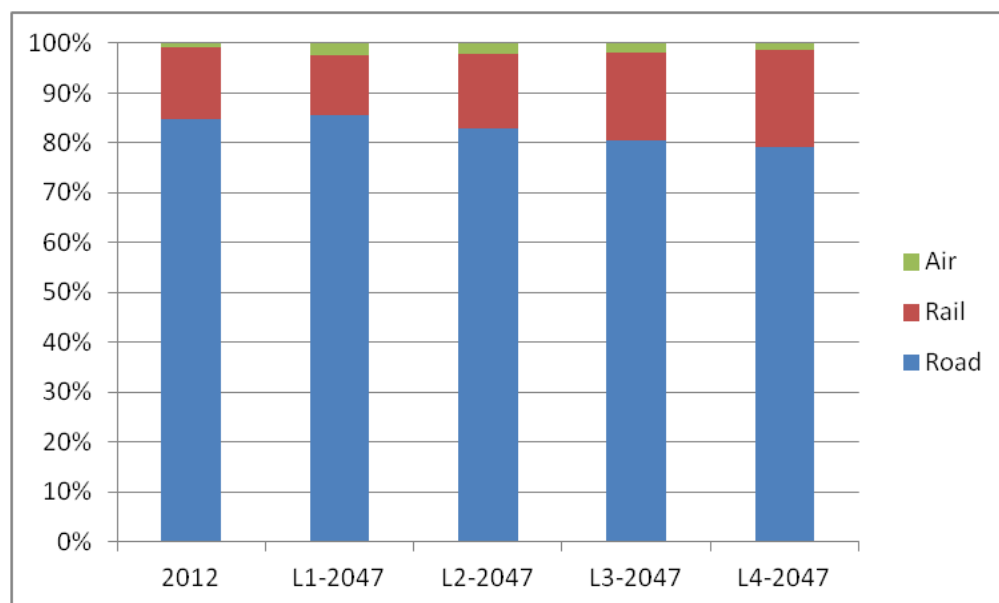


DOMESTIC PASSENGER TRANSPORT MODE

In 2012, estimated travel by road accounted for 85% and rail accounted for 14% of total passenger traffic. The remaining 1% traffic was on air. The share of public modes of transport (Buses and Omnibuses) on roads was about 74%. Electric vehicles witnessed a limited penetration in the market, the prominent share of which, around 1%, was mainly in the two-wheeler segment. With improved road transport infrastructure and increased penetration of private modes of road transport, railways have been consistently losing share in the overall passenger traffic volumes in India. The decade between 2000-01 and 2010-11 also saw a rapid growth in air transport in India. Given the present trends, Railways will further lose share in the overall transport mix in the country over the next few decades.



LEVEL 1

This level assumes that the present trends in mobility shares will continue till 2047. The intermodal share of passenger transport demand is expected to tilt further towards road based modes. There would be a surge in the total number of cars and jeeps by 2047 thereby decreasing the share of public road based transport to 45%. The penetration of electric two-wheelers is still assumed to be limited because of the absence of any incentive mechanism and thereby increases as per past trends to 18% in 2047. Although there will be a growth in rail based transport systems, the growth will be marginal compared to road and air transport. As a result, by 2047, the share of road in passenger transport will become about 86% while the share of rail will be about 12%. In addition, as more planned airports in smaller cities become operational and money value of time increases, it is expected that the share of aviation in the overall passenger transport demand will increase to 2%.

LEVEL 2

Level 2 envisages a focus on rail based mass transport systems. Metro and suburban rail systems would be extended to a number of urban centers across the country. Faster train sets will operate for inter-city rail passenger services. This would positively affect the trend of falling shares of rail based passenger transport and the intermodal share of rail would rise to 15% by 2047. Demand for faster intercity travel would maintain civil aviation shares at about 2%. While road based passenger transport would still dominate, with an increase in the share of public road based transport to about 57%, its share would marginally reduce to about 83% of the total passenger transport demand by 2047. This level also assumes policy decisions on the side of the government to subsidize electric vehicles, thereby increasing the penetration of electric four-wheelers to 13%, electric two-wheelers to 26%, electric buses to 3% of the road based transport in 2047, buses on fuel cell engines to 1% and cars on fuel cell engines to 4%.

LEVEL 3

Level Three assumes conscious and increased government policies towards incentivizing metro and suburban rail services, introduction of high-speed rail corridors and projects like Regional Rapid Transit System (RRTS) across various urban centers. This will aid in shifting larger volumes of passenger mobility from road and air to rail based transport systems. The share of road is assumed to decrease to less than 81% by 2047 in this level while rail and aviation will occupy about 18% and less than 2% shares respectively. Incentivizing metro services would increase the share of public transportation in road based transport to about 67% in 2047. Additionally, this level assumes that the National Electric Mobility Mission Plan kicks in and thereby the penetration of electric two-wheelers increases to 39%, electric four-wheelers increases to 26%, electric buses increase to 7% of the road based transport, buses on fuel cell engines increase to 2% and cars on fuel cell engines increase to 9% of the total road based transport in 2047.

LEVEL 4

In level four, the focus of government policies is expected to further enhance investments in rail based public transport like metros in all urban cities and Rapid Rail Transit Systems for all urban conglomerates. For inter-city travel, priority in investment will be to shrink travel time between all state capitals and major metros to 12 hours or less through faster train services. High Speed Rail at 300 km/hour for high demand passenger corridors will help reduce the incidence of air travel. Based on this, Level Four envisages that the intermodal share for rail would increase to almost 20% of the total passenger movement. The share of road will decrease to around 79%; with 80% of the same comprising of public road based modes of transport and the share of air would be about 1%. The share of electric vehicles in road based transport is assumed to increase to about 33% electric four-wheelers, 70% of electric two-wheelers and 10% of electric buses, 3% of buses running on fuel cell engines and 11% of the cars running on fuel cell engines in 2046-47.