National Transport Development Policy Committee

Our Approach to Transport Policy

February, 2014
Introduction

What is different in this report

The growth challenge

The governance and institutional challenge

The energy and technology challenge
Investment in transport is essential to increase productivity and benefit the entire Indian economy.

Increasing prosperity will increase demand for transport infrastructure.

The faltering Indian manufacturing sector needs a boost that could be provided by a more cost-effective transport sector.

The supply bottlenecks in the agriculture sector can be alleviated through increased connectivity across the country.

*Investment in transport is a response to emerging demand, but it is also an economic growth driver in itself.*
This report lays out a clear prioritization for where such investment should be focused in the transport sector:

<table>
<thead>
<tr>
<th>Objective</th>
<th>Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of multi-modal transport</td>
<td>Invest heavily in <strong>transport infrastructure</strong></td>
</tr>
<tr>
<td>Within country</td>
<td>Build capacity in <strong>human resources</strong> in the sector</td>
</tr>
<tr>
<td>Trade</td>
<td>Accelerate reform measures in current <strong>regulatory</strong> regime</td>
</tr>
</tbody>
</table>
There are certain guiding characteristics that should influence the nature of the investments being made:

- Cost-effective
- Safe
- Environmentally sustainable
- Responsive
The progress made in the transport sector in India since the mid-1990s has been a mixed bag

<table>
<thead>
<tr>
<th>What has improved</th>
<th>What has remained the same</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golden quadrilateral</td>
<td>Inefficient port structure</td>
</tr>
<tr>
<td>Increased competition in civil aviation</td>
<td>Inadequate urban transport</td>
</tr>
<tr>
<td></td>
<td>Lack of reform in railways</td>
</tr>
</tbody>
</table>
Agenda

Introduction

What is different in this report

The growth challenge

The governance and institutional challenge

The energy and technology challenge
NTDPC’s approach to transport policy in India differs from prior efforts in two key areas.

**Systems-based approach**
- Prior thinking on transport policy in India has been **too project-centric**
- NTDPC’s **system-based approach** cuts across modes of transport, administrative geographies, and integrates capital investment with regulatory and policy development
- There is less of a focus on specifics solutions, and more on developing **human resources capacity and responsible institutions** that can adapt to changing realities

**Outward-looking approach**
- Prior thinking on transport policy did not focus enough on connectivity with other countries, and in border areas
- NTDPC adopts a specific focus on developing a dense web of transport **links with neighbouring countries**
- Special attention is also given to the **transport needs of the North-East**
Introduction

What is different in this report

The growth challenge

The governance and institutional challenge

The energy and technology challenge
Investment in transport is a key factor that will enable India to continue on a strong growth trajectory. Achieving the target growth of 7% in the 12th Five Year Plan, followed by 9% till 2032 requires investment to increase from 35% of GDP to 40% of GDP, which requires restoring industrial growth to 10% for the duration of 3-4 Five Year Plans, which requires increase in investment in transport from 2.6% in 11th Five Year Plan to 3.3% in 12th Five Year Plan, and stabilize at 3.7% till 2032.
In absolute terms, this indicates a seven-fold increase in transport investment from the 11th Plan to the 15th Plan.

Project transport investment requirement (INR, trillions)

- 11th Plan: 10 trillions
- 12th Plan: 19 trillions
- 13th Plan: 30 trillions
- 14th Plan: 45 trillions
- 15th Plan: 70 trillions

Note: These projections were made top-down in a macro-economic modeling framework.
NTDPC has projected where the increased investment in transport can come from.

**Projected source of public sector investment in transport**
- 30% Internal and external extra-budgetary sources (IEBR)
- 70% Budget

**Projected source of private sector investment in transport**
- 67% Domestic
- 33% Foreign

Note: These projections were made top-down in a macro-economic modeling framework.
Given the projected increase in demand in the transport sector, a holistic approach is required to design an integrated transport network.

<table>
<thead>
<tr>
<th></th>
<th>2011/12</th>
<th>2032/33</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freight transport (btkm)</strong></td>
<td>2,000</td>
<td>10,500 - 13,000</td>
</tr>
<tr>
<td><strong>Domestic air traffic (millions of passengers)</strong></td>
<td>60</td>
<td>400</td>
</tr>
<tr>
<td><strong>International (millions of passengers)</strong></td>
<td>40</td>
<td>200</td>
</tr>
</tbody>
</table>

**Governance structures**
- Railways
- Ports
- Civil aviation

**Organizational culture**
Seamless inter-modal and hierarchical connectivity

[Diagram showing governance structures and organizational culture]
There is significant need for investment in railways, which will not happen in a business as usual scenario

The downward spiral of the Indian Railways

<table>
<thead>
<tr>
<th>Year</th>
<th>Share in railways of freight traffic</th>
<th>Share in railways of passenger transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950/51</td>
<td>90%</td>
<td>70%</td>
</tr>
<tr>
<td>2011/12</td>
<td>30%</td>
<td>10%</td>
</tr>
<tr>
<td>2000/11</td>
<td>10%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Observations

» This is a steeper decline than that witnessed in other large economies

» This decline is particularly poignant given the expected uncertainty of future crude oil supplies, and damaging environmental impact of fossil fuels

» It is essential that an attempt be made to reverse this trend, or at a minimum, arrest it

» This will require making strategic decisions regarding relative allocation of investments to railways rather than roads, and accompanying pricing and taxation policies that can be used to nudge transport demand towards desired modal shares

» The key issue facing the country is therefore the desired strategy for capacity extension of the railways sector over the next two years

A similar vision to that of the National Highway Development Project should be laid down for the railways
Major proactive action is required in port development to ensure India does not continue to punch below its weight in international trade

### Current situation

- India’s share of world trade is projected to increase from 0.8% to 1.5% in the next 20 years
- There is currently no comprehensive and coherent strategy for location of ports in the country or an overall investment programme in these ports
- Each of the world’s major economies have a few mega ports that are well-connected with inland transport system; at present India has no such mega ports
- A good proportion of India’s maritime trade is transshipped in Colombo or Singapore

### NTDPC’s recommendations

1. **Establishment of 4-6 mega ports over the next 20 years, with 2-3 on each coast**

2. **Adoption of the concept of landlord ports and corporatization of the existing port trusts**
Given the projected growth in the aviation sector, a strategic plan is required to enable this growth.

<table>
<thead>
<tr>
<th>NTDPC’s recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Creation of a National Master Plan for airport development over a 20-30 year timeframe</em></td>
</tr>
<tr>
<td>2. <em>Establishment of an Airport Approvals Commission within the Ministry of Civil Aviation to review and clear the plans on an ongoing basis</em></td>
</tr>
<tr>
<td>3. <em>Development of off-airport processing facilities, similar to inland ports and container depots</em></td>
</tr>
</tbody>
</table>
Agenda

Introduction

What is different in this report

The growth challenge

The governance and institutional challenge

The energy and technology challenge
NTDPC has specific recommendations on addressing the governance and institutional challenges to investment and growth in the transport sector (I/II)

- **Transport governance**
  - Form central and state-level *Office of Transport Strategy* in short-term
    - As an independent agency associated with the Planning Commission
    - That has the resources to build a strong technical team, manage and analyse transport data, and assert itself as a compelling advocate of policies that leverage transport for development goals
    - To provide ongoing technical support for sectoral investment programmes to build on the work of the NTDPC
  - Form *unified Ministry of Transport* encompassing all transport sectors in medium to longer-term
    - Existing ministries, including Railways should become departments focused on delivering effective transport infrastructure and services for each mode
    - New ministry should be carefully structured to create and maintain an incentive structure that encourages technical excellence, open-minded consideration of all available options, and consistent attention to transport system goals rather than particular means
    - Similar unification of transport functions can also take place at the state level

- **Regulation**
  - Continue current approach of setting up *separate regulators for each transport sector*
NTDPC has specific recommendations on addressing the governance and institutional challenges to investment and growth in the transport sector (II/II)

**Governance and institutional challenges**

**Fiscal issues**
- Simplify the multiplicity of state level taxes through a mechanism akin to that used for transforming the complex state-level sales taxes to the simplified state VAT system

**Safety**
- Establish independent National Safety Boards for road, railways, water/marine and air headed by professionals at the highest levels
- These boards should be independent of the respective operational agencies
- Set up safety departments within operating agencies at different levels for ensuring day-to-day compliance with safety standards and study effectiveness of existing policies and standard

**Research and HRD**
- Earmark 1% of investment in each transport sector for institution and capacity building in both public and private sector
- Initiate process to set up a variety of research institutions: Indian Institute of Transport Research, Indian Institute for Transportation Statistics, Roads Standards Institute, and others
- Set up centers of excellence in selected universities and research institutes in each transport sector
- Sponsor further education for 2-5% of existing personnel in transport-related engineering organizations, both public and private
Agenda

Introduction

What is different in this report

The growth challenge

The governance and institutional challenge

The energy and technology challenge
As we shape the transport sector for the future, we need to plan for controlling pollution levels and economising energy use.

**Priority**

- Arrest and reverse the increasing mode share of road transport for passengers and freight
- Tighten and enforce vehicle standards to drive further innovation in emissions control, reaching European levels in 20 years

**Enabling action**

- Prioritize inland waterways and coastal shipping for the movement of bulk cargo
- Encourage use of public transport and non-motorised transport in cities
- Create the National Automobile Pollution and Fuel Authority (NAPFA) that will be responsible for setting and enforcing vehicle emission and fuel quality standards in India
- Set up an auto fuel policy committee every five years to ensure air quality for our citizens
ICT has an important role to play in integrating different transport systems, reducing energy use and increasing customer satisfaction.

Select examples of use of ICT in a variety of transport sectors:

- **Freight transport** – Superior optimisation abilities
- **Ports** – Trade facilitation by lowering transaction costs
- **Aviation** – Issuance of e-tickets
- **Road sector** – Smart cards and electronic tolls
- **Urban transport** – Cross-modal smart cards and congestion pricing

**NTDPC recommends the establishment of the Indian Institute for Information Technology in Transportation (IIITT)**
Urgent action is required to ensure that India’s transport infrastructure can service the increasing needs for the movement of bulk energy commodities (I/II)

Current situation

• The demand for energy in India could increase by a factor of 4 over the next 20 years

• Production of domestic coal is expected to increase by about 2.5 times over the next two decades – it already accounts for half freight volume in Indian Railways

• The intensity of steel use is expected to possibly go up by a factor 8

• These very large increases in the transport requirement of bulk commodities pose a great challenge because our transport system is barely able to cope with the traffic today
Urgent action is required to ensure that India’s transport infrastructure can service the increasing needs for the movement of bulk energy commodities (II/II)

**Implications of “business as usual”**

- Lack of coordinated and timely investment in rail and ports
- Coal will not move
- Power production will not take place
- Economic growth stymied

**NTDPC’s recommendations**

- Focus on railway investments on the **feeder routes from the coal and iron ore mines** located mostly in the tri-state area of Chhattisgarh, Orissa and Jharkhand
- Among the DFCs, the highest priority may be given to the **completion of the Eastern Freight Corridor**
- Adequate attention be given to promoting **coastal shipping from the coal producing areas on the eastern coast** to avoid long over-the-land transportation of coal
- Selection of sites of the **4-6 mega ports** should be influenced by the transportation needs of coal and petroleum

**Execution in a timely manner of the NTDPC’s recommendations on this front will ensure that the potential and prospects of Indian economic growth are not jeopardised**