<u>*Policy analysis*</u>
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Planning Commission
Secretariat for Infrastructure

Sub-prime Highways?

- *An Issues Paper*

The purpose of this paper is to identify issues that need to be examined and addressed. Some of the conclusions arrived at may not be accurate or complete, but would help in enhancing the possibilities of an informed debate.

June 2010

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- *An issues paper*

The National Highway Development Programme (NHDP) is expanding rapidly. In the process, several issues such as security of public funds, violation of budgetary discipline, inadequate competition, rent-seeking, cartelization in bidding, over-engineering, high project costs, enhanced risks to the exchequer and excessive financial commitments against future budgets have assumed greater significance. These issues are identified in this paper with a view to initiating a closer scrutiny and debate aimed at taking corrective measures where necessary.

1. The sub-prime fiasco that led to the global financial crisis is fresh in memory and it is far too early to overlook its lessons. India was able to come out unscathed largely because of its prudent policies and regulation. Against this backdrop, the recent evolution of the National Highway Development Programme (NHDP) raises serious concerns and it would be useful to undertake a quick review of the emerging trends with a view to assessing the potential risks. This paper is divided into four parts viz. (a) Security of public funds; (b) Sustainability of the bid process; (c) Viability of NHAI and its programmes; and (d) Way forward.

I. SECURITY OF PUBLIC FUNDS

2. Limited security for bank loans

2.1 A large number of NH projects are being undertaken through the PPP mode where the respective concessionaires normally raise debt from commercial banks on a 'non-recourse' basis. This implies that the debt service is mainly dependent on the expected revenue streams of the respective projects and not on any balance sheet support, collateral securities or guarantees. It follows that in the event of default in debt service, the banks would not have recourse to any security other than the project assets, including termination payments. **Since a highway cannot be mortgaged or sold, the banks will not be able to recover their debt except through the termination payments made by NHAI**.

2.2 *Cap on termination payments*

Termination payments by NHAI have **two important limitations**, viz. (a) no termination payment is due or payable by NHAI if a concessionaire fails to complete its construction, implying that the banks may not be able to recover their debt from the project; and (b) if the concessionaire fails at any time after construction, NHAI will only pay **90% of the debt which forms part of the approved total project cost (TPC), which means that 10% of their debt forming part of TPC may not be recovered and all debt in excess of TPC may also not be recovered**.

2.3 *Determination of Total Project Cost (TPC)*

The total project cost (TPC) for every project is determined by NHAI on the basis of a feasibility report prepared by its technical consultants. The feasibility report indicates the **estimated construction cost which includes the contractor's margin of 15%**. To the construction cost so determined, an amount equal to **25% thereof is added for meeting the financing charges, IDC etc**. and the sum is specified in the bid documents as the **TPC**. This entire cost structure is based on market rates and should normally enable the concessionaire to complete its construction within the TPC specified by NHAI. In case the concessionaire's capital expenditure or loans exceed the TPC, such excess is not recognised by the concession agreements and the liability of NHAI to make termination payments would remain restricted to 90% of the debt which forms part of the pre-determined TPC. This arrangement is aimed at capping the contingent liability of NHAI.

2.4 *Lending by banks in excess of TPC*

Information relating to some individual projects suggests that in several cases, the **banks have been lending far in excess of the duly approved TPC**. By way of illustration, the TPC fixed by NHAI on the one hand and the capital costs approved by banks on the other hand are shown below:

Sl. No.	Name of the Project	**Approved TPC** (in cr. Rs.) **(less VGF)**	**Project cost as indicated by IIFCL** (in cr. Rs.)	**Increase over approved TPC** (in cr. Rs. and %)
1	Guj/Mah.Border-Surat-Hazira	953	2419	**1466 (154)**
2	Gurgaon- Jaipur	1674	3009	**1335 (80)**
3	MP Maharashtra border - Nagpur	679	1971	**1292 (190)**
4	Pimpalgaon- Gonde	752	1691	**939 (125)**
5	Amritsar -Pathankot	577	1445	**868 (150)**
6	Pune-Sholapur	623	1371	**748 (120)**
7	Hyderabad - Vijayawada	1460	2194	**734 (50)**
8	Mah.border-Dhule-	743	1420	**677 (98)**
9	Panaji - Karnataka Border	196	832	**636 (324)**
10	Kishangarh-Beawar	722	1305	**583 (81)**
11	Trichy - Karur	487	1061	**574 (117)**
12	Vadakkancherry - Thrissur	373	874	**501 (134)**
13	Talegaon -Amravati	403	888	**485 (120)**
14	Indore-Jhabua-MP/Gujarat border	1175	1524	**349 (30)**
15	Zirakpur -Parwanoo	178	475	**297 (167)**
16	Bangalore-Nelamangala	445	717	**272 (61)**
17	Kalghat –MP - Maharashtra Border	549	782	**233 (42)**
18	Salem - Ullundurupet	902	1061	**159 (18)**
19	Delhi-Haryana Border - Rohtak	486	586	**100 (21)**
20	Pondicherry - Tindivanam	269	315	**46 (17)**
	TOTAL	**13646**	**25940**	**12294 (90)**

2.6 *Potential loss of public funds*

It is evident that the banks have been lending far in excess of the approved costs, **thereby leading to a situation where the concessionaires may not only spend beyond reasonable costs, but also siphon out funds at public expense**. However, in the event of project failure, **the banks will not be able to recover anything beyond 90% of loans forming part of the approved TPC**. Since most of the lending is by public sector banks, including IIFCL, this burden would have to be borne by public funds. In such a situation, the banks could plead that these excess loans were granted with **full knowledge and participation of NHAI and the Finance Ministry (through IIFCL)** and may, therefore, demand a bail-out package. **No matter who pays for these lapses, it is public money that would be lost.**

2.7 *Sub-prime loans?*

Given the fact that the concession agreements clearly specify the total project costs, it will be difficult for the banks and the Government to explain or justify the losses arising out of excessive and unsecured lending. The question that needs to be addressed is **whether these are in the nature of sub-prime loans that can expose public finances to undue risk**?

3. Disproportionate grants for construction

3.1 The Model Concession Agreement (MCA) had specified a limit of **20% of the TPC for disbursement as VGF grant during construction**. This was further limited to an amount not exceeding the concessionaire's equity. The Committee on NHDP (the Chaturvedi Committee) has **endorsed a higher limit of 40% of TPC** which was introduced earlier as part of the stimulus package. As illustrated below, **this could enable a concessionaire to transfer most of its financial risks to the exchequer**.

3.2 *Excessive grant element*

To quantify the impact of this modified arrangement, a project with a TPC of Rs. 1,000 crore and VGF of 40% may be examined by way of illustration. A TPC of Rs. 1,000 crore would normally comprise Rs. 800 crore of construction cost and 25% thereof i.e. Rs. 200 crore as financing costs. Further,

the construction cost of Rs. 800 crore would normally include an element of 15% as contractor's profit. **The actual construction cost would thus be about Rs. 700 crore or 70% of the TPC**. A VGF of 40% means that the concessionaire would actually get a grant of Rs 400 crore from NHAI to fund its construction cost of Rs. 700 crore, which **implies a grant of about 57% of the construction costs. As a result, the concessionaire's cash contribution towards the construction cost would only be Rs. 300 crore** (Rs. 700 crore – Rs. 400 crore).

3.3 *Negligible stake of concessionaires*

For financing its contribution of Rs. 300 crore, the Concessionaire could raise **Rs. 200 crore from IIFCL** which lends upto 20% of the project costs. This would imply that upto **Rs. 600 crore or 60% of TPC could be financed by NHAI and IIFCL (40%+20%) leaving the concessionaire to raise only Rs. 100 crore to fund the construction cost of Rs. 700 crore. However, the concessionaire could raise bank loans of upto Rs. 400 crore to finance its contribution of Rs. 100 crore and thus have a substantial surplus in its hands.** So far as banks are concerned, they would have little hesitation in such lending, especially as they believe that 90% of their loans would be guaranteed by NHAI. In such a scenario, **it would be easy for a concessionaire to fund its nominal equity of about Rs. 250 crore by book adjustments, thus implementing the project without any financial stake of its own**.

3.4 *Easy exit for concessionaires*

In addition to the above, a recent amendment to the MCA allows the concessionaire to sell its equity and **exit from the project after two years of completing the construction. This reduces its incentive to build a project that would last longer and have lower life cycle costs, thus defeating one of the principal objectives of adopting the PPP mode**. Since PPP projects do not envisage a close check or supervision on construction, **the concessionaire may tend to cut corners and compromise on construction quality as it could exit from the project after two years. This could further incentivise the concessionaire to siphon out funds and leave NHAI to deal with low-quality assets.**

3.5 *NHAI support for inflated costs*

In the above illustration, the construction cost is assumed as Rs. 800 crore on which a financing cost of 25% i.e, Rs. 200 crore is allowed. However, by providing a VGF of Rs. 400 crore (40% of TPC), NHAI would in fact reduce the concessionaire's investment from Rs. 800 crore to Rs. 400 crore. Yet, NHAI seems willing to assume that the financing costs would continue to be Rs. 200 crore. Allowing a financing cost of Rs. 200 crore on an investment of Rs. 400 crore is clearly excessive and unjustified. **It implies a financing cost equal to 50% of the capital investment as against the norm of 25% specified in the MCA. Logically, the financing cost should be reduced from Rs. 200 crore to Rs. 100 crore** to account for the VGF support of Rs. 400 crore. Such a correction would **(a) reduce the VGF liability of NHAI by Rs. 40 crore or 4% of TPC and (b) eliminate bank financing of the balance Rs. 60 cr**ore. It would also eliminate a **legitimate criticism that the costing of NHAI projects is being consciously inflated by Rs. 100 crore or 10% of the TPC**.

3.6 *Release of grant without bank guarantee*

The risk of NHAI is also enhanced because the aforesaid **VGF grant of 40% is released to the concessionaire without a bank guarantee or any other form of security**. **Normal procurement rules followed across sectors require a bank guarantee** for making such advance payments to private entities. However, in the case of VGF payments during the construction period, **no such safeguard has been built**. As a result, in case a project is abandoned by the concessionaire for any reason, **the entire VGF released to the concessionaire could be locked up in incomplete or sub-standard works.**

3.7 *Perverse incentives for termination*

It could be argued that in case a concessionaire completes the construction (of doubtful quality) and quits, NHAI would not only lose Rs. 400 crore of VGF, it would also pay 90% of the project debt which could mean an outflow of another **Rs. 540 crore**. As a result, **against the actual construction cost of Rs. 700 crore or less, NHAI may have to pay over Rs. 900 crore** while taking over the project. This clearly amounts to **a perverse risk allocation for NHAI that would enable the concessionaire to walk away with large siphoned out funds while leaving the NHAI and the banks to bear the losses.**

3.8 Need for eliminating potential risks

It can be nobody's case that credible corporates would necessarily exploit the aforesaid gaps and engage in malpractices. The issue is that the principles and practices of **good governance cannot solely rely on good behavior of the private sector, and must identify and eliminate potential risks to public interest.** Due diligence and caution can hardly be overemphasised when dealing with public funds.

II. SUSTAINABILITY OF THE BID PROCESS

4. Flawed bid process

4.1 The bid process for PPP projects seems to raise **several concerns**. The bids received have been **significantly higher than the estimates** approved by PPPAC/ CCI – both in case of BOT (Toll) as well as BOT (Annuity) projects. This is compounded by the fact that only **one or two bids** were received in a large number of cases, indicating inadequate competition and **possibilities of cartelisation**. The combined effect of this phenomenon suggests that **the exchequer could have lost large sums of money on account of unduly high bids**.

4.2 *High bids*

A large number of the bids approved in the recent past are far in excess of the estimates approved by PPPAC/ CCI. Moreover, they are also **close to the maximum permissible VGF laid down by the Cabinet.** The VGF ceiling has been fixed at 40% for two/ four lane projects and 10% for six-lane projects (500 km of six-laning can have a higher ceiling of 20%). The statement below illustrates the nature and extent of these high bids.

S. No.	**Project Name**	**TPC** (in cr Rs.)	**VGF cleared by CCI** (as % of TPC)	**VGF approved by NHAI** (in cr Rs. & % of TPC)	**Excess over CCI approval** (col. 5-4) (in cr Rs.)
1	2	3	4	5	6
A	**Four-lane Highways**				
1	Armur - Yellareddy	491	36%	195.70 **(39.9)**	19

2	Devihalli-Hassan	453	40%	180.18 **(39.8%)**	-
3	Cudappah - Kurnool	1567	40%	621.90 **(39.7%)**	-
4	Piprakhoti- Raxaul	375	40%	150 **(39.7%)**	-
5	Kannur- Kuttipuram	1366	7.9%	541 **(39.6%)**	434
6	Vadakancherry - Trissur	617	40%	244 **(39.5%)**	-
7	Brahmapore-Farakka	999	15.7%	393 **(39.4%)**	227
8	Rimuli-Rajammda	654	32%	255 **(39%)**	46
9	MP-Maharashtra border to Nagpur	1171	10%	456 **(38.9%)**	338
10	Raiganj-Dalkola	580	12.3%	226 **(38.9%)**	154
11	Bhubaneshawar- Puri	500	33%	194 **(38.7%)**	29
12	Ochira-Thiruvananthpuram	1932	33%	745 **(38.5%)**	107
13	Farakka-Raiganj	1079	25.45%	415 **(38.4%)**	140
14	Charthalai-Ochira	1535	Nil	583 **(38%)**	583
15	Barhi-Hazaribagh	398	11%	151 **(37.9%)**	108
16	Bijapur-Hungund	748	Nil	274 **(36.6%)**	274
17	Hungund-Hospet	946	Nil	340 **(36%)**	341
18	Ahmedabad-Godhra	1025	28%	443 **(36%)**	82
19	Maharashtra-Goa to Goa-Karnataka	1872	8%	665 **(35.5%)**	515
20	Moradabad-Bareily	1267	9.6%	443 **(35%)**	322
Total (four-lane)		**19575**		**7516 (38.4%)**	**3700**
B	**Six-lane Highways**				
21	Varanasi-Aurangabad	2848	10%	565 **(19.8%)**	280
22	Chandikhol-Bhubaneshwar	1097	10%	205 **(19%)**	99
23	Delhi-Agra	1928	10%	180 **(9.3%)**	-

24	Hyderabad-Bangalore	680	Nil	61 (9%)	61
Total (six-lane)		**6553**		**1011 (15.4%)**	**440**
Grand Total (A+B)		**26128**		**8527 (32.6%)**	**4159**

It may be seen that **of the total VGF of Rs. 8,527 crore approved by NHAI for these 24 projects, Rs. 4,159 crore was in excess of the Cabinet approvals**.

4.3 *Evaluating the reasonableness of bids*

There seems no clear procedure or accountability for evaluating the reasonableness of bids and approving the same, especially in cases where the bids are far in excess of the estimates approved by CCI. This also raises the concern whether the bidding and approval processes are robust and eliminate the possibilities of cartelisation.

4.4 *Inadequate number of bids*

Concerns relating to inadequate competition or cartelisation are reinforced by the fact that **only 1 or 2 bids have been received in a significant number of cases even though a large number of bidders were pre-qualified in most of these cases**. The following table illustrates the lack of competition.

S.No.	**Project Name**	**No. of pre-qualified bidders**	**No. of bids received**	**No. of bids opened**	**Actual VGF** (in Rs. cr.) and **as % of TPC**
1	Devihalli-Hassan	14	1	**1**	180.18 (39.8)
2	Piprakhoti- Raxaul	18	1	**1**	150 (39.7)
3	Brahmapore-Farakka	2	1	**1**	393 (39.4)
4	Raiganj-Dalkola	4	1	**1**	226 (38.9)
5	Bhubaneshawar- Puri	26	1	**1**	194 (38.7)

6	Armur -Yellanddy	10	2	**2**	195.71 (39.9)
7	Cudappah-Kurnool	9	2	**2**	621.90 (39.7)
8	Kannur-Kuttipuram	13	2	**2**	541 (39.6)
9	Vadakkancherry-Thrissur	6	3	**2**	244 (39.5)
10	Ochira-Thiruvananthpuram	12	2	**2**	745 (38.5)
11	Farakka-Raiganj	2	2	**2**	415 (38.4)
12	Charthalai-Ochira	12	2	**2**	583 (38)
13	Ahmedabad-Godhra	16	2	**2**	443 (36)
14	Maharashtra-Goa to Goa-Karnataka border	5	2	**2**	665 (35.5)
15	Amravati - Talegaon	5	2	**2**	216 (34.9)
16	Pune - Sholapur	6	2	**2**	299 (32.4)
17	Jaipur – Tonk -Deoli	17	2	**2**	306 (25.9)
18	Varanasi-Aurangabad (6-lane)	4	2	**2**	565 (19.8)
19	Delhi-Agra (6 lane)	8	2	**2**	180 (9.3)
20	Bijapur-Hungund	9	3	**3**	274 (36.6)
21	Hungund-Hospet	9	3	**3**	340 (36)
22	Moradabad – Bareily	7	3	**3**	443 (35)

4.5 It may be seen from the above table that **inadequate competition seems to be associated with high bids that are close to the permissible ceiling of VGF** - 40% in case of two/four lane projects and 10% or 20% in the case of six-lane projects. There were two six-lane projects viz. Varanasi-Aurangabad and Chandikhol-Bhubaneshwar where only two bids each were received. These bids were beyond the Cabinet-approved ceiling and fresh bids were, therefore, invited. **The revised bids were significantly lower and the total savings on account of lower bids was Rs. 713 crore.**

4.6 *High bids for Annuity projects*

The bids received for annuity projects also seem to be very high and unjustified. In the absence of robust competition as observed above, it may be difficult to regard these outcomes as acceptable. The table below illustrates the bids for annuity payments as a proportion of the total projects costs.

S.No.	**Project Name**	**TPC** (in cr Rs.)	**Annuity per annum** (in cr Rs.)	**% of TPC**
1	Hajipur-Muzaffarpur (4-lane)	672	189	**28**
2	Jorbat-Shillong (4-lane)	536	145	**27**
3	Chenani-Nashri (4-lane)	2519	635	**25**
4	Quazigund-Banihal (4-lane)	1987	490	**25**
5	Nagpur- Betul (4-lane)	2499	582	**23**
6	Chhapra-Hajipur (4-lane)	575	131	**23**
7	Mokama- Munger (2-lane)	351	80	**23**
8	Jammu-Udhampur (4-lane)	1814	403	**22**
9	Muzaffarpur-Sonbarsa (2-lane)	512	105	**20**
10	Forbesganj-Jogbani (4-lane)	74	14	**19**
Total		**11539**	**2774**	**24.04%**

4.7 *Extraordinary returns*

The annuity payments stated above are based on the assumption that construction would be completed in about 3 years. Past experience suggests that PPP projects get completed in about 2 years. This would enable the concessionaire to **receive an extra 20-25% of the total project costs beyond the above projections**. As a result, the concessionaire may be able to **recover its entire investment in about 5 years after completion, leaving the inflows of the next 10-12 years as its surplus. This arrangement does not seem to represent value for money from the perspective of the exchequer.**

4.8 *Sub-optimal bid process*

It should be evident from the above that **bids for PPP projects do not seem to be based on any orderly or robust competition** as the bid process seems haphazard and amenable to **frequent changes in the MCA, RFQ etc. Moreover**, **there seems no assurance that a well-defined evaluation and approval methodology is applied in NHAI to determine whether the bids are reasonable and represent good value for money.** Given the scale of operations, this would compromise a large volume of public funds.

5. Modifications in the Bid Documents

5.1 The key to a successful PPP programme lies in robust competitive bidding. The first important step in the bid process is the pre-qualification of bidders for submission of financial bids. There are several instances where a flawed pre-qualification process has led to unintended outcomes. The most illustrative example is that of the **Delhi and Mumbai airports** where the Airport Authority of India (with the help of foreign consultants) short-listed only two bidders for award of one airport each. After **much controversy** and debate, the Empowered Group of Ministers **(EGOM) set aside this flawed pre-qualification** and included other bidders to ensure a fair and transparent competitive process, which was **later upheld by the Supreme Court**.

5.2 *Formulation of the Model RFQ*

To eliminate malpractices and streamline the process of pre-qualification, the Committee on Infrastructure (COI), chaired by the Prime Minister, **constituted an IMG under the chairmanship of Secretary (Expenditure)**. After extensive consultations spread over an year, the IMG recommended a **Model RFQ document which was approved by COI and issued by the Department of Expenditure in May 2007**. **After an year's experience across projects and sectors, this document was reviewed** by a committee under the chairmanship of Member, Planning Commission. After consultations with experts and stakeholders, **a modified document was issued in April, 2009 with the approval of Finance Minister**.

5.3 *Exemption for NHAI from the Model RFQ*

The Model RFQ issued by the Department of Expenditure applies to all Ministries, Departments and statutory entities of the Central Government. It is not only being followed extensively by the Central Government entities, it has also been adopted for scores of State Government projects. **An exception has, however, been made in the case of NHAI by allowing it to modify the RFQ with the approval of MoRTH**. It seems **a unique case** where a set of procurement guidelines issued by the Finance Ministry can be modified by an administrative ministry without approval of the Finance Ministry.

5.4 *Frequent modifications in RFQ*

NHAI has since made several modifications in the Model RFQ and some of these may have the effect of **restricting a fair and competitive environment**. As a result, the bid process would be open to manipulation, leading to sub-optimal outcomes including higher bids. Comments on each of these modifications were sent to Secretary, MoRTH (see Annex I) with a copy to the Finance Secretary. **Based on the comments sent by the Planning Commission, the Finance Ministry, with approval of the Finance Minister, have since conveyed their reservations on these modifications** (see Annex-II). However, these modifications continue to be in force and are being applied to bids aggregating several thousand crore of rupees.

III. VIABILITY OF NHAI AND ITS PROGRAMMES

6. Excessive exposure of NHAI

6.1 The present and proposed exposure of NHAI, in the form of committed liabilities, is **far in excess of the budgetary/ plan allocations of the present and future years**. This seems to be happening because NHAI programmes are being approved in terms of physical parameters with inadequate concern for their budgetary implications.

6.2 *Lack of budgetary discipline*

Normally, the Government approves a physical programme of development in each sector, which is always **subject to the budgetary**

allocations voted by the Parliament. It is for the concerned departments to implement their programmes within the budgetary ceilings, which cannot be violated except in accordance with the procedure specified in the Constitution. **This basic principle seems to be getting blurred in the case of NHAI and it would have serious repercussions for the finances of the Central Government** in the years to come.

6.3 *Overlooking the hard budget constraint*

Evidently, NHAI is conducting its programme on the basis of **two severely flawed assumptions** viz. (a) once clearance for its physical programmes is given, **NHAI is free to award contracts irrespective of budgetary allocations, present or future**; and (b) **NHAI can increase the costs of its projects irrespective of budgetary constraints.** There seems to be an underlying assumption that all the expenditures would be funded by the Central Government as a *fait accompli*. This seems **a perfect recipe for the impending bankruptcy of NHAI that would compel the Finance Ministry to dole out a large bail-out package**.

7. Unsustainable annuity liability

7.1 Of late, NHAI has been incurring large annuity commitments, besides high VGF payments. There seems inadequate appreciation of the fact that annuity payments are essentially **a form of deferred budgetary payments which will pre-empt future development** by committing the expected cess revenues for 15 to 18 years. This is not only unprecedented, it is also unsustainable.

7.2 *Unsustainable commitments*

NHAI already has a committed annuity liability of **Rs. 4,828 crore per annum for projects which have already been awarded**. **In addition, projects with a likely outgo of Rs. 1,450 crore per annum have been approved and are in different stages of the bid process**. This means an **annuity commitment of Rs. 6,278 crore per annum** as against the current cess revenues of about Rs. 7,800 crore per annum. In addition, **an IMG under Secretary (MoRTH) has approved new annuity projects with a potential liability of about Rs. 3,200 crore per annum**. As a result, the **total annuity outflow of NHAI would be**

about Rs. 9,500 crore per annum which implies that **all of NHAI's future budgetary allocations, in the form of cess revenues, will be committed and pre-empted for the next 15-20 years for meeting committed liabilities, leaving no resources for future development.**

7.3 *Violation of CCEA directive and prudent practices*

According to a **CCEA direction** of June 2008, MoRTH was required to fix the annual annuity ceiling as a proportion of cess revenues. In an IMG meeting held for this purpose in March 2009, Secretary, MoRTH had fixed an annuity ceiling of 35% as a proportion of cess revenues. By itself, this limit was higher as compared to international standards and prudent practices. However, even this limit has been completely ignored as the likely annuity commitment of NHAI will **exceed 100% of the cess revenues**, which is unsustainable by any standards. This situation can only be addressed if the rate of cess on petroleum products is increased significantly or plan allocations from other sectors are diverted to NHAI. In both the cases, **the additional burden would have to be borne by the union budget in the form of a bail-out package for NHAI**.

8. VGF for BOT (Toll) Projects

8.1 Even in the case of BOT (Toll) projects, the financial burden on NHAI has risen significantly. The primary reason for a high level of VGF is the rapid increase in project costs. Inadequate competition in the bidding process has also added to this problem.

8.2 *Rise in VGF liability*

Upto 31.10.2009, the total VGF liability was Rs. 5,254 crore. During the past 7 months, an additional liability of Rs. 6,157 crore has been added on account of the following projects:

Sl. No.	**Project name**	**Length** (In km)	**TPC** (in cr Rs.)	**VGF** (in cr Rs.)	**VGF as % of TPC**
1	Maharashtra - Goa to Goa-Karnataka border	123	1872	**665**	35.5
2	Charthalai-Ochira	84	1535	**583**	38

3	Varanasi-Aurangabad (6-lane)	192	2,848	**565**	19.8
4	Muradabad-Bareily	121	1267	**443**	35
5	Faraka-Raiganj	103	1079	**415**	38.4
6	Behrampore-Farakka	103	999	**393**	39.4
7	Hungund-Hospet	98	946	**341**	36
8	Ghaziabad-Aligarh	126	1141	**311**	27.3
9	Bijapur-Hungund	97	748	**274**	36.6
10	Rimoli--Rajamunda	96	586	**230**	39.2
11	Raiganj-Dalkola	50	580	**226**	38.9
12	Kundapur- Mangalore- Kerala Border	90	671	**221**	33
13	Muzaffarnagar - Haridwar	80	754	**210**	27.9
14	Jagatpur-Bhubaneshwar (6 lane)	67	1097	**205**	18.7
15	Bhubaneshwar-Puri	67	500	**194**	38.8
16	Devihalli-Hassan	77	453	**180**	39.8
17	Delhi-Agra (6 lane)	180	1928	**180**	9.3
18	Barhi-Hazaribagh	41	398	**151**	37.9
19	Chilakaluripeta-Nellore (6 lane)	184	1,535	**127**	8.3
20	Ahmedabad-Godhara	118	1009	**108**	10.7
21	Hyderabad-Bangalore (6 lane)	22	680	**61**	9
22	Tirupati-Chennai	125	571	**51**	9
23	Indore-Jhabua-Gujarat/MP	155	1175	**23**	2
Total		**2,399**	**24,371**	**6,157** (upto May 2010)	**25.26%**

8.3 *Ballooning VGF commitments*

The total **VGF liability already committed by NHAI has exceeded Rs. 11,400 crore** (Rs. 5,254 crore + Rs. 6,157 crore). In addition, a number of approved projects are in different stages of bidding and may well require a VGF outlay of **over Rs. 13,600 crore** especially because the trend being witnessed of late is that **most of the projects are receiving bids in excess of 35% of the**

TPC, which is close to the ceiling of 40% of TPC. Even in the case of six-lane projects, where the limit of VGF is 10% (20% for 500 km), the bids received are close to the specified ceiling. As a result, the total VGF commitment for the projects already awarded and those likely to be awarded by March 2011 could be about **Rs. 25,000 crore (Rs. 11,400 crore + Rs. 13,600 crore)**. At this rate, **NHAI will not have the budgetary resources even for meeting its VGF liability**.

9. Land acquisition and utility shifting

In addition to the liability on account of annuity payments and VGF, a fairly large amount of budgetary resources would be required for land acquisition and utility shifting. Though actual data is not available, it is estimated that the total liability on this account would exceed **Rs. 7,500 crore**.

10. On-going construction contracts

As on 1.4.2010, work is in progress on 1,460 km of item-rate construction contracts of NHAI. Assuming that Rs. 5 crore per km would be required for completing these works, the total **committed liability on this account would be about Rs. 7,500 crore.**

11. High costs

11.1 The costs of construction have risen rapidly over the past few years. This can be **attributed substantially to over-engineering** on the part of NHAI. As a result, the budgetary commitments have increased sharply on account of **higher bids for VGF**. In addition, **several projects have become unviable for BOT (Toll) and have, therefore, been shifted to the Annuity mode** where the dependence on budgetary resources is very high. Given the increased budgetary liabilities, **the overall programme size would inevitably have to shrink**.

11.2 *Creation of wasteful capacity*

In the past, several four-lane highways were constructed even where the standards laid down by the Indian Roads Congress (IRC) justified two-lane roads for the next 15 years. The note at Annex-III provides some examples of how **several thousand crores of rupees seem to have been wasted**

by building four-lane roads where two-lane highways at one-fourth the cost would have provided a high quality service for the 15-20 years.

11.3 *Violation of specifications and standards*

The costs of highway projects are largely dependent on the specifications and standards adopted for such projects. In the past, each project was structured on a **case by case basis** and the project elements and costs varied significantly. In several cases, bypasses, service roads, flyovers etc. were added indiscriminately. Bridges and road structures/ crust were **routinely over-engineered**. **Flyovers were built inappropriately on four/six lane highways crossing one/two lane roads** instead of following the universal practice of building over-passes/ underpasses on one/two lane roads crossing four/six lane highways. As a result, **costs of highway projects have continued to rise quite sharply**.

11.4 After about 4 years of effort and debate, the IRC **published a Manual of Standards and Specifications** for two-lane highways. A similar Manual has also been published for four-lane highway projects. Both these Manuals have since been adopted by NHAI. The objective was to standardise project design and elements with a view to building safer and economical roads. However, **the standards laid down in these IRC Manuals are being routinely exceeded and excessive costs continue to be incurred by adding elements that lack justification**. **As a result, project costs are far in excess of the justified costs.**

11.5 *Ad hoc design and costs*

NHAI seems to follow an ***ad hoc*** **approach in designing and costing its projects. In several cases approved recently, projects that should have been taken up for two-laning have been upgraded to four-laning and taken up on annuity basis. New bypasses, long-service roads, flyovers etc. have also been added** somewhat indiscriminately. It is, therefore, evident that the structuring of highway projects does not seem to follow any norms or principles.

11.6 *Steep rise in normative costs*

As noted above, **the costs of NH projects have undergone a rather steep increase over the recent years, mainly because of** ***ad hoc*** **additions/**

over-engineering. The Task Force on NHDP (Chaturvedi Committee) had **recommended a fairly steep hike in the costs of highway projects as compared to the costs indicated by NHAI three years ago** during finalisation of the COI-approved Financing Plan for NHDP in 2006. The table below provides the comparison of normative cost assumptions.

	Cost as per Financing Plan of 2006 (in cr. Rs.)	**Cost assumed by Task Force in 2009** (in cr. Rs.)	**% increase in costs (over 3 years)**
NHDP-II (4 lane)	5.85	9.5	**62.4%**
NHDP-III (4 lane)	5.85	9.5	**62.4%**
NHDP-IV (2 lane)	1.28	2.5	**95.3%**
NHDP-V (6 lane)	5.78	10.0	**73%**

11.7 While the above table reflects a fairly sharp increase in all unit costs, many of the **recent proposals of NHAI have already exceeded these revised norms**.

12. Impending bankruptcy

12.1 The following liabilities would need to be met by NHAI **during the next 3 years against contracts proposed to be awarded upto 31.3.2011**, viz. (a) about **Rs. 7,500 crore on the on-going construction contracts**; (b) about **Rs. 9,500 crore on account of annuity payments of completed projects**; (c) **Rs. 25,000 crore on VGF**; (d) **Rs. 7,500 crore on land acquisition** and utility shifting; and (e) **Rs. 500 crore** against arbitration claims. This would mean **an outgo of about Rs. 50,000 crore over the next three years whereas the cess revenues may not exceed Rs. 25,000 crore. NHAI may thus have to borrow about Rs. 25,000 crore to meet its committed liabilities** for the next three years. At the close of 2009-10, NHAI was **already carrying an outstanding debt of Rs. 4,749 crore** on its balance sheet. At the end of 2012-13, i.e. **on 1.4.2013, the outstanding debt of NHAI is likely to be about Rs. 30,000 crore with no revenues for discharging its debt service obligations**.

12.2 *Compromising future development*

After about 3 years, construction of all the annuity projects mentioned above would have been completed and their annuity liability would be payable on full scale. This would be in the region of about **Rs. 10,000 crore of annuity payments each year for the next 15 years**, which implies that **all of the cess revenues of NHAI would be pre-empted for meeting the annuity payments for about 15 years and no funds would be available either for undertaking new projects or for repaying the outstanding loans of Rs. 30,000 crore** mentioned in the preceding paragraph.

12.3 **The consequence** of the liabilities arising out of the projects awarded upto 31.3.2011 **would be a stoppage of all further development works from 1.4.2011 onwards. On the contrary, additional borrowings would be necessary for repaying the existing debt of Rs. 30,000 crore.** This would leave the Central Government with no option but to provide a **large bail-out package** for repayment of the outstanding debt and for undertaking new development works. This would mean either higher taxes/ cess or diversion of funds from other sectors**. In any case, new projects during the 12th Plan should be ruled out unless there is a significant diversion from other sectors.**

12.4 *Is NHAI going the SEB way?*

Most of the State Electricity Boards / Distribution Companies have been making huge losses because of unsustainable tariffs and large pilferages. Though created by law to act on business principles, **populist compulsions such as free or subsidized supply of electricity and wide-spread pilferages have resulted in the entire power sector being unsustainable**. For the past 17 years, the record of capacity addition in the power sector has been about one-half of the respective targets. The **annual losses have crossed Rs. 58,000 crore per annum and are rising steadily, leading to an increase in the fiscal deficit of states**. **Shortages in supply continue to persist and half the households lack access to electricity.** An unviable operation is clearly a sure recipe for retarded progress. **NHAI seems to be heading in the same direction. Though the NHAI Act requires it to act on business principles,** NHAI has shown **a marked tendency to increase costs, reduce toll rates, delay toll collection, overlook pilferages and rely increasingly on budgetary support**.

12.5 *Shift from user charges to tax revenues*

It is evident from the above that instead of ensuring cost recovery through user charges, NHAI projects are placing an increasingly larger burden on the taxpayer through the budget. **The entire rationale for toll roads is their funding through user charges. The recent shift towards increased budgetary expenditure in the form of annuity payments and large VGF grants would change the character of NHAI and its entire programme,** making it dependent on budgetary allocations. **This would imply a reversal of the self-sustaining nature of NHAI and NHDP which would ultimately slow down the pace of highway development.**

12.6 *Misplaced subsidies*

NHAI is creating large liabilities on the budget which means that the general tax revenues of the Central Government would be used for providing **subsidised services to the owners of cars and commercial vehicles in the form of low and uneconomic toll rates**. Since subsidies are ultimately restricted by hard budget constraints, this entire programme will have to slow down when the budgetary allocations are exhausted. In any case, subsidising cars and commercial vehicles **does not stand to reason**.

12.7 *Failure to discharge statutory mandate*

NHAI has not been able to discharge its statutory mandate of working on business principles. The issue that arises is that while the Central Government is generous with advice to the States on how to manage the SEBs/ utilities, **is NHAI not following a similar path of self-destruction and in fact, subsidising a much less deserving segment of the society**?

IV. WAY FORWARD

13. Restructuring of NHAI

13.1 Recognising the need for restructuring NHAI with a view to creating **multi-disciplinary skills** along with a **system of checks and balances**, the Committee on Infrastructure, chaired by the Prime Minister, constituted an IMG under the chairmanship of Secretary, MORTH to submit its recommendations.

The IMG submitted its report in June 2006 and its recommendations were **approved by the Cabinet in July 2007**. Though several posts have been created in NHAI, some of the **key recommendations** that would enable NHAI to improve its functioning are **yet to be implemented**. This task should be completed in the next three months. It includes the selection of a chairperson through an independent process, besides appointment of a Member (PPP) and Member (Technical) with the functions approved by the Cabinet.

13.2 It seems necessary to **review the constitution of the NHAI Board. It consists of secretary-level officers** who do not have the time to engage in project-specific due diligence associated with PPP projects or in assessing the reasonableness of bids. The presence of secretary-level officers on the NHAI Board also seems to reduce the level of due diligence in the respective Ministries. This was a new experiment aimed at ensuring quick decision-making. However, it seems to suffer from other serious pitfalls. A review of this institutional structure seems necessary.

14. Financing of NHDP

14.1 The **Annual Plan allocations as well as the borrowing/ annuity limits should be fixed and communicated** to NHAI before commencement of each financial year. NHAI should be subjected to the **hard budget constraint** as all other public entities are. Within this financial envelope, NHAI should be **given sufficient freedom** to structure and award its projects.

14.2 In case funding is a constraint, NHAI/ MoRTH should either **increase its toll revenues** by raising the toll rates and reducing pilferage or **cut down on costs** and/ or reduce the number of projects. Like every other public entity, NHAI should restrict its budgetary expenditure and borrowings to the approved allocations, but have sufficient flexibility in re-engineering its toll revenues and project costs.

14.3 As required by the NHAI Act, the **NHAI should be encouraged to act on business principles** and demonstrate the same.

15. Restructuring the bid process

15.1 All the **amendments made in the MCA and RFQ need to be revisited by an IMG**. The Report of the IMG should be **considered by EGoM**.

15.2 There should be a well-defined and **transparent process for evaluation and approval of bids**. **Accountability should be established for certifying the reasonableness of bids** that go beyond an acceptable band.

15.3 The **process of pre-qualification should be reviewed**, streamlined and made fair and transparent so that **competition is enhanced** with a view to reducing the bid price.

15.4 An **external committee** consisting of 3 persons of proven repute and integrity, one each from administrative, technical and financial background, may be appointed **to audit the bid process every quarter** and make its report public.

Proposed Amendments in Model RFQ/RFP for BOT/DBFO projects

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
1	**Stronger criteria for financial strength**		
a	2.2.2 To be eligible for pre-qualification and short-listing, an Applicant shall fulfil the following conditions of eligibility (A) ……. **(B) Financial Capacity**: The Applicant shall have a minimum Net Worth[13] (the **"Financial Capacity"**) of [Rs. 125 crore (Rs. one hundred and twenty five crore)][14] at the close of the preceding financial year. In case of a Consortium, the combined technical capacity and net worth of those Members, who have and shall continue to have an equity share of at least 26% (twenty six per cent) each in the SPV, should satisfy the above conditions of eligibility; provided that each such Member shall, for a period of 2 (two) years	2.2.2 To be eligible for pre-qualification and short-listing, an Applicant shall fulfil the following conditions of eligibility (A) ……. **(B) Financial Capacity**: The Applicant shall have a minimum Net Worth[13] (the **"Financial Capacity"**) of [Rs. 125 crore (Rs. one hundred and twenty five crore)][14] at the close of the preceding financial year. In case of a Consortium, the combined technical capacity and net worth of those Members, who have and shall continue to have an equity share of at least 26% (twenty six per cent) each in the SPV, should satisfy the above conditions of eligibility; provided that each such Member shall, for a period of 2 (two) years from the date of	

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
	from the date of commercial operation of the Project, hold equity share capital not less than: (i) 26% (twenty six per cent) of the subscribed and paid up equity of the SPV; and (ii) 5% (five per cent) of the Total Project Cost specified in the Concession Agreement. £ (13. *Net worth has been adopted as the criterion for assessing financial capacity since it is a comprehensive indication of the financial strength of the Applicant. In exceptional cases, however, the Authority may also prescribe a minimum annual turnover and/ or net cash accruals as an indication of the Applicant's cash flows and financial health).* (14. *This amount should be 25% (twenty five per cent) of the Estimated Project Cost of the project for which bids are being invited.)* (£ *The Authority may, in its discretion, impose further obligations in the Concession*	commercial operation of the Project, hold equity share capital not less than: (i) 26% (twenty six per cent) of the subscribed and paid up equity of the SPV; and (ii) 5% (five per cent) of the Total Project Cost specified in the Concession Agreement. £ (13. *Net worth has been adopted as the criterion for assessing financial capacity since it is a comprehensive indication of the financial strength of the Applicant. In exceptional cases, however, the Authority may also prescribe a minimum annual turnover and/ or net cash accruals as an indication of the Applicant's cash flows and financial health).* (14. *This amount should be 25% (twenty five per cent) of the Estimated Project Cost of the project for which bids are being invited.)* (£ *The Authority may, in its discretion, impose further obligations in the Concession Agreement, but such obligations should provide sufficient mobility for partial divestment of equity without*	The justification for these changes has not been spelt out clearly. In effect, an applicant for a project costing Rs. 2,000 cr. would be eligible if it has a net-worth of

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
	Agreement, but such obligations should provide sufficient mobility for partial divestment of equity without compromising the interests of the Project.)	*compromising the interests of the Project.)* **In the immediately preceding Financial year, the Applicant or the Applicant consortium as the case may be , shall demonstrate.** • For Projects with TPC value of less than Rs. 2,000 crore- a [combined] minimum Net-worth requirement of 25% of the TPC value. • For Projects with TPC value of Rs. 2,000 crore or more but less than Rs. 3,000 crore- a [combined] minimum Net-worth requirement of Rs. 500 Crores plus 50% of the amount by which the TPC value exceeds Rs. 2,000 crore. • For Projects with TPC value of Rs. 3,000 crore or more - a [combined] minimum Net-worth requirement of Rs. 1,000 Crores plus 100% of the amount by which the TPC value exceeds Rs. 3,000 crore. **Provided further that the each member of Consortium shall have**	Rs. 500 cr. i.e. 25% of TPC. However, in the case of a project costing Rs. 10,000 cr. it must have a networth of Rs. 8,000 cr. i.e. 80% of TPC. This provision will exclude many Applicants who may otherwise be eligible. The aforesaid exclusion could reduce competition and enable cartelisation. Such a provision would exclude many domestic companies without good reason and provide an undue advantage to foreign companies. Such a provision has not been made in the RFQ of any other sector and could be singled out for criticism. This proviso is unnecessarily restrictive. There could be cases where a technology provider or other consortium member may not have a very high net-worth and could yet be useful for the consortium. No public purpose is served by putting such a restriction. As long as the consortium demonstrates the requisite net-worth, there should be no objection to having consortium members with a

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
		a minimum Networth of 12.5% of TPC in the immediately preceding financial year **(As footnote: "In case an Applicant has issued any fresh Equity Capital during the current financial year, the same shall be permitted to be added to the Applicants assessed Net-worth subject to the Statutory Auditor of the Applicant certifying to this effect.)**	comparatively smaller net-worth. The proposed restriction is unique to NHAI and has not been used in any other sector. It appears to be unnecessary and arbitrary. Moreover, net-worth is only relevant for assessing the financial capacity of an applicant to deliver a project. While preference may be given to Applicants who have a higher technical score representing a better track record, it does not seem logical to give un necessary weightage to wealthier corporate by specifying an unduly high net-worth criteria. This means that while the net-worth of the previous year would normally be counted, equity capital raised in the current year would also be added to such net-worth. This seems asymmetrical and unnecessary. If additions to net-worth are to be considered, then new liabilities or losses of the current year must also be added. The purpose of such an amendment needs to be explained.
	Commitment of EPC agreement		
2	(new Clause)	The following may be added as	This is a new condition which seems unduly restrictive. Firstly, a concessionaire should be free

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
		clause 2.25 of RFQ. Applicant /Consortium would provide an undertaking to NHAI that EPC works of the Project would be executed only by suchy EPC contractors who have completed at least a single package of more than 20% of the TPC or Rs. 500 crore whichever is less.	to take up implementation by itself instead of engaging an EPC contraction. Secondly, it may not necessarily engage EPC/turnkey contractors for its project. Thirdly, if this matter is taken to count for any reasons, the term "EPC" would be interpreted to connote turnkey contracts, and not the misleading consolation that NHAI has adopted for sanctifying its 'item-rate' contracts. Strictly speaking, there will be very few EPC contracts/contractors who will fulfil this criteria. Such a restriction is not found in the RFQ for any other sector and may help distort the market by making it more restrictive and uncompetitive.
2a	Appendix-1"letter comprising the Bid" of RFP	The following may be added in Appendix-1"letter comprising the Bid" of RFP The EPC contractor/s who would be executing the EPC works of the Project are -----,-----,----- and it is confirmed that these contractors meet the minimum criterion set out ion our	At the pre-qualification stage, a bidder may not have tied up its EPC contractor. Nor is it necessary to disclose the names at the RFQ stage. For the reasons stated against item 2, this provision does not stand to reason.

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
		RFQ for this project. It is irrevocably agreed that the value of any contract for EPC works awarded shall not be less than 20% of the TPC or Rs. 500 crore whichever is less. It is also agreed that any change in the name(s) of EPC contractor(s) would be with prior consent of NHAI. We agree that NHAI shall grant such permission only and only is the substitute proposed is of the required technical capability as applicable.	
3	**Cap on Projects under Financial closure**		
	New clause in RFP	The following may be added as clause 1.1.8 of RFP **A bidder shall not be eligible for bidding if,** (a) For projects with TPC less than Rs. 3,000 crore, as on Bid Due Date, the Bidder, its Member or any Associate, either by itself or as a member of Consortium has been declared by the Authority as the selected Bidder for undertaking 3 (three) such projects and the bidder is yet to achieve Financial Closure. (b) For Projects with TPC in excess or equal to Rs. 3,000 crore, a bidder shall not be eligible for bidding if, as	If proper due diligence is done, it takes 6 to 8 months for a project to achieve financial close. This implies that a company, howsoever big and competent, may be able to secure only 4 or 5 projects in a year. When NHAI proposes to award a large number of contracts (exceeding 100) in a year, such a condition will be unduly restrictive and will reduce competition. Further, treating a company with large capacity in the same manner as a company with limited capacity is not logical. Surely a very large company may have the capacity to compete and deliver on a larger number of projects and it should be allowed to do so, especially in an environment where the existing capacity is considered inadequate for taking up the expanded programmes.

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
		on Bid Due Date, the Bidder, its Member or any Associate , either by itself or as member of a Consortium has been declared by the Authority as the Selected Bidder for undertaking 2 (two) such projects and the bidder is yet to achieve Financial Closure. Subject, however, to the provision that total number projects under (a) & (b) above for which the bidder is yet to achieve financial closure shall not exceed 3 (three). A Bidder shall be considered as a Selected Bidder for the projects of NHAI, where the Letter of Awards (LOA) has been issued.	The proposed clause would also lead to undue pressure on achieving financial closure and lenders will be persuaded to give conditional financial closures, thereby compromising with due diligence requirements. The proposed arrangement may be reviewed as it seems restrictive and could promote cartelisation. It could also reduce the due diligence associated with financial close.
4.	**Weighted Experience & Financial score linked to Equity stake**		
	New sub- clause in RFQ under clause 3.2 (Technical Capacity for purposes of evaluation) of RFQ	The following may be added as clause 3.2.9 of RFQ (a) The Experience Score of the Applicant shall be computed as a weighted average of the Experience Score of a member and his proposed equity stake (%) in the Consortium. (b) Similarly, the Financial Score of the Applicant shall be computed as a weighted average of the Financial	Under the Model RFQ, only those consortium members who will hold more than 26% equity in a consortium will be reckoned for the purposes of computing the technical score and financial scores. Further, each such member is required to hold at least 26% till COD. The RFQ does not micromanage further by giving additional/less weightage for the respective equity contribution of individual members as long as they hold 26%. The justification for the proposed arrangement is not clear or evident. In any case, a large foreign

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
		Score of a member and his proposed equity stake (%) in the Consortium. Provided that the financial strength or the experience score taken into assessment will be only of those who contribute a minimum 26% share to the Consortium. For illustration and avoidance of doubt, the following method is placed in clarification is placed: If Company A (Networth: Rs. 1000 Crores) & Company B (Networth: Rs. 500 Crores) in a Consortium with shareholding of A as 60% and B as 40% then the Weighted Financial score of the Consortium shall be: For Weighted Financial Score 1000 X 60% + 500 X 40% = 800 crores For Weighted Experience Score If Company A has been assessed to have an Experience Score of 1,000 and Company B has been assessed to have an Experience Score of 5,000, in a Consortium with shareholding of	corporate can state at the RFQ stage that it will contribute 74% and later reduce it to 26%. If further clauses are added to restrict such transfers, it would lead to unnecessary rigidly. The proposed change seems unnecessary and restrictive.

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
		A as 60% and B as 40% then the Weighted Experience Score of the Consortium shall be: 1,000 X 60% + 500 X 40% = 800.	
5	Short –listing of Applicants		
	3.5 Short-listing of Applicants (existing provision has been taken from model RFQ document published by Planning Commission) 3.5.1 The credentials of eligible Applicants shall be measured in terms of their Experience Score. The sum total of the Experience Scores for all Eligible Projects shall be the 'Aggregate Experience Score' of a particular Applicant. In case of a Consortium, the Aggregate Experience Score of each of its Members, who have an equity share of at least 26% in such Consortium, shall be summed up for arriving at the combined Aggregate	**3.5 Short-listing of Applicants** 3.5.1 The credentials of eligible Applicants shall be measured in terms of their Experience Score. The sum total of the Experience Scores for all Eligible Projects shall be the 'Aggregate Experience Score' of a particular Applicant. In case of a Consortium, the Aggregate Experience Score of each of its Members, who have an equity share of at least 26% in such Consortium, shall be summed up for arriving at the combined Aggregate Experience Score of the Consortium. 3.5.2 The Experience Score of the Applicant shall be then weighted as a weighted average of the Experience Score of a member and his proposed equity stake (%) in the Consortium.The	As per noting of Secretary (PC), the proposed amendment is dropped.

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
	Experience Score of the Consortium. 3.5.2 The Applicants shall then be ranked on the basis of their respective Aggregate Experience Scores and short-listed for submission of Bids. The Authority expects to short-list upto 6 (six)[26] pre-qualified Applicants for participation in the Bid Stage. The Authority, however, reserves the right to increase the number of short-listed pre-qualified Applicants by adding additional Applicant. 3.5.3 The Authority may, in its discretion, maintain a reserve list of pre-qualified Applicants who may be invited to substitute the short-listed Applicants in the event of their withdrawal from the Bid Process or upon their failure to conform to the conditions specified herein; provided	Applicants shall then be ranked on the basis of their respective weighted Aggregate Experience Scores and short-listed for submission of Bids. The Authority expects to short-list upto 8 (eight)[26] pre-qualified Applicants for participation in the Bid Stage. The Authority, however, reserves the right to increase the number of short-listed pre-qualified Applicants by adding ( ) additional Applicant/s. 3.5.3 The Authority may, in its discretion, maintain a reserve list of pre-qualified Applicants who may be invited to substitute the short-listed Applicants in the event of their withdrawal from the Bid Process or upon their failure to conform to the conditions specified herein; provided that a substituted Applicant shall be given at least 30 (thirty) days to submit its Bid.	

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
	that a substituted Applicant shall be given at least 30 (thirty) days to submit its Bid. (*Footnote 26. The Authority may, in case of repetitive projects that attract a larger number of bidders, or where the total project cost is less than Rs. 500 crore, increase the number of short-listed bidders to 7 (seven). In case of power projects to be awarded on the basis of statutory guidelines for tariff-based bidding and having no obligations or liabilities for buy-out of project assets or any similar obligations, the Authority may suitably increase the number of short-listed bidders.)*	(*Footnote 26. The Authority may where the total project cost is less than Rs. 3,000 crore, increase the number of short-listed bidders to 10 (ten).*	
6	**Curb on Non-performers**		
	sub-clause under clause 2.19 of RFQ (Tests of responsiveness)	The Following may be added as clause 2.19.3 of RFQ Any entity (the Bidder, its Member or Associate was, either by itself or as member of a consortium) which has been barred by the Central Government, or any entity controlled by it, from participating in any project (BOT) or otherwise), and the	

Sl. No.	Existing Provision	Proposed Amendment by NHAI	Remarks
		bar subsists as on the date of Application, or has been declared by the Authority as non-performer / blacklisted would not be eligible to submit an Application, either individually or as member of a Consortium.	
7.	**Flexibility in Auditor Certificates for Foreign Applicants**		
	New sub-clause under clause 3.4 of RFQ (Financial information for purposes of evaluation)	The following may be added as clause 3.4.4 of RFQ In case of foreign companies, a certificate from a qualified external auditor who audits the book of accounts of the Applicant or the Consortium Member in the formats provided in the country where the project has been executed shall be accepted, provided it contains all the information as required in jthe prescribed format of the RFQ.	As per noting of Secretary(PC), the proposed amendment is dropped

Colossal wastage by NHAI

There is colossal wastage of public funds in several projects of the National Highway Authority of India (NHAI). On a single section of National Highway-14 & 76, **it wasted Rs. 830 crore** ($175 million)! On another section of NH-76, **it wasted Rs. 940 crore** ($ 200 m)!! **On just two projects covering a length of 280 km, NHAI wasted about Rs. 1770 cr. These are only samples. There are several other similar cases that would establish wasteful expenditure of several thousand crore of rupees while the bulk of NH network continues to languish in neglect.**

The first case relates to four-laning of the Swaroopganj-Udaipur highway in Rajasthan (120 km) at a **cost of Rs. 1,070 crore implying an average cost of Rs. 8.92 crore per km**. In addition to the four-laning of the said highway, NHAI built service roads on a length of 27 km and added one railway over-bridge and two flyovers with six lanes each. According to data provided by NHAI, **the tollable traffic on this road is only 2,034 PCUs** (about 1,020 vehicles). Even if toll-exempt traffic is added, such as tractors, bullock carts and motor cycles, the number would perhaps, reach around 2,500 PCUs (about 1,250 vehicles).

The second case relates to four-laning of the Chittorgarh-Kota highway in Rajasthan (160.5 km) at a **cost of Rs. 1,260 crore implying an average cost of Rs. 7.85 crore per km**. In addition to the four-laning of the said highway, NHAI built **service roads on a length of 43 km** and added **one railway over-bridge and one flyover with six lanes each**. According to data provided by NHAI, **the tollable traffic on this road is only 4,348 PCUs** (about 2,100 vehicles). **To compound this excessive over-engineering, NHAI has built this road in cement concrete which is significantly costlier than the usual bitumen roads.** Even if toll-exempt traffic is added, the number would perhaps, reach around 5,300 PCUs (about 2,600 vehicles).

According to the standards laid down by the Indian Roads Congress (IRC: 64-1990), **a two-lane road with paved shoulders is adequate for carrying upto 17,250 PCUs** whereas a four-lane highway can carry upto 40,000 PCUs. **If NHAI had built a**

two-lane road on this section, it would have sufficed for 40 years in the first case and 30 years in the second case, assuming an annual traffic growth of 5%. Service roads and six-lane bridges may have been required well after 50 years, but these have also been built now. Even if an annual growth rate of 8% is assumed in these cases, a two-lane road would still suffice for over 20 years. At present, the highways are so under-utilised that assuming an average speed of 50 kmph, **the average gap between two vehicles on each lane would be 4 km** in the first case and about 2.5 km in the second case. During peak hours, it could be 2.5 km and 1.5 km respectively. Evidently, it reflects excessive over-engineering by any standards. Building a four-lane highway where two lanes would have sufficed for at least 30 years **amounts to building a road for our grand children**!

NHAI officials would argue that the above road forms part of the East-West corridor of NHDP-II. They seem to suggest that the corridor approach means a continuous four-lane road extending over a thousand kilometers, irrespective of traffic. As a matter of principle, **the width of a road cannot be divorced from the traffic it carries. The level of service (LOS) on a given road is determined by its width in relation to the traffic volume it carries**. Thus, the level of service on a two-lane highway carrying 10,000 PCUs would be 'A' and the same ranking would apply to a four-lane highway that carries 20,000 PCUs. So if a four-lane highway is built for 10,000 PCUs, it simply means wastage of scarce resources in creating empty lanes without traffic. **In the first case, a two-lane highway may have cost about Rs. 240 crore, as against Rs. 1,070 crore actually spent on this four-lane highway. In the second case, it would have cost Rs. 320 crore, as against Rs. 1,260 crore actually spent.**

NHAI officials would further argue that four-laning of the above road was a Cabinet decision and they have only complied with it. However, the question to ask is whether the Cabinet was ever informed that the traffic volumes did not justify anything more than 2 lanes for the next 30 years. Were these issues ever raised and discussed in the NHAI Board? **Did any official of NHAI ever state that the specifications and costs were excessive?**

Even if it is assumed that the Cabinet mandate for a 4-lane highway had to be complied with, it was possible to build a four-lane road without paved shoulders. According to IRC Guidelines (IRC: 64-1990), four-lanes without paved shoulders can

carry upto 35,000 PCUs and this would have saved over Rs. 1.5 crore per km or over Rs. 180 crore and Rs. 240 crore respectively on the two projects. Moreover, even if four-lanes were to be constructed pursuant to the said Cabinet decision, this could not have been stretched to include several six-lane flyovers, major bridges and Railway over-bridges. Similarly, service roads of 27 km and 43 km respectively could not have been justified when the main road itself is virtually empty?

As for the sanctity of Cabinet decisions, NHAI has been resisting a three-year old Cabinet mandate on six-laning of the Golden Quadrilateral on the ground that traffic on some sections is inadequate (say 75% of the required traffic). In the above cases, however, NHAI built four-lane highways when the traffic was less than 25% of the capacity of even a two-lane highway. Such a response is common to several cases, and **suggests that when there is an opportunity to award cash contracts, it is quickly exploited but when control is to be ceded to the concessionaire of a PPP project, it attracts stiff resistance from NHAI**.

NHAI has so far four-laned about 10,000 km of national highways. This still leaves over 57,000 km of national highway to be upgraded. The latter are maintained by the respective State Governments and they remain in a state of neglect while **NHAI apportions all the cess revenues to itself for awarding wasteful cash contracts** in a large number of cases. The Eleventh Plan envisages that one-third of the cess revenues should be allocated for non-NHAI roads but this has not been done so far.