



**ENERGISING
INFRASTRUCTURE -
STRATEGIC OPTIONS
AND
ACTION AGENDA**

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INFRASTRUCTURE

A cable-stayed bridge with a tall central pylon and multiple stay cables, spanning across a body of water. The sky is blue with scattered white clouds. The bridge's structure is white, and the water is a light blue-grey color.

- ✚ Basic physical and organizational structure needed for operation of the society or an enterprise. In this case, it is our COUNTRY.
- ✚ Sustainable infrastructure means infrastructure that facilitates a nation or region's progress towards the goal of sustainable living
- ✚ Services / Facilities necessary for economy to function.
- ✚ Term typically refers to technical structures that support the society like
 - ✚ Roads & Highways
 - ✚ Water supply
 - ✚ Sewage Disposal
 - ✚ Power / Power transmission
 - ✚ Telecommunication etc.



INFRASTRUCTURE DEVELOPMENT PLAYS IMPORTANT ROLE IN NATION'S GROWTH

- Improvement of infrastructure is a must for economy to take off
- Continuous reforms in Infrastructure will achieve sustained growth
- For fast growing economy like India warrants faster development of Infrastructure
- Infrastructure growth should match population growth to maintain the rate of development and progress

TYPES OF INFRASTRUCTURE

HARD AND SOFT

**HARD
INFRASTRUCTURE**

- Transportation
- Energy
- Mines
- Water Management
- Communication
- Solid waste management
- Earth monitoring network

**SOFT
INFRASTRUCTURE**

- Institutions which are required to maintain economic/health/cultural/social standards of the country.
- Financial, educational, healthcare, law enforcement, institutional, industrial, social systems, cultural/ sports.

INFRASTRUCTURE STORY

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- Infrastructure growth started in India in 1999 – 2000 with National Highway Authority taking lead with commencement of GOLDEN QUADRILATERAL project.
- Subsequently all other sectors joined in like Power, Ports, Water Supply, Railways, Airports, etc. Excellent example of this growth is Jawaharlal Nehru Port, Tuticorin Port.
- Net result was Indian Economy started booming with rate of Gross Domestic Product (GDP) growth exceeding 8% every year since 2003 – 2004 till about 2008. In fact, in fiscal year ended March 2008, GDP grew by more than 9%.

ECONOMIC SLOWDOWN

Why it happened? What exactly went wrong???

- Infrastructure was historically funded almost entirely by the government. Cost overruns were endemic, averaging a phenomenal 61% back in 1991.
- Infrastructure requires heavy loans, often twice as much as equity. However, if there are delays of month or years, the project gets adversely affected.
- It's even worse if projects are unable to operate (such as 30,000 MW of power projects stranded without fuel) or suffer from strict norms in environmental regulations (as in Hindustan Construction's Lavasa township and various Hydro as well as Road projects) or from outright cancellations (as in the scam-ridden 2G telecom case)



How it has affected private firms...

- GMR Infrastructure----- Delhi & Hyderabad Airport
- GVK Projects and Infrastructure----- Mumbai Airport and Power Plants
- Lanco Infratech-----Teesta Hydro Electric Project
- Hindustan Construction's----- Lavasa Project

Reasons for the slow down

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- The slowdown in the infrastructure sector is primarily due to govt. policy issues due to which the risks have increased
- Delay in land acquisitions
- Clearances under forest, tribal and environmental regulations
- Companies underbid for projects, expecting to later manipulate conditions to make the project profitable
- Some road companies bid too aggressively, and find that the traffic is too low to cover costs

Reasons for the slow down

- Tariffs for power and other commodities have simply not been revised in line with rising costs
- So, equity and debt markets have lost faith in Indian infrastructure, and have serious reservations to provide the funds required.
- Foreign financiers have become extremely wary.
- Indian banks claim to have crossed their maximum exposure to infrastructure loans, and refuse to lend more. Besides, existing loans are not being repaid.

Reasons for the slow down

- Just-released Crisil study, based on responses from 200 firms, confirms this. The study expects private sector capex to decline by Rs 72,000 crore or 35% in 2012-13. About Rs 35,000 crore of investments has been deferred and investment in new projects (just 25% of total) is hurting the most
- close to 50% of the firms do not intend to participate in any new project this year

GROWTH POTENTIAL

A cable-stayed bridge with a tall central pylon and numerous stay cables, spanning across a body of water. The sky is blue with scattered white clouds. The bridge's deck is a light blue color.

- As observed world wide, the studies have indicated that economic slowdown is always followed by GROWTH
- Growth potential dependant on quality of performance of Infrastructure to a great extent.
- Successfully implementing Infrastructure growth is key factor in growth of Country.
- India's Infrastructure accelerated at 5.9% in November 2009 primarily due to increase in cement / steel production. However, one year down in November 2010, growth slumped to 2.5% - A 19 MONTH LOW.

GROWTH POTENTIAL

- Infrastructure contributes 26.68% to the overall Industrial output and a highest employment oriented Industry after Agriculture and hence it is important to ensure proper development of Infrastructure.
- Being third largest economy, investment in Infrastructure in India set to grow dramatically. Investment Company Goldman Sachs says India's Infrastructure will require investment of US\$ 1.7 Trillion in next five year plan (2012-2017)

ELEVENTH FIVE YEAR PLAN

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- Eleventh five year plan (2007-2012) has forecast US\$ 425 Billion for investment in Infrastructure against US\$ 193 billion in the tenth plan.
- Investment likely to be fulfilled through PPP projects based on long term concessions.

MAJOR INFRASTRUCTURE PROJECTS ANNOUNCED

- Dedicated Freight Corridor – Eastern & Western – Rs.28000 Crores to be completed by 2015.
- Delhi –Mumbai Industrial Corridor:
By far the World's largest Infrastructure project valued at Rs.40000 Crores to be completed by 2018.
- Fourth Container Terminal at JNPT - Valued at Rs.8000 Crores
- Nuclear Power Plants at Jaitapur, Kaiga, Fatehabad – Rs. 20000 Crores
- Mumbai Trans-Harbour Link project – Rs. 8800 Crores
- Koyna Water Supply - Rs. 40000 Crores approx.



MAJOR INFRASTRUCTURE PROJECTS ANNOUNCED

- Navi Mumbai International Airport – Rs. 10000 Crores approx.
- Chennai Monorail – Rs. 16000 Crores
- Fifth container Terminal at JNPT- Rs. 10000 Crores
- Mopa International Airport at Goa – Rs. 5000 Crores

CHALLENGES

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- India's growth story continues in spite of all the obstacles.
- Strong economic growth will fuel further demand on Infrastructure.
- To absorb large investments in Infrastructure Sector to sustain growth momentum.
- Caution is to remember that Indian rupee has depreciated against Dollar by 15% in past year and almost 20% in last 5 years.

TARGETS FOR INFRASTRUCTURE GROWTH IN 2012-2013

1. Electricity

- Additional power generating of 70000 MW

2. National Highways

- Six laning 6500 km of Golden Quadrilateral & selected National Highways
- Four laning 6736 kms of North – South & East West Corridor
- Four laning 12100 km of NH
- Widening of 20000 km of NH to two lanes
- Developing 1000 km expressways
- Constructing 8700 km of roads including 3846 km of NH in the North – East Rural Roads

3. Rural Roads

Constructing 1,65,244 km of new rural roads.

TARGETS FOR INFRASTRUCTURE GROWTH IN 2012-2013

4. Railways

- ❑ Dedicated Freight Corridors
- ❑ 10,300 km of new railway lines
- ❑ Modernization & redevelopment of 21 stations.
- ❑ Introduction of private entities in container trains for rapid addition of rolling stock and capacity

5. Ports

Capacity addition of 485 MMT in Major Ports, 345 MMT in Minor Ports – 42 Projects.

6. Airports

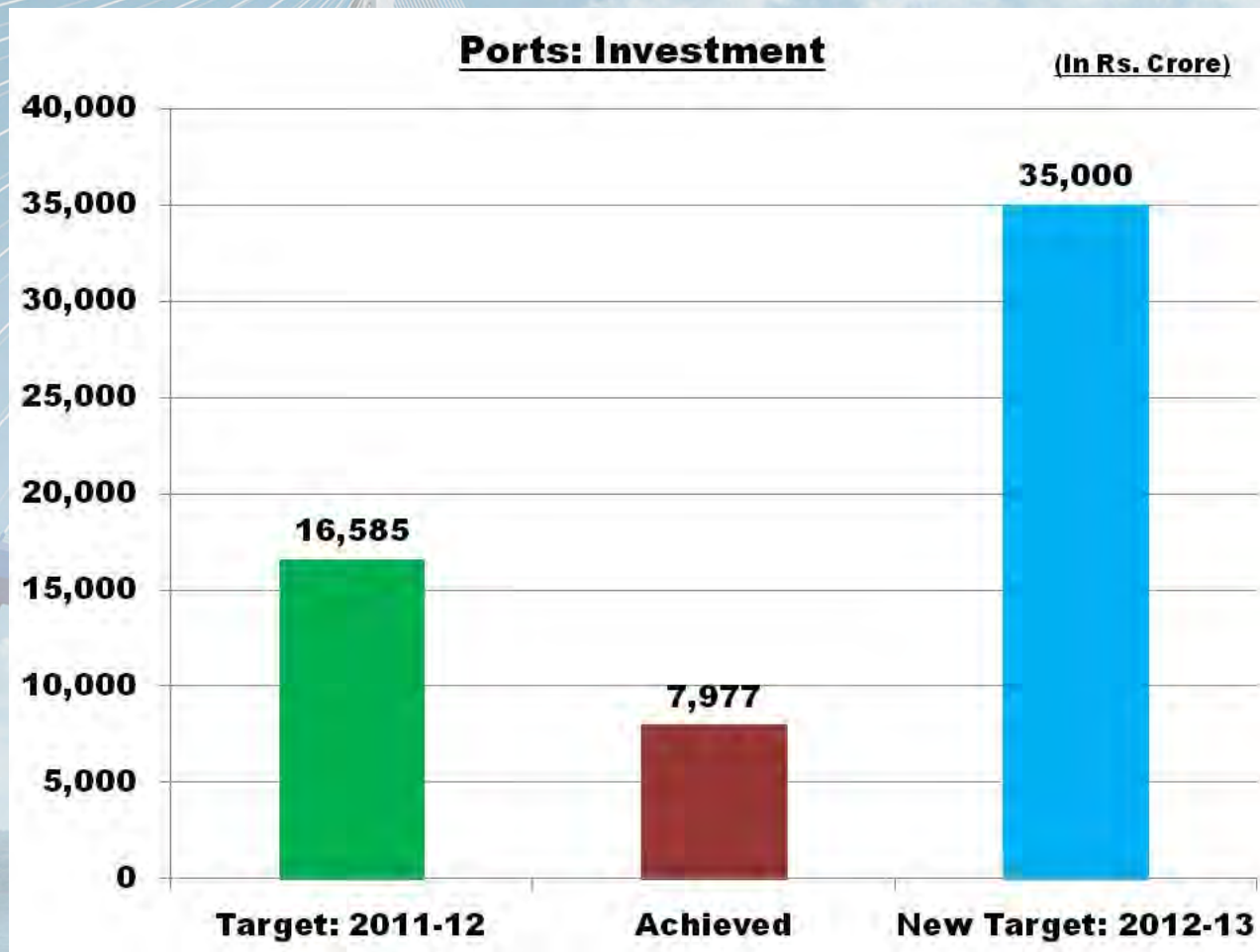
- ❑ Modernization & redevelopment of 4 Metro / 35 non Metro airports
- ❑ Constructing 7 greenfield airports
- ❑ 3 Airports in the North East.

Role of CMA in Infrastructure

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- Tendering – Kishengarh- Udaipur- Ahmedbad Road.
- Procurement of finance.
- Checks and balances- cost overrun.
- Evaluation and Performance on completion.

Targets for Infrastructure Growth in India in 2012-13 set by the Government



Source- Ministry of Infrastructure