The share of petroleum consumed by the transport sector in India for 2011-12 is 8 per cent.
Of the many sad images etched in my memory, the most gruesome one turns my stomach each time it flashes by. Travelling to Gajraula in Uttar Pradesh, the earthly remains of a woman splattered on NH 24, barely covered with a sequined saree, raised despondency on how cheap life is in our country. Learning seems to elude us as globally, countries forge ahead in revamping transportation systems. For nearly 20 years, Sweden has been rethinking and rebuilding what began as the 1997 legislation for Vision Zero—a goal to achieve zero road accident deaths, where people are more valuable than cars and safety presides over efficiency. City streets were narrowed, speed limits were lowered and several other initiatives introduced that lowered Sweden’s road accident death rate dramatically to a mere three deaths per one lakh people annually, compared with an average of 18.9 per one lakh people in India (www.who.int, 2010). Speed is the greatest killer, yet it is a seemingly enviable attribute of every new vehicle launched—as if Indian cities offer humongous, pristine stretches of road where one can quip cars into a frenzied 120 kmph. Say you were cruising at a 30 kmh, upon impact the vehicle or pedestrian hit would have an 85 per cent chance of surviving. However, step it up to 65 kmph, the survival chances drops to a mere 5 per cent. Rising instances of road rage, risky overtaking and unregulated, non-motorised traffic all contribute to the chaos that presently exists. Apart from the negatives—accidents and pollution, the transport industry in reality drives India’s development. Presenting a balanced perspective and arguing in favour of multi-modal transport systems, this issue of G’nY is dedicated to making a stronger, technology and people friendly logistics base for the nation.

Happy Reading

Sulagna Chattopadhyay
March-April 2014 - Reading the article ‘Chemical industry safety in India’, I was stunned to know that in the last decade there have been 130 significant chemical accidents, killing 300 and injuring over 500 persons. These statistics do not reflect the physiological repercussions on humans and do not measure impacts on the environment that, sadly, may still be ongoing. —LOHIT MISHRA, Kolkata

G’nY has been covering various developmental issues of the nation. I would request you to kindly consider bringing out an issue on causes of food inflation and why in the name of food security, food grains are allowed to rot in the country. There is a clear contradiction in our lentil/pulse production related policies. When we are imposing a zero duty on import of lentils/pulses, we are discouraging our farmers from growing these crops. Some policy direction should be provided by the new government.

—C BHATTACHARYA, Bhubaneswar

I have been observing that there is a new race to obtain tribal or scheduled caste status with a view to take advantage of the reservation policy in India. This is just the opposite of the sanskritisation process that M N Srinivas, a renowned sociologist wrote about in the 60s and 70s, where the socially backward people shed their caste titles and adopted higher caste titles. Have we really failed socially and layered our society more starkly? G’nY needs to carry a reservation special to study such aspects.

—HARMEET SINGH, New Delhi

The ‘Disaster: Emerging perspectives’ issue of G’nY was good reading. While reading the article ‘Evaluating catastrophe insurance’ it came to my mind that when agricultural insurance has not picked up because of the half-hearted efforts of the insurance companies, despite being the need of the hour, how relevant is catastrophe insurance for India? If you undertake a survey, 99 per cent Indian farmers will respond in negative about any agent approaching them for crop insurance, whereas for life, car or medical insurance there are thousands of agents patrolling 24x7. Why can’t the LIC agents, the most pervasive lot, be given the additional responsibility of agricultural insurance which can be followed by catastrophe insurance?

—SRIHARI, Bangalore

I read your Disaster special issue and the article ‘Status of disaster management in India’, sums up the deficient working of the nodal disaster management body well. I hope that the new government takes a cue from here and improves the situation in the coming days.

—MITALI SARKAR, New Delhi
Report Summary

Indian Transport Industry

Story Staff Reporter
An overview of the Indian transport industry, which comprises freight and passenger transportation, as well as warehousing and cold storage.
Over the past 15 years the Indian transport industry is growing rapidly at a rate of more than 16 per cent. The growth has been valued at an estimated 130 billion USD in 2012-2013. The industry comprises of two main segments—freight and passenger transportation via road, rail, air and water; and, warehousing and cold storage.

According to the ICRA Management Consulting Services Limited (IMaCS) analysis, 2013, road dominates the mode of freight transport mix and constitutes about 60 per cent of the total freight traffic. Rail, which constitutes 32 per cent of the mix, is second while coastal shipping accounts for 7 per cent. The share of inland waterways transport and air is less than 1 per cent each (Fig. 1).

Freight movement

Road: During 1990–2012, road freight has shown high growth, increasing from 467 to 1250 billion tonne km (BTKM) at a compound annual growth rate (CAGR) of 8.6 per cent (Fig. 2). According to the Ministry of Road Transport and Highways, road freight is expected to reach 1,835 BTKMs by 2016-17. National highways account for more than 40 per cent of the total road traffic. In the 12th Five-Year Plan period, the Indian government has set a target to construct 36,632 km of national highways in the period 2012-17, which is 2.65 times the target set in the previous plan period. The National Highways Development Programme (NHDP), which was set up in 1998, aims to develop 50,000 km of national highways by 2015 in seven phases with an investment of 600 billion USD.

With a target of securing 33 per cent of funding for the total investments in road infrastructure from private parties, Indian government has included a provision of 100 per cent tax exemptions in any consecutive 10 out of 20 years after commissioning of the project, and duty free imports of high-capacity construction plant and equipment.

Some of the recent public private partnership (PPP) projects approved by National Highways Authority of India are:

- Four laning of Rohtak-Hissar section of NH-10 in Haryana
- Four laning of Bhavnagar-Veraval section of NH-8E in Gujarat
- Six laning of Chakeri-Allahabad section of NH-2 in Uttar Pradesh
- Four laning of Khed-Sinnar section of NH-50 in Maharashtra.

Railways: With a CAGR of around 5.1 per cent, rail freight has increased from 794 million tonnes in 2007-08 to 969 million tonnes in 2011-12 (Fig. 3). Rail freight contributes 60 per cent to the total rail revenue. Dedicated Freight Corridor Corporation of India Limited (DFCCIL) was founded in 2006 by the Indian government to undertake planning, development and operation of the dedicated freight corridors to lower unit cost of transportation to urban centres. In addition, the government has launched the ‘Policy for participative models in rail connectivity and capacity augmentation projects’, to attract private capital for accelerated construction of rail infrastructure, allowing them to construct and own private rail lines connecting...
ports, large mines, logistics parks or other similar industries or cluster of industries, which handle goods traffic for multiple consignors or consignees.

**Waterways:** The coastal-cargo traffic at major Indian ports has grown at a CAGR of about 2.6 per cent from 76 million metric tonnes (MMT) in 1998-99 to 106 MMT in 2011-12 wherein the overall cargo traffic has increased at non-major ports at a CAGR of about 19 per cent in the 14 years since 1998, indicating strong growth potential in the coming years (Fig. 4). India possesses about 14,400 km of inland waterways. Over 3,600 km are navigable by large vessels, of which about 55 per cent is being used. In 2012-13, the estimated cargo movement via inland waterways was at around 89 million tonnes.

When it comes to private sector partnership, the number of scheduled PPPs in the maritime sector has significantly gone up from around 12 in the year 2008-09 to 29 in 2012-13. Even in the case of the Maritime Agenda, 2010-2020, which was launched by the Indian government to increase total port capacity, funding comes mainly from the private sector, which is expected to contribute 66 per cent and 98 per cent of the total investments in major and non-major ports, respectively. The projects in the construction phase include container terminal expansion and development of thermal coal and copper concentrate handling facility at V O Chidambaranar Port.

**Air Transport:** Air cargo volume grew at a CAGR of about 8.5 per cent from 0.7 MMT in 1998-99 to 2.2 MMT in 2012-13 (Fig. 5). Between 1998-99 and 2012-13, domestic and international cargos have grown at a CAGR of 10.4 per cent and 7.6 per cent, respectively. Expanding cargo-handling infrastructure at airports, demand for speedy delivery, greater trade and commerce and increase in the number of flights operating are some of the key reasons for this growth. High growth in international cargo traffic is expected in the future and the reasons are expected to be trade agreements, especially with the Asia-Pacific region, and trade in sectors like electronics, garments and pharmaceuticals. Similarly, the growth in domestic cargo traffic is expected to be expanded because of industrial activity beyond the existing centres, investments in airport and logistics infrastructure. The private sector contribution is expected to be 74.1 per cent. For developing airport infrastructure, the government has proposed investment of 13.5 billion USD in the 12th Plan period, which is almost double of that proposed in the 11th Plan. This would include building and expanding cargo

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**Fig. 3: Rail freight traffic**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnes (million)</th>
<th>Tonnes kilometre* (million)</th>
<th>Lead (km)</th>
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<tbody>
<tr>
<td>2007-08</td>
<td>794</td>
<td>521,371</td>
<td>657</td>
</tr>
<tr>
<td>2008-09</td>
<td>833</td>
<td>551,448</td>
<td>662</td>
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<tr>
<td>2009-10</td>
<td>888</td>
<td>600,548</td>
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<td>2010-11</td>
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<tr>
<td>2011-12</td>
<td>969</td>
<td>667,607</td>
<td>689</td>
</tr>
</tbody>
</table>

Source: Ministry of Railways; IMaCS Analysis

*Tonne-kilometre represents transport of one tonne of goods over a kilometre

*Lead refers to the average distance to which freight was transported.

**Fig. 4: Coastal cargo at major Indian ports (MMT)**

Source: CMIE; IMaCS Analysis

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**Freight traffic in India has increased from 1.3 to 2.1 trillion tonne kilometre from 2007 to 2012.**