



**National Highway Authority**

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No. 6(114)/NHA/DD(P&R)/2012/

March, 2012

**Deputy Director (Legal)**

NHA, Multan

Subject: **WRIT PETITION NO. 15941/2011 TITLED AS "SARDAR SHAH HAMID KHAN VS D.C.O KHANEWAL & 03 OTHERS"**

As desired, find enclosed herewith the copies of approved tolling policy (July 2010), confirmed minutes of NHA Executive Board's 199<sup>th</sup> Meeting held dated November 15<sup>th</sup>, 2010 and confirmed minutes of National Highway Council's 23<sup>rd</sup> Meeting held dated January 11<sup>th</sup> 2011 for your necessary action, please.

**Enclosed:** As above

**(MALIK IMRAN NAZEER)**

Assistant Director (P&R)

**C.C:-**

- General Manager (Operations) NHA
- Director General (Legal) NHA
- Dir (OMU) NHA
- DD (P&R) NHA
- AD (Legal) NHA HQs
- File

**National Highway Authority**  
**Ministry of Communications**  
**Government of Pakistan**



# **NHA TOLLING POLICY**

**Prepared by: Road Asset Management System (RAMS) Section**

**July, 2010**

# **NHA TOLLING POLICY**

## **DEFINITIONS**

<b>Agent</b>	means “Toll Fee Collection Agent”
<b>GOP</b>	means “Government of Pakistan”
<b>NHA</b>	means “National Highway Authority”
<b>O&amp;M</b>	means “Operation & Management”
<b>OMU</b>	means “Operation and Management Unit”
<b>Operator</b>	means “Toll Fee collection Operator”
<b>RAMD</b>	means “Road Asset Management Division”
<b>RAMS</b>	means “Road Asset Management System”
<b>Toll</b>	means “money that paid to use a particular road, bridge or tunnel”

## INTRODUCTION

1. Pakistan, with 169 million people, has a reasonably developed transport infrastructure. Road transport is the backbone of Pakistan's transport system. The 11897 km long National Highway and Motorway network – which is 4.6 percent of the total road network – carries 80 percent of Pakistan's total traffic. Currently, it is accounting for 90 percent of national passenger traffic and 96 percent of freight.

2. Road Transport is a key component of the economic and social development process. There is a strong correlation between the kilometer travelled and Gross National Product (GNP). Effective and efficient road transport lowers input prices and, hence, production costs, and can lead to greater economic well being. Improvement in the quality of service provision increase personal nobility and facilitate economic growth. These, in turn, contribute towards social development and particularly assist in reducing poverty.

3. In modern era of road sector management, the emphasis of work has been shifted from construction to maintenance and road administrators are more concern about the preservation of present road assets. Maintenance reduces the rate of pavement deterioration, it lowers the cost of operating vehicles on the road by improving the running surface, and it keeps the road open on a continuous basis. Maintenance is also required to improve safety. The long term effects of maintenance are significant. NHA is following the concept of commercialization of the road sector embodying the following principles:

- bring road maintenance into market economy.
- put road maintenance on fee for service basis, and
- manage road maintenance like a business rather than a bureaucracy and promote corporate structure.

4. NHA carried out various studies in recent years to find out a suitable Off-Budget Financing Mechanism. These resulted in following recommendations regarding road user tariffs commensurate to service provided to road users.

- a) Tolling of National Highways
- b) Transit fees
- c) Fuel levies
- d) Commercial use of Right of Way (ROW).
- e) Establishment of Road Fund

5. It is no secret that improvement in maintenance standards has resulted in increasing the maintenance cost, having a direct relationship with the Vehicle Operating Cost (VOC) which is reduced, rendering a healthy influence on the National Exchequer. It is foreseen that a maintenance backlog shall be created in coming years time, in case additional funding is not injected to boost up maintenance funding.

6. NHA Act 1991 as amended in 2001 empowers NHA to collect tolls on the National Highways and other roads as it stated in Chapter-III, Para 10(2)(vii):

*“Levy, collect or cause to be collected tolls on National Highways, strategic roads and such other roads as may be entrusted to it and bridges thereon”.*

7. The Act further defines in Chapter-III Para 10(2)-viii:

*“License facilities on roads under its control and such terms as it deems fit”*

### **Present State of Tolling Structure / Systems and Revenue**

8. The last decade witnessed a gradual entry into the Operations and Management concept of **“Fee for Service”** linked to Traffic counts, toll rates and conducted through Electronic means thus attempting to maximize through real time audit systems and feeding a Road Fund, which would ensure availability of maintenance revenues for NHA thus achieving some levels of sustainability. While substantial sums were spent in deploying state of the art system in the last decade, experiences in implementation, change in policy without adequate thought, inadequate regulatory framework and its loose controls degraded the entire concept causing substantial loss in revenues, notwithstanding the reversal to old times and practices (totally in contradiction to the world development experience) has led to the elimination of an effective Toll culture:

- Absence of complete withdrawal of various exemptions.
- Lack of automation of toll collection system on all toll plazas.
- Non establishment of ETTM System on all toll plazas.
- Slow development of permanent infrastructure due to lack of funds.
- Poor implementation of toll escalation rules.

9. Further, lack of adequate tolling policy and its loose controls degraded the entire concept causing substantial loss in revenues, notwithstanding the reversal to old times and practices (totally in contradiction to the world development experience) has led to the elimination of an effective Toll Culture. There is a need to revisit the toll framework evaluate the gains and losses and undertake a Toll Policy to meet the objectives.

### **Policy Mission Statement**

10. The mission statement for tolling policy is stated as:

*“NHA will establish and maintain infrastructure to collect tolls on the roads under its control, will set tariffs and update them as deemed necessary, will appoint appropriately qualified agents/operation & management operators to collect the tolls and after permitting the said agents operation & management operators to retain or to be paid, as the case may be, their agreed remuneration, proceeds will be submitted to the RMA”. Further in respect of privately-financed roads “NHA will establish the policies, rules etc, under which tolls are to be set and collected but will otherwise leave the road owner to collect the tolls according to his own arrangements and to retain the proceeds”.*

## **Policy Aim & Objectives**

11. The Tolling Policy will provide for National Highways, Strategic Highways and Motorways network a dynamic Toll Regime so to implement a FEE FOR SERVICE” concept ensuring maximizing of revenues and implementing a strategy of Highway Self Sustainability through state of the art Toll and Highway Maintenance Systems. The objectives of the policy are:

- To develop revenue generation systems for maximization of revenue value of all highway assets through a transparent and implement able procurement process.
- To design and develop wholesome revenue collection systems with inbuilt real time audit controls so as to define methods of collection and pilferage prevention.
- To rationalize a Toll Traffic structure based on national economic parameters, with an inbuilt time based review mechanism duly approved by the NHA Executive Board.
- The Policy must feed infrastructure development goals whereby RAMD, NHA can collect, manage and spend collected revenues for Infrastructures rehabilitation and maintenance through a well conceived maintenance plan in line with RMA Rules.

## **Policy Toll Structures**

**12. The National Highway Authority under the provisions of Section-10(2) (vii) of the NHA Act, 1991, is empowered to levy and collect toll on national highways and roads.**

- NHA will collect and manage Toll Revenues as per Policy objectives into a (RMA) Road Maintenance Account.
- All Motorways and Expressways will be tolled through a “Closed Tolling System”, while all National Highways and Roads will be tolled through “Open Tolling System” at defined Access Control Points as per international norms and practices.
- NHA will develop a comprehensive and state of the art Toll Infrastructures on all Motorways and Highways to meet Toll Policy Objectives.
- Road Asset Management Division (RAMD) will be responsible for developing & implementing SOP’s and promoting Tolling culture within the country, while working in tandem with the Roads and Highway Maintenance Systems & Organizations to ensure highest standards of road usage.
- Road Asset Management Division (RAMD) will develop RFP’s, and Standards for all aspects / departments of the Asset Management including Tolling System, covering all development phases from Manual to Electronic Systems leading to a Road & Highways concessions framework.

- Implementation of Tolling Systems, Toll Collection contracts less concessions will be executed as per existing Public Procurement Rules & Procedures.
- Tariff Structures for Motorways, National Highways and Roads, will be reviewed as deemed fit by NHA.
- RAMD will design and implement a Revenue Management System to ensure financial controls and audit systems to assist Revenue Maximization and curb pilferage.
- The present Tolling arrangements based on old manual collection system will be replaced with Electronic Toll Collection Systems.

### **Toll Level**

#### **Toll Rates per Kilometer**

13. Based on the level of serviceability, toll rate per kilometer are calculated. The existing toll rates per kilometer as on **1<sup>st</sup> July 2010** on NHA road network are as under:

<b>Vehicle Category</b>	<b>Toll Rates per Kilometer</b>		
	<b>National Highways</b>	<b>Super Highway (M-9)</b>	<b>Kohat Tunnel</b>
<b>Car</b>	<b>0.40</b>	<b>0.18</b>	<b>0.80</b>
<b>Wagon</b>	<b>0.60</b>	<b>0.29</b>	<b>2.90</b>
<b>Buses</b>	<b>1.30</b>	<b>0.48</b>	<b>3.60</b>
<b>2 Axle Trucks</b>	<b>1.60</b>	<b>0.59</b>	<b>3.60</b>
<b>3 Axle Trucks</b>	<b>1.60</b>	<b>0.59</b>	<b>3.60</b>
<b>Articulated Trucks</b>	<b>3.10</b>	<b>1.14</b>	<b>5.50</b>

<b>Vehicle Category</b>	<b>Toll Rates per Kilometer</b>		
	<b>M-1</b>	<b>M-2</b>	<b>M-3</b>
<b>Cars</b>	<b>0.71</b>	<b>0.64</b>	<b>0.75</b>
<b>Wagons</b>	<b>0.87</b>	<b>0.89</b>	<b>1.23</b>
<b>Coasters</b>	<b>1.26</b>	<b>1.42</b>	<b>1.70</b>
<b>Buses</b>	<b>1.84</b>	<b>2.02</b>	<b>2.45</b>
<b>Rigid Trucks</b>	<b>2.23</b>	<b>2.48</b>	<b>3.21</b>
<b>Articulated Trucks</b>	<b>3.74</b>	<b>3.19</b>	<b>3.96</b>

### **TOLL RATE ESCALATION MECHANISM**

14. NHA, will increase toll levels to meet the ever rising maintenance needs. The periodical increase of Toll rates should be based on third party analysis based results in the form of RPI or CPI or Inflation. All these parameters are circulated every year by Ministry of Finance in Economic Survey of Pakistan and published along with Fiscal year budget.

15. There are two aspects to toll escalation:

- a. Need of Escalation: The purpose of routine escalation is to ensure that the value of the toll receipts keeps pace with the increase in cost. Hence, the time frame for Toll rate escalation should be on three years periodic basis or as the need arises.
- b. Mechanism for Toll Rate Escalation: Periodical increase of Toll rates should be based on third party analysis based results in the form of RPI or CPI or inflation. Following formula should be used for escalation in Toll Free Rates:

$$T_x = T_{x0} \times (1 + I_x - I_{x0}) \div I_{x0}$$

Where:

$T_x$  = the toll to be applied during year x (subject to rounding to the nearest Rs 5.00);

$T_{x0}$  = the base year toll;

$I_x$  = the last RPI/CPI/Inflation value available prior to the toll revision; and

$I_{x0}$  = the last RPI/CPI/Inflation value available prior to setting the base year toll.

### **Interval between Toll Plazas (Open tolling)**

16. The distance between two successive toll plazas on national highways, strategic roads should be 35 to 60 Km depending upon the traffic volume, traffic density and prevailing highway capacity. The toll plaza should be placed keeping in view that no diversions or loops are available from where traffic can take a detour. However, toll plazas should be provided on every entry/exit point on a closed loop tolling system regardless of any fixed distance. NHA may also levy toll on bridges and tunnels, etc, besides toll collection on national highways, strategic roads & motorways. For this, minimum distance requirement as stated earlier for national highways should not be considered.

### **Operation & Management of Toll Plaza Mechanism**

17. The operation & management of toll plazas may either be carried out by NHA itself or outsourced to private Contractors/Operators. The objective of sub-contracting toll collection must be to get the best deal. This requires an open and transparent bidding procedure, real financial penalties for failure.



## **INSTITUTIONAL ARRANGEMENTS FOR TOLL FEE COLLECTION ON NHA CONTROLLED ROADS**

### **Policy Framework**

18. The overall policy framework in its coordination with GOP and other stakeholders shall remain with Operation Wing of NHA and Operation and Management Unit (OMU) of RAMD has been entrusted with all tasks related to toll collection. Overall policy framework and individual tolls on various locations shall be dealt with by OMU Section. The private sector participation policy framework should be handled by BOT / Private Sector Cell (PSC).

### **Administration Controls**

19. The Member (Operations) shall be responsible for the administrative control and field operations with respect to the toll collection and operations of the toll plazas on NHA controlled roads/bridges/tunnels.

### **Toll Receipts**

20. All toll receipts shall go to “Road Maintenance Account (RMA)” dedicated for Road Maintenance as defined under RMA Rules.

### **Mechanism of Selection of Agents/O&M Operators**

21. The services of toll free collection agents/O&M operators will be procured by Operation Wing of NHA for NHA controlled road/bridges/tunnels. The toll fee collection agents/O&M operators will be selected keeping in view of following two procurement methods:

### **Guaranteed / Lump Sum Revenue**

22. In this case O&M Contract is based advanced fixed monthly guaranteed revenue payable to NHA. The O&M operator will deposit in advance the fixed guaranteed revenue in Road Maintenance Account of NHA regardless of traffic volume. In case of default NHA will have authority to cancel the contract.

### **Service/Percentage Sharing Basis**

23. In this case, O&M contract is purely service based awarded to the bidder who quote minimum percentage as operation and management service charges on gross toll collection. The O&M operator will remit all the venue collected in Road Maintenance Account of NHA within a timeframe as specified in the contract agreement. The O&M operator will submit its invoice of percentage share of payment which will be eventually released.

## **TOLL COLLECTIONS**

24. Toll road/bridge/tunnel, as a policy should not provide any exemption for any specific vehicle types or a group of a road users from the payment of toll except for vehicles of police, vehicles of National Highways & Motorway Police and vehicle bearing broad arrow plates under the use of Armed Forces and ambulances. This exemption, however, will not be available to the commercial vehicles of NLC.

## NHA Executive Board's Confirmed Minutes

### 8. Agenda Item 3

#### **Tolling Policy : Toll Free Imposition and Collection on NHA Controlled Roads (National Highways, Expressways, Motorways, Strategic Roads and Other Roads / Bridges Entrusted in NHA)**

#### **Introduction – Working Paper**

8.1 Network: NHA is custodian of 12,000 km of National highways/motorways/expressways/strategic roads, which serve inter-provincial long distance traffic. NHA network, despite only 4.6% of Pakistan's roads, carry more than 80% of country's traffic.

8.2 Legal Provision: Under Chapter-III (Powers & Duties of the Authority. Section 10(2) (vii) of NHA Act, 1991 (amended 2001), NHA is empowered to levy and collect toll on its network:-

#### 1(i) **The Powers of the Authority**

- (1) The Authority may take such measures and exercise such powers, as it considers necessary or expedient for carrying out the purposes of this act.
- (2) Without prejudice in the generality of the powers conferred by Sub-section (1), the Authority may for the purpose of carrying out of the purpose of this Act ---
  - (viii) Levy, collect or cause to be collected tolls on national highways, strategic roads and such other roads as may be entrusted to it and bridges thereon".

8.3 Toll Levy. NHA embarked upon toll operations in August, 1999. Initially, toll rates were kept less than that approved, to inculcate toll culture. It was only effective July, 2005, that the rates were brought to the extent approved. Effective July 1, 2008, the toll rates were revised/rationalized for the first time.

8.4 Tolling Policy. It will provide for entire NHA network a dynamic tolling regime to implement a "Free-for-Service" concept ensuring revenue maximization and implementing a strategy of "Highway Self Sustainability" through state-of-the-art "Toll & Highway Maintenance System".

#### 8.5 Aims & Objectives

- a. Develop revenue generation systems for maximization of revenue value of all highway assets through a transparent/implementable procurement process.
- b. Design and develop wholesome revenue collection systems with inbuilt real time audit controls so as to define methods of collection and pilferage prevention.

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- c. Rationalize toll tariff structure based on national economic parameters, with an inbuilt time based review mechanism duly approved by NHA Executive Board.
- d. Feed Infrastructure development goals whereby RAMD, NHA can collect, manage and spend collected revenues for infrastructure rehabilitation and maintenance through a well conceived maintenance plan in line with RMA Rules.

8.6 Toll Structures. The policy covers organization, SOP's, guidelines, toll rates, toll escalation mechanism, interval between toll plazas (open tolling) and the mechanism for O&M of toll plazas.

8.7 Proposal. Approval of "NHA's Tolling Policy" for NHA controlled roads (national highways, motorways and strategic roads).

### **Board's Deliberations**

8.8 The Member (Operation) remarked that the "Toll Policy" does not envisage any fresh proposal or changes but is a compilation of existing instructions & procedures approved by the Executive Board in piecemeal. Everything incorporated therein is already in practice, however, formal approval of the compendium will not only give it sanctity but also enable NHA to further refine and improve upon the contents based on the complications encountered or shortcomings noticed, if any, in the long run.

8.9 The Members with regard to the proposal to fix 35-60 km as the normal distance between two Toll Plazas on the same highway, expressed the opinion that primary criteria for toll imposition should remain substantial improvement of the road section being tolled.

8.10 With regard to an observation by Member (Admin) that Toll Plazas may be established on district boundaries, the Chairman clarified as follows:-

- a. Toll is a service fee for road usage and not a tax imposed by or meant for use by district authorities.
- b. Some national highways cross a district only for 10-15 km and others upto 200 km or even more.
- c. Location of Toll Plazas is based on road condition, traffic volume and keeping in view the number and extent of prime link roads off-shooting from or joining a national highway in a certain stretch.

8.11 On a suggestion by the Senior JS (MoC) that the toll policy needs endorsement by NHC, the Member (Operation) remarked that since all key provisions of the toll policy, including rationalization of toll rates and establishment/location of toll plazas were previously approved by the Executive Board, NHC's approval is not necessary. However, the matter can be brought to the notice of NHC for info.

## **NHA Executive Board's Confirmed Minutes**

8.12 The Chief (NTRC) desired that a list of all existing and planned Toll Plazas be added. Note: Requisite list is at **Annex-D**.

8.13 The Members deliberated and cleared the proposal.

### **Decision**

8.14 The Executive Board considered & approved the "Tolling Policy of NHA (**Annex-E**) for toll fee imposition & collection on NHA controlled roads (National Highways, Expressways, Motorways, Strategic Roads and other Roads/Bridges entrusted in NHA".

8.15 The "Tolling Policy" will be placed before the National Highway Council for info.

Action By : Member (Operation)