

# Overview of the framework

## Need for a framework

The highways sector in India is witnessing a significant interest from both domestic as well as foreign investors following the policy initiatives taken by the Government of India to promote Public Private Partnership (PPP) on Build, Operate and Transfer (BOT) basis. However, the inflow of investment will depend on a comprehensive policy and regulatory framework necessary for addressing the complexities of PPP. Moreover, transformation of rules as well as the mindset that governed a command economy would require attention.

**Transformation of the highways sector is essential**

For sustaining private investment in upgradation and maintenance of the highways on BOT basis, a precise policy and regulatory framework is being spelt out in a Model Concession Agreement (MCA). This framework addresses the issues which are typically important for limited recourse financing of infrastructure projects, such as mitigation and unbundling of risks; allocation of risks and rewards; symmetry of obligations between the principal parties; precision and predictability of costs and obligations; reduction of transaction costs; force majeure; and termination. It also deals adequately with other important concerns such as user protection; transparent and fair procedures; and financial support from the Government.

**A comprehensive framework is a pre-requisite for PPP**

The MCA also elaborates on the basis for commercialising highways in a planned and phased manner through optimal utilisation of resources on the one hand and adoption of international best practices on the other. The objective is to secure value for public money and provide efficient and cost-effective services to the users.

### **Rationale for phased development**

The four critical elements that determine the financial viability of a highway project are traffic volumes, user fee, concession period and capital costs. As the existing highways have dedicated traffic and the Government has prescribed the user fee for uniform application across India, revenue streams for a Project Highway can be assessed with reasonable accuracy. The concession period, on the other hand, can be extended only marginally for improving project viability as the growth of traffic would not permit unduly long concession periods. In any case, the net present value of projected revenues after say, 15 years, is comparatively low from the Concessionaire's perspective.

As three of the four above-stated parameters are pre-determined, capital cost is the only variable that is available for the bidders to determine the financial viability of a project, and they would seek an appropriate capital grant/subsidy from the National Highways Authority of India (Authority) in order to reduce the capital cost for arriving at an acceptable rate of return.

In the given scenario, higher the capital cost, greater would be the compulsion of project sponsors to seek larger grants from the Authority. This, in turn, would restrict the ability of the Government to leverage a larger pool of extra-budgetary resources, including private investment, and would hence result in a curtailed programme of highway development.

In view of the foregoing, it is important to rely on cost-effective designs and to combine them with a phased

investment programme to enable a more efficient and sustainable programme of highway development.

As a general principle, capacity augmentation of highways should be based on the standards adopted by the Indian Road Congress for different bands of traffic volume. The emphasis should be on phased development rather than on providing high cost roads for catering to the projected growth in the long term.

**Phased development will be affordable and cost-effective**

Where traffic intensity is comparatively low, limited widening of highways should be provided with further widening after 7-12 years depending on realistic projections of traffic growth. Upgradation of designs and standards, construction of bypasses in urban and semi-urban areas and other improvements may also be planned in phases depending on traffic intensity. As an alternative, comparatively shorter concession periods may be stipulated so that the Authority can augment the capacity when it is due. These issues would be subjected to in-depth examination and reflected in a Manual of Standards and Specifications that would form part of the standard documents associated with the MCA.

### **Technical parameters**

Unlike the normal practice of focussing on construction specifications, the technical parameters proposed in the MCA are based mainly on output specifications, as these have a direct bearing on the level of service for users. Only the core requirements of design, construction, operation and maintenance of the Project Highway are to be specified, and enough room would be left for the Concessionaire to innovate and add value.

**Technical parameters will focus on the level of service for the users**

In sum, the framework focuses on the ‘what’ rather than the ‘how’ in relation to the delivery of services by the Concessionaire. This would provide the requisite flexibility to the Concessionaire in evolving and adopting cost-effective designs without compromising with the quality of service for

the users. Cost efficiencies would occur because the shift to output-based specifications would provide the private sector with a greater opportunity to innovate and optimise designs in a way normally denied to it under conventional input-based procurement techniques.

### **Concession period**

**Concession period will be linked to projected traffic**

The guiding principle for determining project-specific concession period is the carrying capacity of the respective highway at the end of the concession period. As such, the Concession Period is proposed to be determined on a project-specific basis depending on the volume of present and projected traffic. Toll paying users should not be subjected to congested highways and the Concession should, therefore, cease when full capacity of the road is reached, unless further augmentation is built into the MCA.

The time required for construction (about two years) has been included in the concession period so as to incentivise early completion, leading to maximisation of toll revenues.

### **Selection of Concessionaire**

**Competitive bidding on single parameter will be the norm**

Selection of the Concessionaire will be based on open competitive bidding. All project parameters such as the concession period, toll rates, price indexation and technical parameters are to be clearly stated upfront, and short-listed bidders will be required to specify only the amount of grant sought by them. The bidder who seeks the lowest grant should win the contract. In exceptional cases, instead of seeking a grant, a bidder may offer to share the project revenues with the Authority.

### **Grant**

**Grants must be fully leveraged**

It is proposed that based on competitive bidding, the Authority should provide a capital grant of up to a maximum of 20 per cent of the project cost. This would

help in bridging the viability gap of the PPP projects. Where such assistance is inadequate for making a project commercially viable, an additional grant not exceeding 20 per cent of the project costs may be given for O&M support during the period following the commissioning of the Project Highway.

### **Concession fee**

Concession Fee will be a fixed sum of Re. 1 per annum for the first nine years of the Concession Period. During the tenth year, the Concession Fee will be equal to 1% of the project revenues and for each subsequent year, it will increase by an additional 1%.

The rationale for the above fee structure is that in the initial years, debt service obligations would entail substantial outflows. Over the years, however, the Concessionaire will have an increasing surplus in his hand owing to the declining debt service and rising revenues. Recognising this cash flow pattern, the Concession Fee to be paid by the Concessionaire will be on an ascending revenue-sharing basis.

**Concession fee should be levied when revenue streams can sustain it**

### **Risk allocation**

As an underlying principle, risks have been allocated to the parties that are best suited to manage them. Project risks have, therefore, been assigned to the private sector, and to the extent it is capable of managing them. The transfer of such risks and responsibilities to the private sector would increase the scope of innovation leading to efficiencies in costs and services.

The commercial and technical risks relating to construction, operation and maintenance are being allocated to the Concessionaire, as it is best suited to manage them. Other commercial risks, such as the rate of growth of traffic, are also being allocated to the Concessionaire. The traffic risk, however, is significantly mitigated as the Project Highway is a

**Risk alleviation and mitigation is critical to private investment**

natural monopoly where existing traffic volumes can be measured with reasonable accuracy. On the other hand, all direct and indirect political risks are being assigned to the Authority.

It is generally recognised that economic growth will have a direct influence on the growth of traffic and that the Concessionaire cannot in any manner manage or control this growth rate. By way of risk mitigation, the MCA provides for extension of the concession period in the event of a lower than expected growth in traffic. Conversely, the concession period is proposed to be reduced if the traffic growth exceeds the expected level.

The MCA provides for a target traffic growth and stipulates an increase of upto 20% in the Concession Period if the growth rate is lower than projected. Thus, a shortfall of 5% in the target traffic after 10 years will lead to extension of the Concession Period by 7.5% thereof. On the other hand, an increase of 5% in the target traffic will reduce the Concession Period by 3.75% thereof.

### **Financial close**

**Project implementation must commence as per agreed timeframe**

Unlike other agreements for private infrastructure projects which neither define a time-frame for achieving financial close, nor specify the penal consequences for failure to do so, the MCA stipulates a time limit of 180 days (extendable up to another 120 days on payment of a penalty), failing which the bid security shall be forfeited. By prevalent standards, this is a tight schedule, which is achievable only if all the parameters are well defined and the requisite preparatory work has been undertaken.

The MCA represents the comprehensive framework necessary for enabling financial close within the stipulated period. Adherence to such time schedules will usher in a significant reduction in costs besides providing the over-due infrastructure. This approach would also address the present

trend where infrastructure projects do not achieve financial close for long periods.

### **User fee**

A balanced and precise mechanism for fixation of user fee has been specified for the entire Concession Period since this would be of fundamental importance in determining the revenue streams of the project and, therefore, its viability. The user fee shall be based on the rates to be notified by the Government.

**User fee should be determined with great care and precision**

The MCA provides for indexation of the user fee to the extent of 40 per cent thereof linked to WPI. Since repayment of domestic debt would be neutral to inflation, the said indexation of 40 per cent is considered adequate. A higher level of indexation is not favoured, as that would require the users to pay more for a declining (more congested) level of service when they should be receiving the benefit of a depreciated fee. A higher indexation would also add to uncertainties in the financial projections of the project. At the time of second phase, however, a one-time increase in toll rates would be allowed for neutralising inflation occurring between project commencement and second phase. The above elements would be examined further and firmed up during the proposed review of the toll policy.

### **Local traffic**

It is proposed that the highways should be allowed to be used by local residents without any payment of tolls (owing to the absence of an alternative road) until free service lanes are provided. This would ensure local support for the project and avoid any legal challenge or local opposition arising out of easement rights.

**Captive local residents must be exempt from user charges**

Frequent users should be entitled to discounted rates, in accordance with the tolling policy.

## Construction

Handing over possession of at least 80% of the required land and obtaining of environmental clearances are being proposed as conditions precedent to be satisfied by the Authority before financial close.

The MCA defines the scope of the project with precision and predictability in order to enable the Concessionaire to determine his costs and obligations. Additional works may be undertaken within a specified limit, only if the entire cost thereof is borne by the Authority.

**Quality and safety of service must be ensured**

Before commencing the collection of user fee, the Concessionaire will be required to subject the Project Highway to specified tests for ensuring compliance with the specifications relating to the level and safety of service for the users.

## Operation and maintenance

**Maintenance standards will be enforced strictly**

Operation and maintenance of the Project Highway is proposed to be governed by strict standards with a view to ensuring a high level of service for the users, and any violations thereof would attract stiff penalties. In sum, operational performance would be the most important test of service delivery.

The MCA provides for an elaborate and dynamic mechanism to evaluate and upgrade safety requirements on a continuing basis. The MCA also provides for traffic regulation, police assistance, emergency medical services and rescue operations.

## Right of substitution

**Lenders will have the right of substitution**

In the highways sector, the project assets do not constitute adequate security for the lenders. It is the project revenue streams that constitute the mainstay of their security. The lenders would, therefore, require assignment and substitution

rights so that the concession can be transferred to another company in the event of failure of the Concessionaire to operate the project successfully. The MCA accordingly provides for such substitution rights.

### **Force Majeure**

The MCA contains the requisite provisions for dealing with force majeure events. In particular, it affords adequate protection to the Concessionaire against political actions that may have a material adverse effect on the project.

**Concessionaire will be protected against political actions**

### **Termination**

In the event of termination, the MCA provides for a compulsory buy-out by the Authority, as neither the Concessionaire nor the lenders can use the highway in any other manner for recovering their investments.

Termination payments have been quantified precisely as compared to the complex formulations in most agreements relating to private infrastructure projects. Political force majeure and defaults by the Authority are proposed to qualify for adequate compensatory payments to the Concessionaire and thus guard against any discriminatory or arbitrary action by the Government or the Authority. Further, the project debt would be fully protected by the Authority in the event of termination, except for two situations, namely, (a) when termination occurs as a result of default by the Concessionaire, 90 per cent of the debt will be protected, and (b) in the event of non-political force majeure such as Act of God (normally covered by insurance), 90 per cent of the debt beyond the insurance cover will be protected.

**Pre-determined termination payments should provide predictability**

### **Monitoring and supervision**

Day-to-day interaction between the Authority and the Concessionaire has been kept to the bare minimum following

a ‘hands-off’ approach, and the Authority shall be entitled to intervene only in the event of default. Checks and balances have, however, been provided for ensuring full accountability of the Concessionaire.

**A credible and fair arrangement for supervision is essential**

Monitoring and supervision of construction, operation and maintenance is proposed to be undertaken through an Independent Engineer (a qualified firm) that will be selected by the Authority through a transparent process. Its independence would provide added comfort to all stakeholders, besides improving the efficiency of project operations. If required, a public sector consulting firm may discharge the functions of the Independent Engineer.

The MCA provides for a transparent procedure to ensure selection of well-reputed statutory auditors, as they would play a critical role in ensuring financial discipline. As a safeguard, the MCA also provides for appointment of additional or concurrent auditors.

To provide enhanced security to the lenders and greater stability to the project operations, all financial inflows and outflows of the project are proposed to be routed through an escrow account.

### **Support and guarantees by the Authority**

**Support and guarantees by the Authority are essential**

By way of comfort to the lenders, a loan assistance from the Authority has been stipulated for supporting debt service obligations in the event of a revenue shortfall resulting from political force majeure or default by the Authority.

Guarantees have also been provided to protect the Concessionaire from construction of competing roads, which can upset the revenue streams of the project. Additional tollways would be allowed, but only after a specified period and upon compensation to the Concessionaire by way of an extended concession period and reduced concession fee.

## Miscellaneous

A regular traffic census and annual survey has been stipulated for keeping track of traffic growth. Sample checks by the Authority have also been provided for. As a safeguard against leakage of revenue share, a floor level in present and projected traffic has also been stipulated.

The MCA also addresses issues relating to dispute resolution, suspension of rights, change in law, insurance, defects liability, indemnity, redressal of public grievances and disclosure of project documents.

**An effective dispute resolution mechanism is critical**

## Conclusion

Together with the Schedules, the proposed framework addresses the issues that are likely to arise in financing of highway projects on BOT basis. The proposed regulatory and policy framework contained in the MCA is critical for attracting private investment with improved efficiencies and reduced costs, aimed at accelerating growth.

**Private participation should improve efficiencies and reduce costs**