Chapter V

PPP Framework in Highways Sector in India

The Government has put in place appropriate policy, institutional and regulatory mechanisms including a set of fiscal and financial incentives to encourage increased investment in infrastructure in general and some specifically for in road sector. The Institutional framework, the policy initiatives and model concession agreement for BOT (Toll) are discussed in detail here.

Institutional Framework

Government has set up a number of institutions to examine the issues, appraise and approve PPP projects in infrastructure. The institutions/ schemes with their specific roles are discussed in brief here.

The Committee on Infrastructure (CoI)

The Committee on Infrastructure (CoI) was constituted on August 31, 2004, under the chairmanship of the Prime Minister. Its members include the Finance Minister, the Deputy Chairman, Planning Commission and the Ministers in-charge of infrastructure ministries. The objective of CoI is to initiate policies that would ensure time-bound creation of world class infrastructure, develop structures that maximise the role PPPs, and monitor the progress of key infrastructure projects to ensure that established targets are realised. The CoI has held several meetings and given direction to the entire policy framework for accelerating the growth in infrastructure sectors. It has also initiated institutional, regulatory, and procedural reforms. The CoI is serviced by the Planning Commission through the Secretariat for CoI.

Empowered Sub-Committee of CoI

An Empowered Sub-Committee of the Committee on Infrastructure (ESCOI) was constituted on May 16, 2005 under the chairmanship of the Deputy Chairman, Planning Commission and includes the concerned members of the Planning Commission and the

Secretaries of relevant Ministries. The main objectives of constituting this empowered committee was to accelerate formulation, review and approval of policy papers and proposals for submission to CoI; monitoring and follow up on implementation of the decisions of CoI; and undertaking such other actions as may be necessary in furtherance of the objectives of CoI.

Public Private Partnership Appraisal Committee (PPPAC)[55]

With a view to streamlining and simplifying the appraisal and approval process for PPP projects, a Public Private Partnership Appraisal Committee (PPPAC) has been constituted consisting of Secretary, Department of Economic Affairs as its chairman and Secretaries of Planning Commission, Department of Expenditure, Department of Legal Affairs and the concerned Administrative Department as its members. The project proposals are appraised by the Planning Commission and approved by the PPPAC. Until March 2009, the PPPAC had approved 94 projects involving an investment of Rs. 84,407 crore.

5.2.4 Empowered Committee/Institution (EC/EI)[56]

An institutional framework comprising an inter-ministerial Empowered Committee has been established for the purpose of appraising and approving projects for availing the VGF grant of up to 20 per cent of the cost of infrastructure projects undertaken through PPP. Until March 2009, it had approved 44 projects in the State Sector involving a total capital investment of Rs. 34,423 crore.

Viability Gap Funding (VGF) Scheme[57]

Recognising that the externalities engendered by infrastructure projects cannot always be captured by projects sponsors, a Viability Gap Funding (VGF) Scheme was notified in 2006 to enhance the financial viability of competitively bid infrastructure

[55] Govt. of India, Planning Commission (2006c), *Guidelines: Formulation, Appraisal and Approval of Public Private Partnerships Projects*, New Delhi: The Secretariat for the Committee on Infrastructure.

[56] Govt. of India, Planning Commission (2006b), *Guidelines: Financial Support to Public Private Partnerships in Infrastructure*, New Delhi: The Secretariat for the Committee on Infrastructure.

[57] Op cit.

projects which are justified by economic returns, but do not pass the standard thresholds of financial returns. Under the scheme, grant assistance of upto 20 per cent of capital cost is provided by the Central Government to PPP projects undertaken by any Central Ministry, State Government, statutory entity or local body, thus leveraging budgetary resources to access a larger pool of private capital. An additional grant of upto 20 per cent of project costs can be provided by the sponsoring Ministry, State Government or project authority.

The projects to be covered should meet the following criteria as:

(a) The project shall be implemented i.e. developed, financed, constructed, maintained and operated for the Project Term by a Private Sector Company to be selected by the Government or a statutory entity through a process of open competitive bidding;

(b) The PPP Project should be from one of the following sectors:

(i) Roads and bridges, railways, seaports, airports, inland waterways;

(ii) Power;

(iii) Urban transport, water supply, sewerage, solid waste management and other physical infrastructure in urban areas;

(iv) Infrastructure projects in Special Economic Zones; and

(v) International convention centres and other tourism infrastructure projects;

(c) The project should provide a service against payment of a pre-determined tariff or user charge.

Up to March 2009, 139 projects had been approved with a capital investment of Rs. 118,830 crore and a VGP commitment of Rs. 38,993 crore.

India Infrastructure Finance Company Limited (IIFCL)[58]

IIFCL was set up as a non-banking company for providing long-term loans for financing infrastructure projects that typically involve long gestation periods. IIFCL

[58] Govt. of India, Planning Commission (2006e), *Scheme; Financing Infrastructure Projects through the India Infrastructure Finance Company*, New Delhi: The Secretariat for the Committee on Infrastructure.

provides financial assistance of up to 20 per cent of the project costs, both through direct lending to project companies and by refinancing banks and financial institutions. Upto one-half of the lending by IIFCL can also be in the form of subordinated debt, which often serves as quasi-equity. IIFCL raises funds from domestic and overseas markets on the strength of Government guarantees. Until March 2009, IIFCL had raised Rs. 15,700 crore and had approved 88 projects with a total investment of Rs. 147,092 crore, of which IIFCL lending will be Rs. 18,720 core. It had disbursed Rs. 4,891 crore upto March 2009. Of the 88 projects sanctioned by IIFCL, financial closure has taken place in 78 projects involving an investment of Rs. 115,689 crore.

Recognising that some infrastructure projects undertaken through the PPP mode may be experiencing difficulty in reaching financial closure, the Government authorised IIFCL to raise Rs. 10,000 crore through tax-free bonds to help refinance bank lending of longer maturity to eligible infrastructure projects, particularly in highways and ports sectors. Depending upon the need, IIFCL would be permitted to raise further resources for supporting a PPP programme of Rs. 100,000 crore in the highways and port sectors[59].

Advisory Services

Implementation of PPP projects requires appropriate advisory services in terms of preparations of project agreements, structuring of projects, etc. Planning Commission has operationalised a scheme for technical assistance to project authorities by providing consultants for projects. Ministry of Finance has also created an India Infrastructure Project Development Fund (IIPDF) to provide loans for meeting the development expenses, including the cost of engaging consultants for PPP projects.

Model Documents

PPP projects typically involve transfer or lease of public assets, delegation of government authority for recovery of user charges, operation and/or control of public utilities/services in a monopolistic environment and sharing the risk and contingent

[59] Govt. of India, Planning Commision (2009), *Private Participation in Infrastructure*, New Delhi: The Secretariat for the Committee on Infrastructure.

liabilities by the Government. The terms of the project agreements as well as the bidding process for award of concessions are usually complex because of the nature of risks and involvement of many stakeholders such as projects sponsors, lenders, government agencies, users and regulatory authorities.

The use of standard documents streamlines and expenditure decision-making by the authorities in a manner that is fair, transparent and competitive. The adoption of model documents such as concession agreements and other bid documents for award of PPP projects has, therefore, been mandated as the preferred approach. All projects that are based on model documents benefit from fast-track appraisal and approval. The Planning Commission has published the Model Concession Agreements (MCA) for various sectors like roads, ports, airports etc. In the Roads sector MCA's have been prepared for National Highways; State Highways; Operation and Maintenance of Highways; and national Highways (Six Laning).

Standardised guidelines and model documents that incorporate key principles and best practices relating to the bid process for PPP projects have also been developed. Guidelines for the pre-qualification of bidders along with a Model Request for Qualification (RFQ) document have been approved by the Committee on Infrastructure and issued by the Ministry of Finance for application to all PPP projects. Guidelines for inviting financial bids on the basis of a Model Request for Proposal (RFP) document have also been published. Similar model documents for procuring the services of consultants and advisors have also been published.

Guidelines, Reports and Manuals

The Government has identified several areas for reform of policies and processes. A number of Guidelines, Reports and Manuals have been issued in pursuance of the initiatives described above. The MCAs specify the Standards and Specifications to which the projects should be constructed and maintained. These are contained in Manuals for Standards and specifications. Planning Commission has published Manuals of Specifications and Standards for Two-Laning of Highways and for Four-Laning of Highways through PPPs.

Model Concession Agreement (MCA) for PPP (BOT) 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)[60] for BOT (Toll). 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 recently 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. The salient features of the MCA are given below:

Salient features

- Substantial part (80 per cent) 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 25 per cent higher than the toll fee on project. Any alternate road, exceeding 20 per cent 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 five per cent of the Total Project Cost (TPC) in any continuous period of three years immediately preceding the date of such Change of Scope order, or if such cumulative cost exceeds 20 per cent 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 and maintenance support in quarterly instalments.

60 Govt. of India, Planning Commission (2006f), *Public Private Partnership in National Highways: Model Concession Agreement*, New Delhi: The Secretariat for the Committee on Infrastructure

- Concessionaire to pay nominal fee of INR one (USD 0.02) per annum throughout the concession period.
- There is an optional provision for capacity augmentation of existing four-lane to six-lane. 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 six-laning of the Project Highway is available with both the concessionaire and the Authority before the pre-specified six-laning date in the concession agreement.

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. MCA's risk framework is briefly discussed below:

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 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.

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) Operations and Maintenance 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 the obligations under the agreement, in a timely manner.

(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 10 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.

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.

Key Common Risk

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

Dispute Resolution Procedure

(a) Projects under BOT and Consultancy

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

(ii) 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.

(iii) 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.

(b) Dispute Resolution Procedure for EPC Projects

It does not involve amicable settlement. The disputes are referred to the 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.

(c) Disputes involving Foreign Contractors

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.

Revenue Risks and Mitigation

Revenue realisation in BOT-Toll projects is subject to some key risks including, but not limited to variation in traffic, variation in toll rates, premature termination The concession agreement provides for various risk mitigation mechanisms to the concessionaire including change in concession period, differential toll rates that are linked to cost of different road structures under the new toll rules (linear alignment, bridges, tunnels, bypasses etc.) to providing for termination payments under force majeure events additional tollway, occurrence of on account of certain events.

(i) Variation in Traffic

The concession agreement provides for extension or reduction of the concession period in the event the actual traffic falls short or exceeds the target traffic, as estimated on the target date. MCA also provides for termination of the agreement if the average daily traffic in any accounting year exceeds the design capacity and continues to exceed for three subsequent accounting years. Termination in such scenario will be deemed to happen on account of an Indirect Political Event.

Table 5.1 Changes in concession period due to variation in Traffic

Type of Variation	Change in concession period	Cap on concession period variation
Actual traffic < Target Traffic	For every 1% shortfall, concession period increase by 1.5%	20%
Actual Traffic > Target Traffic	For every 1% excess, concession period reduction by 0.75%	10%

Source: MoRT&H - Guidelines for Investment in Roads Sector

(ii) Variation in Toll rates (Linked to WPI)

The notification of the New National Highways Fee Rules (2008) has provided for a revision of toll rates and hence realisable toll revenues for all vehicle categories. The new toll rules are applicable for all new road projects.

The salient features of the new toll rules are[61]:

- Increase in base toll rates by three per cent every year
- Increase in toll charges to the extent of 40 per cent of the increase in WPI.
- Toll charges for new structures (bridges, tunnels)/alignments (bypass, alternate section) determined based on construction cost.
- Rounding off fee to the nearest five rupees (earlier rounded off to nearest 1 Rupee).

While the earlier tolling rules prescribed a standard base toll rate on a per passenger car unit (pcu)/km basis for a highway project, the new rules prescribe base toll rates also for high-cost structures (such as bridges, bypass or tunnels) separately. The base toll rates for such high-cost structures are indexed to the estimated project cost (on INR/vehicle/trip basis).

(iii) Early Termination of Concession

The concession may be terminated before project completion in the event of the following:

- **NHAI Event of Default:** In the event of any of the defaults specified in the concession agreement which the Authority has failed to cure within 90 days or such longer period as has been specified in the agreement, the Authority shall be deemed to be in default and concessionaire shall have the right to terminate the agreement

- **Concessionaire Event of Default:** In the event of any of the defaults specified in the concession agreement which the concessionaire has failed to cure within the specified cure period, and where no such cure period has been specified, then within the cure period of 60 days, the concessionaire shall be deemed to be in default and NHAI shall have the right to terminate the agreement.

- **Force Majeure Event:** A force majeure event which lasts for less than 180 days will lead to a proportionate change in the concession period to compensate the concessionaire for losses during such period. The concession is eligible to be terminated (by either party) if the force majeure event subsists for at least 180 days within a continuous period of 365 days

[61] As per the new tolling rules, toll rate in year 1 is determined by the formula $TR_1=TR_0(1+3\%)+TR_0(1+3\%)*\%\text{variation in WPI}*40\%$

Termination payments are made by NHAI to the concessionaire in the event of termination due to above mentioned reasons.

OMT Concession Agreement

The salient features of the OMT concession are:

- The OMT concession would be for a maximum period of nine years.
- The private sector will be selected on the basis of a competitive bidding process. The successful bidder would be the one offering the highest concession fee to NHAI.
- The concessionaire is allowed a period of 45 days from the date of signing of the concession agreement to commence commercial operations.
- The OMT concessionaire will pay a fixed concession fee to NHAI every month and undertake tasks of toll collection and mobilization of funds for improvement, operation and maintenance of highways.

NHAI has identified six highway sections which are expected to be completed in the next six months to be awarded on OMT basis.

National Highways Policy Initiatives

Several incentives have been announced by the Government to attract private sector participation and foreign direct investment, which include the following -

(a) Government to bear the cost of-
   - Project Feasibility Study
   - Land for the right of way and way side amenities
   - Shifting of utilities
   - Environment clearance, cutting of trees, etc.

(b) Foreign Direct Investment up to 100 per cent in road sector.

(c) Provision of subsidy up to 40 per cent of project cost to make projects viable. The quantum of subsidy is to be decided on a case-to-case basis.

(d) 100 per cent tax exemption in any consecutive 10 years out of 20 years after commissioning of the project.

(e) Duty free import of high capacity and modern road construction equipments.

f) Declaration of the road sector as an industry (Infrastructure as defined in section 18(1)(12) of the Infrastructure Act includes Roads).

g) Easier external commercial borrowing norms.

h) Right to retain Toll – Toll rates are indexed to the wholesale price index.

India's initiatives for attracting investments in infrastructure through PPP programme was highlighted by world bank as one of the big success stories among the developing nations. In 2006 India attracted more investment commitment in infrastructure projects with private participation than any other developing country. Commitment made for India was nearly twice that of Brazil and more than china.[62]

Impact of Global Economic Crisis on Private Investment in Highways

In the financial year 2008-09 NHAI placed some 60 projects for bidding under BOT Toll mode, the overall investment requirement for these projects was around Rs.70,000 crore. Unfortunately, the financial crisis from October, 2008 onwards resulted in a poor response from the market. NHAI received a total of 22 responses to the bidding, of which only 12 could be awarded, the reason being that six of the balance 10 were single bids which were not allowed as per the extant policy, and four were bids for NHDP Phase V packages where the demands for grant was much higher than the 10% which could be given as VGF as per Government decision.

NHAI after obtaining Board approval restructured these balance 48 projects and placing them again for bidding. Over and above this NHAI also restructured a further 22 projects and are also putting them out for bidding. Of these 70 BOT projects available for bidding, an internal exercise has shown that only 26 projects of Phase III are likely to be viable on BOT Toll and 12 projects of Phase-V alone are likely to be viable on BOT Toll. In order to assess the overall viability of all projects remaining in Phase III and Phase V an internal exercise has shown that 66 projects out of total 92 still to be bid out may not be viable and would not get bids under BOT toll model. Similarly an analysis of the NHDP Phase V projects has also been done wherein it

62 Harris, Clive, (Mar. 2008), "India Leads developing nations in private sector investment: but the region needs more investment to meet demands", *Gridlines- Note No. 30*, Washington DC: PPIAF C/O The World Bank.

has been estimated that of the balance 41 packages, 29 may not be viable on BOT Toll model with VGF being limited to 10 per cent in each case as per Government directions.[63]

In this scenario of sharp economic slowdown, government decided to speed up the highways programme to increase the growth prospects. Government decided to target completion of 20 km of highway every day under NHDP. Prime Minister made a comprehensive review of NHDP in August 2009 and appointed a committee headed by Shri B. K. Chaturvedi, Member Planning Commission with Finance Secretary, Expenditure Secretary and Secretary Road Transport and Highways as members and JS PMO as associate member to look at financing and other issues relating to MCA etc and suggest measures to achieve the targets of Highway construction in time bound manner. The Chaturvedi committee gave first part of its report on 27th August 2009. All the recommendations of Chaturvedi committee have since been accepted by the government and the new bids under NHDP are being invited with modified MCA and mode of delivery.[64]

Key Recommendations of the B K Chaturvedi Committee on NHDP[65]

(i) Important Amendments to MCA

(a) Termination clause: As per the Articles 29.2.3 and 29.2.4 in the MCA, if the traffic in a particular BOT project went beyond a certain pre-defined threshold for three consecutive years, the concession would be terminated unless the capacity of the road was enhanced by the concessionaire within a termination notice period.

The amendment: As per the revised articles, in case of the traffic exceeding the capacity in any financial year, the NHAI may cause the preparation of a detailed project report (DPR) to assess the cost to be incurred to augment the capacity of the highway. The original concessionaire will be given the first option to undertake this capacity augmentation, along with any required extension in concession period. Under no circumstance would the original concession period be shortened or terminated, and only if the concessionaire does not accept to undertake the augmentation, the NHAI would

[63] NHAI presentation before Chaturvedi Committee

[64] MoRTH: Revised strategy for implementation of the National Highways Development Project (NHDP) - Framework and Financing, OM dated 5-11-2009

[65] Report of B K Chaturvedi Committee on NHDP (2009)

terminate the contract on its discretion, after paying the concessionaire the requisite termination amount.

(b) Conflict of interest clause: Raising the cross-holding limit among the bidding companies to five percent (from the earlier one per cent) in the RFQ guidelines from May 2009 has not made a very significant improvement. Most bids come from a consortium of developers and an impractically low level of 5 per cent is difficult to avoid. It makes more sense to look at management control rather than a superficial equity stake when deciding upon a conflict of interest between various bidding parties.

The amendment: The Committee has recommended raising this upper limit to 25 per cent, which at least creates more room, if not removing the issue altogether, for parties like PE investors.

(c) Provision for exit of consortium members: MCA's clauses put a cap of 26 or 33 per cent on the minimum equity that needs to be held by the consortium members, which restricted the ability of a developer to sell its stake and generate funds for other projects. The presence of investors who can come in once the project starts to generate cash flows is very useful for easing funding constraints for a developer.

The amendment: The Committee's recommendation has been to restrict the existence of all caps during the construction period and two years thereafter.

(d) Amendment of Security to lenders: Amending Art. 40.2 (b) of MCA, and thereby it has provided for creating a charge on toll escrow account as per their priority in the "waterfall". This would help to reduce cost of borrowing for the concessionaire as the lending would now be "secure" thereby making the projects more viable.

(ii) Increase in equity grant (VGF) to 40 per cent by merging 20 per cent equity and 20 per cent O and M grant into equity grant. The equity support shall be disbursed through the escrow account after all the equity has been expended by the concessionaire and shall be disbursed along with loan funds proportionately.

(iv) RFQ Process: Project wise prequalification has been replaced by Annual or periodic pre- qualification

(v)Revised Work and Financing Plan: The revised work plan of NHDP to achieve the target for 20 km per day i.e. 7000 km per year has been prepared upto 2013-14 (Appendix-V). The revised financing plan for NHDP is given below:

Table 5.1 - Summary of NHDP Financing Plan

Particulars	(Rs. In crore)
A. Estimated Expenditure	
Project Construction	337,959
Payment of Annuity	207,579
Interset on Borrowed Funds	78,285
Repayment of borrowing	188,838
Total (A)	**812,661**
B. Sources of Funds	
Cess Fund	360,631
External Assistance (Grant & Loan)	9,782
Net Surplus from Toll Revenue	117,418
Negative Grant	3,318
Budgetary Support	1,398
Additional Budgetary Support	39,329
Share of Private Sector	211,315
Borrowings	191,948
Total (B)	**935,139**

Source: Report of Chaturvedi Committee on Revised Strategy for NHDP

The estimated borrowings of NHAI at about Rs.1,90,000 crore are based on the estimation that 56 per cent of Roads will be constructed on BOT Model and 35 per cent on Annuity and remaining nine per cent on EPC basis. The annual average borrowings for the next 10 years works out to about Rs.13,000 crore with the cumulative outstanding debt at the end of 2019-20 would be about Rs.71,500 crore.

(vi) Mode of Delivery

(a) Carrying out implementation of road projects on all the three modes of delivery viz. BOT (Toll), BOT (Annuity) and EPC (Item Rate Contract) concurrently rather than sequentially. Roads below a certain threshold in terms of traffic do not merit testing on BOT (Toll) as the process only leads to delays in implementation and award. Hence, a road not found prima facie suitable for BOT (Toll) can be implemented directly on BOT (Annuity) subject to the overall cap as envisaged in the Work Plan. The decision of shifting a project from BOT (Toll) to BOT (Annuity) would be taken by the IMG chaired by Secretary, MORTH and approved by Minister, Road Transport and Highways.

(b) Before implementing a project on EPC basis, it will be compulsorily tested for BOT (Annuity) and only if unacceptable bids are received then only the project will be awarded on EPC basis. Normally, an Annuity bid working out to an Equity IRR of up to 18 percent will be acceptable as per these norms. However, in the event of bids exceeding the Equity IRR of 18 per cent, the same will be bid out on EPC. In case of difficult areas having law and order problems, security, inhospitable terrain etc, a bid working out to an Equity IRR of up to 21 per cent will be acceptable considering the risk premium of three percent, on case to case basis. PPPAC will be empowered to give approval for projects to be moved from Annuity to EPC where acceptable bids have not been received.

(c) In case of projects under NHDP Phase IV, if the traffic is less than 5,000 PCU[66]s, the project will directly be taken up on EPC. For the specific EPC km lengths recommended in the Work Plan, specific EPC packages will be presented before the existing EFC67 in the MORTH for approval.

(d) Based on the feasibility report, the projects would be tried first on BOT (Toll) and in case of non-viability/poor response; the same would be shifted to BOT (Annuity) failing which on EPC. For the projects where NHAI is not able to get bids, the process of

[66] PCU-Passenger Car Units
[67] EFC- Expenditure Finance Committee of MORT&H

preparation of detailed project report may be initiated immediately to save time in case such projects are required to be taken up on EPC.

(vii) Empowering the Board of NHAI to accept single bids after examining the reasonableness of the same.

(viii) Raising of overall VGF cap of five per cent to 10 per cent for the entire six-laning programme, and consideration of individual projects in low traffic GQ stretches with VGF up to 20 per cent within an overall cap of 500 Km out of the 5080 Km of the Phase-V programme yet to be awarded.

(ix) Funding of the NHDP Projects under SARDP-NE and in Jammu and Kashmir with Additional Budgetary Support (ABS) over and above the cess that the Government provides to NHAI on a yearly basis.

(x) 'In Principle' approval of the Government Support to the NHAI for:–

a. Issuance of Tax exempted bonds

b. Guarantee cover to the Borrowing Plan of NHAI.

c. Out of the borrowing approval of Rs.30,000 crore earlier provided to Indian Infrastructure Finance Company Limited (IIFCL), Rs.10,000 crore under the fiscal stimulus package will be transferred to NHAI, to meet its borrowing requirement.

d. Assistance in negotiating non-sovereign multilateral loans from World Bank, ADB, JBIC etc. by providing back to back support, if necessary.

e. Providing a Letter of Comfort from Ministry of Finance confirming the availability of Cess at least till 2030-31.

The government's efforts to make projects financially more viable have borne fruit especially in terms of adding to the banks' comfort levels to lend to BOT projects. The result of the changes in the policy regime are being reflected in tremendous response to projects for which RFQ/RFP have been sought in last two months.