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India in the New Millennium: Energy, Environment and Development

Energy Sector Reform and Governance

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1. India embarked upon the economic reform programme in 1991 more out of compulsion than out of conviction. The widening fiscal deficit, the depletion of foreign exchange reserves, the balance of payments crisis, and the impending default on foreign debt repayment forced the government to take the plunge. The steps taken have certainly improved the strength of the economy in short and medium term. Foreign exchange reserves improved and economic growth saw a moderate spurt. Fiscal deficit showed a declining trend for sometime, only to increase later. The fiscal deficit of Union and State governments put together is estimated in the current year at about Rs.1800 billion, equivalent to about 12% GDP. About 48% of the union's tax revenues are spent on debt servicing. Real improvement is possible only if tax revenue increases significantly, subsidies are cut down drastically, and government is reduced in size, eliminating redundancies.

Impediments to growth

- 2. Each of these results is possible, but cannot be achieved in a vacuum. Tax revenues cannot improve without rapid economic growth. The first flush of economic reform resulted in higher growth, largely on account of removal of some of the artificial constraints imposed on the entrepreneurial energy of the nation. It was like a dam blocking the natural course of a river. As the dam is breached, water flowed down. But as the reservoir is emptied, mere demolition of the obstruction cannot improve the flow of water downstream. We require to replenish the reservoir through the more difficult operation of catchment treatment. Infrastructure bottlenecks in various sectors — energy, ports, roads and railroads — are formidable and need to be addressed with vigour and clarity. The only sector which has seen sustained improvement is communications, since new technology can be transplanted in this sector with relative ease. Once government allows private initiative, no major governance reform is needed for improvement in communications. In case of energy, ports, roads and railroads however, significant publice investments, policy initiatives and the will and capacity to mobilize public opinion in favour of growth-oriented policies are needed.
- 3. The present economic growth is hovering around 5%. It is generally accepted that India needs a sustained growth rate of 8% or more in order to fulfil its potential, generate adequate employment, and make a dent in fiscal deficits. However, such a growth rate is possible only when infrastructure bottlenecks are removed. Major initiatives are called for to reform school education and health care, in order to improve the skills of the future work force. Labour laws need to be reformed to facilitate removal of redundancies and allow redeployment. In particular, downsizing of the government requires fundament changes in constitutional and legal provisions relating to public servants, coupled with real empowerment of local governments through transfer of most functions, funds and functionaries to them. Only when there is a clear nexus between taxes paid and public services received, between vote of a

citizen and the quality of governance, and between authority and accountability, will pubic servants be accountable and amenable to any meaningful degree of discipline. Out of the 27 million workers in the organized, monthly wage-earning sector in India, a high 19 million are in government and public sector alone. This skewed distribution of work force explains in large part the malaise in governance, and the need for redesigning government.

- 4. The political process feeds on corruption, and in turn promotes it. The appetite of parties and candidates for ill-gotten, unaccounted funds is legendary. In the recent elections, in Andhra Pradesh alone, about Rs.6 billion was estimated to have been spent by the candidates of leading parties. Most of the election expenditure is to buy votes, and the expenses almost always are 10 to 20 times the ceilings imposed by law. There is obviously a great urge to replenish this expenditure with a decent return on investment, insurance to cover the risk of failure and a provision for the future. This makes the system exceedingly corrupt, and as money is siphoned off at various levels, the actual quantum of the loot at the citizen's level is often five to ten times the amount which reaches the political class.
- 5. Rule of law is a casualty as the lethargy of courts is legendary, and 38 million cases are pending in various courts. In a climate in which the sanctity of contracts is not respected or upheld consistently, and justice is delayed abnormally, investors attempt to minimize risks. This is particularly true in infrastructure sector which often has to deal with government directly or indirectly, and is somewhat removed from the millions of small consumers. Market economy and risk-avoidance cannot go together.
- 6. All these bottlenecks infrastructure, education and health care, labour laws, centralization, corruption and failure of rule of law have to be addressed in the next phase of economic reform. These impediments can be removed by governance process, and not by market forces alone. The linkage between reform, growth and governance is inextricable, and high growth is no longer feasible without governance reform. A glimpse of the energy sector reform establishes this linkage quite clearly.

Power sector reforms

7. In Energy Sector, the key reforms advocated are unbundling of State electricity boards, privatization of generation and eventually distribution, investments in T & D sector to minimize technical losses, effective mechanisms to eliminate corruption and theft, demand-side management to improve efficiency of end use and minimize wastage, elimination of redundancies in work force, and most of all, realization of more economical user-charges. All these require fundamental change in our governance process. For instance, endless delays in statutory clearances, arbitrary decision making, and corruption are retarding private investment in generation. Even as many projects are approved, the energy boards do not have the capacity to buy power from all. Most States have failed to evolve simple, fair, economical norms for power purchase. The capital costs and tariffs approved vary significantly, and the high-cost and high-tariff projects are often preferred to low-cost projects while

finalizing power purchase agreements, and providing escrow mechanism. Obviously such predatory behaviors hurts consumer interests, and adversely affects the financial health of the already ailing electricity boards, and gives economic reform a bad name.

8. T & D losses are staggering in many power boards. To take the example of a State regarded as one of the leaders in energy sector reform, in Andhra Pradesh, only 43% of the energy is supplied to consumers with metered connections. About 24% of the energy is estimated to be supplied to the agricultural consumers through unmetered connections. The rest 33% is estimated to be T & D losses. Of this, about 4% is transmission loss. About 29% of the total power produced or purchased is either lost network, or stolen. The technical losses are of the order of 20%, through bad T & D and thefts about 9%. In a modern system, transmission losses can be brought down to 2%, technical losses to 10% and thefts eliminated altogether. Clearly, over 20% of power is lost to the system through mismanagement and corruption. There in lies a tale of governance failure. In order to invest in T & D improvement, we need money and political will. Money is in perpetual short supply as most tax money goes towards wages and pensions. Political will is difficult to muster, as system improvements are not in the interest of the politicians and bureaucrats. Even as the electricity board and its successor organizations are losing heavily, there are many players who are lining these pockets. Absence of echnical improvements to reduce losses makes corruption and theft more easy. A low level engineer in charge of operations in energy distribution rakes in an astronomical sum of Rs 200,000 every month! There are huge pay offs at various bureaucratic and political levels. The consumer with illegal, unaccounted supply, the industry which pilfers through tampered meters, the employee of power board, the politician — all gain at the cost of the energy sector and the consumers at large. Meanwhile the power board is reduced to a state of insolvency, with an annual revenue deficit of Rs.20 billion.

User-charges in agriculture

9. Collection of economical user-charges is perhaps the hardest problem to resolve. In Andhra Pradesh, the 1.8 million agricultural consumers have unmetered connections. They pay a nominal tariff on slab-rate, based on the power of the motor and pump irrespective of the consumption. The results are devastating. The power board receives only about 3% of its revenue from agriculture, while the supply is nearly 30%. More importantly, as the supply is unmetered, there is no incentive to save energy or water. The efficiency of agricultural pumpsets is notoriously low. Manufacturers have become lax, supplying sub-standard machinery with low efficiency. Farmers are unconcerned, as they pay a nominal slab rate, and they tend to use higher power motors and pumpsets to make up for low efficiency. Water is depleted faster then wells can be recharged as farmers lift water more than necessary. The environmental consequences of wasteful energy use and water depletion are colossal.

10. As agriculture is unmetered, there is no fool-proof method of assessing T&D losses and thefts. Corruption and inefficiency thrive. The answer does not lie in tariffs alone. In fact, even if metered power is supplied to farmers free of cost upto a reasonable level of say 50% of the current estimated consumption, there will be considerable net savings. The energy thus saved will yield ten times the present revenues from farm sector, if it is sold to industry. Metering also reveals the rot in the system and focuses public attention on technical losses and corruption. However, the vast army of employees, many of whom are redundant, have as little incentive to improve the system as their political bosses. They all have become part of a vicious cycle of 'dangerously stable equilibrium' described by Robert Wade.

Subsidy reduction vs. centralized governance

- 11. One of the questions agitating the minds of economists is how to reduce subsidies to improve the fiscal health of a developing economy, particularly in an open, democratic system. Obviously the slow rate of social pay off is no match to the shortterm political price when desubsidization is attempted. The answer in a general sense has to be found in real local self-governance. If the citizen is told that fiscal health of the system demands removal of subsidies, he is unlikely to respond. When there is no commensurate benefit received to compensate for the lost subsidy, it makes no sense to give it up. In a corrupt and decrepit system in which most players in the state structure seem to be prospering, it does not carry conviction if a villager is told that he has an obligation to reduce fiscal deficit or the losses in energy sector. Instead, if the money saved by reducing subsidies can find alternative uses at the local level in a way the citizen can easily appreciate, then reduction in subsidies is politically When most tax money goes in salaries to employees, people get no feasible. worthwhile public service, and extortion and corruption become the norm in any interface between the citizen and public servant, people will resist even rational reform.
- 12. Enduring any meaningful economic reform, in particular reform of the complex energy sector, is possible only with genuine governance reform. Democratic decentralization with effective local self-governance, electoral reforms with sane funding laws and strict and verifiable norms of public disclosure, establishment of rule of law, judicial reforms for speedy and efficient justice, labour and public service reforms to make employees accountable, and strong and vigorous steps to root out corruption are the critical next steps in India's quest for economic reform. These challenge are more acute in energy sector reform, and in a way the response of the political system to these challenges is a litmus test to Indian economic future, political stability and social harmony. Governance reform is as much an economic imperative, as it is a democratic necessity.