Chapter 5

Different Modes in NHDP

5.1 NHDP projects

Initially, projects under NHDP were awarded as item rate contracts (EPC/IRC). However, going forward, Public Private Partnerships (PPP) are going to be the main mode of delivery for future phases of NHDP. The common forms that are popular in India and have been used for National Highways Development Programme are:[97]

- Engineering Procurement and Construction (Item rate contracts)
- Build, Operate and Transfer (Toll) Model on DBFOT basis
- Build, Operate and Transfer (Annuity) Mode on DBFOT basis
- Special Purpose Vehicle (SPV) for Port Connectivity Projects

NHAI is also proposing to award projects under a long term Operations, Maintenance and Transfer (OMT) concession.

5.1.1 EPC

The contracting firm executes the project on item rate basis as per the contract condition. The contracting firm is being paid monthly for the quantity of work executed satisfactorily. The work is executed with government funding. The contracting firms bears construction risk to limited extent and all other risks are borne by Government. It is a common form of contract within the construction industry.

5.1.2 BOT(Toll)

The concessionaire (Private developers / Operators) meets the construction cost and expenditure on annual maintenance. Later the amount

[97] Government of India, MoRTH (2012), *Guidelines for Investment in Road Sector*, New Delhi: MoRTH

including interest and return on investment is recovered by the concessionaire from the toll collection.

The concessionaires, who invest in tollable highway projects, are entitled to collect and retain toll revenues for the tenure of the project concession period. The tolls are prescribed by NHAI on a per vehicle per km basis for different types of vehicles .The Government in the year 1995 passed the necessary legislation on collection of toll. A Model Concession Agreement (MCA) has been developed to facilitate speedy award of contracts. This framework has been successfully used for award of BOT concessions. The MCA has been revised recently and current projects are being awarded under the revised MCA. In order to maximize the project viability, capital grant upto a maximum of 40% of the project cost is provided under NHDP.

5.1.3 BOT(Annuity)

The concessionaire meets the concession cost and the expenditure on annual maintenance. Since no grant is paid by the client (GoI/NHAI), the concessionaire bids for annuity payments from NHAI that would cover his cost (construction, operations and maintenance) and an expected return on the investment. The bidder quoting the lowest annuity is awarded the project. The annuities are paid semi-annually by NHAI to the concessionaire after commercial operation date (COD) and linked to performance covenants. The concessionaire does not bear the traffic/ tolling risk in these contracts.

5.1.4 Special Project Vehicle for Port Connectivity Projects:

NHAI has also taken up development of port connectivity projects by setting up Special Purpose Vehicles (SPVs) wherein NHAI contributes upto 30% of the project cost as equity. The SPVs also have equity participation by port trusts, State Governments or their representative entities. The SPVs also raise loans for financing the projects. SPVs are authorised to collect user fee on the developed stretches to cover repayment of debts and for meeting the costs of operations and maintenance.

5.1.5 Operate, Maintain and Transfer (OMT) Concession

Till recently, the tasks of toll collection and highway maintenance were entrusted with tolling agents/operators and subcontractors respectively. These tasks have been integrated under the OMT concession. Under the concession private operators would be eligible to collect tolls on these stretches and will maintain highways and provide essential services (such as emergency / safety services). The Concessionaire will quote the amount which he will pay to the authority on monthly basis.

5.2 International Competitive Bidding Process

General procedure for selection of concessionaires adopted by NHAI is a two-stage bidding process. Projects are awarded as per the model documents-Request for Qualification (RFQ), Request for Proposal (RFP) and Concession Agreement - provided by the Ministry of Finance. NHAI amends the model documents based on project specific requirements. The processes involved in both stages are set out as follows:[98]

Stage-1 Pre-qualification on the basis of Technical and Financial expertise of the firm and its track record in similar projects which meets the threshold technical and financial criteria set out in the RFQ Document. Notice inviting tenders is posted on the web site and published in leading newspapers

[98] Government of India, MoRTH (2012), *Guidelines for Investment in Road Sector*, New Delhi: MoRTH

Stage-2 : Commercial bids from pre-qualified bidders are invited through issue of RFP. For BOT-(Toll) projects the bid parameter is the premium offered to the NHAI or the grant sought from NHAI. In BOT- (Annuity) projects the bid parameter is the semi annual annuity sought from NHAI. Generally, the duration between Stage 1 and 2 is about 30-45 days. Wide publicity is given to NHAI tenders so as to attract attention of leading contractors/ developers/ consultants.

5.3 Summary of recent policy changes in the project development and award process are set out below:

The Government has put in place appropriate policy, institutional and regulatory mechanisms including a set of fiscal and financial incentives to encourage increased private sector participation in road sector. Based on NHAI's experience and the discussions with various stakeholders, the RFQ, RFP and the MCA are being updated continuously. Some of the important changes made in these documents are as under:[98]

1. All applicants meeting the threshold technical and financial experience criteria set out in the RFQ shall be eligible to participate in the RFP stage. Earlier only the top 5-6 applicants shortlisted based on qualification criteria were eligible to submit financial bids for projects.
2. NHAI is empowered to accept single bids based on assessment of reasonableness of the bids.
3. Overall cap on Viability Gap Funding (VGF) increased from 5% to 10% for the entire six-laning programme.

4. For individual projects with low traffic in the Golden Quadrilateral (GQ) corridors, VGF cap has been increased upto 20% of the project cost with an overall cap of 500 Km of roads in the project network.
5. Equity Support under VGF has been increased to 40% of project cost. Earlier, 20% of project cost was provided as equity support in construction phase and 20% as Operations & Maintenance Support
6. Modifications in Standard RFQ, RFP and Concession Agreement structures for National Highway Projects
   a. Termination provisions under capacity augmentation situations modified to give more comfort to investors and lenders. The concession period can be extended upto 5 years to yield a post tax equity IRR of 16%, in the event of capacity augmentation option exercised by the concessionaire.
   b. Exit option allowed for principal promoters of road SPVs after two years from commercial operations date (COD). Promoters were earlier required to hold a minimum of 26% of the SPV's shareholding at all times during the tenure of the Concession.
   c. Threshold limit for common control (shareholding) of entities in competing Applicants and/ or their Associates for the purposes of determining Conflict of interest, raised from 5% to 25%. Any such conflict of interest arising at the pre-qualification stage shall be deemed to subsist at the bidding stage only if such applicants attracting the conflict of interest provisions submit their bids.
   d. Threshold technical capability for claiming eligible project

experience has been reduced to a range between 5-10% of estimated project cost of the subject project in lieu of 10-20% of estimated project cost of the subject project earlier.

e. The threshold technical experience score for the purpose of pre-qualification will be equal to the estimated project cost of the subject project. This was earlier equal to twice the estimated project cost of the subject project.

f. Where the projects are bid out on a revenue share basis, the base premium (fixed amount) (revenue share proposed by the successful bidder) will be increased at the rate of 5 per cent year on year with respect to the immediately preceding year for the entire tenure of the concession.

The aforesaid changes are expected to further incentivise private investment in road / highway projects.

5.4 Opportunities for Private Investors / Developers

More than 60% of the projected investment requirement for the NHDP (more than USD 60 billion) is expected to be privately financed, primarily through the BOT/DBFOT (Toll) route, offering enormous opportunities. With a large number of new projects on offer under PPP in the road sector, there exists several investment opportunities for investors and companies with diverse business lines such as engineering companies, civil work contractors, O&M contractors, toll operators, construction equipment manufacturers etc. and other stakeholders such as advisors, financiers and sector professionals. Only about 23 percent of the total highways in India are 4-laned / 6-laned and the sheer potential for investments in this sector is likely to create opportunities in the core construction industry which may also be attractive for foreign players.[99]

5.5 Model Concession Agreement (MCA) for PPP Projects

The highways sector in India has witnessed significant investment in recent years. For sustaining the interest of private participants, a clear risk-sharing and regulatory framework has been spelt out in the Model Concession Agreement (MCA). The MCA has been developed to facilitate speedy award of contracts. This framework has been successfully used for award of BOT concessions. The MCA has been revised and current projects are being awarded under the revised MCA. This framework addresses the issues, which are typically important for PPP, such as unbundling of risks and rewards, symmetry of obligations between the principal parties, equitable sharing of costs and obligations, and risk mitigation options under various scenarios including force majeure and termination, under transparent and fair procedures. With the introduction of the MCA, the risks involved in project and contractual issues, hitherto, have been assuaged, and the entire process from invitation to bid to implementation of the project is transparent.[99]

5.5.1 Risk Framework of Model Concession Agreement

The MCA has been developed in consultation with all stakeholders based on internationally accepted principles and best practices. Throughout, it seeks to achieve reasonable balance of risks and rewards for all the participants. As an underlying principle, risks have been allocated to the parties that are best

[99] Government of India, MoRTH (2012), *Guidelines for Investment in Road Sector*, New Delhi: MoRTH

suited to manage them.

Project risks have, therefore, been assigned to the private sector 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 cost and services. The commercial and technical risks relating to construction, operation and maintenance are 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 allocated to the concessionaire.[100]

5.5.2 Key Concessionaire Risk / Obligations

(a) Construction Risk :

The concessionaire is required to commence construction works when the financial close is achieved or earlier date that the parties may determine by mutual consent. The concessionaire shall not be entitled to seek compensation for any prior commencement and shall do it solely at his own risk.

(b) O & M Risk :

Concessionaire to operate and maintain the project facility (includes road and road infrastructure as specified in the concession agreement). Failure to repair and rectify any defect or deficiency within specified period shall be considered as breach of responsibility.

(c) Financial Risk :

The concessionaire shall at its cost, expenses and risk make such financing arrangement as would be necessary to finance the cost of the project and to meet project requirements and other obligations under the agreement, in a timely manner.

[100] Government of India, MoRTH (2012), *Guidelines for Investment in Road Sector,* New Delhi: MoRTH

(d) Traffic Risk :

The MCA provides for increase or decrease of the concession period in the event the actual traffic falls short or exceeds the target traffic. NHAI stipulates the target traffic around the 10th year from the date of signing of the agreement. The target traffic is determined based on 5% Compounded Annual Growth Rate (CAGR) over the base year traffic for the project.

5.5.3 Key NHAI Risk / Obligations

(a) Land Acquisition Risk :

NHAI is responsible for acquiring the requisite land for the project highway.

(b) Approvals :

NHAI will provide all reasonable support and assistance to the concessionaire in procuring applicable permits required from any Government Instrumentality.

5.5.4 Key Common Risk

(a) Force Majeure Risk –

Force Majeure shall mean occurrence in India of any or all of Non-Political Event(s), Indirect Political Event(s) and Political Event(s), which include the following:

(i) Non-Political Event

- act of God, epidemic, extremely adverse weather conditions or radioactive contamination or ionising radiation, fire or explosion;
- strikes or boycotts
- the discovery of geological conditions, toxic contamination or archaeological remains on the Site; or

- any event or Circumstances of a nature analogous to any of the foregoing.

(ii) Indirect Political Event

- an act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action,
- civil commotion or politically motivated sabotage which prevents collection of toll / fees,
- industry-wide or state-wide or India-wide strikes or industrial action which prevent collection of toll/ fees,
- any public agitation which prevents collection of toll/ fees

(iii) Political Event

- Change in Law,
- compulsory acquisition by any governmental agency of any project assets or rights of concessionaire or of the Contractors; or
- unlawful or unauthorised or without jurisdiction revocation of or refusal to renew or grant without valid cause any consent or approval required by developer

5.6 Salient Features of the MCA

- Substantial part of the project site free from encumbrances would be handed over to the concessionaire till the Appointed Date. Additional land in case of change of scope will need to be acquired by concessionaire on behalf of the Authority.
- Additional tollway will not be commissioned within a specified year, depending upon the concession period. Minimum user fee for additional

tollway will be at least 25% higher than the toll fee on project. Any alternate road, exceeding 20% of the length of the project highway, shall not be considered as an additional tollway.

- The concessionaire will be entitled to nullify any change of scope order if it causes the cumulative cost relating to all change of scope orders to exceed 5% of the Total Project Cost (TPC) in any continuous period of 3 years immediately preceding the date of such Change of Scope order, or if such cumulative cost exceeds 20% of the TPC at any time during the concession period.
- Financial close is to be achieved within 180 days from date of agreement. NHAI may allow additional period for financial close on a project specific basis.
- Grant (upto 40% of TPC) to the concessionaire by way of equity support and operations & maintenance support in quarterly installments. (B.K.Chaturvedi Committee has recommended that the entire grant [upto 40% of TPC] can be provided as equity support).
- Concessionaire to pay nominal fee of INR 1 (USD 0.02) per annum throughout the concession period.
- There is an optional provision for capacity augmentation of existing 4-laning to 6-laning. If capacity augmentation is not done within the specified period, the concession period gets reduced to the number of years specified in the project specific agreement. The option to excuse from 6-laning of the Project Highway is available with both the concessionaire and the Authority before the pre-specified 6-laning date in the concession agreement.

5.7 Dispute Resolution:

Any dispute arising out of or in relation to the concession agreement, between the parties is required to be resolved as per the Dispute Resolution Procedure prescribed in the Agreement. It specifies that the parties should attempt to resolve the dispute amicably and for this purpose, the mandate has been given to an Independent Engineer to mediate and assist the parties to arrive at a settlement. The procedure has been laid out in sufficient detail therein.[101]

However, upon the failure of such conciliatory measure, the parties shall resort to Arbitration, which shall be held in accordance with Arbitration and Conciliation Act, 1996 (based on United Nations Commission on International Trade Laws – UNCITRAL model). The seat of arbitration for all concession agreements pertaining to National Highways shall ordinarily be at Delhi, however, the place may be changed by mutual consent of the parties. Each party is free to nominate its arbitrator who in turn, will appoint a presiding arbitrator. The Arbitration Tribunal so constituted can adjudicate any dispute referred to it, and any other question of law arising out of such dispute, including its own jurisdiction. The award passed by such Tribunal, has the sanctity of a 'Decree' under Indian Law and can be challenged on very limited counts.

5.7.1 Dispute Resolution Procedure for PPP projects[101]

(a) Mediation by the Independent Engineer:

If any dispute arises between the parties, it is in the first place resolved by the mediation of the Independent Engineer. Any dispute, which is not resolved

[101] Government of India, MoRTH (2012), *Guidelines for Investment in Road Sector*, New Delhi: MoRTH

by mediation of the Independent Engineer, is resolved by amicable resolution.

(b) Amicable Resolution:

Any dispute, difference or controversy of whatever nature between the parties, arising under, out of or in relation to the Project Concession Agreement (PCA) is attempted to be resolved amicably in accordance with the procedure set forth in the dispute resolution mechanism. Either party may require such dispute to be referred to the Chairman, NHAI and the Chief Executive Officer of the concessionaire in the interim, for amicable settlement. Upon such reference, the two shall meet at the earliest mutual convenience and in any event not later than 15 days of such reference to discuss and attempt to amicably resolve the dispute. If the dispute is not amicably settled within 15 (fifteen) days of such meeting between the two, either party may refer the dispute to arbitration in accordance with the provisions of the PCA.

(c) Arbitration :

Any dispute, which is not resolved amicably, shall be finally settled by binding arbitration under the Arbitration Act. The arbitration shall be carried out by a panel of three arbitrators, one to be appointed by each party and the third to be appointed by the two arbitrators appointed by the parties. The party requiring arbitration shall appoint an arbitrator in writing, inform the other party about such appointment and call upon the other party to appoint its arbitrator. If within 15 days of receipt of such intimation the other party fails to appoint its arbitrator, the party seeking appointment of arbitrator may take further steps in accordance with the Arbitration Act.

5.7.2 Dispute Resolution Procedure for EPC Projects:

The Dispute Resolution Procedure for EPC Projects does not involve amicable settlement. The disputes are referred to the Dispute Review Board.

(a) Dispute Review Board:

The Board shall comprise of three members, experienced with the type of construction involved in road works, and with the interpretation of contractual documents. If, during the contract period, either of the parties is of the opinion that the Dispute Review Board is not performing its functions properly, they may together disband the Board and reconstitute it.

(b) Arbitration:

If the decision of DRB is not acceptable to any of the party, the same party can refer the dispute to the Arbitration as per the procedure set out in the contract agreement.

5.7.3 Dispute involving Foreign Contractor(s):

In the case of a dispute with a foreign contractor, the dispute shall be settled in accordance with the provisions of the UNCITRAL Arbitration Rules. The arbitral tribunal shall consist of three arbitrators, one each to be appointed by the employer and the contractor and the third arbitrator chosen by the two arbitrators so appointed by the parties, who shall further act as the Presiding Arbitrator.

A "Foreign Contractor" means a contractor who is not registered in India and is not a juridical person under Indian Law.