or the manual written complaints at the local district offices of the departments. However, the current system lacks systematic recording, monitoring, and reporting on grievances related to road safety and requires strengthening.

V. GRIEVANCE REDRESS SERVICES

63. Communities and individuals who believe that they are adversely affected as a result of a Bank-supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance redress mechanism or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address pertinent concerns. Affected communities and individuals may submit their complaints to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB's non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the WB's attention, and Bank Management has been allowed to respond. For information on how to submit complaints to the WB's GRS, please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the WB Inspection Panel, please visit http://www.inspectionpanel.org.

VI. RISK

64. The assessments have brought out, in general, the soundness of the Program and states' robust capabilities and readiness to implement the Program. Road safety management and implementation capacity, however, do vary across states. Even though there are built-in measures within the program to address some of the capacity gaps, the overall risk of achieving the Program objective is rated Substantial. The following risk categories are rated Substantial: institutional capacity for implementation and sustainability; and fiduciary.

65. **Institutional capacity for implementation and sustainability is rated substantial.** Widely varying institutional capacities for implementation and sustainability and institutional ownership of road safety across states is a key risk for the Program. Further, the number of stakeholder departments at the state level (e.g., Transport, Home, Health, Public Works, and other road agencies) makes coordination complex and challenging. Measures within the PforR to strengthen road safety capacity at the center (peer-to-peer learning, knowledge sharing), development and operationalizing of a GMS, set up of a Program Coordination Mechanism including all relevant national and state-level stakeholders including the private sector and civil society, and an IT-based Monitoring and Evaluation System would help. That each state designate, adequately mandates and resource, and make accountable a State Level Program Management Group (be it a Lead Agency, a Society, or otherwise) would also mitigate this risk. The proposed joint engagement of both the Bank and ADB with central Ministries, particularly Health and Home, and state counterparts to achieve the sustained and ambitious targets under the program would be a further critical mitigating factor.

66. **Fiduciary risks are substantial**. Given the decentralized nature of the Program, with activities being implemented by multiple agencies (Central/ States) such as MoRTH, the seven Participating States, at least four departments within each state, and their respective district levels (as applicable), there is an inherent risk associated with variations in fiduciary capacity and compliance to agreed FM and particular procurement processes. The other risks include staffing constraints, coordination between several central and state agencies, the possibility of diversion of Program funds by state agencies for purposes other than those intended, unfamiliarity of several state departments not being familiar with financial management arrangements of a GoI central sector scheme of GoI and the Bank's reporting requirements (including on ACG). The actions to mitigate the fiduciary risks are listed in Annex 4 and some of these have been included in the Program Action Plan. With the implementation of recommended mitigation measures, before or during the program implementation, the capacity and performance of the Program implementing agencies will be adequate to provide reasonable assurance that Program systems are adequate for the achievement of the Program objectives, and the Program funds will be used for the intended purposes. If any significant issues come to the knowledge notice of the WB during the Program implementation, additional mitigation measures will be put in place in consultation with MoRTH and the Participating States.

ANNEX 1. RESULTS FRAMEWORK MATRIX

Results Framework

COUNTRY: India

India State Support Program for Road Safety

Program Development Objective(s)

The Program Development Objective is to strengthen the capacity for results-based management and improve road safety outcomes in the Participating States

Program Development Objective Indicators by Objectives/Outcomes

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Strengthening Center and state capacity for results-based road safety management								
Development of coordinated, data informed, and results-oriented financing and budget plan for road safety (Text)	DLI 1	Activities to commence after the launch of the Program.	An annual budget plan for the Program has been prepared by all Participating States	The Challenge Fund has been established with improved road safety expenditure as eligibility criteria to provide financing.	NA	3 Participating States have received financing from the Challenge Fund.	NA	Road safety Program performance audit report has been published for all Participating States.
Reduction in road crash fatalities in participating states								
Annual road traffic crash fatalities in Participating States (Text)	DLI 2	66,351 fatalities in seven Participating States as per MoRTH 2019 data	NA	NA	Reduction of 10% annual traffic crash deaths compared to Baseline in all	Reduction of 18% annual traffic crash deaths compared to Baseline in all	NA	Reduction of 30% annual traffic crash deaths compared to Baseline in all

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
		UP – 22655 TN – 10525 AP – 7984 Gujarat – 7390 Telangana – 6964 Odisha – 5333 West Bengal - 5500			Participating States	Participating States		Participating States

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Intermediate Results Indicator by Results Areas

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
RA1Building Participating States' institutional capacity and systems to reduce road crash fatalities								
Program management and leadership delivered by the Participating States (Text)	DLI 3	Activities to commence after the launch of the Program	First annual work program and half-yearly GRM reports have been submitted by all Participating States	Second annual work program and half-yearly GRM reports have been submitted by all Participating States	Third annual work program and half-yearly GRM reports have been submitted by all Participating States	Fourth annual work program and half-yearly GRM reports have been submitted by all Participating States	Fifth annual work program and half-yearly GRM reports have been submitted by all Participating States	Program completion report has been published for all Participating States
Women in management positions in road safety sector institutions (Text)		0.00			Increase of 5% for women recruited in management positions in road safety agencies under the Program			Increase of 12% for women recruited in management positions in road safety agencies under the Program
Program Management Group staff trained in all Participating States (Number)		0.00						150.00
IRAD (Integrated Road Accident Database) implemented by Participating States (Text)	DLI 4	All Participating States have piloted/introduced IRAD (as of May, 2022); none of the states have provided IRAD access to all stakeholders or are using data analytics to inform their annual	All Participating States have operationalized the IRAD system and have provided access to Stakeholder Departments.	3 Participating States have used IRAD analytical results to inform their annual road safety plan	All Participating States have used IRAD analytical results to inform their annual road safety plan	Quality testing and audit conducted for the IRAD system at national level		NA

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
		road safety plans. Quality testing and audit of the IRAD has not yet been conducted.						
Private sector led road safety initiatives operational (Text)		Varies across states		Framework for establishing private sector and CSR-funded pilot safety programs developed by at least one Participating States		Private sector funded road safety initiatives launched in at least 3 Participating States		Private sector funded road safety initiatives launched in at least 5 Participating States
RA 2: Improving road engineering to enhance the safety performance of state highways and urban roads								
Qualified road safety risk assessments for identification of high-risk corridors and sites on Road Network (Text)	DLI 5	Less than 1% of the SH/urban network is currently assessed and baseline data collection has not been done in any state.	Risk assessment has been completed on 5% of the Road Network in all Participating States			Risk assessment completed on 50% of the Road Network in all Participating States		Risk assessment completed on 90% of the Road Network in all Participating States
Engineering interventions implemented on the high-risk sections of Road Network identified through assessments (Text)	DLI 6	Percentage of high-risk sections eliminated by engineering measures is unknown			At least 50% high-risk sections of Road Network, as identified in the assessments, have been rectified by eligible engineering interventions in all Participating States.		At least 75% high-risk sections of Road Network, as identified in the assessments, have been rectified by eligible engineering interventions by 5 Participating States.	100% high-risk sections of Road Network, as identified in the assessments, have been rectified by eligible engineering interventions by 5 Participating States
Pedestrian footpaths and		Pedestrian footpaths			Pedestrian footpaths	Pedestrian footpaths		Pedestrian footpaths

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
dedicated bicycle & 2-wheeler lanes implemented on the high-risk sections identified through assessments (Text)		and dedicated bicycle & 2-wheeler lanes installed as identified is unknown in in all Participating States.			and dedicated bicycle & 2-wheeler lanes installed at least 50% high-risk sections as identified in the assessments in all Participating States.	and dedicated bicycle & 2-wheeler lanes installed at least 75% high-risk sections as identified in the assessments in all Participating States.		and dedicated bicycle & 2-wheeler lanes installed at least 90% high-risk sections as identified in the assessments in all Participating States.
RA 3: Improving Participating States' vehicles and driver safety systems								
District Coverage of Driver training & automated testing centers in each Participating State (Percentage)		0.00		25.00	25.00			50.00
New driver licenses issued from automated testing centers in each Participating State (Percentage)		0.00			25.00			50.00
Automated vehicle Inspection & Certification centers set up and operational in each Participating State (Number)		0.00			2.00			4.00
Registered vehicles inspected annually from the Automated Vehicle Fitness Centers (Text)	DLI 7	0% vehicle fitness checks in all Participating States have been inspected from Automated Vehicle Fitness Centers.				10% vehicle fitness checks in all Participating States have been done through Automated Vehicle Fitness Centers.		50% vehicle fitness checks in all Participating States have been done through Automated Vehicle Fitness Centers.

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
RA 4: Strengthening Participating States' road policing effectiveness and efficiency								
Road Network and National Highways covered by automated Speed enforcement (Text)	DLI 8	<1% of the Road Network and National Highways in all Participating States has been covered by Speed Cameras.		2% of the Road Network and National Highways in all Participating States has been covered by Speed Cameras.		10% of the Road Network and National Highways in all Participating States has been covered by Speed Cameras.		20% of the Road Network and National Highways in all Participating States has been covered by Speed Cameras.
RA 5: Improving post-crash care by strengthening state emergency medical and rehabilitation services								
Emergency care response time for ambulances attached to the Command and Control Centers (Text)	DLI 9	Five of the seven states have average emergency response time of 20 minutes in rural areas, two states don't have any data			Emergency care response time for 40 percent of ambulances supported by Command and Control Centers reduced to 30 minutes in all Participating States			Emergency care response time for 50 percent ambulances supported by Command and Control Centers reduced to 30 minutes in all Participating States
Participating State having ambulance to population ratio of 1 to 30,000 (Number)		0.00			4.00			7.00
Participating States with single emergency toll-free helpline for Emergency Services (Number)		0.00			4.00			7.00
Capacity of Police and Bystanders (with % women) to act as first responders		0.00			35.00			70.00

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
(FR) enhanced in Participating States (Percentage)								
Women caregivers acting as first respondents in Participating States (Percentage)		0.00	5.00	10.00	12.00	15.00	15.00	17.00

Monitoring & Evaluation Plan: PDO Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Development of coordinated, data informed, and results-oriented financing and budget plan for road safety	This indicator measures strengthening road safety financing in Participating States. Annual budget plan should identify funding requirements from all relevant sources, yearly performance targets, specific gender targets, informed by IRAD, prepared in a coordinated manner by all stakeholder departments and reflecting external stakeholder consultations and published. It also monitors the establishment and functioning of the Challenge Fund and publishing of the Road safety Program performance audit report in all Participating States.	Years 1, 2, 4, 6	Progress reports by the states and MoRTH.	Data compiled from half-yearly and yearly performance reports by states and progress reports by MoRTH by the PMC/IVA.	MoRTH/Participating States
Annual road traffic crash fatalities in Participating States	This indicator measures the outcome of reduced road traffic crash fatalities in Participating States. The values for road crash	Years 3, 4, 6	IRAD, and/or equivalent scientific evidence-based tools	Data compiled from IRAD and/or equivalent scientific evidence-based tools for M&E at state level, and/or existing	MoRTH/Participating States

	fatalities are calculated based on a 3-year average of the preceding years. The interim targets are cumulative and the baseline year is 2019.		for M&E at state level, and/or existing TRW data collected by MoRTH.	Transport Research Wing (TRW) data collected by MoRTH.	

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Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Program management and leadership delivered by the Participating States	This indicator measures delivery of program management and leadership by states and center. It measures this by measuring that annual work program and half-yearly GRM reports have been submitted by all Participating States in Years 1-5, and Program completion report has been published for all Participating States in Year 6.	Annual	Progress reports by the states, IRAD, and/or equivalent scientific evidence-based tools for M&E at state level	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States
Women in management positions in road safety sector institutions	The indicator measures women's appointment in management positions in agencies supported under the Program including but not limited to Command and Control Centers, Driver Training Centers, Vehicle Inspection Centers.	Annual	Progress reports by the states	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States
Program Management Group staff trained in all Participating States	This indicator measures the number of Program Management Group staff, who have been selected by	Annual	Progress reports by the states and MoRTH	Data compiled from half-yearly and yearly performance reports by states and progress	MoRTH/Participating States

	the respective departments, trained through standardized road safety modules in core road safety management issues. 'Training through standardized training modules' would be critical to standardize the training across states. Targets are annual.			reports by MoRTH by the PMC/IVA	
IRAD (Integrated Road Accident Database) implemented by Participating States	This indicator measures progress on implementation of the Integrated Road Accident Database (iRAD).	Years 1, 2, 3, 4, 6	IRAD, Progress reports by the states	IRAD reports and performance reports by states	Lead Agency, Participating States
Private sector led road safety initiatives operational	This indicator measures milestones (in numbers) w.r.t. making private sector led road safety initiatives operational. Targets are annual.	Annual	Progress reports by the states	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States
Qualified road safety risk assessments for identification of high-risk corridors and sites on Road Network	This indicator measures the percentage of road network in each Participating State that has undergone Road Safety Risk Assessments for identification and	Years 1, 4, 6	Progress reports by the states	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States

	remediation of high-risk corridors and sites on Road Network. Qualified road safety risk assessment includes iRAP, RSA, and other established risk assessment techniques. The risk assessment includes collection of necessary baseline data such as spot speed data, road, and roadside inventory data, traffic counts, and pedestrian counts. This excludes blackspot detection by threshold values.				
Engineering interventions implemented on the high-risk sections of Road Network identified through assessments	This indicator measures percentage rectification of high-risk sections by engineering intervention as per the recommended safety intervention plan to address the high-risk sections as identified in the assessments.	Years 3, 5 & 6	Progress reports by the states	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States
Pedestrian footpaths and dedicated bicycle & 2-wheeler lanes implemented on the high-risk sections identified through assessments	This indicator measures km of pedestrian footpaths and dedicated bicycle and 2-wheeler lanes installed	Years 3, 4, 6	Progress reports by the states	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States

	along major linear settlements on SHs and major urban arterial roads identified in the risk assessment. Targets are annual.				
District Coverage of Driver training & automated testing centers in each Participating State	This indicator measures the District Coverage (percentage) of Driver training & automated testing centers in each state. Targets are cumulative.	Years 3 & 6	Progress reports by the states and MoRTH	Data compiled from half-yearly and yearly performance reports by states and progress reports by MoRTH by the PMC/IVA	MoRTH/Participating States
New driver licenses issued from automated testing centers in each Participating State	This indicator measures new driver licenses (percentage) issued from automated testing centers in each state. Targets are cumulative.	Years 3 and 6	Progress reports by the states and MoRTH.	Data compiled from half-yearly and yearly performance reports by states and progress reports by MoRTH by the PMC/IVA.	MoRTH/Participating States
Automated vehicle Inspection & Certification centers set up and operational in each Participating State	This indicator measures the number of Automated vehicle Inspection & Certification centers set up and operational in each Participating State. Targets are cumulative.	Years 3 & 6	Progress reports by the states and MoRTH	Data compiled from half-yearly and yearly performance reports by states and progress reports by MoRTH by the PMC/IVA	MoRTH/Participating States
Registered vehicles inspected annually from the Automated Vehicle Fitness	This indicator measures the percentage of vehicle	Years 4 & 6	Progress reports by the	Data compiled from half-yearly and yearly	MoRTH/Participating States

Centers	fitness checks carried out annually from the Automated Vehicle Inspection & Certification Centers. Targets are cumulative.		states and MoRTH	performance reports by states and progress reports by MoRTH by the PMC/IVA	
Road Network and National Highways covered by automated Speed enforcement	This indicator measures the percentage road network covered by automated speed enforcement. Networks with high traffic volume/vehicle km travelled should be selected for speed enforcement. The specifications for these devices will be uniform and as per those developed by MoRTH. Targets are cumulative.	Years 2, 4 & 6	Progress reports by the states	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States
Emergency care response time for ambulances attached to the Command and Control Centers	This indicator measures the percentage ambulances supported by Command and Control Centers in Participating States whose Emergency care response time has reduced to 30 minutes.	Years 3 & 6	Progress reports by the states and MoRTH	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States
Participating State having ambulance to population ratio of 1 to 30,000	This indicator measures the number of Participating States having ambulance to	Years 3 & 6	Progress reports by the states and	Data compiled from half-yearly and yearly performance reports by	Lead Agency, Participating States

	population ratio of 1 to 30,000. Ambulance means free ambulance services for emergency care patients that is linked to a call center and accessible through a toll-free helpline. The indicator excludes ambulances used exclusively for mother and child transportation. Targets are cumulative.		MoRTH	states	
Participating States with single emergency toll-free helpline for Emergency Services	This indicator measures the number of Participating States with single emergency toll-free helpline for emergency services. Targets are cumulative.	Years 3 & 6	Progress reports by the states and MoRTH	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States
Capacity of Police and Bystanders (with % women) to act as first responders (FR) enhanced in Participating States	This indicator measures the enhanced capacity of Police and Bystanders to act as first responders (FR) by being provided training on Basic Trauma Life Support (BTLS). Targets are cumulative.	Years 3 & 6	Progress reports by the states and MoRTH.	Data compiled from half-yearly and yearly performance reports by states.	Lead Agency, Participating States

Women caregivers acting as first respondents in Participating States	This sub-indicator measures the percentage of women caregivers who act as first respondents, including health professionals, para professionals, police staff and highway staff. Targets are cumulative.	Annual	Progress reports by the states	Data compiled from half-yearly and yearly performance reports by states	Lead Agency, Participating States

ANNEX 2. DISBURSEMENT LINKED INDICATORS, DISBURSEMENT ARRANGEMENTS AND VERIFICATION PROTOCOLS

Disbursement Linked Indicators Matrix				
DLI 1	Development of coordinated, data informed, and results-oriented financing and budget plan for road safety			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Outcome	Yes	Text	44.37	17.75
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	Activities to commence after the launch of the Program			
Government Program year 1	An annual budget plan for the Program has been prepared by all Participating States		19.37	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 2	The Challenge Fund has been established with improved road safety expenditure as eligibility criteria to provide financing.		3.00	Scalable; not time-bound.
Government Program year 3	NA		0.00	NA
Government Program year 4	3 Participating States have received financing from the Challenge Fund		7.00	Scalable; not time-bound. For each of the 1st 3 Participating States meeting the target, 1/3rd of the total amount will be disbursed

Government Program year 5	NA	0.00	NA
Government Program year 6	Road safety Program performance audit report has been published for all Participating States	15.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

DLI 2	Annual road traffic crash fatalities in Participating States			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Outcome	Yes	Text	40.00	16.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	66,351 fatalities in 7 Participating States as per MoRTH 2019 data UP – 22655 TN – 10525 AP – 7984 Gujarat – 7390 Telangana – 6964 Odisha – 5333 West Bengal - 5500			
Government Program year 1	NA		0.00	NA
Government Program year 2	NA		0.00	NA
Government Program year 3	Reduction of 10% annual traffic crash fatalities compared to Baseline in all Participating States		10.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 4	Reduction of 18% annual traffic crash fatalities compared to Baseline in all Participating States		15.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

Government Program year 5	NA	0.00	NA
Government Program year 6	Reduction of 30% annual traffic crash fatalities compared to Baseline in all Participating States	15.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

DLI 3	Program management and leadership delivered by the Participating States			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	25.00	10.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	Activities to commence after the launch of the Program			
Government Program year 1	First annual work program and half-yearly GRM reports have been submitted by all Participating States		5.00	Scalable; time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 2	Second annual work program and half-yearly GRM reports have been submitted by all Participating States		4.00	Scalable; time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 3	Third annual work program and half-yearly GRM reports have been submitted by all Participating States		4.00	Scalable; time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

Government Program year 4	Fourth annual work program and half-yearly GRM reports have been submitted by all Participating States	4.00	Scalable; time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 5	Fifth annual work program and half-yearly GRM reports have been submitted by all Participating States	4.00	Scalable; time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 6	Program completion report has been published for all Participating States	4.00	Scalable; time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

DLI 4	IRAD (Integrated Road Accident Database) implemented by Participating States			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	10.00	4.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	All Participating States have piloted/introduced iRAD (as of May, 2022); none of the states have provided iRAD access to all stakeholders or are using data analytics to inform their annual road safety plans. Quality testing and audit of the iRAD has not yet been conducted.			
Government Program year 1	All Participating States have operationalized the IRAD system and have provided access to Stakeholder Departments		3.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount

			will be disbursed.
Government Program year 2	3 Participating States have used IRAD analytical results to inform their annual road safety plan	2.00	Scalable; not time-bound. For each of the 1st 3 Participating States meeting the target, 1/3rd of the total amount will be disbursed
Government Program year 3	All Participating States have used IRAD analytical results to inform their annual road safety plan	2.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 4	Quality testing and audit conducted for the IRAD system at national level	3.00	NA
Government Program year 5	NA	0.00	NA
Government Program year 6	NA	0.00	N.A.

DLI 5	Qualified road safety risk assessments for identification of high-risk corridors and sites on Road Network			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	5.00	2.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	Less than 1% of the SH/urban network is currently assessed and baseline data collection has not been done in any Participating State.			
Government Program year 1	Risk assessment has been completed on 5% of the Road Network in all Participating States		1.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount

			will be disbursed.
Government Program year 2	NA	0.00	NA
Government Program year 3	NA	0.00	NA
Government Program year 4	Risk assessment completed on 50% of the Road Network in all Participating States	2.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 5	NA	0.00	NA
Government Program year 6	Risk assessment completed on 90% of the Road Network in all Participating States	2.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

DLI 6	Engineering interventions implemented on the high-risk sections of Road Network identified through assessments			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	45.00	18.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	Percentage of high-risk sections eliminated by engineering measures is unknown			
Government Program year 1	NA		0.00	NA
Government Program year 2	NA		0.00	NA
Government Program year 3	At least 50% high-risk sections of Road Network,		20.00	Scalable; not time-bound. For every

	as identified in the assessments, have been rectified by eligible engineering interventions in all Participating States.		Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 4	NA	0.00	NA
Government Program year 5	At least 75% high-risk sections of Road Network, as identified in the assessments, have been rectified by eligible engineering interventions by 5 Participating States.	15.00	Scalable; not time-bound. For each of the 1st 5 Participating States meeting the target, 1/5th of the total amount will be disbursed
Government Program year 6	100% high-risk sections of Road Network, as identified in the assessments, have been rectified by eligible engineering interventions by 5 Participating States.	10.00	Scalable; not time-bound. For each of the 1st 5 Participating States meeting the target, 1/5th of the total amount will be disbursed

DLI 7	Registered vehicles inspected from the Automated Vehicle Fitness Centers			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	30.00	12.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	Less than 1% of vehicle fitness checks in all Participating States have been done through Automated Vehicle Fitness Centers.			
Government Program year 1	NA		0.00	NA
Government Program year 2	NA		0.00	NA
Government Program year 3	NA		0.00	NA

Government Program year 4	10% of vehicle fitness checks in all Participating States have been done through Automated Vehicle Fitness Centers.	10.00	Scalable; not time-bound. for every Participating State meeting the target, 1/7th of the total amount will be disbursed
Government Program year 5	NA	0.00	NA
Government Program year 6	50% of vehicle fitness checks in all Participating States have been done through Automated Vehicle Fitness Centers.	20.00	Scalable; not time-bound. for every Participating State meeting the target, 1/7th of the total amount will be disbursed

DLI 8	Road Network and National Highways covered by automated Speed enforcement			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	20.00	8.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	<1% of the Road Network and National Highways in all Participating States has been covered by Speed Cameras			
Government Program year 1	NA		0.00	NA
Government Program year 2	2% of the Road Network and National Highways in all Participating States has been covered by Speed Cameras		5.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 3	NA		0.00	NA

Government Program year 4	10% of the Road Network and National Highways in all Participating States has been covered by Speed Cameras.	7.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.
Government Program year 5	NA	0.00	NA
Government Program year 6	20% of the Road Network and National Highways in all Participating States has been covered by Speed Cameras.	8.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

DLI 9	Emergency care response time for ambulances attached to the Command and Control Centers			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	30.00	12.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	Five of the seven Participating States only have ambulance response time available but no state has baseline data on total emergency care response time.			
Government Program year 1	NA		0.00	NA
Government Program year 2	NA		0.00	NA
Government Program year 3	Emergency care response time for 40 percent of ambulances supported by Command and Control Centers reduced to 30 minutes in all Participating States		20.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

Government Program year 4	NA	0.00	NA
Government Program year 5	NA	0.00	NA
Government Program year 6	Emergency care response time for 50 percent ambulances supported by Command and Control Centers reduced to 30 minutes in all Participating States	10.00	Scalable; not time-bound. For every Participating State meeting the target, 1/7th of the total amount will be disbursed.

Verification Protocol Table: Disbursement Linked Indicators	
DLI 1	Development of coordinated, data informed, and results-oriented financing and budget plan for road safety
Description	This indicator measures strengthening road safety financing in Participating States. Annual budget plan should identify funding requirements from all relevant sources, yearly performance targets, specific gender targets, informed by IRAD, prepared in a coordinated manner by all stakeholder departments and reflecting external stakeholder consultations and published. It also monitors the establishment and functioning of the Challenge Fund and publishing of the Road safety Program performance audit report in all Participating States.
Data source/ Agency	Progress reports by the states and MoRTH
Verification Entity	IVA
Procedure	• Year 1: IVA to confirm that annual budget plan for the Program has been prepared by all Participating States. • Year 2: IVA to confirm the Challenge Fund has been established with improved road safety expenditure as eligibility criteria to provide financing. • Years 4: IVA to confirm that the criterion for accessing the challenge fund is based on improved road safety expenditure measured by at least 20% increase in the state's own funded road safety expenditure over the baseline year . • Year 6: IVA to confirm that Road safety Program performance audit report has been published for all Participating States.
DLI 2	Annual road traffic crash fatalities in Participating States
Description	This indicator measures the outcome of reduced road traffic crash fatalities in Participating States. The interim targets are cumulative.
Data source/ Agency	IRAD, and/or equivalent scientific evidence-based tools for M&E at state level, and/or existing Transport Research Wing (TRW) data collected by MoRTH.
Verification Entity	IVA
Procedure	• IVA to review the status of annual traffic crash deaths compared to baseline (2019) in all Participating States. • IVA to confirm if targets are met for annual traffic crash data as per IRAD, or as per data provided by TRW, MoRTH.

DLI 3	Program management and leadership delivered by the Participating States
Description	This indicator measures delivery of program management and leadership by states and center. It measures this by measuring that annual work program and half-yearly GRM reports have been submitted by all Participating States in Years 1-5, and Program completion report has been published for all Participating States in Year 6.
Data source/ Agency	Progress reports by the states, iRAD, and/or equivalent scientific evidence-based tools for M&E at state level
Verification Entity	IVA
Procedure	• Year 1-5: IVA to confirm that all Participating States have prepared annual work program and half-yearly GRM reports. • Year 6: IVA to confirm that the Program Completion Report has been published for all Participating States.
DLI 4	IRAD (Integrated Road Accident Database) implemented by Participating States
Description	This indicator measures progress on implementation of the Integrated Road Accident Database (iRAD).
Data source/ Agency	iRAD, Progress reports by the states
Verification Entity	IVA
Procedure	• IVA to conduct system and process audit on IRAD to verify how the data is being collected and uploaded on IRAD • IVA to escalate to Central PMU in case Participating States are not uploading the data on regular basis • Every half-yearly basis, IVA to submit a verification report for each state on implementation and application of IRAD system.
DLI 5	Qualified road safety risk assessments for identification of high-risk corridors and sites on Road Network
Description	This indicator measures the percentage of road network in each Participating State that has undergone Road Safety Risk Assessments for identification and remediation of high-risk corridors and sites on Road Network. Qualified road safety risk assessment includes iRAP, RSA, and other established risk assessment techniques. The risk assessment includes collection of necessary baseline data such as spot speed data, road, and roadside inventory data, traffic counts, and pedestrian counts. This excludes blackspot detection by threshold values.
Data source/ Agency	Progress reports by the states

Verification Entity	IVA
Procedure	• IVA to review the road safety audit/risk assessment progress report (both for newly constructed roads and operational roads), obtained from Central PMU. • IVA to also conduct random site visits to cover minimum 10% of the audited roads in each State (for selected sample road stretches) to verify that audit/assessment is being conducted
DLI 6	Engineering interventions implemented on the high-risk sections of Road Network identified through assessments
Description	This indicator measures percentage rectification of high-risk sections by engineering intervention as per the recommended safety intervention plan to address the high-risk sections as identified in the assessments.
Data source/ Agency	Progress reports by the states
Verification Entity	IVA
Procedure	• IVA to verify the progress on a half yearly basis. IVA to also conduct sample site visits to verify the corrective measures implemented on ground and conduct a verification on the half-yearly targets based on site visits and desk review of the supporting documents.
DLI 7	Registered vehicles inspected from the Automated Vehicle Fitness Centers
Description	This indicator measures the percentage of vehicle fitness checks carried out annually from the Automated Vehicle Inspection & Certification Centers. Targets are cumulative.
Data source/ Agency	Progress reports by the states and MoRTH
Verification Entity	IVA
Procedure	• IVA to review the report status on completion of procurement plan by each state transport department. • IVA to also review the procurement documents for selection of vendors. • IVA to review the proof documents to verify the commencement of Authorized automated Vehicle Inspection & Certification Centres every half year. • IVA to conduct field visit for due diligence to verify that the minimum standard of availability of infrastructure and equipment's for random samples of Authorized automated Vehicle Inspection & Certification Centers in each Participating State. IVA to submit a Verification report every half-yearly basis.

	• IVA to review the functioning of the operationalized centers and review the data on number of fitness checks conducted through Authorized automated Vehicle Inspection & Certification Centers. The performance status of each state in this regard will be submitted by IVA every half-yearly basis
DLI 8	Road Network and National Highways covered by automated Speed enforcement
Description	This indicator measures the percentage Road Network and national highways covered by Speed Cameras. Networks with high traffic volume/vehicle km travelled should be selected for speed enforcement. The specifications for these Cameras will be uniform and as per those developed by MoRTH. Targets are cumulative.
Data source/ Agency	Progress reports by the states
Verification Entity	IVA
Procedure	• IVA to review the status report on installation of speed cameras (highlighting total number of cameras installed per Participating State and the list of road stretches covered). Based on the review, IVA to verify the achievement of targets (State-wise). • To supplement the review of proof documents, IVA to conduct site visit (selected sample stretches in each Participating State) to review the operation of installed speed cameras. • IVA to also verify the purchase of advance with help of proof documents along with physical inspection of random samples in the police stations and road stretches during site visits
DLI 9	Emergency care response time for ambulances attached to the Command and Control Centers
Description	This indicator measures the percentage ambulances supported by Command and Control Centers in Participating States whose Emergency care response time has reduced to 30 minutes.
Data source/ Agency	Progress reports by the states and MoRTH
Verification Entity	IVA
Procedure	• IVA to review the ambulance response time report submitted by each state in the first year and confirm the achievement.

ANNEX 3. SUMMARY TECHNICAL ASSESSMENT

A. Introduction

1. **A Technical Assessment was carried out for the proposed program.** The purpose of the Technical Assessment was to evaluate the adequacy of Program arrangements across four aspects: (a) Technical soundness, (b) Expenditure Framework, (c) M&E framework, (d) economic justification, and (e) key risks. This annex presents a summary of the Technical Assessment.

B. Technical Soundness

2. **The Program is technically sound.** The program's activities targeted toward envisaged goals and its technical standards are in line with the proven best practices for combating crash-related fatalities, as evidenced in several countries. The program includes a performance-based mechanism of funding, considered one of the best practices for interventions on road safety. The proposed multi-sectoral approach in the PforR Program focusing on coordination across multiple agencies at the highest levels of government builds on lessons learned from the Bank's Safe Corridor Demonstration Corridor projects in several states. This operation's scope, results areas and targets have been designed based on analysis of the scheme document, relevant sector knowledge, lessons learned, achievement of results, and the capacity building exercises spanning over several years of active engagement by the WB at national and state levels on road safety, both from the transport and health GPs.

3. **The geographical and grant distribution of the program is appropriate.** The states have been selected based on their ranking in terms of the total number of annual fatalities in the country. The eligible grant quantum for each of the Eligible states under the ISSPRS has been determined based on: (i) the number of fatalities in the state; (ii) the number of registered vehicles in the state; and (iii) the total road network length (see Table below).

#	State	No. of Fatalities		No. of Registered Motor Vehicles		Length of Road Network		Rank	% of Fund Allocation	Total Fund Allocation (INR Cr.)
Number/Weightage		*#*	*Weightage (in percent)*	*#*	*Weightage (in percent)*	*Km*	*Weightage (in percent)*			
1	Uttar Pradesh	22,655	8.90	32,690,900	3.40	436,307	2.60	1	14.90	1,041
2	Tamil Nadu	10,525	4.10	30,313,380	3.20	270,027	1.60	3	8.90	622
3	Gujarat	7,390	2.90	25,261,150	2.60	201,766	1.20	7	6.70	471
4	Andhra Pradesh	7,984	3.10	11,887,600	1.20	218,192	1.30	8	5.70	396
5	West Bengal	5,500	2.20	9,807,270	1.00	329,164	1.90	9	5.10	359
6	Orissa	5,333	2.10	8,321,320	0.90	307,937	1.80	11	4.80	334
7	Telangana	6,964	2.70	12,184,790	1.30	128,064	0.80	12	4.80	333
Total		**66,351**	**50**	**130,466,410**	**25**	**1,891,457**	**25**	**-**	**51**	**3,556**

4. **Technical capability at the state level is robust.** To combat the increasing menace of road crashes, the Ministry of Road Transport and Highways and State Governments have already been taking interventions for the development of safer road infrastructure and safe road user behavior and reporting on these to the SCCRS. As such, road safety issues have been identified and pertinent technical solutions are in place. The supervision of related works at the state level would be monitored and coordinated by

the State Lead Agency for Road Safety. This involves all technical, environmental, contractual, and financial contract supervision. Based on Bank's prior work in several states, the standard of work ethics among the supervision teams is quite high.

C. Implementation Arrangements

5. The Institutional structure and the implementation arrangement have been described in Section III of the main report. As per the guidelines of the SCCRS, most states have established an institutional arrangement for road safety as described below:

States	Current Institutional Mechanism for Road Safety
Uttar Pradesh	Road Safety Cell was constituted as the Lead Agency in 2019. It is headed by Transport Commissioner, assisted by the Additional and Deputy Transport Commissioners, and RTO rank officers. It comprises six Officers on Special Duty from the Medical, Police, PWD & Education, and the Transport Departments.
Telangana	Road Safety Committee headed by the Special Chief Secretary of Transport, Roads, and Buildings (TR&B) was constituted as the Lead Agency in 2017. TR&B Department, Police Department (Enforcement), and Health Department (Emergency Care) are included. It comprises Special Chief Secretary Home, Education, Health, Law, Finance, Urban Development, Director General of Police, and Transport Commissioner.
Gujarat	Gujarat Road Safety Authority (GRSA) was established in 2018 as the lead agency as per Gujarat Road Safety Authority Act 2018 under the Ports & Transport Department. GRSA officers are deputed mainly from the Transport. Memorandum and Articles of Association/Rules govern the functioning of GRSA.
Andhra Pradesh	The transport department has been designated as the Lead agency and has a road safety cell with dedicated staff. The Roads & Buildings Department and Andhra Pradesh Road Development Corporation, are the implementing agencies for road safety engineering works while Police are involved in road safety enforcement and education.
Orissa	The Lead Agency was constituted in 2015 with representation from Transport, Police, Health & Family Welfare, Housing & Urban Development, Schools, Law and Rural Development departments, Commerce & Transport, Higher Education, Panchayati Raj, Home, Excise and Finance Departments, Orissa State Road Transport Corporation, Pollution Control Board, National Highways & Orissa Works Department.
Tamil Nadu	Road Safety Cell was constituted as the Lead Agency in 2007 under the chairmanship of the Transport Minister. Police, Health, Medical & Family Welfare, and Education are the line departments that are part of the agency. As of 2018, dedicated staff had been appointed with representation from Transport, Police, Public works Health, Education departments, and local bodies.
West Bengal	Per a 2015 Government Order (GO), the Transport Department acts as the lead agency with the Chief Secretary as the Chair. DRSCs were also set up under this GO.

6. The roles and responsibilities including the road safety management functions as envisioned for a SRSLA are summarized below:

- to advise and implement road safety policies of State and Central governments.
- to notify annual targets for the reduction of accidents and fatalities as fixed by the State and draw up an Annual Action Plan to achieve the targets and monitor its implementation.
- to co-ordinate with all stakeholder departments of the State Government and Central Ministry to ensure implementation of the road safety program.
- to prescribe and enforce road safety standards and procedures.
- to administer the Fund and ensure that the Fund is effectively utilized.
- to provide and arrange for training programs and to organize conferences, seminars, workshops, celebration activities, and all such other activities for capacity augmentation of the manpower working in the field of road safety.
- to collect regular data on road accidents and analyze the data to identify areas/road stretched and categories of accident victims.

7. Detailed technical consultations were held with the stakeholder departments to know more about their initiatives, processes, procedures, implementation, and effectiveness of the measures are undertaken and baseline values for key performance indicators. Based on these, a Maturity model was developed to evaluate the States and Departments against set parameters. Details of this are available in the full Technical Assessment Report.

8. Some of the key findings and highlights from states are provided below:

- There is a significant gap in manpower for implementing state road safety polices
- Except for Gujarat, there is no separate department/entity for road safety and the head of the lead agency is not a dedicated resource, against SCC directions. Coordination between the Gujarat road safety authority and departments is high with regular meetings.
- The states of Andhra Pradesh and Tamil Nadu have been actively involved in conducting a road safety audit, risk mapping, and performing remedial/ corrective measures along high priority corridors
- The health departments of Andhra Pradesh and Tamil Nadu are front runners in India with post-crash response times on par with the world's best. They have achieved performance indicators set under the SSPRS. But, in other states, there are substantial gaps in post-crash emergency care due to a lack of trauma care facilities in districts. As such, a large number of fatalities occur while victims are being shifted from districts to the trauma care facilities in the capital.

D. Monitoring & Evaluation Framework

9. Program monitoring will comprise standard progress monitoring and verification of results by IVA, as explained in Paragraphs 9 to 13, Section D of the main text section of the PAD.

E. Economic Justification

10. For economic analysis as described in the main report, the following key assumptions were considered:

#	Particulars	Unit	Value	Source
1	Conversion factor for capital cost	-	0.83	MoHUA Economic Appraisal Guidelines
2	The conversion factor for accident costs	-	0.90	
3	Value of Life	INR	1,444,107	
4	Cost of Accident	INR	212,173	
5	Social Discount Rate	Percentage	8	NITI Aayog Study[14]
6	Road Fatality Data			Road Accidents 2019, TRW, MoRTH

11. The net economic benefits and economic rate of return for various interventions in the seven Participating States are presented in Table 4 in Section IV above.

[14] Study Report Reassessment of National Parameters for Project Appraisal in India, NITI Aayog, 2018

ANNEX 4. SUMMARY FIDUCIARY SYSTEMS ASSESSMENT

Section 1. Reasonable Assurance

1. **The IFSA[15] of the India State Support Program for Road Safety (Program or ISSPRS) arrangements concludes that the present systems together with proposed mitigation measures** will provide reasonable assurance that financing proceeds will be used for the intended purpose, with due attention to the principles of economy, efficiency, effectiveness, transparency, and accountability. The scope of the IFSA is limited to the boundaries of the proposed PEF established in the technical assessment and was conducted through virtual meetings and discussions with the officials of Ministry of Road Transport and Highways and representative sample Participating States of Andhra Pradesh, Gujarat, and Uttar Pradesh.

Section 2. Procurement exclusions

2. The Program is not expected to procure any large contracts valued at or above the Operational Procurement Review Committee thresholds (US$75 million for works, US$50 million for goods and non-consulting services, and US$20 million for consultant services), which are based on the Substantial risk rating. This conclusion is based on analysing the procurement data of MoRTH and the three representative states (AP, Gujarat, and UP) and their concerned departments (mainly Transport, Police, Health/State Medical Services Corporation, and Public Works Department [PWD]/Roads & Bridges [R&B]) assessed for their procurement systems. The POM will specify that Implementing Agencies shall report to the WB if any large contracts appear during Program implementation. In addition, the WB team will analyse and monitor the Program budget execution reports, the Program performance of fiduciary systems, and contract/award management reports to identify any large ‑ value contracts that may appear throughout the Program implementation.

Section 3. Program Fiduciary Arrangements

3. **Planning and Budgeting.** The Program funds represented in the ‘PEF’ will be budgeted in the new budget lines to be created for the scheme over the implementation period of 6 years in the Demand for Grants of MoRTH. At the Central level, MoRTH will follow the extant norms of GoI for its budget preparation process. At the State level, the SRSLA will collect annual proposals from the participating line departments, and these shall be collated and approved by the management of the SRSLA as a state-level annual proposal. The said state-level AP will be submitted to MoRTH to prepare an overall Program level annual proposal which will be used as a basis for budget preparation and Program implementation for the following year.

4. **Procurement planning.** Annual programs are used for procurement planning, watching the progress and monitoring contracts. These Annual Programs of the departments are consolidated by the Finance Department for approvals and budgeting based on assessment of by the individual departments and include them in their annual budgets. All works/items to be covered in the annual procurement are

[15] This annex provides a summary of the findings and should be read along with the stand-alone ‘IFSA’ report which presents a detailed analysis of the larger public financial management (PFM) environment, existing FM and procurement systems, and their performance toward ensuring proper utilization of Program funds. The detailed IFSA will be publicly disclosed along with the Project Appraisal Document.

then decided based on priorities, budget allocation, and availability of funds. Procurement plans are thus realistic as they follow budgetary provisions, and various approvals/sanctions.

5. **Procurement profile of the Program.** Based on the activities identified in the Program scope, the main procurable items include (a) goods, works, and non-consulting services[16]: (i) provision of safety features i.e. signages, marking, lane separations, pedestrian crossing (ii) small works for correcting blackspots/accident risk spots, (iii) devices for the management of speed and drunk driving, (iv) e-devices for the issue of electronic traffic violation tickets, (v) ambulances, (vi) health supplies, (vii) driving training and testing systems, (viii) IT hardware/software, (ix) office equipment & supplies; (x) hiring of vehicles, etc.; and (b) consulting services: (i) baseline data and risk mapping of SH and urban road network, (ii) development of training materials on road safety, risk mapping, first responder training, e-learning modules, (iii) training of officials on road safety and FR; (iv) design and roll-out of safety campaigns; (v) development and implementation of Integrated Road Accident Database, etc.

Budget Execution

6. **Treasury management and funds flow.** The Project Director in MoRTH shall issue a "sanction order" and submit the bill, based on which the payments shall be made by Pay and Accounts Office (PAO) through PFMS/GMS to the SRSLA or the other state participating agencies in their bank account. Each SRSLA will open a state-level bank account (also known as a parent account) and child level account will be used for other state agencies registered in the PFMS.

7. **Accounting and financial reporting.** The Program will follow the extant practices of accounting and financial reporting. At the Central level, the computerized accounting applications 'PFMS' used by PAO and 'e-lekha' used by Principal Accounts Officer in Chief Controller of Accounts, sufficiently capture the Program level expenditure details till the last object head level provided in the budget. At the State level, the accounting and financial reporting will be done through PFMS. The state agencies will use the PFMS portal to make payments to capture all payment transactions made under the Program. The state agencies will submit the Utilization Certificate and such other reports to CPMU, MoRTH as provided in POM, within 6 months from the date of release of Grant-In-Aid.

8. **Procurement processes and procedures.** While the procurement processes vary amongst the implementing agencies, there is a fair and transparent procurement process to achieve the best value for money. Open tendering is the preferred method, and lower thresholds are laid down for limited and direct procurement under specific circumstances. All tenders above a specified value as applicable to the entity/ State are required to be handled on the e-portal. All three states AP, Gujarat, and UP use e-procurement extensively.

9. GeM[17] is a Government e-Market Place where common user goods and services can be procured and are mandated to be used by Central Government entities. It is also used by State entities and others because of ease of procurement, availability of facilities like direct purchase, purchase through comparison of prices from various vendors on the portal, online bidding, and online e-reverse auction

[16] Government of India uses the terminology 'Services' for both 'Non-consulting Services' as well as 'Consulting Services'

[17] Government e-Marketplace (GeM) GoI portal is the National Public Procurement Portal; an end-to-end online Marketplace for use by Central and State Government Ministries / Departments, Central & State Public Sector Undertakings, Autonomous institutions and Local bodies, for procurement of common use goods & services.

processes. All three state entities use GeM, and the assessment noted that GeM is mandated to be used by Gujarat, and AP Police.

10. Depending upon the value, agency, and category of purchase, 7 to 30 days are provided for the submission of bids. Timelines for various other activities have also been specified. All open tender bids are required to be opened publicly, and implementing agencies use their respective bidding documents. The provisions require that unbiased technical specifications shall be prepared, and tender documents shall indicate the qualification (or class of registration) and evaluation criteria. Specified preferences are applicable to Make in India; Micro Small and Medium Enterprises; Public Sector Undertakings; and state vendors these provisions have not been applied to IPF projects, they may not have significant impact on the delivery of results and achievement of PDOs of the proposed program as it does not envisage large-value contracts attracting international competition, and required services, works and goods are considered widely available from India Market. Negotiations after the opening of tenders are discouraged. Only under exceptional circumstances, negotiations may be permitted with the L1 bidder.

11. GoI has recently (Oct 29, 2021), permitted the use of rated type criteria in the procurement of Works and Non-Consultancy services, has provided financial penalty for substitution of key experts under compelling circumstances by the consultants, and has permitted the use of Fixed Budget Selection for consulting services. The effect of these changes would be known only after their use for some time, but these do not affect the core principles of public procurement and are not likely to adversely impact the Program.

12. **Internal Controls and Internal Audit.** As part of the Program fiduciary arrangements, an internal audit arrangement will be put in place for the Program with adequate staffing. The said internal audit will be carried out as per GOI prescriptions on internal audit. For the purposes of the SSPSRS, internal audit will be carried out at least on a half-yearly basis. The internal audit of the Program would require periodic review of various facets of the project covering financial management, procurement, contract management and governance aspects. It would cover the PMU, MoRTH, and all the state agencies incurring expenditure under the Program.

13. **Program governance and anticorruption arrangements.** The MORTH and State-level agencies and other Program staff, are required under the ACGs to take the following actions, among others:

a) take appropriate actions to prevent Fraud and Corruption (F&C);
b) immediately report allegations (or other indications) of Fraud and Corruption to the Bank;
c) cooperate fully with investigations into F&C that the Bank may decide to conduct;
d) take timely and appropriate action in response to any F&C that the Bank has determined has occurred in connection with the IBRD loan; and,
e) ensure that any other recipients of the IBRD loan agree to abide by the ACGs.

To operationalize the implementation of the above, PMU staff at the central and state level will have the responsibility for ensuring compliance with the ACGs.

14. To operationalize implementation of the various areas covered in the Anti-Corruption Guidelines, the MoRTH would need to maintain and compile a half-yearly report of complaints related to the Program and share it with the WB based on the agreed format included in the POM and the WB's listing of ineligible firms in the filter used by implementing agencies when they conduct due diligence. This list is available at the following website: http://www.worldbank.org/debarr. MoRTH would furnish a quarterly report to the

Bank stating that none of the contract awards under the Program are made to any of the ineligible/suspended firms.

15. **For every bidding opportunity under the Program, each participating bidder shall submit (as part of the bidding process) a self-declaration that the firm is not subject to ineligibility or has not been sanctioned under the WB system of debarment and cross-debarment.** Program audit will also review and certify the above aspects.

16. **Auditing**: The consolidated financial statements of the Program will be audited by the CAG, following the ToR adopted by the CAG for audit of WB-supported projects. The audit shall cover the PEF to be incurred by MoRTH and the seven Participating States. The Program audit report will be submitted by the MoRTH to the WB within twelve months from the end of each fiscal year (that is, by March 31 of the subsequent calendar year).

17. **Procurement and Financial Management Capacity**: In most cases, the existing fiduciary staff strength in MoRTH and the Participating States' departments is less than the sanctioned strength. For the Program, MoRTH would need to assign staff and/or consultants for managing the fiduciary aspects of the Program. At the state level, the SRSLA and the other state agencies will need to designate the officials to fulfil the fiduciary responsibilities for the activities at the state level which includes the officials having a role in the operation of PFMS. To ensure adequate staffing, a provision in this regard will be included in the MOU and the FM staffing will also be monitored as an indicator during the implementation of the Program. The procurement under the Program shall continue to be handled by the concerned line departments and the Road Safety Boards/Councils shall not be handling any procurement. The procurement staff strength is considered adequate in the respective departments of the three States (AP, Gujarat, UP). The MoRTH would need to have a full-time procurement specialist for guiding the States in selection of Consultants (as required), and for management and monitoring of procurement activities and application of Anti-Corruption Guidelines under the Program and for monitoring procurement training of officials of implementing agencies.

Section 4. Risks and Mitigation Actions

18. The following table outlines the main weaknesses identified in the IFSA and the proposed mitigation actions; some of the actions are included in the MOU and PAP to address the weaknesses.

Risk	Mitigation Action	Timing	Type of Action
Funds diverted by states and not used for purpose intended, affecting fiduciary risks	An internal audit firm will be appointed for the Program. POM will clarify the fiduciary arrangements and eligible expenditures under the Program, and the Head of the SNA will certify the appropriate use of funds. A clause will be included in the MOU to prevent states from diverting funds. The transactions will be reviewed by the WB during its missions.	Six monthly Ongoing	PAP, Preparation, Implementation Support Mission (ISM), and POM

Risk	Mitigation Action	Timing	Type of Action
State agencies not familiar with FM requirements of a CS scheme, PFMS, and Bank's reporting requirements including those on ACG.	A training of all state agencies will be provided on (a) GoI FM requirements including the use of PFMS (b) WB's reporting requirements. The Program Management Manual will provide details of the Program FM arrangements including the reporting requirements.	At launch and then ongoing Ongoing	ISM Preparation and ISM
MoRTH and states do not provide adequate staffing to manage fiduciary activities.	Loan Document and MOU to have provisions for adequate staffing	Six monthly	MOU and ISM
States delay in the submission of UCs	MOU to have provisions for states to ensure timely reporting and submission of UCs.	Six monthly	MOU and ISM
Absence of comprehensive procurement guidance for goods and services	MoRTH would develop general guidance on the procurement process for goods, works, and services (both consultancy and non-consultancy services) and include it in the POM to be used by all IAs of the Participating States.	Within six months of effectiveness	POM
Program external audits delayed	(a) Audit report due date would be kept as 12 months from the end of the financial year. (b) Regular follow-up with MoRTH and state agencies to have the audit completed on time and follow up on the paragraphs in the audit report.	Six monthly	ISM
Transparency	All IAs will implement the following: (a) Preparation and publication of Procurement Plans (b) Audit of sample of contracts by the auditors (c) Disclosure policy covering Procurement Plans, contract award, contract performance, complaints redressal, audit reports, appeals, and their disposal. The identified procurement specialist for the Program in MoRTH would guide the states and monitor implementation.	Yearly	POM
Absence of model bidding documents for goods and services leads to weak contract management	Since states use their own bidding documents, those documents would continue to be used with the following two provisions: (a) POM will contain guidance on essential elements of the bidding documents and (b) MoRTH/PMC would provide need-based guidance to the states on specific procurement issues, if any. (c) All IAs will review their frequently used bidding documents to be in compliance with the guidance given in POM and confirm to MoRTH.	Within one year of effectiveness	POM

Risk	Mitigation Action	Timing	Type of Action
Lack of procurement specialist with MoRTH for guiding the states in procurement/selection of consultants (as required) and for management and monitoring of procurement activities and application of ACG under the Program, and so on.	MoRTH will identify a procurement specialist and retain him/her throughout the WB funding for guiding the states in procurement/selection of consultants (as required); for management and monitoring of procurement activities; for application of ACG under the Program; and for identification of training programs on procurement and contract management for procurement staff of IAs.	Within six months of effectiveness	POM
Inadequate complaint handling system	MoRTH would develop model standard procedures for handling procurement complaints including timelines for (a) Submission of complaints and appeals and (b) Public disclosure in an effective manner.	Within six months of effectiveness	POM
Debarment provisions	MoRTH-identified procurement specialist will comprehensively specify the debarment process at one place for ready reference by IAs of the Participating States. Make the list of debarred firms and individuals readily accessible to procuring officials as well as bidders/contractors/suppliers for consistency. MoRTH would furnish a quarterly report to the WB stating that none of the contract awards under the Program are made to any ineligible/suspended firms.	Within one year of effectiveness	POM

ANNEX 5. SUMMARY ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT

1. **ESSA** was carried out in line with the WB Guidance for conducting ESSAs for PforR financing operations. The ESSA assesses the gaps in the existing institutional, operational and regulatory systems and capacities to manage E&S risks and recommends measures for strengthening them. The ESSA process involved a desk review of relevant documents, technical studies/reports, and information related to the working of the MoRTH and key departments involved in the Participating States on road safety. This was complemented with virtual and face-to-face consultations with relevant experts and officials from the Department of Transport, PWD/ R&B, Department of Health and Family Welfare, and State Police Department in the seven Participating States. In addition, a multi-stakeholder consultation workshop was also taken place with national and state government as well as non-governmental organizations (NGOs) involved in road safety programs in the Participating States and at the national level. The ESSA identified key gaps and opportunities for further strengthening the existing institutional, operational, and regulatory systems and capacities regarding E&S issues under State Road Safety Program. The draft ESSA report was shared with MoRTH and key departments in the Participating States for their comments and suggestions. The ESSA will be revised after incorporating comments and suggestions received from national and state departments. The key findings of ESSA are summarized below.

2. **Environmental and Social System Assessment.** The legal framework for environmental and social systems is adequate and backed by a set of comprehensive laws, regulations, technical guidelines, and standards, that apply nationwide and to Participating States as well. The Environmental legislation at the national and state level for the conservation and management of the environment and pollution management are well defined and in place, and so is the institutional structure for the management of the environment. Therefore, procedures and clearances required for environmental protection are well defined. Existing legislation also helps minimize or mitigate possible adverse impacts on the natural habitats, archaeological sites, and cultural resources. Similarly, the existing legislative framework is adequate to ensure social sustainability and the interest of marginalized and vulnerable populations including the scheduled castes and scheduled tribes. No land acquisition and/or resettlement is allowed under the proposed road safety program, and it is part of the list of excluded activities. In the unlikely event of any disturbances to the vendors and hawkers, the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 has provisions to address the risk. The Motor Vehicle Act has been the primary legislation governing road safety scenarios in India, and the 2019 Amendment further strengthens the road safety measures.

3. Most of the road safety activities as identified under the program do not involve any major civil works, except certain types of activities for fixing accident black spots and setting up Driver Training and Automated Testing Centers, and for Automated Vehicle Inspection & Certification Centers at the district level. Under the program, it is only PWD and Transport departments have possible civil works activities and the other departments – health, and police have no activities that require civil works to be undertaken. The black spot-fixing is undertaken by the road-owning department which could be the Highways, Road and Bridges, PWD department. In general, any construction activities by the Transport Department or Police Department, or Health department are generally done by PWD on their behalf. PWD in each of the Participating States has its well-defined guidelines and procedures for undertaking any civil/construction activities including those through contractors; and has a built-in mechanism to follow national and state regulations as applicable. Small scale civil works for road safety anticipated under the program, are exempt from EIA as per EIA Notification, 2006, and large-scale civil works are excluded for financing under this PforR.

4. The program interventions are unlikely to disturb natural habitats or environmentally sensitive zones or require any associated rehabilitation. In case any physical cultural structures come in the way of black spot-fixing, the current practice in many of the states involves consultation with local community representatives, community leaders along with stakeholder departments and District Administration to identify a culturally appropriate way forward. Anticipated physical activities are small in scale and no large construction activities are foreseen as a part of the program, and hence, EHS measures are limited to small-scale constructions. The civil construction works by the PWD and/or by the road owning departments follow the relevant labor laws as applicable in the state, and also mention necessary clauses in the bid and contract document. However, its compliance varies across states and departments due to a lack of proper monitoring.

5. While the institutional mechanism is well defined both at the national and state level under the State Support Program for Strengthening Road Safety. At present, all the states have three levels of institutions - policy level, operational level, and district level. In all states, at the policy level, the State Road Safety Council or Road Safety Authority is the topmost institution on Road Safety in the State and is generally headed by the Chief Minister in some states, while headed by Chief Secretary or Transport Secretary in other states and often include members from Transport, PWD, Highway/R&B, Home/Police, Urban Development, Health and Education as its members. The Road Safety Council/ Road Safety Authority periodically reviews the progress and provides policy guidance while Road Safety Cell housed in Transport Department and headed by the Transport Commissioner works as an executive arm that operationalizes and undertakes road safety activities on a day-to-day basis. In the Road Safety Cell, there is representation from PWD, Police, Health, and Education in the form of officers on Special Duty (OSD) to help coordinate road safety activities with their respective departments. At the district level, there is District Road Safety Committee headed by the District Collector/District Magistrate to review and guide the district-level road safety activities. However, the environment and social specific capacity are presently insufficient because of the lack of dedicated E&S staff. Once this staffing gap is addressed and relevant training imparted in the implementing departments and nodal agencies, these staffs need to play a more proactive role to identify and address the potential E&S risks.

6. All the Participating States and especially the Transport and Police department reported on conducting regular road safety awareness programs through mass media, mix-media, also on social media. In most states, messages on TV, FM radio, distribution of pamphlets, screening of audio-visual materials, street plays for commercial vehicle drivers and truckers, and public consultation workshops are conducted, and public awareness campaigns undertaken towards road safety are being undertaken in the local language. Also, education programs are undertaken for students on road safety. IEC materials are put up for display in public places and appropriate signboards are put up as per norms to inculcate positive road safety behavior. In most states, NGOss/CSO are also engaged in undertaking awareness campaigns on road safety in an active manner. However, there is a need to have comprehensive social and behavior change communication (SBCC) to elicit enhanced social benefits by reducing road accident fatalities. Also, the process of community engagement beyond awareness creation is relatively weak and requires strengthening.

7. The current Road Safety program in Participating States leverages the existing country system to receive, resolve and manage grievances, and includes (a) Chief Minister's (CMs) grievances portals; (b) State and Department-specific grievance redress mechanism; (c) Centralized Public Grievance Redress and Monitoring System (CPGRAMS) at national level; and (d) using of Right to Information (RTI) Act. The current grievance redress mechanism in the Participating States has multiple options to register grievances and get redressal and includes both online and manual systems. However, the current system lacks systematic recording, monitoring, and reporting on grievances related to road safety and requires strengthening.

8. **Key Environmental and Social Gaps.** The key gaps identified include (a) absence of dedicated/designated environment and social safeguards specialists at state departments; (b) lack of comprehensive E&S risk screening for small scale civil works; (c) inconsistent disposal of e-waste through the authorized recyclers; (d) insufficient review of vendors' compliance with applicable environmental legislation in the bidding process; (e) segregation of accident data involving vehicles carrying hazardous substances; (f) staff capacity in the departments to identify, assess and manage potential environmental risks and focus on training on E&S aspects;, (g) varying degree of compliance with labor laws by the civil contractors in absence of limited monitoring on this aspect; and (h) lack of systematic recording, monitoring and reporting on grievances related to road safety.

9. **Excluded Activities.** The State Support for Road Safety Program of the government has eligibility criteria that exclude any new major construction or civil works involving land acquisition and/or resettlement such as for the construction of flyovers, foot overbridges, building infrastructure, and testing sites, etc. Along with those, the following activities that have the potential to cause high or substantial E&S risks and impacts will not be financed under this PforR:

- Any major land acquisition, physical relocation, and/or involuntary resettlement impacts.
- Program activities that involve large-scale civil works or works that may have an adverse and irreversible impact on the environment.
- Program activities in the forest or ecologically sensitive areas.
- Activities that are not in compliance with Central and State environmental legislation.
- Activities that involve the use of child or bonded or forced labor or labor involved in any hazardous activities.
- Activities that involve the destruction or damage to any physical and cultural resources.

10. **Recommendations:** ESSA recommends that the following key actions are undertaken:

1) Only authorized electronic waste recyclers are invited to the auctioning process.
2) Vendors have mandatory compliance with applicable environmental legislations.
3) Strengthening the staffing and institutional mechanism for E&S aspects with clear roles and responsibilities at different administrative levels within the Lead agency and also preferably in department undertaking civil works i.e., PWD/R&B/Highway, etc.
4) E&S Screening and preparing site-specific mitigation measures for Black spots where civil works are planned, and other building construction sites e.g., Driver training institute or Vehicle Inspection & Certification center, etc.
5) Providing E&S Training and Capacity Building program for frontline program staff.
6) Strengthening civil works monitoring mechanism to ensure compliance with labor laws and labor welfare measures to be instituted by the contractors.
7) The mechanism for systematic stakeholder consultation is to identify community concerns and feedback, and garner community supports especially where civil works are planned.
8) Strengthen existing grievance redress mechanism for road safety at the state and district level for systematic recording, monitoring, and reporting towards enhancing transparency and responsiveness, while safeguarding against privacy/reprisal concerns.

ANNEX 6. PROGRAM ACTION PLAN

Action Description	Source	DLI#	Responsibility	Timing		Completion Measurement
Report segregated data on crashes involving vehicles carrying hazardous substances	Environmental and Social Systems		State Road Safety Lead Agency	Other	Yearly, starting 24 months after the Effective Date	Report on crash data involving vehicle carrying hazardous substance is notified by the State Road Safety Lead Agency to MoRTH
Conduct environmental and social screening and prepare and implement site specific mitigation measures where civil works are being planned such as for black spots fixing and other building construction sites.	Environmental and Social Systems		PWD/equiv. of each Participating State	Recurrent	Continuous	State Road Safety Lead agency to share half-yearly reports of E&S screening conducted and mitigation planned with MoRTH.
Establish a framework to consolidate grievances related to road safety activities under the Program which were received through the Stakeholders Departments' grievance redress mechanisms.	Environmental and Social Systems		MoRTH	Other	Within 24 months of the Effective Date	Participating States to share a summary report with MoRTH.
Carry out an internal audit of the Program undertaken as per Government of India prescription as per mutually agreed terms of reference.	Fiduciary Systems		MoRTH/State Road Safety Lead Agency	Recurrent	Semi-Annually	Submission of periodic reports.
(i) Develop a composite road safety institutional	Technical	DLI 3	MoRTH and Road Safety Lead Agency	Other	(i) By Year 2 of the Program (ii)	Annual road safety institutional performance report with central level and state-by state

management and performance indicator; and (ii) the indicator shall be monitored by the center and state level					Yearly	composite road safety institutional performance indicator published.