Outlook

- The sector will continue to show growth
  - National Highways
    - NHDP V, VI, VII announced
    - Over 39000 km of National Highway to be bid out at an estimated project cost of USD 45.2 billion over the next 10 years
    - Government is in the process of forming a separate dispute resolution authority. This will also provide an impetus to the sector
- The new NHAI model concession agreement is expected to transfer onus for land acquisition and utility shifting to private sector. This may increase cost of future projects

Phase	Length & Nature of Development	Mode of Implementation	Total Cost (USD Bn)
NHDP I&II	1306 km to be awarded	Mix of BOT/EPC	11.64
NHDP III	11,113 km, 4 laning	BOT (Toll)	14.48
NHDP IV	20,000 km, 2 Laning with paved shoulders	BOT (Toll)/ BOT (Annuity)	6.18
NHDP V	6,500 km , 6 Laning	BOT (Toll)	9.16
NHDP VI	1,000 km Expressway	BOT (Toll)	3.71
NHDP VII	Ring Roads, Bypasses, Underpasses	Mix of BOT/EPC	3.71
SARDP – NE	Special Accelerated Road Dev. Program for NE	Mix of BOT/EPC	2.69

- States
  - Approximately 25000 km of state highways are expected to be improved at an expected cost of USD 20 billion over the next five years
  - To cater to the increasing vehicular traffic, several cities have announced programs to develop/upgrade over 1000 km of city roads at an approximate cost of USD 445 million

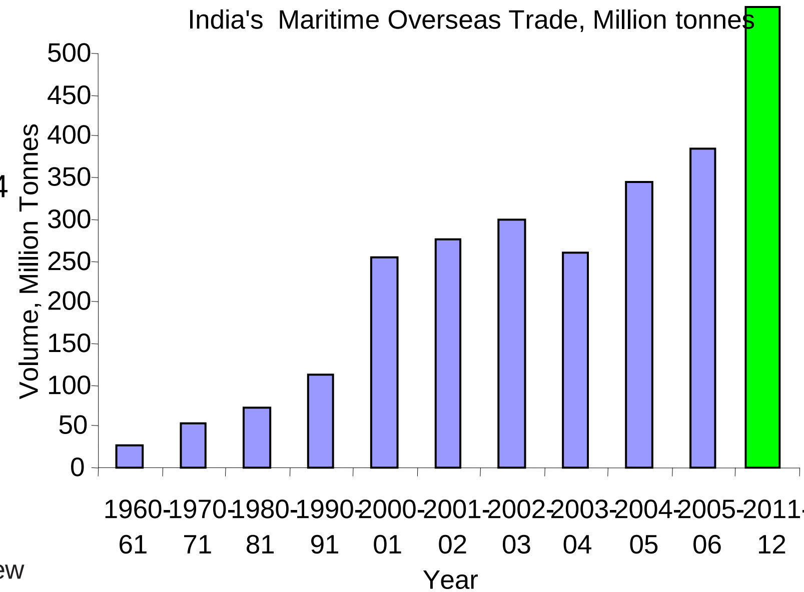
The Port Sector

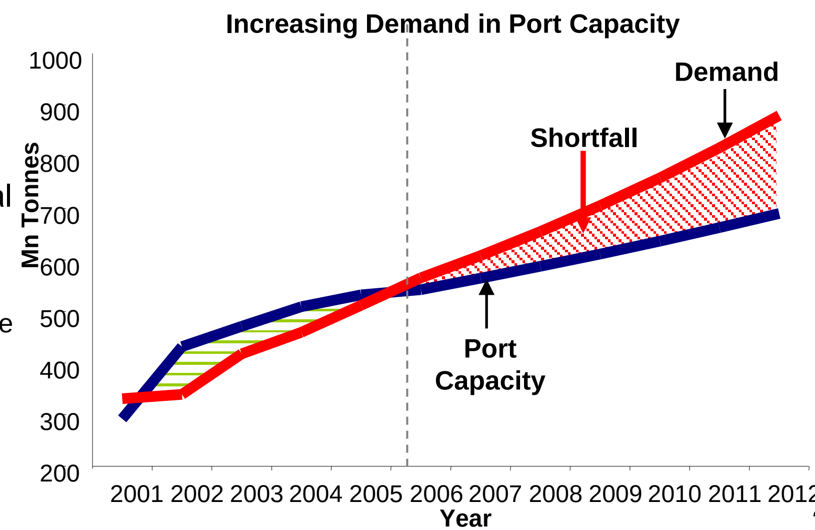
Initiatives

- Programs
  - National Maritime Development Policy (NMDP) announced in 2005, with an objective to develop maritime infrastructure of the country
  - Draft Maritime Policy recommends the formation of separate directorate of Ports in India
- Policies
  - Private Operators allowed to operate container trains and compete with Container Corporation (CONCOR)
  - Private participation allowed in development of Minor ports and terminals at Major ports
  - Private participation in dredging of ports is allowed to remove monopoly of dredging companies
  - SEZ Policy introduced with specific address to Port based SEZs
  - Revision of TAMP under consideration

Outlook

- Current capacity at all ports is 405.8 million tonnes as compared to 564 million tonnes of cargo being handled
- Cargo handling at all the ports is projected to grow at 7.7% p.a. till 2013-14 with Minor ports growing at a faster rate of 8.5% compared to 7.4% for the Major ports
  - Traffic estimated to reach 960 million tonnes by 2013-14
  - Containerised cargo is expected to grow at 17.3% over the next 9 years
- The National Maritime Development Program
  - To be completed over the next 10 years, the project envisages setting up of new ports, modernisation of the existing ones, and connecting all major ports with the Golden Quadrilateral and the North-South and East-West corridors
  - The total cost is estimated at USD 22 billion
  - The 10th plan has provided USD 516 million for this project
- The New Foreign Trade Policy envisages doubling of India’s share in global exports in next five years to USD 150 billion
  - A large portion of the foreign trade to be through the maritime route: 95% by volume and 70% by value



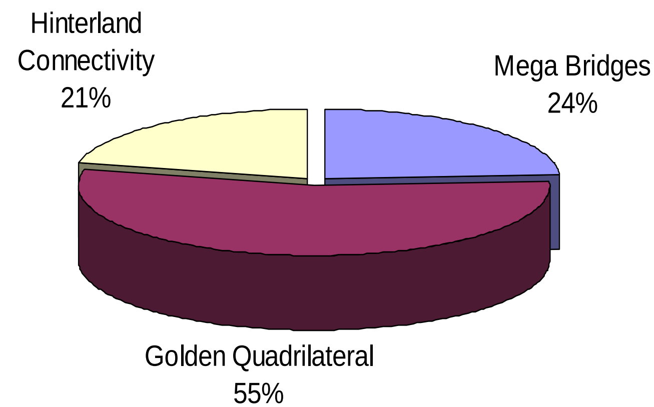


The Rail Sector

Initiatives

- Programs
  - The Ministry of Railways has launched the USD 3.3 Billion National Rail Vikas Yojana (NRVY) to strengthen the GQ and to improve Port Connectivity
  - Rail Vikas Nigam Ltd (RVNL), an SPV has been created to facilitate PSP in railway projects

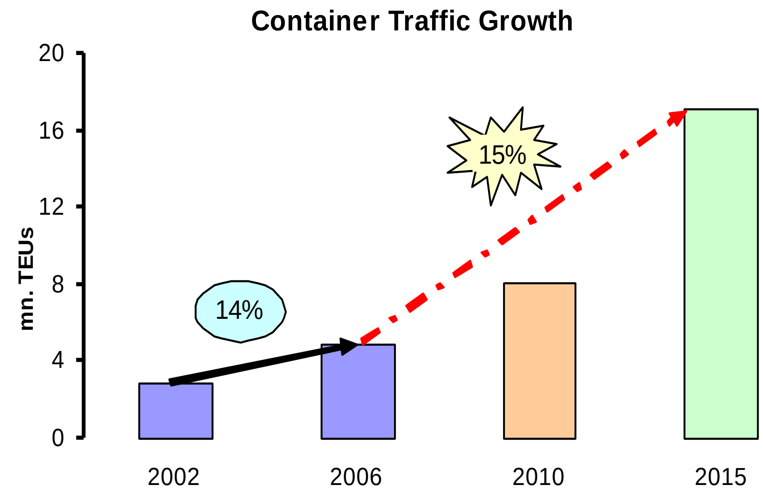
Breakup of Investments in Rail Vikas Yojana

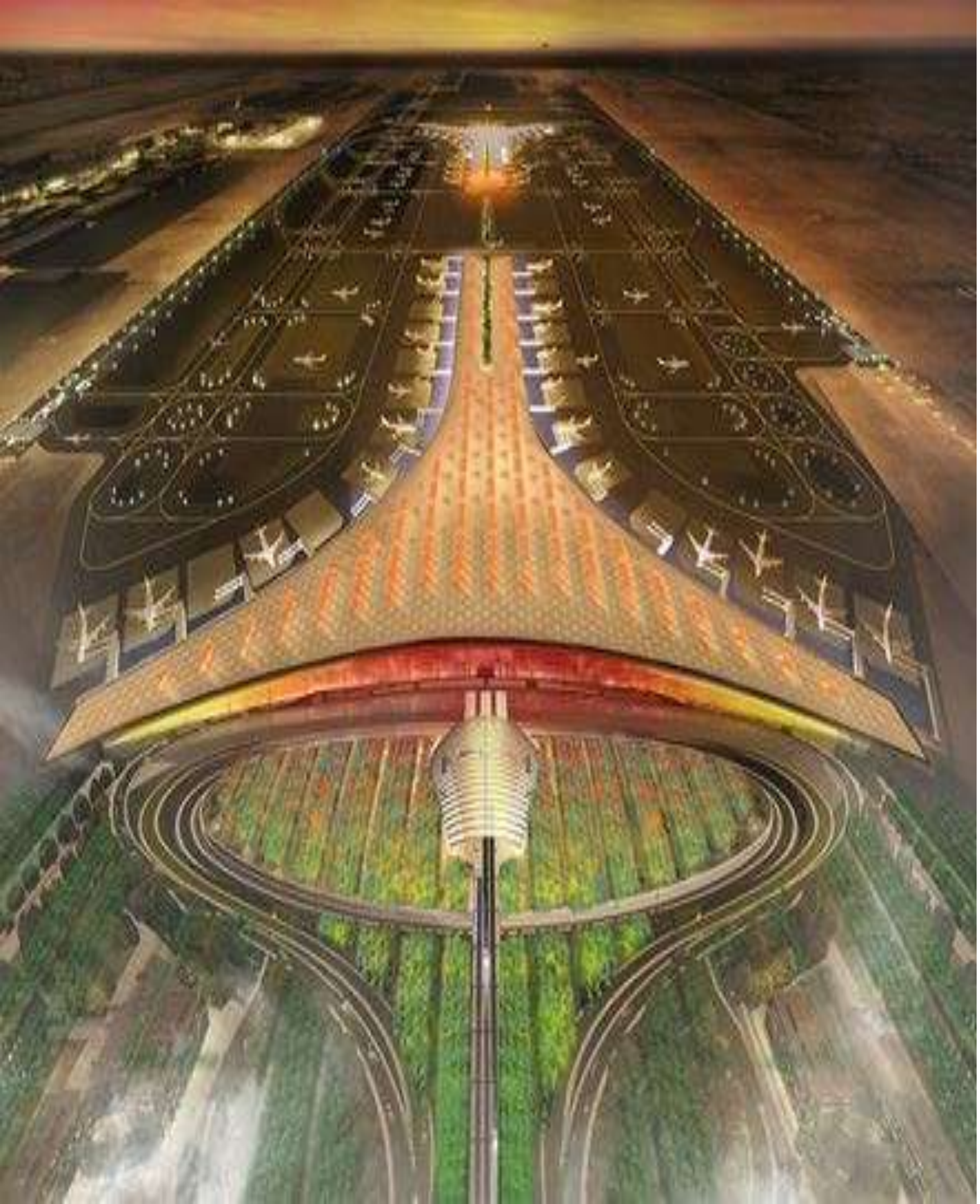


- Policies
  - Tariff Rebalancing and Rationalization of Fare and Freight Structures
  - IR has entered into a range of Memoranda of Understandings/ Agreements with various State Governments to execute projects on cost sharing/public-private arrangements
  - Private-Public Partnerships:
    - Pipavav Railway Corporation (for the development of Sundernagar – Pipavav Broad Gauge Line)
    - Hassan – Mangalore Rail Development Company (for gauge conversion)
    - Kutch Railway Company (for gauge conversion between Palanpur and Gandhidham)
  - A new BOLT scheme, that envisages private participation, has been initiated
  - The Indian Railways has created a USD 4 billon non-lapsable Special Railway Safety Fund (SRSF), to be invested over the next five years

Outlook

- Growing Container Traffic
  - New Commodities being containerized: Agri, Cement, Coal, Ores etc.
  - Containerization level expected to increase from approx. 15% to 25% by 2015
- Increase in domestic movement of containers
- Increased share of Railways in Cargo Movement
- Opening up of entire rail freight traffic to competition
- Expansion of role of various players as a result of private operations
  - Forward & Backward Integration opportunities for
    - CFS/ICD operators
    - Port/Terminal Operators
  - Emergence of efficient multi-modal operations
  - Emergence of a Commercial Market
    - Commercial arrangements between Banks, Manufacturers & Operators for rolling stock
    - Slot Trading
- The Delhi – Mumbai Corridor (USD 2.6 billion) and Delhi – Kolkata Corridor (USD 2.2 billion) will support 15000 ton trains with capacity of 30 ton axle load from 5000 ton train and 20.3 ton axle load currently





The Airport Sector

Initiatives

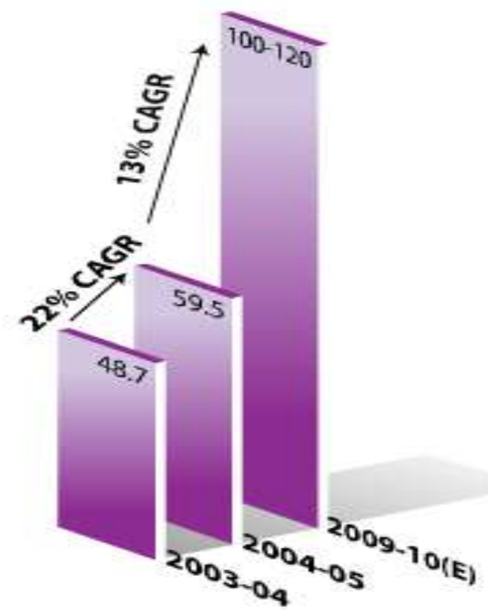
- Policies
  - The Airports Authority of India (AAI) was formed in 1995 by merging the International Airports Authority of India and National Airports Authority to accelerate the integrated development of airport facilities
  - Aircraft Rules 1937, amended for provision of grant of licenses, its validity and tariff fixation including:
    - Passenger Service fee
    - User Development fee
    - Ground Handling Provisions etc
  - The Airports Authority of India Amendment Bill formulated in 2003 (AAIAB) provides the legal framework for private investment in new and existing airports. The Main Provisions of AAIB:
    - 100% FDI under automatic route is permissible for greenfield airports
    - Private players in a joint venture with AAI can hold upto 90% equity in metro and 50% in non-metro airports
    - Maximum 49% foreign holding, 100% equity ownership by Non Resident Indians (NRIs) is permitted
    - Concession Agreement: 30 years. Provision for automatic renewal for another 30 years
    - Provision for the levy of an airport development fee on passengers to be used to upgrade or construct new airports

- Privatisation of Airports:
  - Cochin Airport: GoK, PSUs, NRIs, financing providers
  - Hyderabad Airport: Malaysian Airport Holding Berhad and the GMR group awarded the contract for developing a Greenfield airport in Hyderabad on a BOO basis.
  - Mumbai Airport : GVK –South African airports won the contract for modernization and operation of the airport
  - Delhi Airport : GMR-Fraport Germany won the contract for modernization and operation of the airport
  - Bangalore Airport : Consortium of Siemens – Zurich Airport and AAI
- 'Open Sky' Policy of the Government and rapid air traffic growth have resulted in the entry of several new privately owned airlines and increased frequency/flights for international airlines
- Independent Airport Economic Regulatory Body under consideration to
  - Set up an aeronautical price cap
  - Monitor and assess service quality standards set up by the Government
  - Review and assess aeronautical operations and capital expenditures

Outlook

- The domestic traffic is projected to rise from 12 million passengers in 1996-97 to 52.3 million in 2016-17. The international passenger traffic is expected to rise from 10.9 million in 1996- 97 to 33 million in 2016-17
- Air Travel more affordable
  - Scrapping of the 15% inland air travel tax and foreign air travel tax of Rs.500
  - Aircrafts with capacity below 80 seats exempt from landing charges
- Favourable growth prospects for the Indian Economy to propel greater travel
  - Resurgent manufacturing and service sectors
  - Tourism
  - Connectivity of rural and urban agglomerations
  - Globalization
- State Governments are willing to enter into frameworks for the development of airport infrastructure in the State

Growth of Passenger Traffic



Source: Ministry of Civil Aviation

Urban Transport

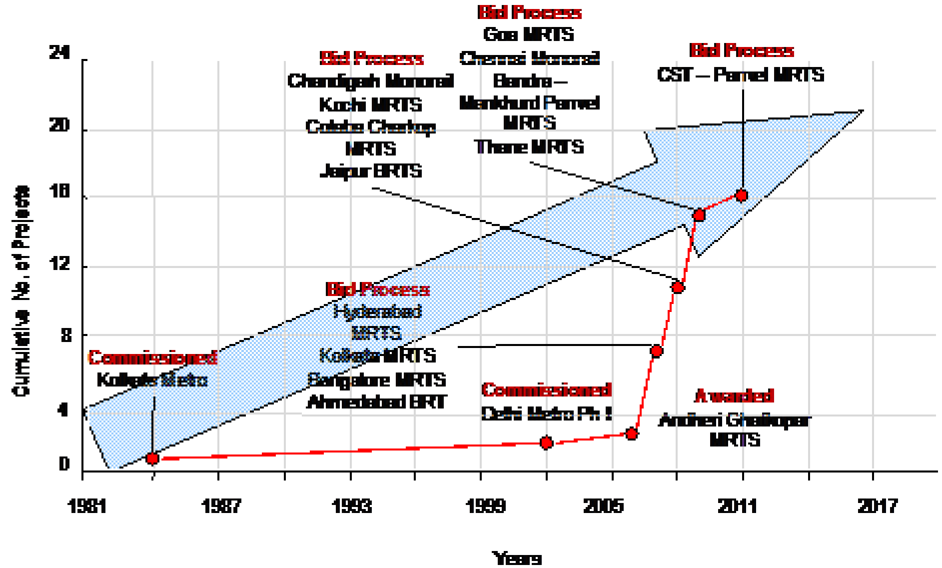
Initiatives

- Central Government has accorded priority to development of Urban Infrastructure under the Jawaharlal Nehru National Urban Renewal Mission. Urban Transport forms part of the mission
- Viability Gap Funding from the Central Government is available for development of Urban Transport Projects
- Several state governments - Maharashtra, Kerala, Andhra Pradesh, Chandigarh, Tamil Nadu, Goa, Gujarat and Rajasthan have initiated the development of Mass Rapid Transit Projects in their respective States for efficient Urban Transport
- The central government of India has formulated a draft National Urban Transport Policy with the following objectives:
  - To bring about better integration of land use and transport planning so as to improve access to jobs, education, etc.
  - To encourage public transport and non-motorized transport so that the dependence on personal motor vehicles is reduced
  - To offer central government support for investments in cycle tracks and pedestrian paths
  - To offer central government support for investments in mass transit systems
  - To have a more coordinated approach to urban transport management through Unified MetropolitanTransport Authorities
  - To offer support for capacity building at the state level

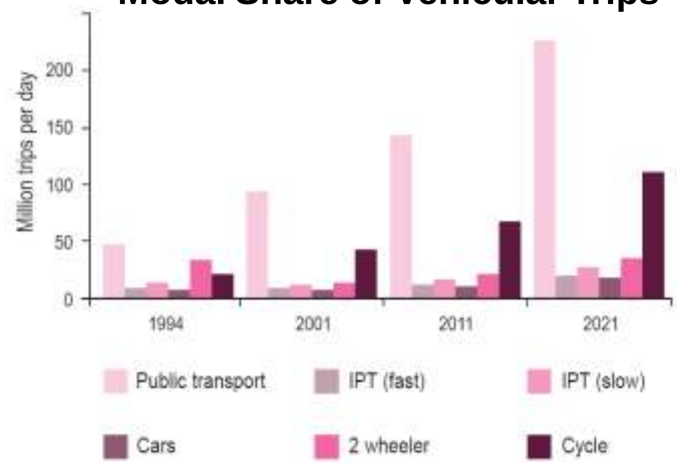
Outlook

- Estimated population of India is likely to be 1451 million in 2021 out of which urban population shall constitute 37%, as against 27% during 2001
- Urban Transport demand has been growing even faster. There is inadequate Urban Mass Transport System and proliferation of personalised motor vehicles
- The share of urban population in 2001 was only 28 per cent of the total population and is expected to reach 48 per cent by 2051
- Increasing congestion in cities and environmental issues necessitating LRT /MRTS options
- High Income-elastic demand for quality services
  - Between 1994 and 2000, passenger rail demand for premier services grew faster than total passenger rail demand:
    - Intercity Rail: 7.3 % vs. 4.2 % a year
    - Suburban Commuter Rail: 7.5% vs. 3.3 %
- Technology
  - Closely controlled by a few suppliers
  - Rolling Stock production capacities have reached saturation, mandating imports
  - Cost of technology has decreased

MRTS Projects on the Anvil



Modal Share of Vehicular Trips



Source: RITES

Section V : Issues Remaining

Issues Remaining

- Need for a Road Regulatory Authority
  - Judicial Powers for Dispute Resolution
  - Ensuring compliance with the Concession Agreement
  - Grievance Redressal
  - Ensuring Level playing field
- Flexible Concession Structures
  - The new NHAI model concession agreement has transferred onus for land acquisition and utility shifting to private sector.
  - Absence of an effective and autonomous regulatory authority
    - Currently both implementation and regulation are the vested in the same agencies (both at Central and State level)
    - This has resulted in in overlapping of responsibilities - possible conflict of interest situations and thus increasing investment risk
    - Establishment of a Highway Regulatory Authority for the road sector will ensure concession compliance, user grievance redressal and a level playing field for all stakeholders, thus providing impetus to PSP
  - Restriction on Promoter Divestments
- Need for Longer Consession Periods

- Flexibility in Design
- Need for a National Transport Policy
- Long Tenor O&M Contracts
- Innovation in Financing – Securitisation, Equity Products for Pure Financial Investors
- Investment by Pension Funds, Private Equity and Insurance Firms

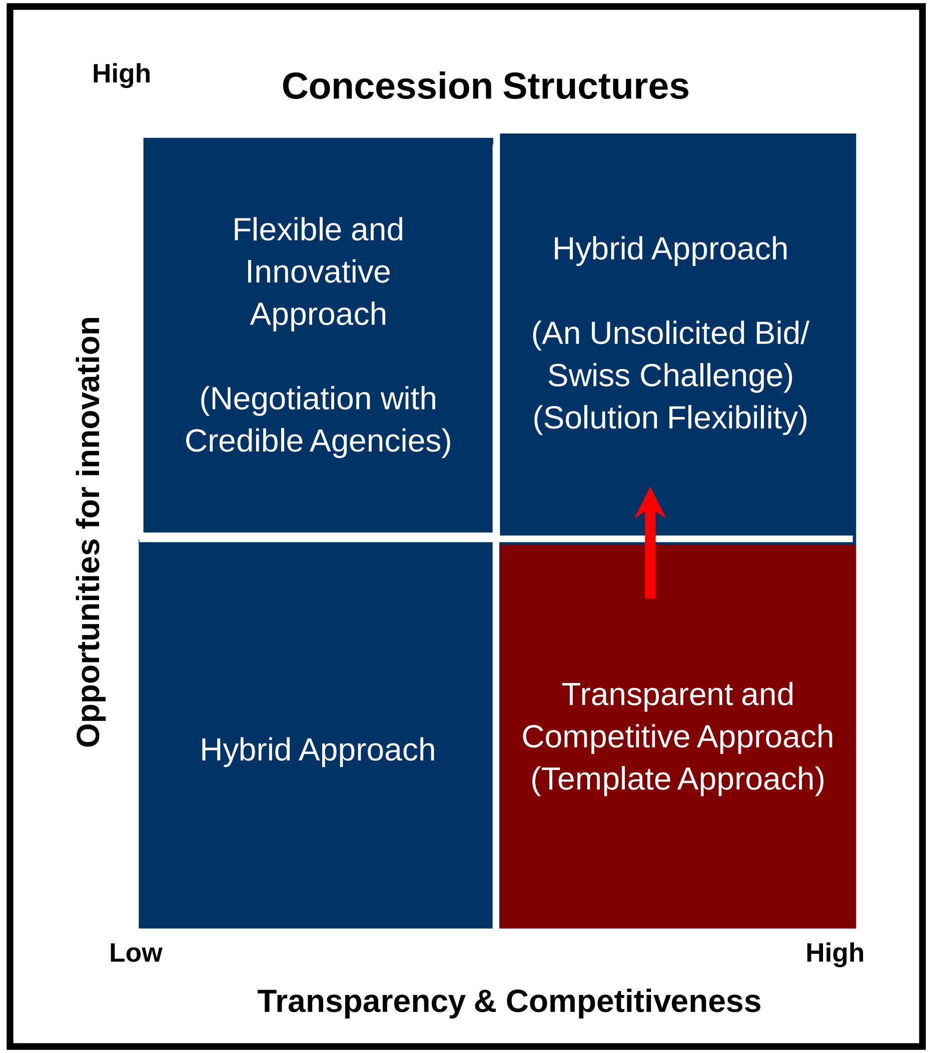
Possible Solutions

Background

- The Country finally seems to have found the appropriate method to enable mutually beneficial risk allocation between the Public and Private Sector
- The Government, both at the National and State level is increasingly banking on PSP to carry forward the development of Roads
- A perceptible increase in Private Sector involvement at the Policy Formulation stage has been witnessed
- After over a decade of experience with Private Sector Financing and Implementation, greater flexibility is being accorded to the Private Sector in bringing in Innovation in Solutions

Hybrid Approach to Concession

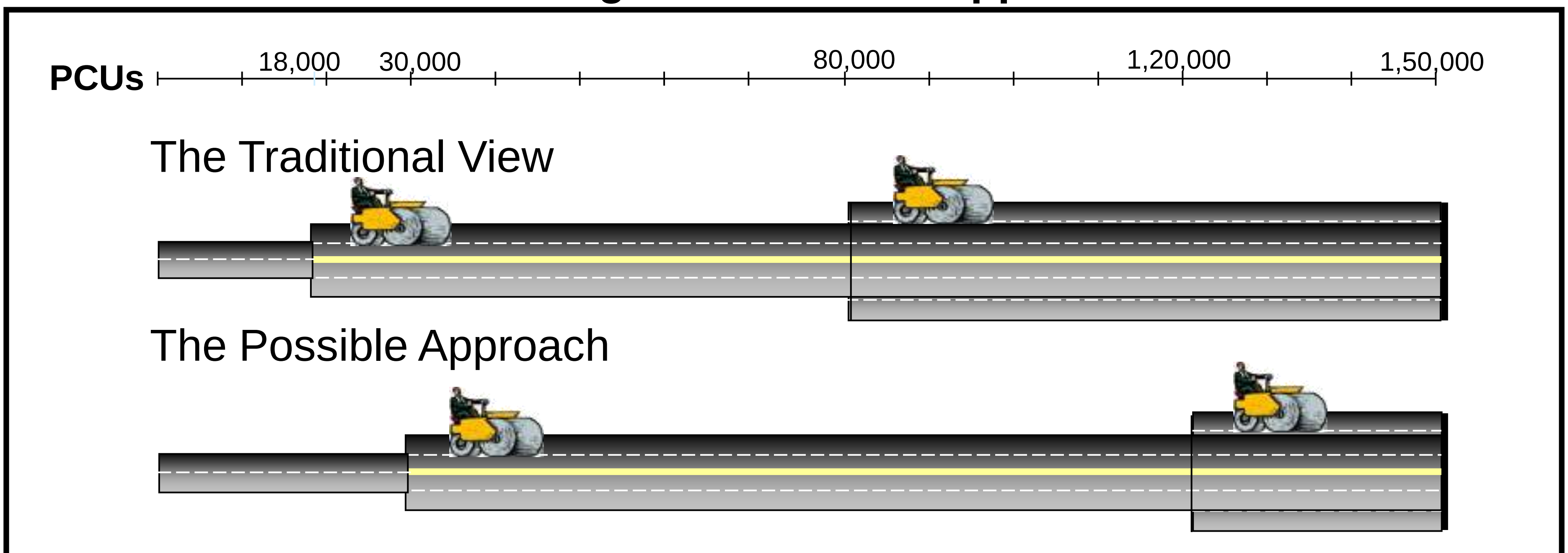
- The Hybrid approach, while being more subjective, will ensure flexibility in design and project structuring
- However, the subjectivity can be largely mitigated by ensuring wide representation on the selection committee – and substantial opportunities for debate before finalization
- Further a more rigorous Rewards/Penalties regime would ensure the delivery of the project to cost, quality and time - and subsequently the maintenance of performance standards and service levels



Flexibility in Design

- The Cost of developing infrastructure is similar across the world, however, the ability to pay is not
- Therefore, the optimal design solution will vary according to the situation and the available resources
  - Engineering driven solutions can generate the required capacity at lower costs
  - Management solutions can yield significant savings
- Alternative Models for Implementing Road Stretches with lower Traffic Densities should be adopted
- Flexibility Design Solutions optimizes the available resources

Road Design – A Possible Approach



- One such a Model was developed by IL&FS to undertake the up-gradation of the East Coast Road
- The Scope of the Project was restricted to add capacity – not through conversion of two lane to a four lane facility, but through value engineering and provision of safety features. It included amongst others:
  - Geometric correction of critical curves
  - Construction of bus bays and truck terminals
  - Widening only the high-density corridors
  - Overtaking lanes in specific sections

The East Coast Scenic Beachway

Low Cost, High Luminosity, Reflectors

Need for a National Transport Policy

- India does not have a comprehensive national transport policy that considers growth of competing modes of transport. This leads to duplication of infrastructure
- Improvements by State Governments to non tolled road networks implemented using Multilateral or Other funding continue to pose risk to BOT Road Projects as they increase the possibility of diversion of traffic from an existing toll road to the improved non tolled road
- In the medium term, a road network policy needs to be planned such that entrepreneurs can evaluate likely diversions in traffic
- It is necessary to develop an appropriate tolling policy that takes into account the cost and savings in time and the incremental costs to the commuter

Financial Products

- Securitisation
  - Securitisation is a funding strategy that involves funding based on asset value and cash flow characteristics of the asset pool which are not supported by the firm's equity
  - When a Project's techno-commercial and financial risks have been largely mitigated (MATURE PROJECTS), it can be positioned to raise incremental resources by discounting its future receivables
  - Structured debt offerings provide significant pricing advantage and improve shareholder returns
  - In several cases, it enable the shareholders to take-out entire equity and a substantial component of future equity returns upfront - allowing for re-investment in new projects
- Equity Products
  - There exist long term investors who are interested in such assets with a view to diversify their investment portfolio and ensure a stable return
  - Investments in infrastructure assets tend to be relatively illiquid, as most Concession Agreements do not provide for an exit option to the investor
  - Therefore, realizing returns will require considerable financial structuring and repackaging of the investment into a form appropriate to facilitate the development of a secondary market

Summing Up …

- There has been a Convergence of public policy and public opinion regarding the relevance to PSP in the development of public infrastructure - to propel growth…
- … that has enabled the resolution of a number of long pending sector specific regulatory and commercial issues
- Over the years, the Government has gone through a significant learning curve in terms of the requisite regulatory and legislative framework – and what is practically doable
- With several legislative aspects addressed coupled with an enabling macroeconomic framework, infrastructure spend is expected to touch US$ 130 billion, with the private sector improving its share

A large Demand – Supply Gap exists … India has begun to appreciate the benefits of quality services –and the public at large is willing to pay their economic price


IL&FS
Thank you