## Infrastructure: A plan of action for rapid growth



Inadequacy of infrastructure choking India's economic

Cities growth. are plagued by power blackouts. and villages are lucky to get any

power at all. Telephone service is poor and unavailable to most people. Ports are congested and plagued by costly delays. The sparse network of roads is clogged with traffic and accidents killed sixty thousand last year. An outdated payment system takes weeks to clear checks and settle business transactions. The education system leaves half the population illiterate.

People cope, and pay a high price. The costs of diesel generator sets, messengers, extra time and inventory, and idle cash and risk premium add up, often overwhelm India's labour cost advantage in international trade. To compete in the international markets, India must reduce these costs of doing simple, routine things. How? We suggest three prerequisites and a plan of action.

First, policy makers, managers and the labour have to appreciate that innoTo compete in international markets, India must reduce the costs of doing simple, routine things, says V S Arunachalam and Shyam Sunder

vations in technologies and management ture to function under sunshine laws. provide opportunities for not only improving the efficiency but also for generating more business. In less than three years after the National Stock Exchange introduced efficient and transparent screen based stock trading, their trading volume jumped three times the volume at the Bombay Stock Exchange. When long distance phone rates were deregulated in the US, the call rates dropped, and the demand for telephone service sky-rocketed. The total demand is not fixed; as efficiency increases, price drops, demand expands and this generates more wealth for all to share.

Second, the government should consider the possibility of privatising ownership of some of these industries as early as possible, ensuring that the strategic interests are not compromised, and the competition for private ownership is on a level playing field. In places where there is fear of monopoly, subject their tariffs to public scrutiny through a regulatory commission constituted by the legisla-

Shortage of capital is the third obstacle to development of infrastructure in India and hopefully this will be ameliorated by change in the ownership structure already proposed by the government.

India should take concrete steps to rebuild power, communications and payment systems. We outline a plan of action: the long lead times for new power plants suggest a two pronged-long run and short run-policy.

For the short run, India can add as much as 7,000 MW "capacity" by improving the average load factor of its existing plants from 30 to 65 per cent. Long, often tortuous and inefficient input and output chains make it a challenging mission for India but it can be done. We suggest segmentation of industry units into enterprises solely devoted to generation, transmission or distribution; overhaul of ownership structure and privatisation where necessary, and control of tariffs by an electric power regulatory

commission. Profitability can be the only engine for this mission.

For the long run, India has to generate more power without depending on a single source. India should include serious exploration of all options including the construction of on-shore or off-shore gas pipelines, combined-cycle power plants, micro-hydros, photovoltaics and high voltage DC transmission. It must overhaul organisations whose plans continually fall short of their goals.

Of the 243 private sector power projects approved so far, only a few have taken off. Creation of smoothly functioning markets for power and transmission (on the lines of National Stock Exchange) is needed to support the functional segmentation of the industry, Such market technologies have already been developed. The government should ensure that international agreements for supply of fuels are entered into and honoured. With a functionally segmented power industry. India can reach at least its original Eighth plan target of adding 38,000 MW.

The problem of communications can be solved in a decade by leapfrogging into new technological options that are compatible with the existing infrastructure and allow flexibility for future innovations. The Indian goal of reaching 40 million lines by the end of this century is a modest one. We must attempt to emulate the Chinese by planning for 100 million lines by the end of this decade.

A modern payment system will yield high returns. Starting from a fast payment system to link the RBI and major bank branches, it can expand down the chain through private efforts of the banking industry. The presence of private and foreign banks, and new consumer protection legislation to prohibit the banks from keeping their customers' money for unreasonably long floats will help.

In addition to reducing the cost of moving things and people, a highway building programme, as the US did in the decades following the depression, can be an effective intervention tool to generate productive employment and train more people. It will also bring disperse the benefits of economic growth to all corners of the country.

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