

**GOVERNMENT OF GUJARAT
ROADS & BUILDINGS DEPARTMENT [R&BD]**

**TECHNICAL ASSISTANCE
FOR
ROAD SAFETY - POLICY, INSTITUTIONAL REVIEWS AND ROAD SAFETY
MANAGEMENT CAPACITY STRENGTHENING UNDER GSHP-II**

TERMS OF REFERENCE

1. Background

The World Bank (WB) assisted Second Gujarat State Highway Project (GSHP-II) has been taken up by Roads and Building Department (R&BD) of the Government of Gujarat (GoG). This project includes a Highway Improvement Component, a Sector Policy and Institutional Development Component and a Road Safety Component.

In 2012, the WB conducted a Road Safety Management Capacity Review (RSMCR) for Gujarat to identify key requirements to establish a robust road safety management system and the contours of corridor demonstration projects, within the operational framework of the GSHP-II Road Safety component. This was aimed at bringing Gujarat's challenging road safety outcomes under control. Based on the RSMCR¹, it was decided to include the following under the road safety component of GSHP-II:

- A fully resourced Project Steering Committee (PSC) to lead and manage Road Safety component of the project;
- Interventions to be developed and implemented across the agencies/ sectors in targeted high-risk, high-volume demonstration corridor(s)
- Policy reviews of agreed road safety priorities, such as driver standards, heavy commercial vehicle safety, safe infrastructure design, deterrent policing and penalty frameworks, road crash data system improvement and vehicle safety.
- Conduct of a formal review of existing institutional arrangements and recommendation of preferred options for a State Lead Agency role
- Review of a road safety policy and action plan by the GoG by project completion

Accordingly, the GoG has formed a PSC, chaired by the Chief Secretary of the GoG and comprising the Secretary, Roads and Buildings Department, the Commissioner of Transport and the Additional Chief Secretaries of Home, Urban Development and Housing, Principal Secretaries Education and Health Departments² as members. The PSC will lead and oversee high level monitoring of the road safety component, and will progressively assume a lead agency role for setting up appropriate mechanisms for the purposes of delivering the project. It will facilitate interagency coordination and provide high level guidance as and when required during the project. The PSC may meet at least half yearly or whenever required.

A Working Group (WG) of Officers was also formed from the same Departments whose members represent the PSC³. Its critical project role is to meet regularly to provide the hub

¹ See Annexure 1 for an Extract

² See Annexure 2

³ See Annexure 3

and support for the design, delivery, coordination and monitoring of the road safety component, as it relates to their specific Department. It will meet quarterly or more frequently as required, and report to the PSC.

The R&BD will also make available a road safety cell which will play the secretariat support and coordination role. This cell will support related procurement aspects through the PIU and will provide day-to-day implementation and monitoring support for the project components together with the Consultant, to the WG and its member Departments. The WG member departments will be responsible for adopting appropriate designs/ details for their safe corridor interventions and for implementation and monitoring.

These consulting services are now needed to provide technical assistance to the R&BD to: (1) enable it to lead and coordinate implementation of multi-sector interventions by relevant agencies in the selected demonstration corridor(s) through the WG and PSC process; (2) develop skills and knowledge and capacity about interventions within the R&BD Cell, WG members and member departments; (3) assist the GoG (through the WG and PSC) in determining/establishing a sustainable combination of institutional arrangements, functions, staffing and other resources, to tackle the state's road safety challenges and responsibilities effectively, in a comprehensive, multi-sectorial and strategic manner and (4) assist the PSC and WG to carry out initial State wide Policy reviews of agreed road safety priority issues.

2. Broad Objectives

The broad objectives of the required technical assistance services are as follows:

- Successfully plan and implement the safe corridor demonstration projects under GSHPII and support the R&BD, Home, Health, Education and Transport Departments (the departments) as needed, to implement road safety interventions including social awareness campaigns;
- As a vital element of the demonstration corridor projects, support the departments in development of their road safety management capacity, and the R&BD Cell in particular to deliver the Secretariat role for the Departments, WG and the PSC, and the WG and R&BD Cell to effectively plan and oversee delivery of the safe demonstration corridor projects;
- Successfully plan and implement reviews of agreed road safety policy priorities, such as driver standards, heavy commercial vehicle safety, safe infrastructure design, enhanced enforcement through deterrent policing and penalty frameworks, road crash data system improvement and vehicle safety;
- Overall formal review of existing institutional arrangements and recommendation of preferred options for sustainable road safety management in Gujarat into the future;
- Based on the experience of the corridor demonstration project(s) and the State's own ongoing initiatives, support the GoG in review and revision (if required) of the State Road Safety Policy and develop a medium to long term action plan for consideration of the GoG for improving statewide road safety outcomes.

3. Scope of Services

The Consultant is expected to guide and support various concerned authorities to perform the following staged tasks and deliver outputs which are best suited to deliver outcomes for improved road safety management in the state.

3.1. Task 1: Review and recommend improvements to current practices/procedures

Examine other available systems for road safety management which are operating in India and may be under preparation nationally and the extent to which they meet agencies' requirements (for the required level of analysis and understanding of road crash problems by agencies)

A) Transport Department

3.1.1. Conduct Policy Reviews

- International good practice benchmarking of current driver training and experience gathering, testing and licensing practices.
- Recommended short-term and long-term improvements to the current and planned practices for driver training, testing and licensing, and an action plan for improvement program.
- Recommend measures (and where necessary scope proposals) to improve the administrative efficiency of license testing, issuance, renewals and data analysis from the licensing data base.
- Review current road information/publicity materials developed for increasing road safety awareness and compliance with traffic rules.

3.1.2. Scope a good practice driver training, license testing and licensing program and guidelines in line with national policies/act(s)

- State-wide driver training, testing and licensing program, including cost estimates and implementation schedule.
- Guidelines detailing requirements for improved driver training, testing and licensing practices for Gujarat.
- Detail potential options for introduction – in stages – of a graduated licensing system for both new learners and licensed drivers in Gujarat in the longer term, specifying likely costs of implementation, potential timing and road safety benefits.

B) Home Department

Under the SCDP in GSHP-II, measures shall be identified to strengthen police enforcement capacity and develop further the police crash investigation capacity in the limited geographic area of the demonstration project. The Consultant shall harness the lessons learned from the SCDP for the following tasks:

3.1.3. Review of police enforcement to achieve the general deterrence of unsafe behaviors in high-risk corridors and areas

- Identification of unsafe road user behaviors in high-risk corridors and areas.
- Operational strategies, practices, tactics and related guidelines to address unsafe behaviors in high-risk corridors and areas.
- Existing programs (if any) of enforcement operations targeting unsafe behaviors in high-risk corridors and areas.
- Analysis of equipment needs and specification and costing of additional equipment required to support enforcement programs.
- Review resourcing and recommend required levels of enforcement (person hours and equipment operating hours) to enhance enforcement of existing road transport rules and regulations for safe road user behavior
- Review potential benefits of a designated highway patrol dedicated to vehicular speed enforcement and recommend a future approach
- Identify on-the-job support needs for the implementation of periodic enforcement

programs.

3.1.4. Evaluate the efficiency and effectiveness of police enforcement programs in the high-risk corridors and areas in consultation with Home Department.

- Design and conduct evaluations of police enforcement programs in high-risk corridors and areas
- Recommend improvements to police enforcement programs based on the evaluation findings in high-risk corridors and areas.
- Evaluation of effectiveness of adjusted delegated authority measures for police to support more widespread issuing of infringements

3.1.5. Provide guidance as input to enforcement-associated publicity campaigns

- Develop guidelines for publicity campaigns as they relate to Police enforcement for statewide deployment based on execution experience with the SCDP

3.1.6. Assessment of current road crash data practices and procedures

- Evaluate current procedures and systems for reporting, recording and analyzing road crash data and the extent to which current system capability meets agency requirements for analysis and understanding of road crash problems.
- Identify necessary modifications to current and planned procedures and systems for reporting, recording and analyzing road crashes to improve data system application.

3.1.7. Present options to replace/ modify the current road crash data system

- Examine other available systems which are operating in India and may be under preparation nationally and the extent to which they meet agencies' requirements (for practicality of data collection by police and for the required level of analysis and understanding of road crash problems by other agencies)
- The Gujarat Police has developed e-GujCop, a state of the art computerized system, which has a number of utility modules that could supplement and complement multi sectoral Road Safety intent. The Consultant should interact with concerned stakeholders on assessing whether and how best this system can be harnessed in establishing the road crash database. If it can be harnessed, the Consultant should propose the integration interface and necessary input data fields, which is pragmatic and can be implemented with minimum effect/impact on e-GujCop, in consultation with the concerned Stakeholders.
- In consultation with the PSC/WG, compare the options for (i) modification of the current system (including e-GujCop) and (ii) replacement with (procurement of) an existing system operating in another Indian State.
- Evaluate and recommend measures required to be taken for each option and the estimated costs and project duration to implement these systems in Gujarat.

C) Education Department

3.1.8. Review Education Department's existing road safety programmes and curriculum materials for road safety education of school children and for their safe movement to/ from schools. Accordingly provide appropriate enhancement recommendations.

D) Overview roles of WG

3.1.9. Assist the WG to discuss and refine (if needed) their roles and responsibilities for their management overview and delivery responsibilities for the road safety component of the Project as well as the operation of the demonstration project(s). This will also include identifying suitable opportunities for inter-agency

coordination and recommendations for twinning with other agencies nationally and internationally to share experience and enhance knowledge about road safety management (to complement Task 3D).

3.1.10. First Workshop for Stakeholder Departments

Upon completion of Task 1, the Consultant shall conduct a workshop involving officers of all the stakeholder departments including the WG members for finalizing the respective assessments and recommendations suggested therein.

3.2. Task 2: Planning and Implementation support for Safe Corridor Demonstration Project

GSHP-II project had envisaged about thirty kilometers length through selected road corridors to be covered under SCDP. Amongst earlier selected road corridors, Bharuch-Dehgam (11 km) is now finalized for implementation on ground with civil works and also ITS interventions. Another corridor that was earlier identified is now being substituted; while R&BD, GoG is in the final stages of approving such substitute corridor, as of now, it has decided in-principle to undertake about eleven additional kilometers of road length for the SCDP in addition to Bharuch-Dehgam. An eleven kilometer long state highway corridor is getting selected close to the Capital of Gujarat for higher visibility and demonstration effect. The scope of this assignment covers assistance in implementation of Bharuch-Dehgam as specified in this ToR, but full-fledged leading role and responsibility of this TA consultancy for the new SCDP corridor from beginning i.e for planning, design, implementation and M&E as spelt out in the following subsections.

A) Planning Support

The Consultant will provide support to each Department represented on the Working group for formulation and detailed plans of proposed deliverable interventions and their associated estimated costs for implementation and operation for the life of the demonstration projects. Depending on the interventions selected, there may be trade-offs between engineering the safety of the corridor or implementing combined enforcement or publicity or implementing a combination or both. Appropriate liaison with local governments will be required about proposed interventions, their detail and the timing of their rollout.

Several of the multi-sectoral interventions to be designed for the targeted demonstration corridors are specified below:

3.2.1. Safer Infrastructure and speed limits

Two corridors, namely Bharuch-Dehgam, and about 11 kilometer long SH corridor around Capital city are to receive infrastructure safety improvements to reduce the likelihood and severity of crashes. Of these, detailed designs have already been made for Bharuch-Dehgam by the PMC. Now, this TA Consultant would develop detailed designs along with all civil works and ITS interventions/features for the other corridor and get it approved through Working Group and the World Bank, following due process of the R&BD as done for the Bharuch-Dehgam corridor. To accomplish this task the Consultant shall undertake the following:

-
- Road Safety audits, related road safety analysis and studies
- Risk analysis for vulnerable road users

- Baseline surveys (including collection of traffic, speed, accident data from Police and EMRI(108), pedestrian infrastructure and pedestrian behavior, helmet and seat belt usage)
- Topographic surveys
- Crash data analysis and geo-referencing of accident spots
- Identification and geo-referencing of health/educational facilities along and/or in the vicinity of the road corridors and consultations with these entities

After finalization of designs for Civil works as well as ITS interventions, the TA Consultant shall prepare appropriate cost estimates and bidding document packages as per latest prevailing procurement guidelines of the WB in close consultation with R&BD. The projects prepared for bidding shall invariably incorporate the relevant environmental and social safeguards with due impact assessments as per prevailing WB operational policies in consultation with R&BD. The TA Consultant shall refer to the bid documents already prepared for Bharuch-Dehgam SCDP for understanding and to develop more robust SCDP interventions for the other corridor.

The Consultant will also recommend safe system infrastructure elements for all the two demo corridors for the determination of safe system compliant speed limits for the treated sections.

3.2.2. Safer Users through enforcement, education and awareness

3.2.2.1. Prepare detailed action plans (including required training, equipment procurement and implementation resourcing requirements) for Police Department to support enhanced traffic enforcement in the demonstration corridor(s); these plans will include:

- speed management action plan (with a special focus on pedestrian safety) through appropriate devices (radar, speed cameras, point to point cameras, etc.)
- alcohol testing action plan
- occupant restraints checking action plan
- motorcycle helmets checking action plan
- heavy vehicle safety regulations enforcement action plan (especially for lighting, overloading, driver fatigue, speeding)

This set of interventions may present an opportunity for piloting of a specially trained and equipped State Highway Patrol.

3.2.2.2. Prepare a detailed action plan for Transport Department (including required training, equipment procurement and implementation resourcing requirements) for heavy vehicle (truck and bus) safety regulation enforcement (especially lighting, overloading, speeding, driver licensing and fatigue).

3.2.2.3. Prepare detailed plan for Education Department for safe movement of school children; these should include appropriate curriculum materials for road safety education of school children; briefing of teachers; briefing of school communities; measures to be applied to achieve the safer movement of children to/from and in the vicinity of schools.

3.2.2.4. Formulate and deliver social campaigns/plans, to improve traffic safety awareness and compliance with safety standards in the demonstration corridors and areas; provide content advice and execute recommended campaign and information delivery methods:

- These campaigns will target all relevant parties and use all appropriate media (local television, theatres/multiplex screens, radio, newspapers, billboards, posters and social media), taking into account local literacy levels and language needs. Opportunities will also be explored to use local cultural events and outlets, road safety weeks to disseminate key messages and funding will be made available to support related community development initiatives.
- Consultant should inform all the stakeholder departments upon start of any social awareness campaigns.
Consultant will earmark fixed amount of INR 50 Lacs in their financial proposals under provisional sum head only towards social awareness Campaigns during the contract period. Such sum shall be spent appropriately for various campaigns only after discussion, consultation and approval of R&BD-GoG. After implementation of such approved campaigns, the appropriate sum shall be reimbursed to the Consultant.

3.2.2.5. Consultant shall also explore possibilities to collaborate with local industry for sponsoring some of the safety related activities..

3.2.3. Improved post-crash care in corridor

Enhanced post-crash safety services will be designed in detail and implemented in the demonstration corridors and areas to improve the survivability of road crash victims and improve their longer- term recovery prospects. These services are to include:

- First responder training programs for those aside from local health workers most likely to attend crash scenes (e.g. taxi drivers, local business people and traffic police)
- Enhanced emergency response mechanisms
- Prepare a detailed action plan for Health Department (including required training, equipment procurement and implementation resourcing requirements) for:
 - Establishment of trauma registries in hospitals along and/or in the vicinity of the corridor(s)
 - Establishment of computerized road traffic injury monitoring systems in health facilities along and/or in the vicinity of the corridor(s) for consideration by Health department

3.2.4. Monitoring and Evaluation

Assist the WG in developing detailed implementation, procurement and monitoring & evaluation plans/procedures to assess safety performance in the demonstration corridor(s) taking into consideration each Department's plan. Performance measures should take the form of final outcomes, intermediate outcomes and outputs (See Annexure 4). Actual M&E of SCDP has to be carried out by the consultant (including before-after surveys of outcomes) with due training and demonstration. The M&E plan shall be so designed and delivered to enable the GOG to develop and apply more effective engineering, general deterrence-based enforcement for improved compliance with vehicle and road user standards and rules, education and post-trauma care measures to the entire statewide road network progressively.

B) Implementation Support

3.2.5. Final review of, and advice about SCDP implementation:

- Final review of detailed action plans for safer infrastructure and safer users (Home Department, Transport Department, Education department) and post trauma care

- Final training in enforcement activity and equipment use for Police and Transport officers;
- Preparation and distribution of public road safety campaign materials, road user information materials through various delivery options and appropriate timing of activities;
- Preparation and supply of relevant materials for school communities.
- Support review by WG and PSC of funding availability and priorities for funding of respective detailed action plans

3.2.6. *Support progressive Implementation of all safer infrastructure, safer users and post trauma care interventions in the demo corridor(s).*

3.3. Task 3 - Road Safety Capacity Building for Stakeholder Departments

3.3.1. *Training Needs Analysis*

Identify priority training needs for Home, Transport Departments and the officers in the existing road safety cells of stakeholder departments on safe system principles and thinking, understanding of crash risks for state wide application and basic road safety management, interventions and results to support detailed crash analysis and design of interventions in the demonstration corridors and areas.

3.3.2. *Training programmes*

Implement detailed training of Home, R&BD and Transport Department staff and the officers in the existing road safety cells of stakeholder departments on road safety management, interventions and results. Provide additional training to the R&BD road safety cell that is to provide secretariat services for the demonstration corridors to all departments on behalf of the PSC. The Consultant will provide training as follows:

A) To R&BD

To achieve a satisfactory level of safe system awareness and to develop the ability to apply various tools to infrastructure design, a satisfactory level of training and knowledge transfer across the R&BD will be required over a number of years. Training will be necessary for the Road Safety Cell, to be followed by its extension to staff in R&BD engineering staff across Districts. At present under GSHP-II, some road safety training is being imparted to the Engineers of R&BD; also a Train-The-Trainers program is getting implemented. The TA Consultant shall have to review such training material, its content and shall recommend the missing aspects to impart complete road safety training including in Safe Systems Approach, Crash Risk Assessment and ITS.

Accordingly TA Consultant shall identify the comprehensive long term training needs, prepare training plan and impart training to R&BD, road safety cell, Train-The-Trainers as designated by R&BD and other Engineering officers (numbering about 30). This training shall cover the “road safety aspect” as a whole after due consideration of already imparted training through GSHP-II including more in-depth aspects of ITS and Road Safety, Safe Systems Approach and Crash Risk Assessment. Such training module and coverage need to be arrived in close consultation with R&BD.

B) To Home Department

3.3.2.1. *Implementation of enforcement programs in high-risk corridors and areas (for police staff at all levels).*

- Identify training needs, prepare and deliver a basic training program to upgrade the traffic safety knowledge and skills of road policing staff (numbering about 40).

- Prepare and deliver advanced training course on general deterrence theory and practice, and related operational strategies and tactics, for senior police (numbering about 35).
- Prepare and deliver management training to operational supervisory staff on the supervision of program implementation.

3.3.2.2. *Crash investigations/reconstruction ((for selected group of officers)*

Develop knowledge and expertise within Police through best practice crash investigation techniques on serious crashes on demonstration corridors to enable them to progressively carry out such crash investigations for serious crashes on the state wide road network and report on these to Police command and to the other road safety authorities.

- Skilled core group of officers able to conduct crash investigations as per good international practices
- Training to conduct investigations and to prepare report for the relevant authorities
- Training in any advanced systems/equipment for crash investigations

C) To Home and Transport Department staff

3.3.2.3. Provide training in executing enforcement associated publicity campaigns for up to 100 officers (at-least one officer from each district for each department).

D) To WG

Work with the WG to provide high level training and knowledge transfer to this group on safe system and road safety management (decision making, support and liaison needs), including exploring of funding requirements for the demonstration projects and prioritizing options for funding. Training shall be provided on following areas:

- Improved awareness and understanding of safe system approach
- Capacity to analyze major crash risks on the system using safe system approaches
- Capacity to introduce safe system approach into project discussions at concept stage
- Capacity to develop infrastructure solutions based on safe system approach

3.4. Task 4 - Other Assistance

3.4.1. The consultant will support the PIU/R&BD in follow-up of all related procurement activities.

3.4.2. Preparation of draft bidding documents including ToRs for the procurement of goods, equipment, services and any back office support requirements.

3.4.3. Formulation of equipment procurement plans by stakeholder departments.

3.4.4. The Consultant shall directly interact with and assist all related stakeholder departments with advice and support on all kinds of technical issues related to the assignment during contract period.

3.5. Task 5: Strategic support for state-wide Road Safety Management

Based on Tasks 1 to 3 above, the Consultant is expected to conduct with the support of the relevant authorities, a review of road safety management arrangements in Gujarat for the medium to longer term.

The Consultant will review existing institutional arrangements regarding road safety and develop strengthening options (if required) for a State Lead Agency role. The Consultant

should note that Transport Department has assumed role of Lead Agency; this needs to be reviewed for strengthening, if any, in light of best practices in other states for determining the most effective institutional structure for road safety management and financing mechanism for road safety in Gujarat.

Draft Road Transport and Safety Bill, 2015, is likely to get the nod from the Government of India soon. In case it is approved in due course of the assignment, the Consultant is expected to thoroughly study the same and recommend appropriate compatible model for Gujarat.

The Consultant is expected to guide and support various concerned stakeholder departments to perform the following tasks and deliver outputs which are best suited to deliver improved road safety management in the state.

3.5.1. Review existing institutional arrangements for road safety management

- Summarize detailed roles of each of the stakeholder departments from the RSMCR findings
- Review operational effectiveness of the PSC and the WG arrangements in overseeing the demonstration project and any commissioned policy reviews.

3.5.2. Review Lead Agency Arrangements

- Recommend the preferred option(s) for the lead agency role, if required.
- Identify and recommend necessary resourcing for the lead agency to carry out that role and assist lead agency in obtaining the concurrence of the PSC to resourcing needs.
- Identify and recommend necessary resourcing for other stakeholder departments to carry out their roles in support of effective road safety management across the departments in order to achieve desired road safety outcomes in line with state road safety policy.

3.5.3. Assess Coordination Arrangements

- Agreed decision making arrangements (structures and processes) between stakeholder departments
- Agreed consultative and advisory arrangements with other stakeholders to support road safety in Gujarat
- A document summarizing these arrangements and assist the lead agency in obtaining concurrence from PSC

3.5.4. Identify and recommend road safety capacity development, research and partnership needs

- Propose specific road safety management training and development needs for the road safety positions to be established in the lead agency and other stakeholder departments and for the senior officers in these departments
- Formulate specific proposal for development of road safety research centre, including potential collaboration with other centers of excellence in road safety;
- Identify options for increased interaction with MoRTH/NHAI and other States to improve road safety management capacities and road safety outcomes

3.5.5. Recommend suitable financing mechanism for road safety in Gujarat

- Identify options for securing sustainable funding for road safety in Gujarat.

3.6. Task 6 - Review road safety policy and develop a time-bound action plan for adoption

The Consultant is expected to guide and support various concerned authorities to review the GoG road safety policy and develop a medium to long term road safety action plan for adoption by GOG.

3.6.1. Conduct and facilitate a Strategic Planning workshop for all stakeholders to:

- Discuss and agree upon institutional, lead agency coordination, financing, results monitoring and evaluation arrangements for road safety management
- Agree upon strategic action plan for the state in the medium to long term
- Agree upon strategic funding programme in the medium to long term that incorporates sustainability of institutional and financing arrangements to encourage good practice road safety activity and improve safety value for money.

3.6.2. Support continued negotiations/presentations to finalize action plan

- Work in an iterative manner with all departments and other stakeholders to finalize agreed action plan content, responsibilities and timing after stakeholder workshop.

4. Reporting requirements

The Consultant is expected to carry out the assignment tasks as stipulated in the ToR, in very close co-ordination with, and under the guidance of, the WG and PIU. The consultant will report to WG and PIU as well as executive level of stakeholder departments, and all progress reports and other stipulated deliverables of this assignment will be placed for their review and subsequent approval. In addition, the consultant will also apprise the PSC on progress of this assignment at PSC meetings. The consultant will also make presentations to the PIU, PSC, other stakeholder departments and the World Bank (WB), as needed/upon client request. The PMC consultant will coordinate and facilitate all the presentations, meetings and deliberations as per directives of PIU. Presence of at least 3-4 relevant key professionals of consultant along with Team Leader is a must during review meetings and presentations. During the course of the assignment, Consultant shall also assist in reporting to the Supreme Court Appointed Committee on Road Safety as and when required.

5. Required Deliverables/Outputs

The consultant shall at least complete outputs and deliverables as and when shown in the following table:

Table of Required Deliverables & Outputs					
Sr. No.	Required Deliverable & /or Output	Due Timing (from mobilization)	No. of hard copies	No. of soft copies (CD/ DVD)	Contract Payment %*
1	Inception Report (IR), inclusive of all tasks with detailed work program	End of month 2	10	7	5
2	Bi-Monthly Progress Reports	7 th day of each alternate month	10	7	-
4	Report on Consultation with concerned departmental Stake holders for all 6 Tasks along with review report (Tasks 1A, 1B and 1C)	End of month 3	10	7	3

Table of Required Deliverables & Outputs					
Sr. No.	Required Deliverable & /or Output	Due Timing (from mobilization)	No. of hard copies	No. of soft copies (CD/ DVD)	Contract Payment %*
5	Overview and delivery responsibilities of PSC and WG for the road safety component of GSHPII and for operation of SCDP (Task 1D)	End of month 3	10	7	3
6	Conduct First Stakeholder Workshop, associated presentations and report	End of month 4	10	7	3
7	Report on Safer Infrastructure plan for the SCDP (Task 3.2.1. under Task 2A)	End of month 4	10	7	4
8	Report on Safer Users plan for the SCDP (Task 3.2.2 under Task 2A)	End of month 5	10	7	4
9	Report on post-trauma care plan for SCDP (Task 3.2.3 under Task 2A)	End of month 6	10	7	4
10	Report on M&E (Task 3.2.4 under Task 2A)	End of month 7	10	7	4
11	Report on detailed multi-sectoral interventions in demonstration corridor(s) (Task 2A)	End of month 8	10	7	4
12	Report on Training Needs Analysis (Task 3.3.1)	End of month 9	10	7	4
13	Review Report on SCDP implementation plans (Task 3.2.6 under Task 2B)	End of month 10	10	7	5
14	Mid-Term Progress Report on implementation of the SCDP (Task 3.2.5 under Task 2B)	End of month 14	10	7	6
15	Detailed Report on Road Safety Capacity Building status of all stake holders after training (Tasks 3.3.2)	End of month 16	10	7	6
16	Report on institutional and financing arrangements for road safety management (Task 5)	End of month 18	10	7	5
17	Final evaluation Report of the impact of multi-sector interventions implemented in SCDP	End of month 21	10	7	7
18	Report on medium to long term road safety policy and action plan including conducting of workshop-2 with its deliberations report (Task 6)	End of month 22	10	7	8
19	Draft Final Report (DFR) on all tasks	End of month 23	10	7	10
20	Final Report (following GoG response to DFR)	End of month 24	10	7	15

Note: * - 50% of payment shall be made on scheduled deliverable submission and the remaining 50% on acceptance of the deliverable or within 60 days, whichever is earlier. However, Consultant must submit revised deliverable even if comments are received after 60 days. Presentation should be made on each deliverable by concerned key professional for consideration and acceptance of the same.

6. Client's Review of Outputs & Deliverables

The consultants' services contract will be managed through the PIU. The consultants' main outputs and deliverables will initially be vetted by Working Group Members. The R&BD will place all such output and deliverables before Working Group to have their

comments/suggestions, if any, within fifteen days from date of submission. The WG members in turn supposed to submit their comments/suggestions, if any, within thirty days from the date of placement. R&BD will provide feedback on main as well as all other outputs and advice acceptance of the Consultant's outputs and/or reports.

7. Location, Duration and Mobilization of the Services

- 7.1 The services shall be delivered mainly in Gandhinagar, Gujarat. However, there will also be significant involvement of some of the Consultant's team on various occasions in non-metropolitan field activities, particularly in connection with the implementation of the Safe Corridor Demonstration Program (SCDP). This will be determined progressively in consultation between the R & BD, Concerned Stake holders and the Consultant's team.
- 7.2 The duration of the services will be twenty four (24) months from the time of the contract signature. .
- 7.3 The GOG is presently planning for such mobilization to take place by Feb/Mar 2018. At the outset of mobilization and during their Man Month Input period of the services, the Consultant is expected to field at least the Road Safety Engineering and Management specialist cum Team Leader, Driver Licensing Policy, Driver Testing and Registry Management Specialist, Enforcement, Enforcement Training and Operations Management Specialist, Safe system and Safety Analysis Specialist, Legislation, Statutes & Regulations (India) Specialist, Public Information & Communication Specialist (India), Monitoring & Evaluation (M&E) Specialist. Interested consultants shall take this into account in proposing the phasing of their nominated "key personnel".

8 Facilitation of the Services by the Client

- 8.1 The Client will provide/facilitate the following:
 - Available related reports and background documentation.
 - The RSMCR is available on www.gshp2.gov.in website.
 - Assistance in establishing essential contacts in concerned GoG areas and in gaining the cooperation of other GoG departments and agencies, as required for this assignment.
- 8.2 The Home Department, Transport Department and R & BD shall provide counterpart personnel as and when required to work with the consultant aimed at technology transfer.
- 8.3 Urban Development and Housing, Education and Health Departments shall share their experiences and provide need based inputs as and when required by the consultant.

9 Accommodation & Operational Support Resources

The consultant shall be required to ensure the necessary operating resources and supplies (etc) for their team's requirements during the performance of the services. Interested consultants who are preparing a proposal for these services are therefore advised to make appropriate funding allocations in the financial part of their proposals for 'office facilities / resources / supplies/ consumables' costs and for possible accommodation, logistic rental costs.

10 Key Personnel and Expertise Requirements

- 10.1 The services shall be provided by the selected firm of consultants (hereafter termed simply “the Consultant”) via a team of suitably qualified professional and technical personnel (hereafter referred as the “key personnel”), to be headed by a Road Safety Engineering and Management Specialist having relevant qualifications and extensive experience in supporting road safety initiatives in low and middle income countries.
- 10.2 It is expected that the Consultant would establish a strong team of national and specialists capable of supporting the Government to significantly improve its capability to improve road safety results in the State, and that the Team Leader will draw regularly upon the expertise of specialists in managing and delivering the project tasks.
- 10.3 The available time of both the Team Leader and the other team members “on the ground” shall be carefully phased to match the work program which will be designed around the client’s views of priorities, absorptive capacity and any Government factors on sequencing of targets and activities. The progressive demands arising through the preparation and implementation of the project shall also be an important influence on phasing of these services.

10.4 Details of the expected minimum number of key personnel in the Consultant’s team and their respective likely “person-month” inputs are provided immediately hereunder. It is anticipated that an overall quantum of one hundred (120) person months of professional/technical/support staff inputs shall be provided by the personnel to be mobilized by the selected Consultant, which shall be phased in accordance with a Work Program finalized with the Client during the Inception stage of these services. However, the Key Personnel inputs should be available for at least 64 man months. Indicative Technical support staff person months are 56, though Consultants shall have their own estimate commensurate with key staff deployment and overall responsive work and deliverable plan.

S. No.	Key Personnel	Estimated Man Months (Key Personnel)	Minimum Years of Overall Professional Experience	Estimated Man Months (Support Staff)
1	Road Safety Engineering and Management specialist cum Team Leader	16	20	20
2	Transport operations Specialist	8	15	5
3	Enforcement, Enforcement Training and Operations Management Specialist	8	12	5
4	Safe system and Safety Analysis Specialist	6	12	5
5	Legislation, Statutes & Regulations (India) Specialist	4	15	3
6	Public Information & Communication Specialist (India)	4	15	3
7	Monitoring & Evaluation (M&E) Specialist	6	15	4
8	Senior Highway Engineer	8	15	6
9	IT-ITS Specialist	4	10	5
	Total	64		56

10.5 The above mentioned individual and total “person-month” input estimates (*) are indicative only and are not intended to be prescriptive. Adequate support staff shall also be provided by the Consultant to facilitate the operations of the nominated team during the services, but these support staff will not be taken into account in the client’s evaluation of the staffing element of consultants’ proposals.

10.6 The Consultant shall name the individuals to participate in specific roles within the Project Team and provide full curricula vitae and any other information considered relevant by the Consultant. The Consultant shall name the Team Leader, and the team members and any short-term specialists, and provide an assurance that all members of the proposed team will be made available as specified in the proposal, if the Consultant is selected. The Consultant is expected to make full use, where possible, of appropriately qualified local staff. The Consultant is also expected to work closely with, transfer knowledge to, and build the capacity of local institutions and staff.

Professional qualification, skills and experience required

<i>Sr. No.</i>	<i>Position</i>	<i>Minimum qualifications</i>	<i>Specific Required Expertise</i>
1	Road Safety Engineering and Management specialist cum Team Leader	<p>Graduation in Civil/Mechanical/Automobile Engineering with Post graduate qualification in Mechanical/Transportation/Highway Engineering. Specialist high-level qualifications relevant to Road Safety management and coordination functions is preferable.</p> <p>Team Leader should be on payroll of the bidder for not less than 1 year.</p>	<p>The specialist should have minimum 10 years of experience in Road Safety domain including at least two years of international exposure in Road Safety. He/she should have experience of at least 1 similar projects and should have sound in-depth knowledge of Indian/International best practices in road safety strategies and action management, particularly in the engineering, regulatory, enforcement, monitoring & evaluation, planning, education, communication and advocacy aspects; extensive national and international experience in road safety action planning, design and management, and in facilitation of related training, capacity-building and institutional initiatives is must; high-level skills in strategic and technical advising, and in coordinating complex multi-agency action in a public sector environment.</p>
2	Driver Licensing Policy, Driver Testing and Registry Management Specialist	<p>Post graduate qualifications in any stream from recognized university in addition qualification and thorough knowledge in IT/Computer Software is a must. Registered Member of SIAM is preferable.</p>	<p>A specialist with about 10 years' experience with driver licensing policy development and motor vehicle driver training, testing and licensing in Indian jurisdiction. A thorough knowledge of international best practice and associated research evidence for driver licensing system initiatives is essential. Previous experience in the provision of advisory services to a national or state driver licensing policy agency in a developing or transitional country is desirable. He should have at least 3 years' experience with the management of modern registry systems for drivers and vehicles and related business procedures and technology. Extensive experience working at a senior management level in a national or state registry is essential.</p>

Sr. No.	Position	Minimum qualifications	Specific Required Expertise
3	Enforcement, Enforcement Training and Operations Management Specialist	Post Graduate qualification in any discipline, preferable to have specialized qualification/credentials related to job title	A specialist with at least 7 years' experience in traffic enforcement leadership, coordination, policy advice and policing experience, including the line-management of traffic enforcement staff in Indian traffic Police Agency operating a successful general deterrence model. A demonstrated ability to communicate road safety enforcement principles and tactics to a broad audience is essential. Previous experience in a law enforcement training facility is desirable. He should have at least 5 years experience in the design, implementation and evaluation of police officer and recruit training and development programs; at least 2 years' experience in the specification, sourcing, evaluation and procurement of road safety equipment and tools in Indian Police agency operating a successful general deterrence model. A demonstrated understanding of modern operational safety enforcement practices is essential.
4	Safe system and Safety Analysis Specialist	Graduate qualifications in Civil/Mechanical/Automobile Engineering with thorough knowledge of Computer Software plus other specialist high-level qualifications relevant to Road Safety (Relevant post-graduate qualifications are desirable).	A recognized specialist with about 7 years' experience in conducting scientific analyses of road environment, vehicle and human factors contributing to road crashes and injuries. Hands-on experience of quantitative evaluations of safety interventions and outcomes is essential. Experience of road safety analysis in developing and transitional countries is desirable. He should also have 5 years' experience in the design, implementation and evaluation of infrastructure safety programs with operating road authorities and in safe system training of authority staff. He should have also experience in the review of road crash injury incurred from road crashes in the detail and analysis of injury incurred by road users in road crashes.

Sr. No.	Position	Minimum qualifications	Specific Required Expertise
5	Legislation, Statutes & Regulations (India) Specialist	Graduate qualifications in Law, preferably with post-graduate specializations in Administrative Law and/or Legislative Drafting (or equivalent)	He should have at least 5 years extensive professional experience in advising on, reviewing and /or facilitating amendment of transport and traffic safety specific legislation within India and 2 years' experience globally is desirable. Familiarity with statutes, regulations and/or rules in the legal framework of Indian Public Sector and Transport related aspects is highly desirable. Experience in legal drafting in relation to preparation of new bills, regulations, legislative amendments, statutory notices and/or orders.
6	Public Information & Communication Specialist (India)	Graduate qualifications in Communications, social marketing, Public Relations and/or Information Management. Relevant experience in road safety Advocacy is preferable.	He should have at least 5 years extensive experience in developing and executing pro-active strategies and plans in community information and communication programs for public health/road safety campaigns in India. At least 5 years' experience in designing and facilitating consultation and communication initiatives aimed at civil society stakeholders and/or at raising awareness in target community groups. Sound knowledge of current "public disclosure" and/or "right to information" provisions, and experience in integrating these in wider specific-purpose information and advocacy strategies. Completion of at least one comparable assignment in India is essential.

Sr. No.	Position	Minimum qualifications	Specific Required Expertise
7	Monitoring & Evaluation (M&E) Specialist	Graduate qualifications in Management/Engineering/Economics and/or Business Management, with additional specialist qualifications relevant to Performance Monitoring and Evaluation programs (Relevant post-graduate qualifications are also desirable).	He should have at least 5 years extensive experience in project / program management systems and applications specific to Road Safety assessment programs; minimum 2 years of technical experience, preferably in a developed country, with systems and processes dedicated to project-based progress / performance / results monitoring and outputs / outcomes evaluation. Proven expertise in the development of process frameworks and specifications for IT-supported Monitoring and Evaluation (M&E) functions and resources for technical and operational environments, interfaced with other MIS and decision-support systems and having multi-level reporting capability. Completion of at least one comparable assignment in Asia is essential.
8	Senior Highway Engineer	Graduate qualification in Civil Engineering with Post Graduate qualification Civil/Highway/Traffic and Transportation is mandatory	Minimum 15 years of professional experience in road sector is required. He should have 10 years' experience either as site project manager or in design of highway projects. He should have extensive experience in highway designs having flexible and/or rigid pavements of at least 5 highway projects and fully familiar with international 'best practices'. Should have completed at least two major highway assignments with road safety intervention in similar capacity in developing country.
9	IT-ITS Specialist	Post Graduate qualification in IT/Computers/E&C Engineering is must. Other specialized degree / certificate in ITS is preferable.	He shall have extensive professional experience of at least 10 years in IT/ITS field. Adequate professional skill in the implementation, operation and management of IT-ICT assets and facilities; and facilitation of IT-based activity monitoring systems for program management purposes, preferably in public sector contexts. He should be fully familiar with international 'best practices' in context with ITS implementation. He shall have completed at least 2 major projects related to IT-ITS (Intelligent Transport System) integration in India's public sector.

Note: Consultant to note that maximum age limit is 65 years on Bid due date for all the key position/personnel mentioned above

Annexure 1: Extract from RSMCR on Project Management Functions

PROJECT STEERING COMMITTEE AND WORKING GROUP MEMBERS	SUGGESTED PROJECT MANAGEMENT FUNCTIONS FOR PROJECT COMPONENTS 1-4
Chair of Project Steering Committee – Chief Secretary	
Project lead agency support Roads and Buildings Department	<ul style="list-style-type: none"> - Chair of Project Working Group - Support role for: <ul style="list-style-type: none"> - Project leadership - Project coordination - Project funding - Project legislation - Project promotion - Project monitoring and evaluation - Project knowledge transfer, research - Highway safety management - Highway safety standards and guidelines - Highway safety audit - Highway safety assessment
Department of Transport	<ul style="list-style-type: none"> - Road safety legislation - Road safety enforcement - Road safety reporting - Driver licensing and penalty points - Vehicle registration and inspection - Heavy vehicle overloading - Carriage of hazardous goods - Vehicle safety policy - Professional driver training - Road safety information
Home Department	<ul style="list-style-type: none"> - Crash reporting and data systems - Road safety legislation - Road safety enforcement - Road safety reporting
Health Department	<ul style="list-style-type: none"> - Emergency response and treatment - Injury control and prevention programs - Road fatality and injury data surveillance - Road safety promotion campaigns
Education Department	<ul style="list-style-type: none"> - School road safety education - School bus safety - Safe school management systems - Road safety promotion campaigns
Urban Development	<ul style="list-style-type: none"> - Land use/transportation planning - Public transport - Urban road design standards

Annexure 2: GOG Memo on Constitution of Project Steering Committee

WBP / 10 / 2012 / 4 / C

Government of Gujarat,
Roads and Building Department
Sachivalaya, Gandhinagar
Date: 28-04-2012

Office Memorandum

The Government of Gujarat, Roads and Building Dept., has proposed a Second Gujarat State Highway Project (GSHP - II) for development of existing state roads across the state with the loan assistance of the World Bank. Road safety is being given higher focus in this. To integrate appropriate road safety component in the project, the World Bank has carried out road safety management capacity of GOG. World Bank has now come out with the final report with the recommendation of formation of Project Steering Committee (PSC). The road safety project involves multi sectoral inputs to demonstrate consolidated and result focused interventions, it is propose to implement multi sectoral interventions through demonstration corridor.

In view of the above, the state government has constituted the following

Project Steering Committee
(PSC).

1.	Chief Secretary	Chairmen
2.	Additional Chief Secretary, Home Dept., Sachivalaya, Gandhinagar or a senior representative.	Member
3.	Additional Chief Secretary, Urban Development and Urban Housing Dept., Sachivalaya, Gandhinagar or a senior representative.	Member
4.	Principal Secretary and Commissioner (Health) Health Dept., Sachivalaya, Gandhinagar or a senior representative.	Member
5.	Principal Secretary, Education Dept., Sachivalaya, Gandhinagar or a senior representative.	Member
6.	Commissioner of Transport, Gujarat State, Gandhinagar or a senior representative.	Member
7.	Principal Secretary, Roads and Building Dept., Sachivalaya, Gandhinagar	Member Secretary

Annexure 3: GOG Memo on Constitution of Working Group

Government of Gujarat,
Roads and Building Department
WBP/10/2012/5/C
Sachivalaya, Gandhinagar
Date:- 06-05-2012

Office Memorandum

The Government of Gujarat, Roads and Building Dept, has proposed a Second Gujarat State Highway Project (GSHP-II) for development of existing state roads across the state with the loan assistance of the World Bank. Road safety is being given higher focus in this. To integrate appropriate road safety component in the project, the World Bank has carried out road safety management capacity review (RSMCR) of GoG. World Bank has now come out with the final report on RSMCR with the recommendation of formation of Project Steering Committee (PSC) and Working Group (WG) for project to demonstrate consolidated and result focused interventions, it is proposed to implement multi sectoral interventions through demonstrations corridor.

In view of the above Working Group (WG) is constituted as following

Working Group

1.	Chief Engineer (World Bank), R&B Department Sachivalaya, Gandhinagar	Chairman
2.	Dy. Inspector General of Police (Law & Order) Sachivalaya, Gandhinagar or a senior representative	Member
3.	Additional Secretary Urban Development & Urban Housing Department Sachivalaya, Gandhinagar or a senior representative	Member
4.	Additional Director (Medical Services), Health Department, Sachivalaya, Gandhinagar or a senior representative	Member
5.	Director (Primary Education), Education Department, Sachivalaya, Gandhinagar or a senior representative	Member
6.	Director (Transport), Dr. Jivraj Mehta Bhavan, Gandhinagar or a senior representative	Member
7.	Officer on Special Duty (Special Projects), R&B Department, Sachivalaya, Gandhinagar	Member Secretary



R. K. Chauhan
Officer on Special Duty (S.P.)
R&B Department,
Gandhinagar

Annexure 4: Outputs, intermediate outcomes and final outcomes

Best practice road safety management incorporates a results framework with three distinct components – final safety outcomes (the results being sought), intermediate safety outcomes (the intermediate results to assess progress), and institutional outputs (the deliverables implemented to affect the intermediate results).

a) Final Safety Outcomes

Final safety outcomes are the highest level results being sought, and comprise three main areas:

- Reduced fatalities
- Reduced serious injuries
- Reduced social cost of road trauma.

Ideally the data can be analyzed in the following manner:

- Social cost and injury data should be disaggregated by location, gender, age, user type, crash type, and road type
- Final safety outcomes should be supported by critical exposure information – population, network length, kilometres travelled, and registered vehicles
- International comparison of road safety performance is typically assessed by the number of fatalities per 100,000 people.

b) Intermediate Safety Outcomes

Intermediate safety outcomes are important to assess improvement in key indicators and typically require scientifically conducted observational surveys. Typical outcomes are listed.

Intermediate Safety Outcomes

- Improved safety star rating of infrastructure (iRAP)
- Improved skid resistance on roads
- Lower average traffic speed (rural & urban)
- Lower average age of vehicle fleet
- Higher vehicle compliance with testing standards
- Improved safety star rating of vehicles
- Community attitudes to road safety
- Emergency medical services response times
- Improved motor vehicle driver/rider behaviors
 - less drivers exceeding the legal speed limit
 - less drivers exceeding the legal drink driving limit
 - more riders wearing helmets
 - less drivers using mobile phones
 - more use of seatbelts.

c) Institutional Outputs

Road safety is produced, and so a credible results management framework includes operational data that allows agencies to identify where specific effort is needed to address specific safety issues. These output indicators should logically connect with agreed intermediate safety outcome indicators – that is, increased quantity and quality of outputs will impact positively on the intermediate outcomes.

Institutional Outputs

- Kilometres of footpath and number of pedestrian crossing points constructed
- Number of intersections and other road sites (including blackspots) treated for safety improvements
- Number of driver licences issued/renewed, and number of licence sanctions applied to restrict the legal opportunity for offenders to drive
- Number of vehicles inspected, and number of vehicle sanctions applied to remove unsafe vehicles from the road network
- Number of commercial operator licences issued/renewed, number of operator sanctions applied to restrict the legal opportunity for offenders to offer services
- Number of emergency medical services responses to road crashes
- Number of breath alcohol tests administered, and legal actions taken
- Number of speeding tickets issued or other legal actions taken
- Number of legal actions taken regarding use of mobile phones
- Number of legal actions taken regarding helmet wearing
- Number of legal actions taken regarding unrestrained motor vehicle occupants.