

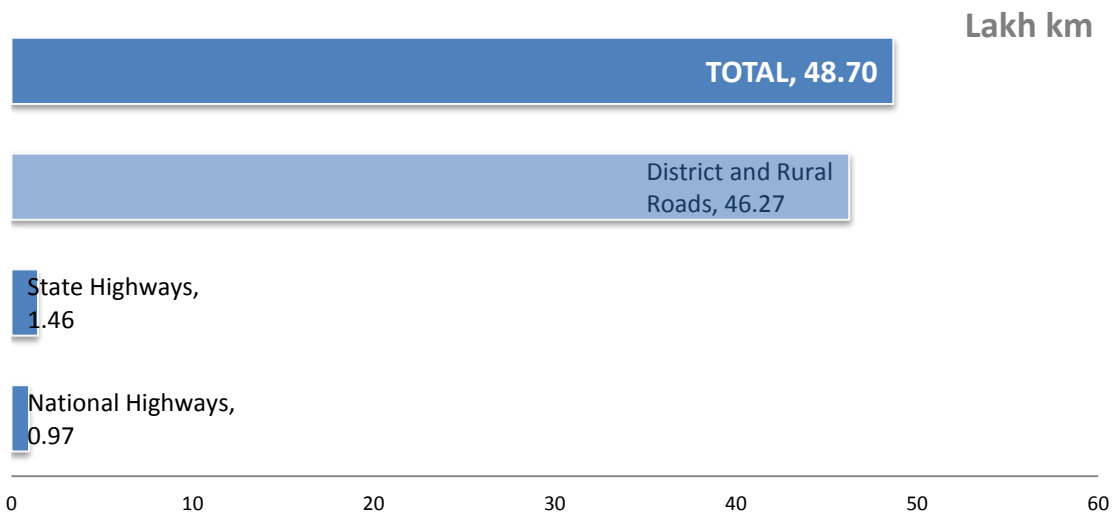
HIGHWAYS

1. Introduction

Roads are definitely the most common mode of any out-of-home movement, and invariably the first and the last physical link between most origin-destination trips. Contingent on capacity, roads sufficiently display the characteristics of a public good- being non-rival and non-excludable.

While India has benefitted from dramatic investment increases for expansion of the national highways (the ambitious NHDP) and the notable increase in rural road footprint (through PMGSY), the overall capacity and quality of the road network still leaves much to be desired. Substantial variation in highways across their classification and through geographical boundaries is unhelpful and impacts mobility. At the same time, slackening overall pace, land issues¹, blocked capital and the resultant decline in private interest is worrying. Building institutional capacity, addressing regulatory hurdles and inducing competition would do much to accelerate highway infrastructure delivery, propelling much needed economic growth.

India holds the distinction of being the second largest road network in the world today at 4.8 million km, together with the densest (road km/sq.km) network among comparable sized economies. This network facilitates movement of more than 60 per cent of all goods in the country and 85 per cent of India's total passenger traffic. Roads and Highways in India have seen dramatic increases in investment over the last two decades resulting in improved physical connections between cities, towns and villages in the country. Various development programmes for different classes of roads have yielded a significant expansion in network size. With the notable exception of the National Highways Development Project (NHDP), the major focus of this network expansion has been to improve connectivity rather than to increase network capacity².



Source: Ministry of Road Transport and Highways, July 2015

Pradhan Mantri Gram Sadak Yojana (PMGSY) scheme that specifically focuses on improving new connectivity and upgradation of rural roads has benefitted rural economy immensely. The government has recently announced another major initiative - the Bharat Mala project, aimed at developing 5,600 km of new roads all along the border and coastal areas at an estimated cost of Rs.56,000 Cr. Additional 4,700 km of roads to connect religious and tourism centres and to enhance connectivity in backward areas is expected to come up at an estimated cost of Rs.44,000 Cr. Besides this, world-class highways will be developed to connect 100 of the 676 district headquarters in the country. While National Highways are being developed motivated by urgency in improving trunk capacity, and rural roads in ensuring universal connectivity all of which is revered, there has been no fundamental stimulus for State highways and District roads. The development focus has somehow been on either end of the road

spectrum; with the middle layers left mostly unattended and to that extent have constrained inclusive network capacity.

Whichever way the Indian road network grew, certain worrying characteristics have applied uniformly across all through. The roads are usually capacity-constrained, slow, unsafe, pathetically maintained and patchily administered. Meanwhile, efforts to improve the situation are hampered by delayed clearances, multiple overlapping authorities and jurisdictions, frequently changing rules of engagement with the private sector, unyielding land laws, and skill shortages³. Further, weak quality monitoring and poor data recording do not help timely operational corrections, much less any scope for rational long range planning. Often, the roads are allowed to deteriorate to levels where their use becomes untenable proving regular maintenance to be inadequate, necessitating much expensive rehabilitation.

BOX 1

Road Planning in India

It might be worthwhile to briefly note the history of formal road planning and development in India. The first attempt at formulating a long-term road development plan was the Nagpur Plan of 1943. It envisaged 200,000 km of road network to be delivered over a twenty-year period i.e. by 1963. It also laid the genesis for the familiar modern hierarchical division of the road network as determined by certain objective criteria. According to the Nagpur Plan, National Highways would pass through the states, and places having national importance for strategic or administrative purposes. State highways would link state capitals with other large cities in the state, and district roads would take traffic from the main roads into the interior of the district – merging these two types of road as State highways. Finally, rural roads would connect villages with major roads. The classification of the road network was therefore largely defined by the settlements that a road linked. A new 20-year plan, the Bombay Plan of 1961-81 for Indian roads was subsequently adopted to bridge the development gaps of the last plan, with rural accessibility being the central theme. The Bombay plan for the first time made the case for access controlled highways as well as went on to refining the State highways classification. This was followed up by the third twenty year plan 1981-2001 proposing for the first time, ‘softer’ considerations such as energy conservation, environmental impact and road safety as integral to road policy and infrastructure together with the ubiquitous goals of network expansion, raising capacity and improving accessibility.

In 2001, the Ministry of Road Transport and Highways formulated the Road Development Plan Vision: 2021 focused on mobility of main roads and increasing rural access. Last two decades have seen some of the most ambitious road development schemes such as NHDP, PMGSY and much of the road growth in India. India now plans to build a 5,000 km road network all along the borders and coastal areas under a scheme called Bharat Mala in next five years.

Source: India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

2. Institutional Framework

Roads in India are categorised into three broad hierarchical systems – primary, secondary and tertiary.

- National highways constitute the primary system. Forming just about 2 per cent of the total road network they carry 40 per cent of total traffic. These primary highways traverse the length and breadth of the country connecting major ports, State capitals and union territories and large industrial and tourist centres, and

include roads for strategic considerations. Contrary to the traditional view that a National Highway facilitates intercity travel and transport of goods, it is an integral part of the road network serving the rural areas.

- State highways (SH), together with Major District Roads (MDR), constitute the secondary system and provide links with higher and lower order roads in the total journey. They link with NHs, district headquarters of states and important towns, tourist centres and minor ports. These roads characterize medium mobility and accessibility, essentially serving collection and distribution. Representing about 4 per cent of the total road network these highways carry 25 to 30 per cent of the total road traffic.
- Rural roads cover Other District Roads and Village Roads forming the tertiary road network.

A number of organisations are responsible for the administration of the road network at various levels of government. With the exception of PMGSY roads, MoRTH is the managing central agency for the nation's road network. The grid below illustrates the broad institutional framework governing the administration, finance and execution of the various road classes.

Road Category	Administrative and Financial Control	Execution responsibility
National highways, expressways	Centre* - Ministry of Roads Transport and Highways	National Highways Authority of India, State Public Works Departments (PWD), Border Roads Organisation
State highways, major/other district roads	State Govt.	State PWDs (and subordinate agencies)
Panchayat, rural and urban roads	State Govt. / Ministry of Rural Development (PMGSY)	State / Local governments

*Certain expressways can also be under the State Govt.

CIRC Working

All the State governments typically have PWDs, which undertake the provision of road infrastructure. Road Development Corporations/Boards (RDC) in many states have been created as an implementation arm of the PWD to promote and administer PPP contracts. Although their overall mandate is limited in comparison with the regular road authorities, their corporate structure provides them the leverage of faster implementation and expeditious decision-making capability⁴.

With the road network's widely distributed nature and role, it is not surprising that an exceptionally large number of institutions and agencies are responsible for design, construction, operation and maintenance at all levels of government. Given the multitude of responsibilities and functions associated with all classes of roads this is perhaps only cogent. However, the current institutional arrangements limit inter-agency coordination or network thinking. Horizontal and vertical inter-agency cooperation is clearly lacking. Roads are not always built in harmony with existing or planned land use, to ensure inter-modal connectivity, and to connect well with other parts of the network to boost overall capacity. The road agencies do need considerable capacity building for more consistent implementation of the government mandate.

3. Stakeholder Concerns

The roads and highways sector in India is presently experiencing significant dormancy and the stakeholders have their valid concerns. Private participation and investment in the sector has almost dried up, with several new projects remaining unbid and existing projects being delayed, stalled or abandoned. A situation exacerbated by the economic slowdown, the prime stumbling blocks have been hasty bidding without adequate control for pre-construction activities, land issues, weak preparation of feasibility reports by the government, unrealistic cost estimates, poor traffic forecasting, lack of developers' ability to achieve financial closure, cost escalation due to delays etc. Some projects saw an escalation of as high as 30 per cent on account of costlier land and raw materials. A large number of disputes have arisen between road concessionaires and NHAI because of unsatisfactory contract or poor contract management. As per recent (April 2015) estimates, road projects worth more than Rs.25,000 Cr are stuck in disputes between the developers and the highways regulator National Highways Authority of India (NHAI). A private developer recently secured an arbitration award of Rs.217 Cr for the extension of time (EOT) cost claim in Lucknow-Muzaffarpur National Highway Project; delay was caused due to non-handing of land in time to execute the work. More generally, the balancing of risks between government and private enterprise has been wanting of a consistent framework that is fair, rational, and sustainable.

Many experts also attribute the slump in the sector to aggressive bidding by private players quoting high premiums (negative grants) assuming high project returns without adequate due diligence, only to later find funding these payments unfeasible. Many such entrepreneurs have been seeking lenient premium-rescheduling norms. This has been an area of concern for the Government and it has been exploring execution formats to circumvent such practices. According to the Rangarajan committee report in 2014, projects facing economic stress are allowed to avail relief under a revenue shortfall loan clause given in the model concession agreement. The amount of shortfall between the toll revenue collected by the highway developer and expenses incurred, including operation and maintenance costs and debt servicing and premium payments, can be extended as a loan to companies which have been seeking a rescheduling of premium. The recent Union budget escalated allocations to Rs.42,912 Cr as compared to Rs.28,881 Cr apportioned to the sector the previous year. The Ministry has also set an ambitious target of constructing 30 km of road per day within two years. While many such initiatives do help to infuse confidence, but these will have to be translated on ground through robust mechanisms to have measurable outcomes. One of the most important stakeholders, the users of the road network have their own concerns, broadly with the overall expectation of improved and affordable mobility.

A simplified but representative tabulation of the concerns of the main stakeholders in the road and highways sector - the Govt. (as planners and implementers), the private players (investment and execution partners) and the Users of the network is presented here below:

Stakeholder	Concern
Government	<ul style="list-style-type: none"> - Deliver a dense road network that can efficiently balance capacity and connectivity, consistent with political goals, technical requirements and financial judiciousness - Adequate market competition and rational bidding - Develop highway agencies to be efficient network managers
Private Player	<ul style="list-style-type: none"> - Encumbrance free Right of Way (RoW), adequate return on investment, equitable risk allocation - Access to finance - Improved governance and transparency

**Service Provider/
User**

- Efficient (accessible, safe and affordable) highway network
- Well maintained and congestion free roads and highways
- Improved governance and transparency

In trying to address these concerns or to decipher what all is currently impeding highway development, it is useful to note the litany of issues surrounding the sector, along with possible interventions planned.

4. Regulation and Competition in the sector

A range of regulatory and administrative issues currently plague development of the Indian roads and highways sector. Some of the bigger challenges are difficulties in acquiring land, securing environmental clearances, and managing private participation. We focus on few of these here:

4.1. The Right of Way

The acquisition of contiguous land for road projects has been one of the biggest challenges⁵, both for the govt. and the developers. The existing land laws in India make it difficult and time-consuming to acquire the land required to complete infrastructure projects. Commonplace time overruns in road construction often blame delayed land acquisition as the dominant reason for schedule slippages. At the same time, even small changes made in alignment to compromise with accessible Right of Way (RoW) can have adverse implications for overall project costs, as well as for road safety and the environment. Regulatory fault lines lie along issues related to valuation and compensation, acquisition of agricultural, forested, hereditary and tribal lands, and government right to eminent domain⁶. The recently introduced - the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (LARR Act 2013) attempted to right some of the wrongs of the antediluvian Land Acquisition Act, 1894 by working on the principles of consent, compensation, social impact assessment, resettlement and rehabilitation among others. In the process, however, it yielded a complex system which would significantly increase the time and cost of any project⁷, thereby delaying the benefits to all. In attempting to ease this, the incumbent govt. introduced certain changes in 2014 proposing to amend the LARR Act 2013 through an ordinance. These changes⁸ however appeared to be made at the cost of desirable protection and participation of landowners and displaced farmers. Unable to pass through both the constitutional houses despite iterations, the Ordinance has been allowed to lapse in August 2015.

Either ways, it's a national loss. As the likely way forward and something that the Union govt. is seemingly convinced on is that the states will need to take the lead and come up with their own laws in order to ensure that the land acquisition process continues. Acquisition of property is a List-III, Entry 42 subject provided for in the concurrent list. The provisions of article 254(2) provide that a state government can bring legislation on a concurrent list subject that conflicts with the Central legislation provided the Presidential assent is given to such legislation. Possible learnings could be drawn from Tamil Nadu; it was the first and only state⁹ to seek and receive Presidential assent to exempt three major categories from the purview of the Land Acquisition, Rehabilitation and Resettlement Act. In particular, land acquisition done under the Tamil Nadu Highways Act, 2001; the Tamil Nadu Acquisition of Land for Industrial Purposes Act, 1997 and the Tamil Nadu Acquisition of Land for Harijan Welfare Schemes Act, 1978 is outside the purview of the consent clause and Social Impact Assessment clause. Around four-fifths of the land acquired in Tamil Nadu is acquired under the three acts mentioned.

Whereas the option for the States to frame their own land laws on grounds of development may look plausible, there are however legitimate concerns around the resultant progress and development being non-uniform. Given that different States present varying level of institutional maturity and capability, the effectiveness with which they develop and implement these laws could be significantly disparate, again an unsupportive situation for highway

growth. Land acquisition to build new roads in tribal lands for providing much-needed connectivity to hitherto neglected populations, as well as for roads essential for national security and integration is especially fraught and must be addressed by sound policy and judicious administration.¹⁰ There is a need for innovative thinking to develop mechanisms which would address both sides of the problem, such as making those parting with the land partners on the project or long-term lease based approach.

4.2. Competition - Private Participation

More than to ease capacity and financing constraints, a Public Private Partnership (PPP) should be viewed as an effective tool to promote competition in service delivery and improve the quality of service. The commonly cited rationale of engaging PPPs for accessing finance is still a weak argument as Governments should typically be able to access finance at lower cost than any private companies. At the same time, private borrowing creates long-term economic liabilities that may be difficult to justify if private sector efficiencies do not reduce the overall financing required relative to public finance and implementation¹¹. Within the limited universe of road projects amenable to a PPP (Build-operate-transfer, Design-build-finance-operate-transfer, etc.) format, these partnerships have indeed benefited to accelerate infrastructure development in India and often offered better value for money while also helping at least short-term release of fiscal pressures. This implies better quality of services and assets over the long term with improved productivity and coverage. Another benefit of PPP is the result of the usual bundling of construction, maintenance and rehabilitation for the life of the project/concession, usually from 25 to 30 years¹². However, these partnerships are susceptible to weak planning and feasibility studies, unresolved land issues /regulatory clearances and ambiguous risk allocation and conflict resolution. Road PPPs in India have unfortunately been saddled with most of these.

Once considered a model sector for demonstrating impressive growth through leveraging public private synergies (popularised as BOT projects) till about 2010, the roads and highways sector has since slowed down to a crawl. The lack of private interest in public projects is not a sudden phenomenon but a trend that has developed over time and needs deeper assessment of what possibly went wrong. About twenty projects that were bid out by the National Highways Authority of India (NHAI) on public-private-partnership (PPP) route during 2012-14, none of the projects could generate a response. Intuitively, this cannot be a result of one single factor but for more reasons including a cooling economy. As mentioned elsewhere, the reluctance of the private sector to participate in roads and highways projects is partly due to the bottlenecks in the government's project approval process, followed by delays in obtaining the requisite permits to commence construction. As these projects require a long gestation period, the widespread delays in acquiring land or Right of Way (RoW), clearances for rail over-bridges (RoBs) and rail under-bridges (RuBs), shifting of the utilities etc. further lead to both time and cost overruns¹³. These delays in obtaining approvals often result from a lack of coordination between various govt. departments, leading to the projects being rendered financially unviable¹⁴ for private participants. In addition, most of competitive bidding processes effectively involve bets on future traffic flows, exposing these projects to considerable demand risk.

The upshot is that while PPP projects do have the potential of delivering benefits, the governance needs to improve significantly for PPPs in India to deliver value commensurate with their potential. Road PPPs can induce large benefits and increases in efficiency, but the legal, institutional, procedural and regulatory framework and the PPP contract design and oversight are critical¹⁵. As immediate steps to boost private confidence and sector competition, certain measures are being advanced by the Govt., a. to limit private sector exposure to demand risk and b. to strengthen the dispute resolution mechanism.

Risk Rebalancing

Hybrid Annuity Model. In trying to rebalance the risks in PPP model with the govt. bearing a larger share, a new PPP format - Hybrid Annuity Model (HAM) is being experimented on some of the national highway projects. Hybrid Annuity Model (HAM) is conceived more as a mix of EPC and BOT (Annuity) models, with government and private enterprise sharing the total project cost in the ratio of 40:60. The govt. funding 40 per cent of the project cost

during construction will reduce the upfront financial burden on concessionaire. The revenue risk as also the tolling rights will be retained by the govt. while the private player bears construction, operation and maintenance risks. When compared with EPC projects, shift to Hybrid Annuity model would certainly ease the cash flow pressure on NHAI as it needs to provide only 40% funding spread over the 30-36 months of construction period, and remaining 60% over 15-20 years of the concession period, in the form of semiannual payments which can partly be recovered through tolling¹⁶. The model benefits the developers by reducing the financial closure requirement to 60% of the total project cost. Despite some risk dilution through the HAM format, the govt.'s ability to ensure speedy statutory clearance and RoW would again be inevitable in ensuring success of the model as well regenerating private interest.

Exit policy. In yet another convincing move to facilitate resource mobilisation, build investor comfort and boost competition in national highway projects, the Govt. has announced an exit policy. The Cabinet Committee on Economic Affairs (CCEA) recently approved an exit policy permitting developers to exit highway projects two years after completion of construction to release locked-in equity as potential capital for future projects. The developers of PPP projects, where concessions were signed even before 2009, will be allowed to quit the projects completely. About 80 PPP projects would have the developers substituted while extant players can take up new projects stuck for want of capital. A prime reasons for this is the lack of availability of equity in the market among qualified bidders. The exit policy essentially balances risks between industry participants based on their core strengths and their relative risk appetite. While exit policy will increase the liquidity for the project developers, it will remain to be seen whether the exiting concessionaires will actually plug it into other PPP projects. Meanwhile, the criteria for the assessment of the substitution will require robust due diligence.

To reiterate a point earlier made, the focus again appears to be skewed much in favor of the primary network. Considerable funds and thinking is devoted for the primary network which is essential, but the secondary network suffers from lack of funds. Secondly, Maintenance funding and its contracting arrangements are generally acknowledged to be inadequate and inefficient to maintain the quality of the roads and provide quality service to the road users. In India, for example, the poor condition of the secondary network is estimated to cause an annual loss of INR 200,000 million¹⁷. National priority schemes similar to NHDP and innovative PPP formats amenable to secondary network development need to evolve rapidly, for more uniform network and capacity enhancement.

Dispute Resolution

India's experience with road PPP illustrates the importance of managing disputes. These disputes in roads and highways tend to fall in a broad pattern. Land acquisition and clearance obligations for road sector concessions have been frequently contentious leading to litigation and lengthy delays. Disputes can arise from unreasonable scope variations or when traffic flows vary substantially from projections often provided by the public sector.

In the past, many projects were stalled due to aggressive bidding from the developers. Lack of a proper arbitration mechanism in turn generated considerable stress on the banking system. Due to their funds getting blocked, the banking system now shows limited capacity in terms of financing new projects. The NHAI although the apex government entity for the development, maintenance and management of national highways, cannot be considered to be a strictly neutral authority since it is a party to concessions for the development of highway projects. In addition, the NHAI does not have adjudicatory powers.

The FY16 Budget proposes to introduce Public Contracts (Resolution of Disputes) Bill for speedy dispute resolution, a positive development given that around Rs.200 billion worth claims are pending with NHAI¹⁸. An efficient dispute resolution process can expedite unlocking significant capital stuck under arbitration claims and improve the liquidity position of developers. Under the proposed bill, the govt. wants to set up an independent tribunal to deal with the differences and disputes that may arise during the implementation of public contracts (including PPP

contracts), refer these disputes to arbitral proceedings over which it would adjudicate and exercise supervisory control. The proposed Act lays down the process for the adjudication proceedings, hearings and enforcement of orders by the proposed Tribunal, which may be challenged by the aggrieved party only in the Supreme Court. The proposed two-stage dispute resolution process is expected to reduce the time taken for resolution of disputes arising from PPP contracts¹⁹. Another similar legislation issued by the Govt. to address commercial disputes is – the Commercial Courts, Commercial Division and Commercial Appellate Division of High Courts Bill, 2015. The objective clearly is to facilitate enforcement of commercial and infrastructure contracts, thereby making India a predictable, easy and less expensive place to do business.

While these steps are indeed opportune and well supported by international experience, the building up of these institutions itself should not increase operational / jurisdictional complexities. Such interventions should consciously avoid duplication of tasks, and clearly define the domain of different adjudicatory bodies which have been constituted²⁰. In particular, the Public Contracts (resolution of disputes) Bill must judiciously define public contracts, and should not limit the freedom and autonomy of the parties to select their arbitrators. Necessary flexibility in public contracts where the counter party is foreign-owned and controlled needs to be allowed. The ability to resort to international commercial arbitration is imperative and interference might disincentivise foreign investments into India.

5. Concluding Remarks

The road and highway networks have increased in length and gained complexity. Larger networks call for a different approach in planning, operation and management. Additionally, part of this network expansion in India's road infrastructure is being created through infusion of private capital and efficiencies. Introducing private sector participation does not eliminate the need for regulation; it only underscores the role of effective regulation and regulatory institutions. It is crucial that necessary regulatory structures evolve that help define the roles of public, private and public-private together in a manner that result in unambiguous formal and informal rules of the game, more balanced sharing of risks, dispute resolution and ensure fair returns to private investment while protecting consumer interest. As an instrumentality of the state, regulation is happily no longer seen in a state versus market dichotomy, but rather as one that reflects the changing role of the state towards market-led development²¹. To sum up and close the discussion, the following points are made:

1. There is a need for a more uniform planning and development of the road and highway network in India. Along with the honorable focus on the NH to boost trunk capacity and on rural roads to expand coverage, the middle layer – the secondary network (State highway and MDRs) that interconnects both, must improve to enhance overall capacity. The currently sub-standard roads have ramifications for the entire primary network. With only minimal length expansion needed for State Highways, the focus should be on consolidation the existing network – providing links to minor ports, industrial towns, connecting remaining district headquarters and strengthening bridges among others. Each state should formulate its own State Highway Development Project (SHDP)²². Constitutionally, these roads are to be funded by the states but there is a case for enhanced central assistance to make up for the past neglect.

Certain States on their part have experimented with PPP formats for their highway development needs rightfully utilising the central funds available from Viability Gap Funds (VGF) Scheme; Maharashtra, Madhya Pradesh, Gujarat, Rajasthan have been more successful than the others. PPP in state highways infact started much later compared to the national highways. This has been essentially due to the absence of a body like NHAI and a proper PPP policy at the state level. States were also apprehensive of their institutional strength to manage PPP. Lagging states should similarly draw on these experiences to augment resources and explore possible value for money through the available 'plug and play' or customized private project development formats. However, such

experiments will have to be first backed up with an appropriate policy, institutional framework and capacity building initiatives at the state level.

2. The infrastructure delivery should improve through better governance. Roads are not always built in harmony with existing or planned land use, to ensure inter-modal connectivity, and to connect well with other parts of the network and to that extent usually limit network efficiency. Coordination is required with various agencies at appropriate levels for pre-construction activities, land acquisition, rehabilitation and resettlement, trees, environment safeguards, utilities, railway over/under bridges and canal crossings²³. In particular, horizontal and vertical inter-agency cooperation that is currently lacking should become more institutionalized. In order to expedite the pace of the project, the government should facilitate all clearances at a single point. Perhaps, establishing a professional body such as the office of Transport strategy recommended by the recently concluded NTDPC with the broad mandate for developing larger coordinated plan for all modes of transport can prove helpful in setting the optimal direction which can then guide smaller plans.

At the same time, asset preservation beyond its creation is extremely vital. Road and highway maintenance, which is already a huge challenge, is only going to expand with the increasing footprint. India devotes far less effort than it should to maintenance relative to new construction. Rehabilitation then requires far more substantial financial resources than would preventive or routine maintenance measures. Importantly, preventive maintenance also imposes lower indirect and opportunity costs since the citizenry and government are less likely to have to contend with catastrophic failure, or with the decommissioning of important links in the network for lengthy periods of time²⁴. A clear demarcation of administrative responsibility between capital works and maintenance of each class of road, dedicated funding, sophisticated data recording and reporting mechanisms and innovative contracting arrangements can prove to be helpful in preserving these national assets.

3. Delivery of better planned, cost effective and efficient road network sufficiently addressing safety, quality and sustainability of assets would call for capacity building of the road agencies and the private sector. Most highway executing agencies present lack planning or long-term vision /strategies. To the extent plans exist, they are generally broad- based, and lack concrete output and outcome targets for which the implementing agencies can be held accountable. This makes it difficult to determine whether the goals, objectives and targets of the policy have been achieved. The nature of job of these agencies is transforming from being technical experts to network managers. However, limited capacity with respect to structuring and management of private concessions, risk management etc. is increasingly evident. At the same time, with the increasing magnitude in highway investments and sophisticated contracting models, the expectations for better governance and accountability are higher. The evolving role of the agencies requires them to establish systems for greater performance and to that extent an objective criteria to assess and improve their capacity needs to be developed. A study -“A Review of Highways Agencies in South Asia Region” was undertaken by the International Bank for Reconstruction and Development / World Bank to help governments and policy makers identify reforms required to modernize and strengthen the capacity and performance of their road agencies to deliver large investment programs. The Box 2 captures the broad indicator framework for such evaluation.

BOX 2

Capacity and Performance Indicator Framework for Road Agencies

Mandate, Policy and Legal Framework: Related to vision / mission statement of the highways agency and if a formal road policy, backed by a legal and regulatory framework exists covering development, asset management and safety.

Planning: Indicators on planning capabilities of the highway agency - existence of long- and short-term investment plans for both capital and maintenance works

Capacity: Highway agency's strength to deliver its mandate – budget expenditure efficiency, projects delivery, skill development strategies, and human resource management.

Efficiency: Efficient contract administration to contain time and cost overruns during the implementation. Monitoring the 'asset value' of the network is one such indicator.

Quality of Road Network: To assess the agency's ability to provide a safer, greener, reliable and more comfortable road network – viz. congestion intensity, network quality index, and accident hazards.

Private Sector Participation: Capability to attract and promote private sector financing

Governance: Institutionalising right to/ freedom of information, e-procurement, website, publishing of annual reports, road user satisfaction surveys, and grievance redress mechanisms.

Source: A Review of Highway Agencies in the South Asia Region by Rajesh Rohatgi et al. World Bank and DFID, 2011

4. Addressing the reasons for potential decline in private participation and to reinvigorate the inevitable public-private collaboration is crucial and fortunately an increasing priority for the Govt. The positive vibes from the government like setting up of National Infrastructure Investment Fund (NIIF), 5/25 mechanism for re-financing (project loan to be refinanced every 5 years, but repaid over 25 years), innovative PPP formats (HAM), easier exit norms for highway project developers and a facilitating mechanism for quick environment clearances should give a much needed fillip. Though permitting the concessionaire to sell its equity and exit from the project after two years of completing the construction does reduce its incentive to build a project that would last longer and can result in low-quality assets for the public. There is therefore need to exercise necessary caution, monitor and eliminate potential risks to public interest.

5. Setting up specialized tribunals and adjudicatory bodies have been the preferred mode of governments, present and past, to show their commitment to reforms. However, limited attention to ensure quality has resulted in costs of setting up such bodies outweighing their benefits. The experience with the constitution and operation of adjudicatory bodies shows that weaknesses creep in at three points: skills, resources and accountability²⁵. Whereas the Public Contract Tribunals are expected to make a decision expeditiously, no accountability mechanisms are in place to ensure compliance with such provisions. Multiple bodies expected to come under different legislations, do increase the possibility of forum shopping and jurisdictional conflicts. Consequently, the need of the hour is to clearly define and differentiate the scope of work of different adjudicatory authorities.

Fortunately for India, a significant part of the logistics network is still to be built. So the country can make up for past inadequacies and use the opportunity to shape its future road and highway infrastructure network to an increasingly desirable state that helps develop both widespread access and capacity. However, with expectation of increased role of the private sector in provision of transport infrastructure and services, under normal circumstances the role of the state should be one of broad policy formulation and regulatory oversight. Such a role of the public sector should ensure competition in the sector, and potentially use regulation among other tools to ensure most efficient production of infrastructure.

ENDNOTES

¹ In India, for instance, 70 to 90 per cent of road projects suffer a 15 to 20 percent delay due to challenges in acquiring land – McKinsey Infrastructure Practice, Building India: Accelerating infrastructure projects, July 2009

² India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

³ *ibid*

⁴ A Review of Highway Agencies in the South Asia Region by Rajesh Rohatgi et al. World Bank and DFID, 2011

⁵ According to IDFC, land acquisition and forest clearances are the biggest bottlenecks to timely completion of projects.

⁶ India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

⁷ *The new, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act may have clarified some of these issues, but will also make land acquisition more expensive’* – India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

⁸ The ordinance did away with this consent clause for affordable housing, defence, rural infrastructure, industrial corridors and infrastructure projects. The social impact assessment clause was also done away with in these cases.

⁹ Tutorial from Tamil Nadu for states to get around land acquisition by Vivek Kaul, Firstpost, Sept. 2015

¹⁰ India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

¹¹ Engel et al. (2007); Hellowell (2010); World Bank (2007)

¹² India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

¹³ Road to Recovery, cover story – Infrastructure Today, 2015

¹⁴ In one such instance, GMR Infrastructure Private Limited (GMR) exited the high profile Kishangarh-Udaipur-Ahmedabad highway project in December 2012, for reasons related to delays in obtaining forest and environmental permits

¹⁵ India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

¹⁶ Indian Road Sector, ICRA Research Services (2015)

¹⁷ A Review of Highway Agencies in the South Asia Region by Rajesh Rohatgi et al. World Bank and DFID, 2011

¹⁸ Indian Road Sector, ICRA Research Services (2015)

¹⁹ India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

²⁰ When nothing is resolved in court - by Pradeep S Mehta (CUTS International), Hindu Business Line, July 2015

²¹ India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

²² *ibid*

²³ A Review of Highway Agencies in the South Asia Region by Rajesh Rohatgi et al. World Bank and DFID, 2011

²⁴ India Transport Report: Moving India to 2032, National Transport Development Policy Committee (2014)

²⁵ When nothing is resolved in court - by Pradeep S Mehta (CUTS International), Hindu Business Line, July 2015