ROAD FINANCING IN PAKISTAN

1. PAKISTAN ROAD SECTOR – CONTRIBUTION

Presently the Pakistan Road density of 0.32 km per sq. km The total road network is nearly 2,580,000 km. Transport sector has accounted **20-25%** of Federal PSDP in the recent years. Pakistan inland freight and passenger traffic has been growing at an average annual rate of **10.6%** and **4.4%** respectively during the ten year period between 1991 and 2001. Pakistan has about **4.2** million vehicles on the road, growing at about **8%** annually. This includes about 250,000 commercial vehicles.

2. NATIONAL HIGHWAY NETWORK

National Highway Authority (NHA) is currently responsible for National Highways, Motorways and Strategic Roads. Length of the road network under the jurisdiction of NHA is approximately **9,000** km and comprises primarily of strategic and principal arterial routes that serve inter-provincial long distance traffic, including important commercial cities and major freight terminals. Though, the length of *National Highways is only 3.3% of the entire road network of the country but they carry more than 80% of the country's traffic*.

Pakistan's national road transportation system mainly depends on north-south links because, the ports are in the south whereas the populous provinces of Punjab and NWFP are in the north. The two existing major north-south links are the Indus Highway (N-55) on the western bank of the Indus River and the G.T. Road (N-5) on the eastern bank. The bulk of Pakistan's commercial and industrial activity is concentrated along the N-5 corridor.

3. NATIONAL HIGHWAYS – MAINTENANCE NEEDS

Present condition of road network of Pakistan can be termed as "poor" since the traveling condition of roads and highways has been below the acceptable condition. Results of pavement condition surveys conducted in 2005 reported 43% of the national to be having poor to very poor condition. The remaining will be lost in the near future if adequate maintenance and rehabilitation actions are not taken in a timely and effective manner.

NHA has recently taken over major rehabilitation and maintenance projects through PSDP, World Bank, ADB and Japan assistance. This will definitely reduce the maintenance backlog and maintenance requirements over the next 5-7 years and improve the ride quality of the roads. The recent HDM analysis carried out based on the maintenance program taken over by NHA reveals that the average maintenance requirements of National Highways shall be to the tune of **Rs 7.0 Billion per year** for the next five years. This investment combined with other maintenance programs will result in a saving of over Rs 380 billion (NPV) in road transportation costs alone in the next five years. The net Toll revenue income of NHA is approximately Rs **4** billion per year which when combined with the MOF maintenance grant of about Rs 1 billion shall make NHA almost self sustaining in terms of maintenance financing for the next five years. However after five–seven years when the development and rehabilitation portfolio would have served its partial design life shall be burdening the maintenance financing. At that point in time NHA have to sort for other sources to fund maintenance or else it will be a compromise on the network asset value.

4. THE ROAD MAINTENANCE ACCOUNT/FUND

The National Highway Authority Act 1991, as amended in 2001, empowers NHA to benefit from the commercial use of roads and bridges entrusted to it. Under the Act, NHA is

empowered to collect tolls on national highways. The Act also grants NHA the power to collect revenues from several other designated sources. Revenues collected from such sources are deposited into Pakistan's dedicated Road Maintenance Account (RMA).

The Road Maintenance Account was established to ensure a stable and secure source of maintenance and operations funding. NHA has framed rules for the RMA known as National Highways and Strategic Roads Maintenance Fund Account Regulations-2002. The RMA's standard operating procedures describe, inter-alia, maintenance categories, and utilization of RMA money. However, funds from the federal Public Sector Development Programme may also be obtained in the case of major rehabilitation and improvements and if such funds are available. NHA has commenced implementation of the fee-for-use concept on national highways and strategic roads under its jurisdiction. Tolls are being collected from road users on almost all major highways. NHA collects tolls directly or enters into a contract with an outside party (selected mostly through competitive bidding) for that purpose. If NHA collects tolls directly, all receipts are deposited on a weekly basis in a RMA revenue sub-account for the region from which they were collected. The regional general manager ensures the transfer of all toll money from the regional RMA revenue sub-account to the central RMA account within seven days of the beginning of every calendar month. In cases of collection through outside parties, the revenue transfer is made according to the contract signed between NHA and the concerned party. The operations and management unit of NHA ensures effective monitoring in both cases. The statement of receipts into RMA is prepared every month. The monthly statement includes a performance report containing a comparison with projected receipts and suggestions for improvement, if any. Twice a year, on the 10th of January and July, a consolidated account statement is made available to all the members and the Chairman of the Executive Board for budgeting purposes. Central and regional RMAs are reconciled on a regular basis. NHA has established tolling stations collecting tolls on almost all national highways and has started charging for the commercial use of right of way by collecting ground/approach rental charges. The policy guidelines for tolls and charges for the commercial use of right-of-way were approved by the NHA Executive Board as an interim measure until the final approval is made. The Board has constituted a committee to finalize the policy for tolling and preservation/commercial use of right-of-way. It is expected that the total revenue generated for maintenance works in the financial year 2005-06 will be about PRs 4,310 million. The estimated funding requirement, determined through Highway Development and Management (HDM-IV) analysis, for the year will be PRs 7,000 million. Available total resources from different sources are expected to be as follows:

- Revenue receipts through RMA from all designated sources,PRs 4,730 million
- Government grants for maintenance, PRs 1,200 million
- Total resources available, PRs 5,930
- Shortfall, PRs 1,070 million

Toll revenue is the primary contributor of RMA resources. The contributions of different sources into RMA are as follows:

- Toll plazas : 92.0 per cent
- Weigh stations : 1.5 per cent
- Right-of-way commercialization : 1.2 per cent
- Hoardings/billboards : 0.3 per cent
- Police fine collection etc. : 5.0 per cent

The expenditures form the RMA cover the following maintenance categories:

- Routine, periodic and emergency maintenance
- Rehabilitation
- Geometric improvement and highway safety improvement
- New toll plazas and weigh stations

- Corridor management

5. NATIONAL HIGHWAYS – DEVELOPMENT NEEDS

Government of Pakistan (GOP) provides funds to National Highway Authority (NHA) through PSDP in the form of Cash Deposit Loan (CDL) to undertake development of road infrastructure in the country. NHA revenue, i.e. Road Maintenance Account (RMA) and GOP grant from Non-Development Budget combine to address maintenance needs of the NHA road network.

Presently, NHA is required to implement a sizable program of expansion and improvement of its network to materialize the vision of making Pakistan an efficient and reliable International Transit Hub playing key role in the region. NHA fund requirement obviously has increased while the GOP resource remains limited. NHA has prepared future needs program for the next five years, i.e. from fiscal year 2006-07 to 2010-11. The current estimated NHA investment program in total amounts to some Rs **495** billion. The Govt cum donor funded program amounts to Rs **399** billion, of which some Rs **89** billion has already been expended upto June 2005. Rs **20** billion shall be expended this year and another Rs **181** billion in the next 5 years. All this leaves Rs **109** billion to be utilized later on,

NHA has learnt the lesson that if the financial sustainability of the program is not ensured then the portfolio needs to be revised on lower side. But the current development requirements are such that if the stated portfolio is not materialized in time then the country will loose most of its vision to become an International Transit Hub playing key role in the region.

The above situation left no choice with the NHA except to maintain its portfolio and innovate to make it financially sustainable. While reviewing this question of financial sustainability the aspect of Cash Deposit Loan (CDL) which is equally important also came in the limelight. It was, therefore, felt prudent to attend to both simultaneously, so that in future such problems do not arise and NHA is able to achieve its targeted progress in planned time and cost.

Before we enter into the proposal, we need to assess the availability of funds. The current year's PSDP stands at 20 billion Rupees and anticipatory financial resource from NHA sources is expected around Rs 4.30 billion. GOP also allocates maintenance grants from non-development budget which currently is around Rs 1.00 billion.

The funds requirement in current year is around Rs 25.00 billion for development and around Rs 7.00 billion (Rs 1.5 billion with 10% growth per year expected to come from non-development budget of GOP) for maintenance.

6. FUTURE FINANCING OF NHA'S DEVELOPMENT PROGRAM

Presently, NHA is required to implement a sizable program of expansion and improvement of its network NHA has studied various options and prepared a, financially sustainable, five-year rolling plan for the years 2006-07 to 2010-11. Simultaneously, there is a need to address the issue of CDL.

The proposed line of action leads to the following recommendations

The way forward – treatment of existing debt stock

- **Capitalize the debt as government equity in NHA**: This may need statutory change. Although NHA is a body corporate (according to its Act) it has no share capital. A way around this problem is to set up a company jointly owned by NHA and the government (in essence, the company would function as if it were NHA).

- **Forgiving the debt**: This is simple and transparent, and is the best option.
  The way forward – future financing of NHA's capital development program
- **<u>On-budget</u> – PSDP allocations as 'grant transfers':** This is straightforward. **NHA Act Section 21(3)** lists the following possible sources of government allocations:
  - **"grants made by the Federal Government"**
  - **"funds provided by the Federal Government"**

- **<u>Off-budget</u> – Road Fund:** A new revenue stream for NHA comprising of:

  - fuel levy
  - axle load charges
  - graduated annual per vehicle charges (with rationalization of existing Provincial road use tariffs)

  Transition to off-budget financing will take time.
  Therefore, government grant transfers would be required in the interim period.

7. <u>PRIVATE SECTOR PARTICIPATION (PPP) PROJECTS UNDERTAKEN IN THE ROAD SECTOR</u>

The supply of road infrastructure services over the last 10 years has lagged behind the burgeoning demand creating rationing, inefficiency and higher costs for the businesses. As the fiscal deficit has to be contained, the public sector institutions have been unable to provide these services efficiently and in cost effective ways. The rationale of the BOT projects is to bridge the gap in infrastructure finance, thereby making the deals attractive for private investment in commercially viable projects.

BOT is a very specialized concept and Pakistan has had very few experiences in the road sector. BOT in the past had not been really implemented in Pakistan particularly on large scale.

Recently, the Government of Pakistan is trying to vigorously promote the concept of Public Private Partnerships. National Highway Authority has prepared several projects to be undertaken on BOT basis. The current status is as under:

Sr. No.	Project	Cost (US$ In Million)	Status
1	Shahdara Flyover N-5	50	Proposal submitted by one firm M/s Ascent Capital International Limited
2	Rawalpindi Bypass (28 Km) & Tarnol Intercahnge N-5	57	Bids to be submitted on 20th June 2006
3	Karachi Northern Bypass (ACW)	25	Bids to be submitted on 6th June 2006
4	Peshawar Northern Bypass (26 Km)	52	RFP planned to be issued in July 2006
5	Lakpass Tunnel (N-25)	11	Approved by the Executive Board on 25th March 2006
6	Karachi-Hyderabad Motorway M-9	105	Case shall be taken up in coming Executive Board meeting for

			approval
7	Faisalabad-Multan Motorway M-4	24,586	MoU has been signed with CIDB-Malysia, revised proposal awaited
8	Shikarpur-Ratodero Road	-	Design, commercial pre-feasibility and social & environmental assessment are being taken up, RFP to be issued subsequently
9	Periodic Overlay on M-2 & Realignment of Salt Range (PPP mode) 50 MUSD from World Bank	11,840	Anticipated to be taken up as a potential PPP Project in the later part of 2006
10	Corridor management of Peshawar - Lahore section of N-5	-	NHA has requested IFC for project preparation
11	Corridor management of Motorways M1, M2 & M3	-	NHA has requested PSOD arm of ADB in project preparation
12	Other Projects	-	To be identified through ADB consultants, July - October 2006

- **Implementing authorities:** National Highway Authority
- **Value in US$:** As given against each project
- **Investor/ sponsors:**
  M-9 Project: ORIX Investment Bank Pakistan Ltd.
  Lakpass Project: FWO
- **Physical Features of the Project**

Shahdara Flyover:

Shahdara is a very congested area on N-5 near Lahore. Shahdara Flyover Project (N-5) is a 5.2 km six lane divided limited access tolled elevated expressway joining Shahdara Town area from the railway crossing near Imamia Colony with Lahore city.

Rawalpindi Bypass & Turnol Interchange:

N-5 passes through the congested business areas of Rawalpindi, in order to avoid this congestion and allow for the free flow of traffic a bypass facility is proposed on southern side of Rawalpindi. Turnol Interchange (Flyover) will be located at the Intersection of Rawalpindi-Peshawar Highway (N-5) with Rawalpindi-Fatehjang-Kohat Road (N-80). Both these projects are combined into one package for increasing the viability of project.

Karachi Northern Bypass:

It is planned that Karachi Northern Bypass facility which is being constructed as two lane facility in the first stage, should be converted to a dual carriageway facility to cater for its integration with RCD Highway and potential traffic of recently completed Makran Coastal Highway.

Peshawar Northern Bypass:

N-5 passes through the city of Peshawar, causing congestion. Peshawar Northern Bypass shall connect N-5 on southern side of Peshawar to M-1 Motorway and Peshawar Torkhum Road.

Lakpass Tunnel (N-25):

Lakpass Tunnel shall bring comfort to public negotiating N-25 & N-40, by improving the steep gradient and eliminating the curves.

Karachi-Hyderabad Motorway (M-9):

Present road link between Karachi and Hyderabad known as Super Highway is a 4-lane divided highway and is the most important link of Karachi Port and Port Qasim to the rest of the country. With the construction of Gwadar Port, it is envisaged that the traffic on this route will increase manifold. This highway link is in dire need to be upgraded to a motorway standard.

Faisalabad-Multan Motorway (M-4):

M-4 connects Pakistan's third largest city Faisalabad with Khanewal and Pindi Bhattian – Faisalabad Motorway (M-3) Section of Pakistan Motorway Network. The Project is under Prime Minister's Development Plan and Directive and is included in the National Highway Development Program, approved by National Highway Council.

Shikarpur - Ratodero Road (Junction of N-55 & N-65) Upgradation:

This project is an integral part of Prime Minister's Trade Corridor Improvement Program and it has been picked up for possible ABD financing under PPP mode. The section needs to be upgraded to 4 lane limited access expressway.

Periodic Overlay on M-2 & Realignment of Salt Range (PPP mode):

Lahore-Islamabad Motorway (M-2) was completed in November 1997. As such, the periodic overlay shall be due in a couple of years. Further, use of the M-2 by heavy trucks has not been to the extent envisaged at the design stage. This lack of use is mainly due to the severe bends and grades in the salt range, km 206 to km 220. This section with gradients reaching 7% and various sharp turns is responsible for so many fatal as well as non fatal accidents. Therefore re-alignment of salt range is proposed and it is packaged with periodic overlay of M-2 to be offered to Private Sector under PPP mode.

- **PPP modality with contract period**: Normally BOT with 25 years concession term

- **If tolls are applied, how much, or the method for the private sector obtaining a return on investment**

M-9 Project:

Toll Rates during Construction Period (for full length of 136 Km)

Sr. No.	Vehicle Category	Rupees
1	Car, Jeep, Taxi	15
2	Wagon, Pickup, Mini Bus	25
3	Coaster	25
4	Bus	30
5	Truck 2 Axle/ 3 Axle	60
6	Articulated Multi Axle Trucks	125

Base Year Toll Rates (1st Year of motorway operation)

Sr. No.	Vehicle Category	Rupees/ Km
1	Car, Jeep, Taxi	0.412
2	Wagon, Pickup, Mini Bus	0.588
3	Coaster	0.882
4	Bus	1.324
5	Truck 2 Axle/ 3 Axle	1.618
6	Articulated Multi Axle Trucks	2.056

Toll Escalation: 10% after every 3 years

Lakpass Project

Base Year Toll Rates (Rs per crossing):

Category Vehicle Type	RUPEES
(i) Car, Jeep, Taxi	10
(ii) Wagon, Pickup, Mini Bus	25
(iii) Bus	50
(iv) Mini Truck	50
(v) Truck 2 Axle	100
(vi) Truck 3 Axle	125
(vii) Multi Axle Trucks/Trailer	150
(viii) Tractor Trolley with Agriculture Goods	25
(ix) Tractor Trolley with Container/industrial goods	50
(x) Rickshaw (more than 2 persons)	1

Toll Escalation: The maximum toll escalation factor that will be allowed in any year will be calculated as (1+(r/100)), where: r is the annual rate of growth (%) in the General Consumer Price Index, over the most recent 12 month period for which statistics are available.

- **If any government contribution was provided, if so, in what form and its value:** Government contribution is mainly in land acquisition and relocation of utilities whose cost shall be borne by the Government. The value is yet to be precisely assessed.

- **Who is the regulator, if any**: there is no regulator

- **General Comment on success of projects:** M-9 and Lakpass projects are in the contract signing stage while others are in the procurement stage.

1 Institutional Arrangements

- **Is there any special agency in the government to deal with PPP Projects? If not, what are the main agencies that are involved in road sector projects?**

  There is no special agency in the government to deal with PPP projects. If the road project is national highway or motorway then the main agency is National Highway Authority. If it is provincial road then the respective provincial highway department deals with it.

- **Is there any special law (at the central or provincial level)?**

  There is no special law

- General information on the "PPP cycle"

ACTIVITY	DURATION
Project Identification	-
GOP- Project Preparation	4 Months
Bidding	4 Months
Evaluation	1 Month
Negotiations	1 Month
NHA-Executive Board	1 Month
Award	1 Week
Financial Close	6 Months
Construction	02 Years (typically)
Operation & Maintenance	23 Years (typically)
Transfer	2 Months

- **Are there any restrictions on private participation?**

Principally there is no restriction on private participation. The private participation is governed by "Board of Investment" policies.

- **Are there any special provisions for the foreign private investors?**
  No.

- **Are there any legal and regulatory frameworks in place?**
  There is a BOT policy approved by the Government.