

Status of Infrastructure:China

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China Overview

- Annual average growth of 9% over last 3 decades
 - Grew by 9.6% (2008) & 8.7% (2009)
recession year
- Growth uneven -coastal areas benefited most
- Financial crises turned into opportunity.
 - Fiscal stimulus \$590 billion
 - Bank lending \$ 1.4 trillion
 - Spent on infrastructure by bringing forward infra projects

Road Length by Technical Qualification in 000 Kms

Year	Total	Expressway (width 28m)	Class I to IV (width in m 25.5,12,8.5 &7)	Blow Class IV (width <7m)
1985	942	0.0	606 (64.3)	336.0 (35.7)
1990	1028	0.5 (0.05)	740.6 (72.4)	287.2 (27.9)
2000	1403	16.3 (1.2)	1200 (85.5)	186.7 (13.3)
2008	3730	60 (1.6)	2718 (72.9)	952 (25.5)
Source: M/o Communication, PRC; Figures within brckets are percentage to total length.				

Road network

- Total road length 3.7 million km
 - 60,000 expressways
 - 2.72 million km highways
 - 0.95 million km (25%) rural roads
- Between 2000 to 2005 US\$ 45 billion spent on highway sector per annum
- National Trunk Highway Development Program (NTHDP)
 - Set up in 1992
 - Launched 5-7 NTHDP
 - 5 verticals (N-S)
 - 7 horizontals (E-W)
 - Expanded to 7-9-18 (7 horizontals, 9 verticals & 18 expressways).
 - Target of expressways 85,000 km by 2020.

Toll Roads

- 95% Expressways, two-thirds of Class I highways & 50% of Class II toll roads.
- Toll levels high: 5 cents-10 cents per km
- Toll period coterminous with repayment period.
- For Class II categories time limits for toll termination 10 years.
- Pd of toll not to exceed 15 years in developed regions and 20-25 years in Western China.

BOT model

- Proposal subject to approval by National Development Reforms Commission.
- Concession period 30 years.
- Promoters contribution 35% of project cost.
- No government subsidies.
- Not been successful.

Funding of Roads

- Sources of Funds
 - vehicle purchase tax (10% cost of vehicle)
 - road construction fee (100 yuan/ton)
 - earmarking fuel tax to finance roads introduced only in 2009.
 - Passenger and freight service fee.
 - Bonds.
 - Domestic loans.

Funding of Road

- Contribution by stakeholders
 - 35% contribution from province
 - 65% bank loans
 - Upper limit of 10% central transfers
 - sometimes equity contribution from SOE
 - debt servicing by the Provinces

Rail Network

- Close to 80,000 km
 - 42% double track
 - 39% electrified
 - carried 3.3 billion tons
- 6500 km of high speed (HS) rail network
 - likely to go to 13,000 kms
 - Average speed 350 kms/hr
- Today PRC leader in HS train.

Logistics

- 18 railway container centers
- 6 major aviation hubs
- High logistic costs (est. 20% of GDP) compared to 10% USA & 6.5% Japan.
- Striving to cut logistics & transport costs
 - Xian International Logistics Park
 - Evacuation of containers by Rail to Europe
 - Cut transit time to 5 days from 3-4 weeks to Europe.

Ports

- Traffic handled 4.5 billion tonnes
 - 2 ports handled more than 500 MT each
- Emphasis on fast evacuation of cargo through dedicated freight corridors
- Optimal combination of rail coastal mode to evacuate bulk cargo like coal
 - Daqin rail line (653 km) carried 400 million tonnes of coal in 2010 for movement by coastal ships to South China

Modal mix

- Total transport turnover 110 Billion Ton km
 - Road 30%, waterways 45%
- Average lead distance for freight
 - 171 km Road
 - 760 km Rail
 - 1707 km Waterways

Reforms-Gradualism & Means

- “Crossing the river by feeling the stones” (gradualism).
- “It did not matter whether a cat was black or white, so long as it caught mice” (ends justify means).

Deng Xiaoping

- Extreme focus on execution and implementation.