



# Terms of Reference

## Development of Road Maintenance Strategy and Road Maintenance Guideline for Strengthening Road Maintenance Practices in Georgia

### 1. The Project

1. Responsibility for road infrastructure policy in Georgia lies with the Ministry of Infrastructure (MoI), while management of the international and secondary roads is the responsibility of the Roads Department (RD) and responsibility for management of local roads lies with the Municipalities. This assignment concerns the management of the road network under RD's responsibility that includes 1,518.3 km of international roads (including 256.65 km four-lane highway and 49.7 km of two-lane expressways on the East-West Corridor E60/70) and 5,538.1 km of secondary roads.

2. The physical condition of the road network is critical for the transport sector. Over the past years, the Government of Georgia with the support of various development partners has actively invested in the road sector and has carried out several major construction projects with the objective to address the large backlog in the international and secondary road networks. However, unless these roads are adequately maintained, they will inevitably deteriorate, leading to higher road user costs and longer travel times, negatively affecting the economy of Georgia, and requiring additional road sector investments in the near future.

3. To ensure efficient and timely delivery of maintenance services, road agencies need to have a well-defined road maintenance strategy and a complementary road maintenance guideline adopted to the specific conditions and characteristics of the country. This includes aspects such as the functional and technical classification of the road network, definition of service levels to be achieved, evidence-based planning and budgeting processes, suitable allocation of road maintenance financing, appropriate institutional procedures and capacities for road network management, and adequate implementation capacity to carry out the required works. But it also includes practical aspects such as the definition of road maintenance categories, the identification of suitable maintenance technologies, specifications and equipment needs, and the development of appropriate maintenance contracting modalities.

4. This assignment aims to develop a Road Maintenance Strategy and Road Maintenance Guideline for Georgia incorporating gender considerations where relevant. This will be preceded by an assessment of the current road maintenance practices applied in Georgia, and the identification of any gaps that need to be addressed in the strategy and guideline. The strategy and guideline will further be complemented by an inclusive capacity building program aimed at developing a detailed understanding of these documents amongst RD staff and the relevant people of road agencies (hereinafter – RD staff), and developing the necessary capacities for their implementation, while at the same time filling any road maintenance related capacity gaps that were identified during the initial assessment. The capacity building program will prioritize balanced participation of women among RD staff, to provide equal capacity development opportunities and support strengthening of the female

workforce. The overall purpose of the assignment is to enhance the performance of RD and other road agencies, if any, in carrying out road management and maintenance activities.

## 2. Scope of Consulting Services

5. Under this assignment, the Consultant is required to carry out the following 5 tasks. The following sections describe the activities to be carried out under each task.

- A. Mobilization and Inception
- B. Review Current Road Maintenance Practices
- C. Prepare a Road Maintenance Strategy
- D. Prepare a Road Maintenance Guideline
- E. Build Capacity of Roads Department Staff

### Task A Mobilization and Inception

Activity A-1 **Mobilization.** The Consultant will mobilize its staff and prepare for the first visit to Georgia.

Activity A-2 **Inception Report.** The Consultant will prepare an Inception Report describing its understanding of the terms of reference, the tasks and activities to be undertaken, and the deliverables to be submitted. The Inception Report will include a detailed work program indicating the timing of the different tasks and activities and describing the quantity and timing of the inputs from the different Consultant personnel. This will distinguish between in-country and home-office inputs, and will indicate when meetings with RD staff and other entities are planned, and which RD divisions and units and other entities will be met with. A Draft Inception Report will be prepared before the first visit to Georgia is undertaken. This will subsequently be discussed in detail with RD staff during the first trip of the Consultant Team Leader in order to reach an agreement on the exact contents of the different deliverables, as well as on the workplan and Consultant staff inputs for achieving these. Any comments received during the meetings with RD staff or through other means will be incorporated in the Final Inception Report to be submitted within 2 months of contract signing.

### Task B Review Current Road Maintenance Practices

6. As a first step in this assignment, it is important that the Consultant has a proper understanding of the current arrangements and road maintenance practices applied in Georgia, and that the Consultant identifies any gaps that may exist in comparison with best international practice. To this end, the Consultant shall review existing legislation, regulations, policy documents, guidelines and reports, and carry out face-to-face meetings with different divisions and units of the RD<sup>1</sup> as well as with other entities and the private sector to assess current practices, overall management and technical capacities for the organization and provision of maintenance. In this task, use should be made of the *Capacity*

---

<sup>1</sup> The organizational structure of RD is provided as an annex to these terms of reference.

*Gap Analysis* carried out for RD with World Bank support in 2020-2021. As part of this task, the Consultant will identify those practices and capacities that are considered adequate as well as those that require strengthening, identifying any potential gaps that may exist and that may hinder the institutionalization and implementation of the Road Maintenance Strategy and Guideline.

**Activity B-1 Road Network.** The Consultant will prepare a detailed overview of the road network managed by RD, including road lengths, surface types, number of lanes, road conditions, traffic volumes, numbers and lengths of bridges and tunnels, etc. Use may be made of the road network data available in the road asset management system (RAMS) of RD. The Consultant will present the data in tables and graphs and in the form of key performance indicators (KPI), drawing any potential conclusions regarding the maintenance needs and capacity requirements of RD and the private sector. The Consultant will assess the current condition of several road assets with different timing of the latest major modernization / reconstruction works and number of maintenance cycles. The data can be benchmarked with similar road assets operating under similar conditions (e.g. traffic density) and maintained in accordance with the best international practices over medium/long-term time periods covering contractor's single point responsibility two and more maintenance cycles. The assessment should be carried out with the objective of demonstrating the extent of efficiency of the existing road maintenance practices and procedures.

**Activity B-2 Road Maintenance Planning and Budgeting.** The Consultant will review the existing RAMS of RD as well as its plans for further elaboration of the system. This will look at the current data collection, the database management and the data analysis carried out in support of annual planning and budgeting. The Consultant will also review how the RAMS is used in annual planning and budgeting, and what procedures are used in the preparation and approval of annual workplans. This will look at the procedures and timelines followed, as well as the divisions and units of RD and other entities that are involved and their current capacities. The Consultant will identify potential gaps and areas for improvement.

**Activity B-3 Institutional Framework.** The Consultant will review the existing institutional framework of RD and the roles and responsibilities of the different divisions and units under RD. The Consultant will assess the adequacy of the staff numbers in each unit and the capacities of these staff, identifying where staff numbers or capacities could potentially benefit from changes, taking into account any potential shift in activities in the future. In addition, the consultants should take into consideration any future plans regarding institutional arrangements, if any. The assessment of the institutional framework should incorporate gender perspectives concerning capacity and future planning. The Consultant will also review examples in similar sized road departments of other countries (regional and beyond) identify best practices to suggest to the RD

**Activity B-4 Road Maintenance Financing.** The Consultant will review the adequacy of financing provided to RD for road maintenance. To this end the consultant shall determine the road maintenance needs (making use of the RAMS and HDM4 analysis carried out by RD) and compare this to annual budget requests, annual budget allocations and actual annual budget expenditure on road maintenance. This will look at allocations from the General Budget as well as financing from development partners or provided through public-private partnerships, as well as other innovative modes of financing to identify possible new sources of generating revenue for spending on road maintenance. Consultant will assess the amounts spent on the road maintenance in Georgia over the last 10 years and how these compare with general price inflation in Georgia. The Consultant will benchmark the road financing in Georgia as % GDP or Annual Budget, \$ per km per year with other countries in the region and outside. Discussions should be held with the staff of RD on the adequacy of road maintenance financing and any problems being faced.

**Activity B-5 Road Maintenance Implementation.** All road maintenance activities are currently contracted out competitively to the private sector. This includes 25 area-based routine and winter maintenance contracts and 4 maintenance contracts for bridges and tunnels, complemented by periodic maintenance contracts. Routine and winter maintenance contracts are awarded for periods of 2 years. The Consultant will review the current maintenance contracting approach. It will further assess the capacity of the road maintenance contractors, reviewing contract documents and resulting road conditions, and carrying out interviews with a sample of contractors. The Consultant will review a sample of road maintenance contracts and related implementation documentation, and will discuss maintenance performance and contract management with RD staff. The Consultant will identify existing gaps and possible improvements in the maintenance contracting approach.

**Activity B-6 Road Maintenance Practices Report.** The Consultant shall prepare and submit a Road Maintenance Practices Report outlining the main findings under this task. The report will describe in suitable detail the current maintenance practices, identifying gaps and areas requiring strengthening, including examination of barriers hindering women's participation in road management and maintenance. The report will describe the different areas listed under the preceding activities, complemented by a chapter with conclusions identifying the main areas for strengthening and improvement that will be addressed in the Road Maintenance Strategy and Road Maintenance Guideline. The report will include a proposal for the framework and specific requirements for the Road Maintenance Strategy and Road Maintenance Guideline. Improvement of the performance and associated institutional reforms hierarchy include the following stages (source: A Guide to Delivering Good Asset Management in the Road Sector through Performance Based Contracting): Performance: Inputs, Activities, Outputs, Outcomes; Performance Measurement; Performance Management; Performance-Based Contracting; Performance-Based Budgeting. The Consultant is required to carry out an assessment of the

existing practices vis-à-vis each step above with the view of identifying the gaps, which should form the basis for the key recommendations for the development of Road Maintenance Strategy. After submission and initial review of the report by RD and Mol, the Consultant will present the findings and the Draft Road Maintenance Practices Report in a workshop to be held for staff of RD, Mol and possible other entities. Any comments received during the workshop or through other means will be incorporated in the Final Road Maintenance Practices Report.

## **Task C      Prepare a Road Maintenance Strategy**

7. Based on the findings from the review of current road maintenance practices, the Consultant will prepare a Road Maintenance Strategy addressing the main areas of road maintenance and management. For certain activities, the Road Maintenance Strategy may recommend continuing current practices, while for others it may recommend strengthening existing practices or introducing additional practices to address identified gaps. The Road Maintenance Strategy is considered a Policy Document and will need to comply with Resolution No. 629 of 2019 *"On the approval of the procedure for development, monitoring and evaluation of policy documents"*<sup>2</sup> in accordance with Article 5 of the Law of Georgia *"On the Structure, Powers and Procedures of the Government of Georgia"*. The Road Maintenance Strategy will form a guiding document in road maintenance and management for RD in the coming years, and should therefore cover a wide scope of aspects.

**Activity C-1      RD's Vision and Objectives.** The Consultant will discuss with high-level RD staff regarding the vision and objectives of RD in relation to road maintenance and management, which will form the basis for the Road Maintenance Strategy. The vision and objectives should be agreed with RD at an early stage, allowing the rest of the Road Maintenance Strategy to be linked to them.

**Activity C-2      Functional and Technical Classification of the Road Network.** The Consultant will review the existing functional and technical classification of the road network and determine whether any changes are required. This will take into account international best practices, and specifically the classifications applied in the European Union. Any proposed changes will be discussed and agreed with RD, and will be reflected in the Road Maintenance Strategy.

**Activity C-3      Planning and Asset Management.** The Consultant will include in the Road Maintenance Strategy a set of strategic goals for the road network to be achieved by specific dates in support of the strategy vision and objectives. This will include minimum technical standards or service levels that the road network has to comply with, and should include an estimation of the volume of work and required financing to achieve these goals. This may include a medium- or long-term plan to be achieved under the Road Maintenance Strategy. The existing road asset management system and related HDM4 analyses should be used to define realistic goals, work volumes and financing

---

<sup>2</sup> See the Resolution 169 at: <https://matsne.gov.ge/ka/document/view/4747283>, and the related guidelines at: <https://matsne.gov.ge/ka/document/download/5428032/0/1>



needs. The goals should be presented in terms of key performance indicators and should define the types of data to be collected annually in order to monitor progress. The existing road asset management system and related HDM4 analyses should be used for benchmarking the efficiency of the road contracts that, according to Activity B-5, are currently contracted out competitively to the private sector. The Road Maintenance Strategy should also define the required future planning and asset management capacities and resources in RD.

- Activity C-4 **Road Sector Financing.** The Consultant will estimate the financing needs required to comply with the strategic goals of the Road Maintenance Strategy. It will further identify suitable sources of financing that may be applied to achieving the estimated financing needs. This may focus on allocations from the General Budget, but will also look at the role of development partner funding, public-private partnerships, as well as other innovative modes of financing to identify possible new sources of generating revenue for spending on road maintenance. The Consultant shall carry out assessment of the potential sources of funding for supporting road maintenance in Georgia on a sustainable basis. The Consultant is required to assess pros and cons associated with the introduction of toll collection, offer commentary on the asset recycling potential and opportunities in Georgia and other arrangements. The Road Maintenance Strategy will describe a financing strategy that has been agreed with RD, reflecting how different sources may be used for different activities and what levels of financing are to be expected from each, comparing these to estimated financing needs.
- Activity C-5 **Contracting Modalities.** The Consultant will recommend improvements to existing contracting modalities for road maintenance, building on international best practice. This may include improvements to existing volume-based contracting approaches, but may also involve a move towards performance-based contracting (with which Georgia has experience), or involve framework contracts, term-based contracts, etc. Different contracting modalities may be recommended for different maintenance categories (e.g. routine, periodic and emergency maintenance), ensuring value for money and timely response to maintenance needs. Potential PPP arrangements should be specifically identified in the consultant's report including recommendation of specific modalities and associated private sector efficiency gains that can be considered by RD. The Road Maintenance Strategy will describe the contracting modalities to be applied and provide justification for the proposed modalities (financial or other benefits) based on experiences in other countries. The Road Maintenance Strategy will also describe any development, piloting and capacity building required.
- Activity C-6 **Institutional Development.** The Consultant will define the institutional development required for RD/other road agencies, if any, as well as for the private sector. This will define the responsibility and obligations of RD and its different divisions in the management and maintenance of the road network. The Road Maintenance Strategy will further define the human and other

resources required for successfully implementing the strategy. It will also pay specific attention to the required capacity building of the RD staff and of the private sector construction industry, and promote options for ensuring women's and men's balanced participation in capacity building activities. The Road Maintenance Strategy will provide a clear gender-sensitive road map for achieving the required institutional development within an acceptable timeframe.

**Activity C-7 Action Plan.** As part of the Maintenance Strategy, the Consultant will prepare an Action Plan describing the different elements of the strategy and their timing, and indicating the entities responsible for implementation. This will encompass the achievement of targets set for the road network managed by RD, but will also include aspects such as planning, financing, contracting and institutional development. In accordance with Resolution No. 629 of 2019, the Action Plan shall define specific activities to achieve the national or sectoral priorities, goals and objectives, indicators of their results, responsible and partner agencies, implementation deadlines, budget and source of financing. The Action Plan will be prepared and agreed with RD and Mol, and will form an integral part of the Maintenance Strategy.

**Activity C-8 Road Maintenance Strategy.** The Consultant shall prepare and submit a Road Maintenance Strategy outlining the aspects described above. The Road Maintenance Strategy will describe in suitable detail RD's vision and objectives, the medium- and long-term goals and plans for the road network and related asset management needs, the required financing and potential sources of financing, the improved contracting modalities to be applied, and the necessary institutional development of RD and the private sector. This will be complemented by a summary Action Plan providing an overview of the strategy. After submission and initial review of the report by RD and Mol, the Consultant will present the Draft Road Maintenance Strategy in a workshop to be held for staff of RD, Mol and possible other entities. Any comments received during the workshop or through other means will be incorporated in the Final Road Maintenance Strategy.

## **Task D Prepare a Road Maintenance Guideline**

8. The Consultant will prepare a Road Maintenance Guideline to complement the Road Maintenance Strategy. The Road Maintenance Guideline will be a practical document that guides the reader in the implementation of road maintenance in Georgia. As such, it will be more technically oriented, describing maintenance requirements and suitable approaches for maintenance implementation. It will include annexes with document templates to be used in maintenance implementation.

**Activity D-1 Maintenance Categories.** The Consultant will review and amend as necessary the definition of maintenance categories for roads and structures (bridges and tunnels) as well as ITS systems. The categories to be applied will be in line with best practices in the European Union (EU), including unified definitions of routine, periodic maintenance, as well as seasonal (winter) maintenance and



emergency maintenance. The maintenance categories will form the basis for the rest of the Road Maintenance Guideline.

**Activity D-2 Maintenance Approaches.** The Consultant will describe the road maintenance technologies and methods of execution to be applied in Georgia in relation to the different maintenance categories. This will incorporate current practices as well as best international practices, especially those applied in the EU. For each maintenance category, the Road Maintenance Guideline will describe suitable maintenance approaches to be used. Specific attention will be given to suitable maintenance approaches for the older (15-20 years) cement concrete pavements that exist in some highways in Georgia.

**Activity D-3 Maintenance Contracting.** The Consultant should provide an overview of internationally recognized contract forms that can be considered by RD and associated pros and cons vis-à-vis specific road maintenance / construction activities. The Consultant should provide an assessment of the interface issues associated with different contracting arrangements that may apply separately to routine and periodic maintenance vis-à-vis single point responsibility contracts, potential implications on the competitiveness of the procurement process and development challenges, and other matters. The Consultant will develop functional Maintenance Contract templates in both English/Georgian which can potentially replace current maintenance contracts with the aim to improve service levels and monitoring and strengthen private sector. This will include a minimum of four different contract templates: i) a template for volume-based contracting of routine and winter maintenance, ii) a template for performance-based contracting of routine and winter maintenance, iii) a template for volume-based contracting of periodic maintenance, and iv) a template for an output- and performance-based road contract (OPRC) covering output-based periodic maintenance (or other initial repairs) and performance-based routine and winter maintenance. For the performance-based maintenance contract templates, account will be taken of the experiences in Georgia and other countries in the region<sup>3</sup>. For each recommended contracting modality, the consultant should identify the minimum contractor's qualification requirements, provide commentary if such expertise is widely available in Georgia, potential private sector value addition, etc. The Consultant will also assess the suitability of the existing area-based maintenance contracts and the potential benefits of introducing complementary corridor-based maintenance contracts for important highways. This will be reflected in the contract templates to be prepared.

**Activity D-4 Maintenance Specifications.** The Consultant will prepare a detailed set of specifications for routine and winter maintenance to complement the contract templates. These specifications will define the different maintenance activities and the related labor, equipment and material requirements, as well as the implementation thresholds and frequencies. These specifications will be based

---

<sup>3</sup> A study on performance-based road maintenance contracts was recently published by ADB: <https://www.adb.org/publications/performance-based-road-maintenance-contracts-carec>.

on international best practices, especially those applied in the EU. Separate specifications will be prepared for tunnel and bridge maintenance, asphalt and cement concrete pavements, taking into account the increasing length of cement concrete roads in Georgia and the limited experience with their maintenance. The Consultant will also prepare specifications for winter maintenance on these roads.

**Activity D-5 Maintenance Equipment.** The Consultant will define the minimum equipment requirements (types and numbers) for maintenance contractors to successfully implement the maintenance approaches. This will define minimal and optimal equipment requirements by maintenance category and maintenance area. The Road Maintenance Guideline will also define the optimal division of the road network into maintenance areas, ensuring equipment and staff can be used efficiently and effectively.

**Activity D-6 Service Levels.** The Consultant will define the service levels to be applied for different maintenance categories and road classes. This will define the thresholds for implementing maintenance interventions together with the optimal response times to achieve acceptable road conditions. The Road Maintenance Guideline will describe the possible service levels in terms of resulting road conditions and expected requirements in terms of staffing, equipment and financing.

**Activity D-7 Performance Evaluation.** The Consultant will describe the possible measurement methods to be applied for evaluating the performance of road maintenance contractors and road maintenance activities. The Road Maintenance Guideline will describe possible performance evaluation methods and how these may be applied to payments and road network monitoring.

**Activity D-8 Monitoring and Inspections.** The Consultant will describe the process for monitoring and inspections to be applied under different performance evaluation methods and contracting approaches. This will describe the inspection process, as well as the frequency of inspections. The Road Maintenance Guideline will further describe how the inspections will influence the payments to maintenance contractors. The Consultant will also provide recommendations for software solutions to support monitoring and supervision. This should preferably involve commercial off-the-shelf (COTS) software but may also involve custom software development. The Consultant shall carry out a basic market analysis as well as a cost and functional comparison of possible software options. In the case COTS software is selected, the Consultant will prepare the specifications and necessary documentation for the procurement of such software. In the case custom software development is selected, the Consultant will prepare the TOR for the development work.

**Activity D-9 Cost estimation.** The Consultant will describe how the costs of a road maintenance contract may be estimated, depending on the contracting

approach to be applied. For volume-based contracts, the Road Maintenance Guideline will describe the process of estimating unit costs, including a register for tracking unit costs for future use. For performance-based contracts, the Road Maintenance Guideline will further describe the process to be applied in estimating work volumes in addition to the application of unit rates to estimate costs. For the latter, specific attention will be given to risk estimation and the impacts these risks may have on costs.

**Activity D-10 Work Zone Safety.** The Consultant will prepare detailed guidance on aspects of work zone safety to be applied by road maintenance contractors and RD staff. The Road Maintenance Guideline will include a complete list of work zone safety practices, ranging from personal protective equipment to traffic safety measures to be applied in work zones.

**Activity D-11 Road Maintenance Guideline.** The Consultant shall prepare and submit a Road Maintenance Guideline outlining the aspects described above. The Road Maintenance Guideline will describe in suitable detail the road maintenance categories, the maintenance approaches, the maintenance contract, the maintenance specifications, the required maintenance equipment, the service levels to be applied, the performance evaluation options, the resulting approaches for monitoring and inspection, the cost estimation and the work zone safety. The Road Maintenance Guideline is expected to provide required technical guidance to deliver consistent road maintenance across whole road network. After submission and initial review of the report by RD and Mol, the Consultant will present the Draft Road Maintenance Guideline in a workshop to be held for staff of RD, Mol and possible other entities. Any comments received during the workshop or through other means will be incorporated in the Final Road Maintenance Guideline.

## **Task E Build Capacity of Roads Department Staff**

9. Based on the findings from the review of current road maintenance practices and the subsequent preparation of the Road Maintenance Strategy and Guideline, the Consultant will prepare and implement a Capacity Building Plan for RD staff. The capacity building will address any capacity gaps identified during the review of current road maintenance practices and will also include any capacity development required to institutionalize and implement the Road Maintenance Strategy and Guideline.

**Activity E-1 Capacity Building Plan.** The Consultant will prepare a Capacity Building Plan covering all gaps and requirements for strengthening identified under Task B, as well as any capacity building required for the implementation of the Road Maintenance Strategy and Guideline. The Capacity Building Plan will be prepared based on the findings and deliverables of Tasks B, C and D. A Draft Capacity Building Plan will be prepared at the start of this assignment, building on the Capacity Gap Analysis prepared with World Bank support, and after consultations with a focus groups within RD drawing upon their feedback. This will allow capacity building to commence early in the assignment, with amendments to be made in the course of the assignment as other capacity

building needs emerge. The Capacity Building Plan and any subsequent amendments will be presented to RD for approval.

**Activity E-2 Capacity Building Activities.** The Consultant will implement the approved capacity building activities through a combination of classroom-style training and on-the-job training, as well as through the preparation of appropriate manuals and guides where relevant. The Consultant will ensure a balanced participation of women and men staff members of RD in all capacity building activities. The capacity building activities will be carried out by Consultant personnel. A provisional sum of \$50,000 will be provided under the contract that may be used to hire venues and equipment as considered necessary or to contract external capacity building services upon approval by RD. This should be reserved for specific capacity building activities outside the expertise of the Consultant personnel. Apart from the capacity gaps and needs identified during the different tasks, the capacity building activities should also aim to ensure the creation of a proper understanding and institutionalization of the Road Maintenance Strategy and Guideline and an ability of RD staff to implement these and introduce future amendments and updates. The latter will require close involvement and on-the-job training of RD staff throughout the assignment. All training and capacity building activities should be recorded on video, and the video recordings should be provided to RD for future use free of charge.

**Activity E-3 Capacity Building Report.** The Consultant shall prepare and submit a Capacity Building Report that presents the latest approved version of the Capacity Building Plan. The Capacity Building Report shall describe the capacity building activities undertaken, listing gender-disaggregated data of the RD staff and other participants involved in those activities as well as any capacity building materials developed under the assignment. The Capacity Building Report will include participant evaluations of the different capacity building activities. The Capacity Building Report will include a conclusions chapter describing to which degree the capacity building needs have been addressed in the assignment, and what further follow up is required in future years. After submission and initial review of the report by RD and MoI, the Consultant will present the Draft Capacity Building Report in a workshop to be held for staff of RD and possible other entities. Any comments received during the workshop or through other means will be incorporated in the Final Capacity Building Report.

### 3. Deliverables and Payment

10. **Deliverables and Payment.** This assignment is lumpsum-based, with payments linked to a set of five deliverables. The deliverables are the outputs of the different tasks and the result of the activities included under those tasks. Each deliverable is linked to a percentage of the lumpsum payment, with payments against approval of the final reports. Separate provisional sums will be included in the contract amount to cover any external capacity building services as well as the publication of the Maintenance Strategy and Guideline. The Consultant will be required to submit the draft deliverables and to present these during a

workshop, followed by the submission of an amended final deliverable incorporating any comments received during the workshop/meeting or through other means. The timelines for submission of the draft and final deliverables are indicated in the table below. All deliverables are expected to be developed in accordance with the best practices prevailing within the EU and other countries with advanced road asset management worldwide.

Deliverable	Description	Timeline/ Payment
<b>Deliverable 1:</b> Inception Report	The Inception Report will include a detailed work program indicating the timing of the different tasks and activities and describing the quantity and timing of the inputs from the different Consultant personnel. This will distinguish between in-country and home-office inputs, and will indicate when meetings with RD staff and other entities are planned, and which RD divisions and units and other entities will be met with. A <u>Draft Inception Report</u> will be prepared before the first visit to Georgia is undertaken. This will subsequently be discussed with RD staff during the first trip of the Consultant Team Leader in order to reach an agreement on the exact contents of the different deliverables, as well as the workplan and Consultant staff inputs for achieving these. Any comments received during the meetings with RD staff or through other means, will be incorporated in the <u>Final Inception Report</u> to be submitted within 2 months of contract signing.	<b>Month 1</b> (draft)  <b>Month 2</b> (final)  <b>10%</b>
<b>Deliverable 2:</b> Road Maintenance Practices Report	The Road Maintenance Practices Report will describe in suitable detail the current maintenance practices, identifying gaps and areas requiring strengthening. The report will describe the different areas listed under the task B, complemented by a chapter with conclusions identifying the main areas for strengthening and improvement that will be addressed in the Road Maintenance Strategy and Road Maintenance Guideline. The report will include a proposal for the framework and specific requirements for the Road Maintenance Strategy and Road Maintenance Guideline. After submission and initial review of the report by RD and Mol, the Consultant will present the findings and the <u>Draft Road Maintenance Practices Report</u> in a workshop to be held for staff of RD and possible other entities. Any comments received during the workshop or through other means will be incorporated in the <u>Final Road Maintenance Practices Report</u> .	<b>Month 5</b> (draft)  <b>Month 6</b> (final)  <b>20%</b>
<b>Deliverable 3:</b> Road Maintenance Strategy	The Road Maintenance Strategy, based on the Task C, will describe in suitable detail RD's vision and objectives, the medium- and long-term plans for the road network and related asset management needs, the required financing and potential sources of financing, the improved contracting modalities to be applied, and the necessary institutional development of RD and the private sector construction industry. After submission and initial review of the report by RD and Mol, the Consultant will present the <u>Draft Road Maintenance Strategy</u> in a workshop to be held for staff of RD and possible other entities. Any comments received during the workshop or through other means will be incorporated in the <u>Final Road Maintenance Strategy</u> .	<b>Month 9</b> (draft)  <b>Month 10</b> (final)  <b>20%</b>
<b>Deliverable 4:</b> Road Maintenance Guideline	The Road Maintenance Guideline based on the Task D, will describe in suitable detail the road maintenance categories, the maintenance approaches, the maintenance contract, the maintenance specifications, the required maintenance equipment, the service levels to be applied, the performance evaluation options, the resulting approaches for monitoring and inspection, the cost estimation and the work zone safety. The Road Maintenance Guideline is expected to provide required technical guidance to deliver consistent routine maintenance across whole road network. After submission and initial review of the report by RD and Mol, the Consultant will present the <u>Draft Road Maintenance Guideline</u> in a workshop to be held for staff of RD and possible other entities. Any comments received during the workshop or through other means will be incorporated in the <u>Final Road Maintenance Guideline</u> .	<b>Month 10</b> (draft)  <b>Month 11</b> (final)  <b>35%</b>

Deliverable	Description	Timeline/ Payment
<b>Deliverable 5:</b> Capacity Building Report	The Capacity Building Report will present the latest approved version of the Capacity Building Plan and shall describe the capacity building activities undertaken, listing the RD staff involved in those activities as well as any capacity building materials developed under the assignment. The Capacity Building Report will include participant evaluations of the different capacity building activities. The Capacity Building Report will include a conclusions chapter describing to which degree the capacity building needs have been addressed in the assignment, and what further follow up is required in future years. After submission and initial review of the report by RD and MRDI, the Consultant will present the <u>Draft Capacity Building Report</u> in a workshop to be held for staff of RD and possible other entities. Any comments received during the workshop or through other means will be incorporated in the <u>Final Capacity Building Report</u> .	<b>Month 11</b> (draft)  <b>Month 12</b> (final)  <b>15%</b>

11. **Translation.** The deliverables are expected to be submitted in both English and Georgian languages to be used by RD and private sector accordingly. Many basic modern concepts and terms commonly used in the English language may not have direct Georgian analogies. Therefore, the Consultant shall prepare an appropriate English-Georgian Glossary of Terms (and description) that will be included in the different deliverables as appropriate. During the meetings and workshops to present the draft deliverables, the Consultant will be responsible for providing translation in Georgian and English, including translation of any presentation materials prepared.

12. **Publication.** The Consultant will arrange the design and printing of both the Georgian and English versions of the Maintenance Strategy and Maintenance Guideline after approval by RD. The Consultant will subcontract a local publishing firm for this purpose, which will be paid from a provisional sum of \$30,000 under the contract with the Consultant. The number of printed copies of each document and each language will be agreed beforehand with RD staff. The Consultant will also provide PDF versions of each document and each language to RD for publication on its website.

## 4. Implementation Schedule

13. **Implementation Schedule.** This assignment will be carried out over a period of 12 months. The first month is reserved for Task A involving the mobilization of Consultant personnel and the preparation of the draft Inception Report. The following 5 months are focused on completing the Inception Report under Task A and on the review of current road maintenance practices under Task B, including the submission and presentation of a draft deliverable report by the end of month 5, and a final deliverable report by the end of month 6. The remaining Tasks C, D and E will largely be carried out in parallel to each other, and will start once Task B has been largely completed and a proper understanding of current maintenance practices has been obtained. Each of these three tasks will take approximately 6 months, resulting in the submission and presentation of the draft deliverable and the subsequent incorporation of comments in the final deliverable.

Task	Month	1	2	3	4	5	6	7	8	9	10	11	12
1. Mobilization and Inception		■	■										
2. Maintenance Practices						■	■						
3. Maintenance Strategy										■	■		
4. Maintenance Guideline											■	■	
5. Capacity Building												■	■

Draft Report + Workshop
  Final Report

14. The Consultant, as part of its Bid, will prepare a detailed implementation schedule defining the timing of the different tasks and activities, and reflecting the inputs of the different Consultant personnel. Together with the qualification of the Consultant's personnel, this will form the main basis for evaluation of proposals.

## 5. Consultant's Personnel and Other Inputs

15. The Consultant will provide the following key personnel as part of its Bid. Other personnel inputs may be provided but will not be included in the bid evaluation. The qualification requirements for the key personnel are provided in the following paragraphs.

Staff Position	Person-months of inputs	Minimum in-country inputs
International Road Maintenance Specialist (Team Leader)	10	8
International Road Asset Management Specialist	3	2
International Institutional Specialist	3	2
International Financing Specialist	2	1.5
International Contracting Specialist	6	4
National Road Maintenance Specialist (Deputy Team Leader)	10	10
National Legal Specialist	3	3
<b>Total</b>	<b>37</b>	<b>30.5</b>

16. **International Road Maintenance Specialist (Team Leader).** The candidate will be responsible for coordinating all tasks and activities of the assignment, and will be responsible for preparing the draft and final deliverables and presenting these to RD. The candidate will be responsible for assessing current maintenance practices and needs, and proposing improved maintenance approaches and preparing maintenance contract templates and specifications for the road network in Georgia. The candidate shall have a Master's degree or higher in civil engineering or other relevant field. The candidate shall have at least 10 years of experience in road maintenance, preferably in both developed and developing countries. The candidate shall have relevant experience with road maintenance engineering and design and shall have demonstratable experience with road maintenance implementation and inspection and with the preparation of road sector policies, strategies and/or plans. Experience with EU road maintenance practices and approaches will be preferred. The candidate shall have a minimum of 5 years of experience as project manager or team leader. Regional experience in South Caucasus and Central Asia countries will be an advantage. The candidate shall be fluent in English and shall be skilled in report writing.

17. **International Road Asset Management Specialist.** The candidate shall be responsible for determining the road development and maintenance needs and for preparing road network plans for the Maintenance Strategy. The candidate shall have a Master's degree or higher in civil engineering, transport economics or other relevant field. The candidate shall preferably have at least 10 years of experience in carrying out similar assignments, preferably in both developed and developing countries. The candidate shall have relevant experience with road asset management and road network maintenance planning. The candidate shall be well versed in the use of HDM-4 and be able to use this software to prepare annual and multiannual work plans as well as carry out a strategy analysis at road network level. Experience with EU road maintenance practices and approaches will be preferred. Regional experience in South Caucasus and Central Asia countries will be an advantage. The candidate shall be fluent in English and shall be skilled in report writing.

18. **International Institutional Specialist.** The candidate will be responsible for determining the institutional development needs and capacity building requirements. The candidate shall have a Master's degree or higher in civil engineering, transport economics or other relevant field. The candidate shall preferably have at least 10 years of experience in institutional assessments and institutional development in the transport sector, preferably in both developed and developing countries. The candidate shall have relevant experience with institutional strengthening and shall have demonstrable experience with the preparation of capacity building plans and implementing training. Experience with EU road maintenance institutions and approaches will be preferred. Regional experience in South Caucasus and Central Asia countries will be an advantage. The candidate shall be fluent in English and shall be skilled in report writing.

19. **International Financing Specialist.** The candidate will be responsible for determining financing needs and identifying suitable financing sources. The candidate shall have a Master's degree or higher in transport economics or other relevant field. The candidate shall preferably have at least 10 years of experience in road sector financing, preferably in both developed and developing countries. The candidate shall have demonstrable experience with road maintenance financing. Experience with EU road financing practices and approaches will be preferred. Regional experience in South Caucasus and Central Asia countries will be an advantage. The candidate shall be fluent in English and shall be skilled in report writing.

20. **International Contracting Specialist.** The candidate will be responsible for developing the road maintenance contracting templates and for supporting the development of the maintenance specifications. The candidate shall have a Master's degree or higher in civil engineering or other relevant field. The candidate shall preferably have at least 10 years of experience in road sector contracting, preferably in both developed and developing countries. The candidate shall have relevant experience with road maintenance contracting and shall have demonstrable experience with the preparation and implementation of performance-based contracts and other contracting modalities for road maintenance. Experience with EU road maintenance practices and approaches will be preferred. Regional experience in South Caucasus and Central Asia countries will be an advantage. The candidate shall be fluent in English and shall be skilled in report writing.



21. **National Road Maintenance Specialist (Deputy Team Leader).** The candidate will support the Team Leader in coordinating all tasks and activities of the assignment and will be responsible for collecting necessary information and coordinating with local stakeholders and RD staff. The candidate shall have a Bachelor's degree or higher in civil engineering or other relevant field. The candidate shall preferably have at least 10 years of experience in road maintenance in Georgia. The candidate shall have relevant experience with road maintenance engineering and design and shall have demonstrable experience with road maintenance implementation and inspection in Georgia. Experience with the preparation and development of policy documents in Georgia will be considered an advantage. The candidate shall be fluent in Georgian and English and shall be skilled in report writing.

22. **National Legal Specialist.** The candidate will be responsible for assessing existing legislation and proposing legal amendments, and for ensuring that the Maintenance Strategy complies with the requirements of Resolution No. 629 of 2019 regarding policy documents. The candidate shall have a Bachelor's degree or higher in law or other relevant field. The candidate shall preferably have at least 5 years of experience in legal aspects in the transport or other relevant sector. The candidate shall have relevant experience with road sector legislation and shall have demonstrable experience with legal reviews and the preparation of legal amendments. Experience with the preparation and development of policy documents in Georgia will be considered an advantage. The candidate shall be fluent in Georgian and English and shall be skilled in report writing.

## 6. Location of Services

23. The services will be carried out in Tbilisi, Georgia. International staff may carry out a portion of their inputs remotely, but most of their inputs should be provided in Georgia to ensure proper coordination and exchange of information with RD staff and others, and to allow RD staff to learn on-the-job from the Consultant personnel. The minimum number of person-months of inputs to be provided in-country by each international specialist is indicated under section 5 of these terms of reference. Some activities may require travel outside of Tbilisi, for instance to visit contractors. The Consultant will be responsible for any costs related to international and domestic travel as well as accommodation and per diems of Consultant personnel.

## 7. Counterpart Support

24. **Office space.** RD will provide office space for Consultant personnel. This will include desks and chairs and electricity supply. The Consultant personnel will be responsible for providing their own computers and arranging internet connections and telephone connectivity.

25. **Counterpart staff and background documents.** RD will provide staff to meet with the Consultant personnel and provide any information and documents that are available. RD will also provide limited staff inputs to accompany the Consultant personnel in their visits to other entities or to contractors outside Tbilisi. Any transport required for such visits will need to be provided by the Consultant.

## Annex 1 – Organizational Structure of the Roads Department

