

Is India's Nation-Building In the Wrong Hands?

by Ramtanu Maitra

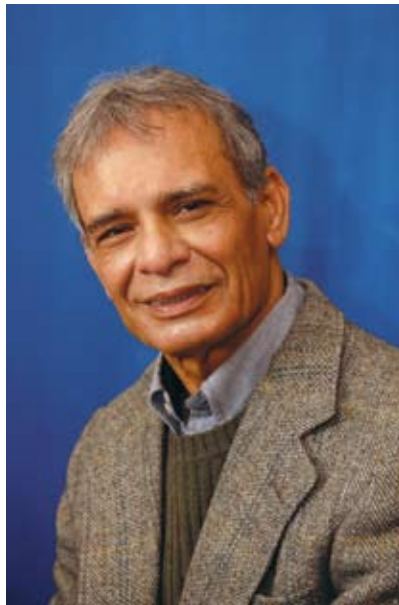
Jan. 7—In recent years, the Indian economy has grown at a rapid rate, and there are expectations that it will continue to do so. India is now the third-largest economy in Asia, behind China and Japan, and, in the current fiscal year, the gross domestic product (GDP) will grow at a rate of 9%, New Delhi predicts. Earlier this year, Indian Prime Minister Manmohan Singh said that he hoped the country's economy would see 9-10% growth in the coming 25 years.

This ability of the Indian economy to grow has opened up a few windows. For instance, foreign direct investment (FDI) into the Indian economy was less than a billion dollars in 1994, but, in recent years, the figure has routinely exceeded \$35 billion annually, making it the third-largest recipient of FDI worldwide. India's rapid economic growth, and its intent to grow further, has also made the country one of the four major powers, along with the United States, China, and Russia, in the world to reckon with.

In other words, at a time when the world financial system has collapsed, and the world's strongest economic-military-political power, the United States, has been weakened significantly in all those areas, India has been brought into the inner circle, where it can, if (and that remains still a big "if"), it intends to shape the future world financial and security systems with the help of the other three major powers. But to do this, certain obvious problems need to be addressed.

Money Is Not the Only Necessity

In order to keep growth going, India is planning to spend lavishly on its worse-than-dilapidated infrastructure. In India's 11th Five Year Plan (2007-12), which is



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now in its death throes, expenditure for infrastructure was recently revised. On Dec. 13, India's Finance Minister Pranab Mukherjee said that expenses will rise from \$500 billion to \$600 billion.

In the 12th Five Year Plan, which is getting ready for final presentation, it is said that India will be spending \$1 trillion to fix its infrastructure and build new projects. No doubt, these figures are huge, and there is also no doubt that India needs such investments. However, it became evident to this writer, from his recent visit to India, that these huge investments do not show any significant improvement in the country's most basic infrastructure subsectors. By that, we mean power, railroads, and water.

This, then, leads to the question:

Where is the money going? In many villages of Punjab, a major grain-producing center, residents do not receive electric power for more than 16 hours a day. This was not the situation there ten years ago. Even in New Delhi, where real estate prices match those of the most expensive cities in the world, there were power outages on a regular basis, and there are reasons for it.

As of now, take or leave a few thousand megawatts, India's installed capacity of electrical power generation has remained abysmally low, at 154,000 MW. This is not the forum to compare India's power generation capacity with that of China's, but nonetheless, it must be noted that China's installed capacity is now well over 950,000 MW, and China is planning to add 500 MW every week. India has also announced that it would be installing 200,000 MW of power over the next ten years. That works out to adding approximately 400 MW a week. In case of China, we have seen that it does implement what it proposes, and more, but in case of India, it



Tehri Dam/Arvind Iyer

India's serious water shortages require desalination by nuclear energy, as well as water infrastructure, such as the Tehri Dam on the Bhagirathi River, which also supplies much needed hydropower.

never happens. It does not happen because the necessary groundwork to achieve such objectives has not been done.

Take, for instance, what the Indian think-tank, Centre for Monitoring Indian Economy (CMIE), published in its report on the power generation capacity to be added in fiscal year 2009. That year, India's power generation capacity went up by about 3,500 MW, but the capacity addition was dismal, as it was over 68% below the target of 11,061 MW, set for the period.

In other words, money is being spent, but the preparation for implementation has not been done. That is because the people who are at the helm of India's policymaking in these areas, and I would name two major figures—Prime Minister Singh and his major domo, Planning Commission deputy chairman Montek Singh Ahluwalia (the Prime Minister is the ex-officio chairman), who were both trained by the World Bank-IMF—have no clue as to what is needed to build a nation.

Failure To Rejuvenate the Power Sector

Since we are discussing power, it needs to be pointed out that despite projections, and oodles of money that is being spent, over half of rural households (56%) in India are without electricity (source: Indian Ministry of

Power's brochure on Rajiv Gandhi Grameen Vidyutkaran Yojana, or rural electrification). This "over half of rural households" means almost 500 million people. In addition to the health problems that such a condition creates, New Delhi is basically cutting off its own feet by not allowing the next generation of Indians, who will have to become the leaders of the nation, to receive the absolute necessity: adequate education.

Such denial of electrical power, one of the most important ingredients to sustain human life, leads to other distortions so visible in the rapidly growing India. Every day, India's mega-cities swell with new migrants, mostly unskilled, from rural areas, who come seeking a better life. They come to cities like Mumbai, Bangalore, and Kolkata, which are now home to skyscrap-

ers, wealth, and power.

Is this going to change as India makes its move to take its seat with the "big boys"? Most likely, it will not.

This is the writer's observation, based on looking at the plans and preparations undertaken in recent years by New Delhi. New Delhi says it has targeted investment of \$350-\$400 billion in the power sector, in the five years ending March 2017. But, here is the caveat: Half of this expenditure, between the years 2012 and 2017, is expected to come from the private sector. Although I will explain later why such investments will not occur, it is difficult to expect that India's major business houses and corporations, who will have the capability to assemble the required investment, will spend it providing electricity to the poor and hapless, and not to enhance its manufacturing, or service capacity.

The reason why a large chunk of such investments will not take place, is because, as of now, difficulties over land acquisition to set up the plant and secure coal, navigate the thicket of regulatory red tape and delays that can derail assumptions on returns, have kept all but a few foreign players, such as Hong Kong's CLP Holdings, from operating their own plants in

Asia's third-largest economy. While New Delhi points to the growing FDI into the power sector, and some other sectors, it is almost a certainty that no foreign outfit is likely to go it alone and build a plant within the next five-year plan, which starts in 2012.

Last month, India's Power Secretary P. Uma Shankar said, "India aims to add up to 18,000 megawatts of generation capacity in the current fiscal year to the end of March 2011." He said about two-thirds of India's power generation capacity comes from thermal power. New Delhi does not explain how this new capacity can be brought on line. India is facing a coal shortage, and has made no preparation to either mine more at home, or import more from abroad. Yet coal-based generation accounts for about 80% of its thermal power generation.

On Dec. 10, 2010, the Singh government announced that India will miss its power-generation-capacity addition target for the 11th Five-Year Plan period through March 2012. The government initially planned to add 78,700 MW of total power generation capacity in the current five-year plan, and then, later, revised the target to 62,370 MW, a shortfall of more than 20%.

Inadequate Preparation

These routine shortfalls do not occur because of some untoward incident affecting project implementation. They occur because of lack of preparation and lack of will to implement what is needed. The failure to achieve the planned target from the captive coal blocks presents itself as a major challenge to the power sector. Only 24 blocks have become operational, out of the total 210. Experts believe that the non-operational status of majority of these blocks is attributed to land acquisition issues, permit delays, and infrastructure problems.

Consequently, public and private sector entities have focused on imported coal as a means to bridge the deficit. This has led some Indian entities to take up the task of purchasing, developing, and operating coal mines in foreign countries. While this is expected to secure coal supplies, it has created further challenges. For example, the main international market for coal from India, Indonesia, poses significant political and



NPCIL

India's current five-year plan calls for construction of a large number of 700 MW Pressurized Heavy Water Reactors, to help alleviate its severe power shortage. Shown: units 5 and 6 of the Rajasthan nuclear power plant, under construction in Rajasthan state.

legal risks in the form of its changing regulatory framework for foreign companies. Similarly, coal evacuation from mines in South Africa is constrained by limited railway and port capacity. Increased coal imports would also challenge India's railway and port capacity.

Equipment shortages have also been a significant reason for India missing its capacity addition targets for the 10th Five-Year Plan (ended 2007). While the shortage has been primarily in the core components of boilers, turbines, and generators, there has been lack of adequate supply of balance of plant equipment, as well. These include coal-handling and ash-handling plants, etc. Apart from these, there is a shortage of construction equipment.

In the nuclear power sector, India plans to add 20,000 MW by 2020, and 63,000 MW by 2030. While a significant amount will come from imported reactors, mainly from Russia and France, India has a plan to build a slew of 700 MW Pressurized Heavy Water Reactors. According to *The Hindu*, India's news daily, the Indian company L&T's forging unit will have a dedicated plant producing ingots weighing up to 600 tons each, and a heavy forge equipped with a press that will be among the largest in the world. It could take several years to plan and build the facility, and up to ten years to reliably produce four or more reactor pressure vessels a year. Until that facility is built, India will have to rely on Japan Steel Works for its 700 MW



Press Information Bureau of India

India's education system is not yet delivering the required numbers of specialists in project management, engineering, surveying, and other skilled professions. Shown: school students visiting an exhibition in Madurai Tamil Nadu.

indigenous reactors. There is no denying that India will have to get in line to get even one forged calandria (the reactor core of the CANDU reactor) a year from this facility.

Moreover, land acquisition poses an increasingly significant challenge to the Indian power sector. Power plants and utilities face major constraints and delays regarding the availability of land and obtaining the requisite environmental, and other clearances for the projects. India's new bill relating to land acquisition has continued to face political opposition. The bill provides for acquisition by project development agencies to the extent of 70% of the land required for a project, with the balance to be obtained by the government.

Finally, what perhaps is the most difficult obstacle to overcome in the coming years for New Delhi is the manpower shortage. There is a consensus that the shortage of talent in the construction sector is a long-term problem, and is likely to continue to push up project costs and risks due to delays. The flow of talent into the construction and power sectors has been gradually drying up as candidates have sought alternative—and often more lucrative—career options. The government, which is the biggest buyer of the capital projects, has

done next to nothing to address this challenge. The education system is not delivering the required number of specialists in project management, engineering, estimating, surveying, and contract management.

Take, for instance, the highway-building subsector. By 1989, China had about 500,000 highway workers of high- and semi-skilled variety. Today, India has barely 100,000 highway workers of dubious skill-set.

A Damocles' Sword

As a result of confusing inaction on New Delhi's part, India now suffers a series of constraints to rapidly enhancing its power sector. To achieve rapid power expansion,

New Delhi must:

- Set up a mechanism to resolve the land acquisition process, especially when diverting scarce agricultural land for industrial purposes;
- Fix the disjointed fuel supply chains and the severe shortages in facilities for manufacturing power;
- Address the severe shortages in water supplies for these power plants. India's water-distribution systems have been neglected for years. A case in point: Even though India has long had the capability to develop nuclear desalination systems, commercial production of the facilities has never taken off. So now, the Indian private sector is looking at Green World Water™ and Tubestar, U.S.-based companies, to market nuclear desalination systems that create clean water and power simultaneously.

India's inability to prepare to develop its infrastructure at a rapid pace does not only pose a threat to sustaining its growth, and to providing the basic necessities for its population, but it has also triggered high inflation, which has hit hardest at the poor. High inflation triggered nationwide protests in India last July, and marred the credibility of the incumbent government's ability to govern.

(To be continued.)