

Routine Maintenance Costs and Expenditures

Routine maintenance, which comprises small-scale works conducted regularly, aims “to ensure the daily passability and safety of existing roads in the short-run and to prevent premature deterioration of the roads” (PIARC 1994).

COUNTRY NAME

Annual Labour Cost	It contains all labor costs as salary, overtime, insurance, bonus and side rights.
Annual Material Cost	It contains all materials costs such as fuel oil, bitumen, spare parts, stationery, fuel expense, salt, chemicals, construction products, etc. which expend on road maintenance services.
Invoiced Expenses	It contains all utility invoices such as road lighting, phone, electricity, water, mobile phone, internet, natural gas and another invoices which is on road maintenance services.
Operating expences of machines and mechanism	It contains depreciation deductions for full restoration, costs of replacing wearing parts and attachments, the cost of relocating machines from one maintenance services to another one including the installation of machines with commissioning, dismantling, transportation with loading and unloading operations.
Bidded Expenditures	All biddings on road maintenance services such as traffic services, traffic lights, installing guardrairs, ice and snow removal, ditch and road cleaning, road repairs etc.

Routine Maintenance Expenditures of Primary and Secondary Roads									
Total Annualy Maintained Road Length (Km)	Total Annualy Maintained Road Length (LanexKm)	Force Account Expenditures						Bidded Expenditures	Total
		Annual Labour Cost	Annual Material Cost	Invoiced Expences	Operating Expences of Machines and Mechanism	Other	Total	Total	

Unit: US\$

PRICES YEAR:-----

Routine Maintenance Unit Costs of Primary and Secondary Roads
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Unit: US\$/LaneXkm.

Traffic Safety Unit Cost	Road Maintenance Unit Cost	Winter Maintenance Unit Cost	Other (Management and Operation) Unit Cost	Total Unit Cost
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PRICES YEAR:-----

Routine Maintenance Expenditures of Motorways

Unit: US\$

Total Annually Maintained Road Length (Km)	Total Annually Maintained Road Length (LanxKm)	Force Account Expenditures						Bidded Expenditures	Total
		Annual Labour Cost	Annual Material Cost	Invoiced Expences	Operating Expences of Machines and Mechanism	Other	Total	Total	

PRICES YEAR:-----

Routine Maintenance Unit Costs of Motorways
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Unit: US\$/LaneXkm.

Traffic Safety Unit Cost	Road Maintenance Unit Cost	Winter Maintenance Unit Cost	Total Maintenance Unit Cost	Other (Management and Operation) Unit Cost	Toll Collection Unit Cost*	Total Unit Cost
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* If the motorway is tolled

<p>89. Maintenance of roadway infrastructure: The preservation through treatment activities of the entire roadway, including surface, shoulders, roadsides, structures, and such traffic control devices which are necessary for the road way to perform its function (5).</p>
<p>90. Maintenance activities: The combination of all technical and associated administrative actions during the service life to retain a civil engineering works or an assembled system (part of works) in a state in which it can perform its required functions. Note 1 to entry: Maintenance includes cleaning, servicing, repainting, repairing, replacing parts of the construction works where needed, or according to approved levels of service. (Construction Products Directive Guidance Paper F). Note 2 to entry: Adapted from the definition in ISO 15686-1, ISO 6707-1 and in Construction Products Directive Guidance Paper F (2).</p>
<p>91. Maintenance cost for road: The total of labour, material and other related costs incurred to retain a road or its parts in a state in which it can perform its required functions. Note 1 to entry: Maintenance includes conducting corrective, responsive and preventative maintenance on constructed assets, or their parts, and includes all associated management, cleaning, servicing, repainting, repairing and replacing of parts where needed to allow the constructed asset to be used for its intended purposes (1).</p>
<p>120. Periodic Maintenance: The periodic activities on a section of road at regular and relatively long intervals aiming to preserve the structural integrity of the road. These operations tend to be large scale, requiring specialized equipment and skilled personnel. They cost more than routine maintenance works and require specific identification and planning for implementation and often even design. Activities can be classified as preventive, resurfacing, overlay and pavement reconstruction (19).</p>
<p>125. Preventive Maintenance: The planned strategy of cost-effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system (without significantly increasing the structural capacity) (5).</p>
<p>149. Routine Maintenance for highway systems: The work that is planned and performed on a routine basis to maintain and preserve the condition of the highway system or to respond to specific conditions and events that restore the highway system to an adequate level of service (6).</p>