THE STATE AND INFRASTRUCTURE: A STUDY OF THE CURRENT POWER POLICY

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Ms VASUNDHARA KUMARAN

CENTRE FOR POLITICAL STUDIES
SCHOOL OF SOCIAL SCIENCES
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI - 110067

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जवाहरलाल नेहरू विश्वविद्यालय
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI - 110067

Centre for Political Studies *12th July 1996*

School of Social Sciences

CERTIFICATE

Certified that the dissertation entitled "**The State and Infrastructure: A Study of the Current Power Policy**" submitted by Ms Vasundhara Kumaran is in partial fulfillment of the requirements for the award of the degree of **Master of Philosophy** of this University. This dissertation has not been previously submitted for any other degree of this University or any other university and is her own work.

We recommend that this dissertation be placed before the examiners for evaluation.

Professor C.P. Bhambri
Supervisor

Professor Balveer Arora
Chairperson

GRAM : JAYENU TEL. : 667676, 667557 TELEX : 031-73167 JNU IN

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Vasundhara

Vasundhara Kumaran

ABSTRACT

The drawing of an appropriate boundary between public and private enterprise has emerged as a fundamental issue in political economy. It acquires greater significance in the light of the economic reforms and encouragement to the private sector being initiated in the Indian context. As energy was a crucial and expensive input into the economy, planning was seen as an essential exercise. However, policy degradation with respect to public sector enterprises has weakened the earlier arguments. In the power sector, performance and outputs have been synonymous with supply interruptions, power shortages, poor voltage conditions and deteriorating financial health of electricity boards. All these have been cited as prime factors for the current policy shift.

The prime objective of the policy was to induce capital inflow into the sector and introduce efficient generation and distribution without furthering the perceived resource crunch. This study seeks to examine the genesis of the policy and its objectives. Keeping in mind the significance of this sector for the nation and the economy, the restriction of the state in this sector requires close examination. It is also essential to analyze the social and political factors that had generated previous policies. This dissertation

thereby undertakes a journey between two ends of the spectrum, i.e. policies marked by strident self-reliance with an emphasis on rural electrification, to a market-friendly approach that supports private sector participation and disinvestment in the public sector.

The first chapter highlights the domestic factors active in the policy shifts. It lays out the rationale behind the ideology of the public sector in the Nehruvian era. It then moves on to the shift towards a market-friendly approach and sets out some of the explanatory arguments.

The second chapter focusses on the external aspects of the policy shift. It examines in detail the World Bank and IMF prescriptions in this context, focussing in particular on the pronunciations with regard to infrastructure. The chapter also discusses the relevance of the UK experience of privatization in power to other nations.

The third chapter moves on to the policy itself, and proceeds to examine the controversial provisions of the current power policy. It also attempts to highlight the weak points of the policy through an examination of certain specific instances.

This study therefore seeks to locate the power policy within the larger context of economic reforms. The contemporary nature of the policy has restricted the scope of the study. Nevertheless, the attempt has been to raise all significant issues and to put them in perspective.

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CHAPTER I FROM PLANNING TO REFORM: REVERSALS IN ECONOMIC POLICY

Looking back at the emergence of early ideas about planning, the main themes were prominent in the plan documents. India was seen as possessing natural resources and human skills that would assist in catching up with the industrial revolution. Consequently, planning was a rational exercise regarding the utilization of resources. Politicians, the bureaucracy, academia and to an extent public opinion were imbued with the ideology and mystique of planning. It also served as a vital form of legitimization for the newly independent nation state.

The economy had been dominated by metropolitan capital and metropolitan commodities in the pre-independence period, and independence implied liberation from this domination[1]. This could not be ensured without giving the state in independent India a major role in building up infrastructure, expanding and strengthening the productive base of the economy, setting up new financial institutions, and coordinating economic activity. This

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[1] Prabhat Patnaik and C.P. Chandrashekhar. "Indian Economy under Structural Adjustment", *Economic and Political Weekly*, Nov. 25, 1995.

intervention was essential for building capitalism, although some entertained the belief that this added up to a transition to socialism without radical reform.

This set out the case for planning in the sense of a coordinated set of policies to realize, at least in some key sectors, certain magnitudes of investment and output growth. The foundation for this model was laid by the industrial policy statement of April 6, 1948. It delegated the function of the state and private enterprise. State control was divided into three categories. First, sectors to be exclusive monopolies of the state were identified. Secondly, new industries were to be under state ownership. Thirdly, industries open to the private sector were identified. The socialist stance strengthened after 1950, when Nehru's position became stronger after Patel's death. In 1954, Nehru declared that "the means of production should be socially owned and controlled for the benefit of society as a whole"[2]. This aspiration was articulated in the industrial policy resolution of 1956 - "The adoption of the socialistic pattern of society as the national objective as well as the need for rapid and planned development requires that all industries of basic and strategic importance, or in the nature of

[2] cited in John Waterbury, *Exposed to Innumerable Decisions: Public Enterprise and State Power in Egypt, India, Mexico, and Turkey*, Cambridge University Press, 1993.

public utility services, should be in the public sector. Other industries that are essential and require investment on a scale which only the state in the present circumstances could provide have also to be in the public sector". This resolution formed a neat fit with Article 39 of the Constitution, which states : "the state shall in particular direct its policies towards securing that ownership and control of material resources are so distributed as best to subserve the common good, and that the operation of the economic system does not result in concentration of wealth and means of production to the common detriment". This link of the public sector to ideology is the key to understanding the configuration of political support behind it.

For Nehru, the public sector was the mechanism as well as the means to an industrialized, autonomous, and self reliant society. This economic strategy was launched in the Second Five Year Plan which set out the basic tenets: "the pattern of development and the structure of socio-economic relations should be so planned that they result not only in appreciable increases in national income and employment, but also greater equality in incomes and wealth. Major decisions regarding production, distribution, consumption, and investment - and in fact all significant socio-economic relationships - must be made by agencies informed by social purpose".

Hence, the public ownership objective was founded on the understanding that political power in a state was closely linked to economic power and that the latter was linked to control of even basic industries. Since heavy industry and capital goods were reserved largely for the private sector, it not only excluded the private sector, but by extension foreign capital as well. This would ensure in the long run not just capital accumulation but would also enhance national strength and security. The public sector was also the quintessence of Nehru's economic organization in keeping with his vision of socialism and national autonomy.

The blueprint for progress was a mammoth scheme of industrialization. "A number of textile mills in Ahmedabad or Bombay or Kanpur is not industrialization; it is merely playing with it, we need them. Our own idea of industrialization will be limited, cribbed, cabined, and confined by thinking of those ordinary textile mills and calling it industrialization. Industrialization produces machines, it produces steel, it produces power ..."[3]. Bardhan sees the control of the commanding heights of the economy as a means of attaining 'development' without any radical restructuring[4].

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[3] cited by Waterbury, *op. cit.* p. 55.

[4] Pranab Bardhan, *The Political Economy of Development in India*, Oxford University Press, 1984.

Hence, the dominance of faith in the state as an economic actor coupled with the specific historical context created these perceptions. It was in this context that the power sector, a sector requiring heavy investment and having a long gestation period was delegated to the public sector. It was an area the private sector was unwilling and incapable of investing in at that point of time.

What is also significant is that this strategy of development developed in a period when an international economy scarcely worth the name existed. Hence economic nationalism and a degree of insularity were possible as well as permissible.

In addition the post war industrial boom in industrial countries during the 50's and 60's generated monetary surpluses that couldn't be absorbed by the domestic economies. Consequently, developing countries were able to secure soft loans to sponsor their development programmes. These were decades of uninterrupted growth for the industrially developed nations. They were also years when Keynesian polices were widely accepted. More importantly, exponents of the 'big push' theory such as Hirschmann strongly felt that state intervention was a necessary but not sufficient condition for imparting an impetus to economic development in developing countries[5].

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[5] The accepted wisdom in economic policy at this time was essentially 'statist' and emerged from the experience of market failure in the thirties.

Several significant shifts occurred after these decades. Tension and hostility in the Middle East and the massive political and economic support to Israel from the US propelled the oil producing countries to form OPEC. The cartel hiked the prices of crude oil and petroleum products in 1973. In the same year, the Bretton Woods convention and multilateral exchange rates were replaced by flexible exchange rates. An adverse change in exchange rates coupled with the increase in oil prices put an enormous burden on developing countries. It also led to the first major balance of payments crisis in 1973-74.

By the mid-70s three significant developments had taken place. Firstly, the real returns to investments in some developing countries had sunk to dangerously low levels mainly due to the high cost of energy and partly due to expenditures on defence and welfare. Secondly, some of the developing countries such as the newly industrializing countries recorded high rates of real return to investment. Thirdly the oil importing countries were affected adversely due to the oil crisis as it led to a prolonged recession. This reduced the pool of renewable resources and as a result the rate of interest in the international capital market increased. The developing countries found that the cost of borrowing shot upwards. The dependency on loans and the inevitability of oil imports compelled the developing nations to continue borrowing. Since exchange rates were floating, there was an effective devaluation of domestic currencies. This enhanced the debt burden and the associated burden of debt servicing.

The possibility of tackling this burden was slashed down by the record oil hike in 1979. This was the result of tension and conflict between Iran and Iraq. Although this hike was less than the 1973 one, its impact on debt and debt servicing was quite severe as the amount of oil bill and the debt was quite substantial compared to the situation in 1973.

The real acute balance of payments crisis arose in 1982. The three year recession in industrialized countries prevented the heavily indebted South American nations from generating enough export revenues to service their debts. In 1982, Mexico announced it could no longer voluntarily serve its debt. A spate of similar claims came from other nations and created a global debt crisis.

This stress on the international monetary system marks the inauguration of a new economic philosophy. Factors which were external to developing nations were ignored and focus shifted to correcting domestic policies. These measures, which came to be known as the Washington consensus, envisaged an altered role for the state in the economy[6].

The perception that development planning had 'failed' led to a shift in the dominant paradigm towards a neo-classical, market oriented view of the development process and policy making. The policy prescriptions flowing from the neo-classical analysis therefore promote economic liberalization. The evidence was drawn from the failure of Import Substitution Industrialization (ISI) logic and the mounting problems of deficits, budgetary shortfalls, inefficiency, underutilization and corruption in the nationalized sector. The policy prescriptions in this context were directed towards a reduction in the size of the public sector.

"It is now widely evident that the public sector is over extended, given the present scarcities of financial resources, skilled manpower, and organizational capacity. This has resulted in slower growth than might have been achieved with available resources, and accounts for the present crisis[7].

[6] T. Krishna Kumar,. "Fund Bank policies of stabilization and structural adjustment: A global and historical perspective", *Economic and Political Weekly*, April 24, 1993.

[7] *World Bank Accelerated Development in Sub-Saharan Africa: An Agenda for Action*, Washington DC, 1981.

The active advocacy of the US government has reinforced these prescriptions, and its influence has percolated not only to USAID lending policies but also to other lending agencies. The change of attitude from the 60's and 70's is spelt out most clearly in a telegram issued in 1985 by US secretary of state George Schultz. It raises the issues to be raised with regard to projects i.e., conditionality - "Policy dialogue should be used to encourage LDCs to follow free market principles and to move away from government intervention in the economy"[8]. This would permit effective allocation of resources and distribution of benefits. It goes on the say "To the maximum extent practical governments should rely on the market mechanism of private enterprise and market forces as the principal determinant of economic decisions". It set out clearly the directive for privatization of public sector firms, and in fact handed down a directive requiring most of its field missions in Africa to be involved in 'an average of at least two privatization activities' by the end of fiscal year 1987[9]. Later arguments also emphasized that the presence of overwhelming state intervention and ownership stifles enterprise and innovativeness.

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[8] cited by Simon Commander and Tony Killick in "Privatization in Developing Countries: A Survey of the Issues", article in *Privatization in Less Developed Countries*, in P. Cook and Kirkpatrick (Eds.), p. 95, St.Martin's Press, 1988.

[9] *Ibid.*

These policy reforms have been accompanied and strongly encouraged by official reports studies and declarations of major international financial organizations, most notably the World Bank and IMF. Though functionally distinct international organizations, the thinking of the two has come closest in recent years. The Bank's influential Berg report stressed the way in which economic growth in Africa had been impeded by domestic "policy inadequacies". Similarly the IMF has focused on domestic policy failures in its analysis of external debt problems of developing nations. "External debt problems are generally symptomatic of underlying balance of payments difficulties arising in part from adoption of inappropriate economic and financial policies by the debtor countries[10].

The principal components of stabilization and adjustment in general currency devaluations and market determined exchange rate adjustments are preliminary requirements[11]. These are considered useful to adjust current account and trade balance.

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[10] cited by Thomas Biersteker from an IMF study in "Reducing the Role of the State in the Economy", *International Studies Quarterly*, **34**, p. 483, 1990.

[11] The World Bank prescriptions have been discussed at length in Biersteker's article. It may also be mentioned that the prescriptions draw upon the 'East Asian miracle" heavily to emphasize the benefits of the altered role of the State. There is a stress on the way in which the State intervened selectively to foster economic development.

The adoption of anti-inflationary, demand management measures are seen as complementary measures which would balance the inflationary effects of devaluation. Fiscal adjustment is also called for through reduced spending and efficient investment. This would cover retrenchment and boost the efficiency of public enterprises as well. In addition, the Fund-Bank prescriptions recommend wage restraint to reduce the fiscal deficit. Scholars who perceive inflation as primarily wage-pushed see this as a means of controlling price rise.

The restoration of market mechanisms is also a very significant component of the Fund-Bank prescriptions. At the domestic level it involves ending subsidies and reducing price controls. At the external level it would mean liberalization of trade, deregulation, and lowering tariffs. The principle rationale here is to increase competition and enhance efficiency. Finally, privatization is another component in this scheme. It involves the alteration of behaviour as well as institutions. It has several forms ranging from change in ownership to promoting private sector participation. In general, it involves an abandoning of economic activity by the state. Hence it may divest or subcontract public sector services, or restrict itself to providing incentives for private sector development.

Three general principles are clearly visible in the preceding arguments. The first is the standard neo-classical stance of efficiency in resource use.

State intervention distorts prices and causes inefficiency in resource use. It follows therefore that liberalization is essential, both externally and internally to promote efficiency and make economic growth viable.

The second principle is that the state is constrained by intrinsic limitations as an agency for economic intervention. As a fiscal authority, the state tends to appease different interest groups through lower taxes and explicit or implicit transfers.

Thirdly, as a producing authority the state, in the form of the public sector, is itself subject to no discipline and hence feels no need for imposing internal discipline. This lack of discipline is in turn linked to the absence of accountability. The market in contrast is a disciplining device which not only gives signals on the basis of which appropriate choices can be made, but ensures that those who flout this discipline are rejected at once.

These trends have been in tune with the changing nature of the global economy which has been marked by a globalization of finance and a consolidation of interests. This transition has been characterized by the growth of MNCs and tougher conditionalities being imposed on the developing world. Till the 50s the World Bank avoided provision of loans for government programmes. In the 60s, it modified its stance for social infrastructure projects but not for public sector units[12]. It is only when the boycott appeared to be counter-productive from its viewpoint that it started providing finance. There were still conditionalities such as global tendering specifying technological details, scales of plants etc. This shift gave it a leverage, which according to Patnaik and Chandrashekhar, enabled it to direct MNCs into the public sector as collaborators. This undermined domestic self-reliance and indigenous technological capabilities, thereby allowing the Bank to influence pricing policies. The Bank thus gained access to government personnel and policy making. The above authors mark this as the beginning of the process in India by which World Bank employees began to shift to key government positions even as they drew pensions from the Bank. They formed a powerful lobby working in concert towards liberalization cum structural adjustment.

Several startling shifts have occurred at the domestic level, too. The economic reforms of the 80s and early 90s have occupied centre stage, but as many scholars have pointed out, the trend towards liberalization was initiated not in Rajiv Gandhi's governance but in Indira Gandhi's

[12] Patnaik and C.P. Chandrashekhar, *op. cit.*, 1995.

period[13].

It was in Indira Gandhi's first year of office that the economic crisis deepened. Her economic advisors believed in a technocratic approach to modernization, and were not convinced of the utility of the public sector. The criticism of her policies accelerated after the announcement of currency devaluation in 1966. This was seen as a surrender to the United States. Heightened inflation sparked off protests and violence, and criticism mounted within the ruling group and from the opposition. Far more important was the electoral debacle of the Congress in 1967. Eventually, the crisis of legitimacy led to a split in the party. There was undoubtedly a halt to the liberalization programme, but in the meantime the budgetary crisis put an end to public investment and the heavy industry strategy.

Consequently the period between 1969 and 1973 was marked by radicalism. It was inaugurated by the programme of bank nationalization. This was followed by new constraints on the corporate private sector, such

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[13] Several works deal extensively with the liberalization process. A. Kohli, "The Politics of Liberalization in India", *World Development*, **17**, 3, 1989; B.R. Nayar, "The Politics of Economic Restructuring in India: The Paradox of State Strength and Policy Weakness", *Journal of Commonwealth and Comparative Politics*, **30**, 2, 1992; B.R. Rubin, "Economic Liberalization and the Indian State", *Third World Quarterly*, **7**, 4, 1985; J. Manor, "Tried, then Abandoned: Economic Liberalization in India", *IDS Bulletin*, **8**, 4, 1987.

as the Monopolies and Restrictive Trade Practices Act, which barred expansion and diversification except with government approval. A substantial expansion of the public sector was also envisaged. These political calculations coupled with a pro-poor slogan of Garibi Hatao returned Indira Gandhi to office with a massive mandate[14]. Gradually, by 1974, there was a decisive shift in the government's policy. There was now a belief that the earlier radical thrust and the relentless expansion of the public sector had created not growth, but stagnation and inflation. This belief marked all policies till her death in 1984. Even the intervening Janata regime introduced several measures of liberalization such as decontrolling sugar prices, and enlarging the list of imports which did not require a licence. Indira Gandhi's return was marked by a greater thrust on liberalization, and the public sector was no longer seen as the catalyst for growth. The focus was the corporate private sector and enhanced production, even though the framework of controls remained. The important policy decisions included the decontrolling of steel and cement prices, liberalization of manufactured imports, as well as the relaxation of entry and expansion in 40 core industries. The issue of efficiency in the public sector also came to the fore with the Prime Minister's warning : "we cannot afford

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[14] Discussed in A. Kohli, *op. cit.*, 1989

the luxury of massive investments"[15] in the public sector without a minimum return of 10%. This was accompanied by the feeling that the economic reversals of the early seventies were the product of excessive nationalization and a bloated unprofitable public sector.

The period between 1975 and 1984 saw the setting up of a number of committees and expert panels, such as the Jha Commission and the Alexander Commission that reiterated this logic. It becomes clear that liberalization was no radical and sudden event but there was a gradual slope towards it. Atul Kohli marks the shift as a part of the overall political shift adopted by Indira Gandhi[16]. This involved a sidelining of the populist values of secularism and socialism towards Hindu chauvinism and pro-business in order to build up her support groups in the North. Her established credentials of being pro-poor and leftist saved her from sharp political reactions.

The new administration under Rajiv Gandhi was representative of a break with the past. This was emphasized by the fact that Rajiv Gandhi surrounded himself with a new breed of politicians and advisors. Many of them like Arun Nehru had previously been executives with multinational

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[15] Baldev Raj Nayar, *The Political Economy of India's Public Sector*, Popular Prakashan Pvt. Ltd. (Pub.), p. 36, 1990.

[16] A. Kohli, *op. cit.*, 1989

backgrounds. Others had World Bank backgrounds and most favoured liberalization. His entire team, as Kohli notes, was marked by a technocratic rather than a political image[17]. In addition, the overwhelming victory created a sense of autonomy. This was clearly reflected in the early policy statements as well as the budget in March 1985. It reduced corporate taxes and abolished estate duty while wealth tax was severely cut. In the AICC meeting in May 1985, there was clearly a desire to highlight the break and there was a complete exclusion of the word socialism as well as of anti-poverty programmes.

The backdrop had been set for a new beginning under a young, dynamic, high-tech oriented prime minister who would lead the country into a new age. The key feature was the reliance on the private sector instead of the public sector. Paradoxically however, the initial fervour was soon stifled, and several statements supporting the public sector's role in development were put forth. The focus soon shifted to agriculture and anti-poverty programmes in order to safeguard future electoral interests.

The series of changes in economic policy that were initiated in the early period of the Rajiv Gandhi administration marked a decisive shift in economic strategy. There was an acceleration of the pace of change in

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[17] *Ibid.*

contrast to the Indira Gandhi period. But Nayar points out that it was more the exception than the rule in this period, while Rajiv Gandhi and his government showed a deeper commitment to the programme of liberalization[18]. His programme revealed a desire to make a clean ideological break.

Ironically, the first voices of dissent came from within the party itself when the working committee wished to reiterate the party's commitment to socialism. The retreat continued with some modifications in 1986. There was increased focus on rural employment and rural development.

By 1987, the populist stance was in full evidence. The PM opened his budget speech by identifying with Nehru's principles and objectives. The principal aims were elimination of poverty and building a modern, self-reliant economy. "I am committed to planning for socialism in India... socialism in its basic meaning of removing disparities and providing equality of opportunity. This is the yardstick by which I want to judge all policies and programmes"[19]. The public sector was held up as the "core of our industrial economy", apart from being the cutting edge of development.

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[18] B.R. Nayar, *op. cit.*, 1990.

[19] Statement of the Prime Minister in the *Times of India*, March 1, 1987. Also cited in B.R. Nayar, *op. cit.*, 1990.

Keeping in mind the tremendous role of the public sector in the economy as well as its essential electoral advantages, the public sector retained its utility in the eyes of the political actors. However, there was no political will that could have salvaged the public sector from the bog of neglect and entrenched interests. Rajiv Gandhi remarked at one point that the public sector had made India strong and self-reliant. He maintained that "we have no intention of privatizing the public sector"... If there is any slip, we shall again become dependent and not be in the independent position we are in today"[20].

The problems of retaining legitimacy continued with serious opposition over the price issue. There were farmers' agitations over support prices, cancellation of loans, and electricity charges. In addition, the continuous losses in state elections, with particular reference to Haryana, led to a serious rethinking of economic policies. The increased allocation to pro-farmer and anti-poverty programmes were indicative of the cognizance of electoral requirements.

These lessons have been learnt well by the Narasimha government that followed. It has effectively balanced populist programmes with strident liberalization measures. With a diminishing role of the state as an economic

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[20] cited by B.R. Nayar, *op. cit.*, p. 79, 1990.

actor, it remains to be seen how far this balance would be retained. The minority government of Narasimha Rao stepped into office during a looming economic crisis. The macroeconomic crisis was brought to a head by a step fall in foreign exchange reserves to about $ 1 billion (about two weeks of imports). Credit rating had collapsed and could not be revived without reform. Private borrowing was not a realistic alternative[21]. The crisis was also marked by high inflation (12% and rising), large fiscal and current account deficits, and a growing debt. Workers remittances had also dried up after the Gulf War: NRI deposits also registered sensitivity to the crisis. External shocks such as the Iraqi invasion of Kuwait proved to be a heavy burden on a vulnerable economy. The cut-off of foreign funding was a reaction to this unsound position. This situation provided an ideal opportunity to the international monetary organizations to press the case for economic reform.

The disillusionment within the country and the pressures without formed the backdrop for launching a bold set of reforms that took everyone by surprise. The need for reforms is seen by some as not just a product of the crisis. The necessity had been growing throughout the 80's. For

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[21] India's economic crisis is discussed at length in J. Bhagwati, *India in Transition*, Clarendon Press, Oxford, 1993. Several articles in *The future of Economic Reform*, Robert Cassen and V. Joshi (Eds.), Oxford University Press, 1995, also deal with the issue.

instance, Montek Singh Ahluwalia traces the roots of the crisis to India's reaction to the earlier crisis of 1979-81, when world oil prices doubled. There was no current account deficit and deficits were recovered by a large IMF loan[22].

According to J. Bhagwati, the mismanagement of the economy and the debate of the public sector contributed to the fiscal and foreign exchange crisis that developed in the 80's and gathered storm towards the end of the decade. It forced India into near bankruptcy and an IMF loan (The fear of default forced India to take a $ 1.8 billion loan from the IMF). By October 1991, the borrowings increased and were accompanied by compulsions to undertake commitments and firm action to control and reduce budget deficit as well as undertake structural reforms. The reforms clearly envisioned a reduced role for the state as an economic actor. The liberalization and structural adjustment programme undertook the following initiatives.

Industrial Deregulation: A major aspect of reform centred on encouraging competition in the industrial sector. Private investment was encouraged by reserving only six sectors for the public sector. The MRTP Act was

[22] Montek Singh Ahluwalia, "India's Economic Reforms", in R. Cassen and V. Joshi (Eds.), *op. cit.*, 1995.

amended to permit easy expansion and diversification. Extensive deregulation and discontinuation of location constraints provided an atmosphere conducive to investors.

Trade Policy and Exchange Rate Policy: This was a key aspect of the programme of integrating into the global economy. Devaluation of the rupee, marginalization of import licensing and a revision of the tariff structure were its key aspects.

Financial Sector Reforms: Reforms in this area were primarily designed to provide an atmosphere conducive to investor security. In keeping with the Narasimhan committee's reports, several steps were taken.

Overall, the entire concept of self-reliance is not relevant any longer. There is clear support for free imports of goods and services. There is wholehearted support for foreign investment, FERA has been diluted, and 51% equity has been permitted. A Foreign Investment Promotion Board has been set up to facilitate foreign investment.

One striking feature of these reforms has been the relatively easy acceptability of the reforms. There has been an overall consensus with regard to reforms with a difference only in degree. The two major parties of the Congress and the BJP agree that economic liberalization is the key to growth. The BJP has opposed only those changes considered detrimental to the deprived or backward sections. In fact the opposition has generally focused on such issues such as subsides on fertilizers.

The reforms have been flexible and responsive to protests from demand groups. There is however greater support for the reforms across the board and especially in the Indian business community. Many strategically placed bureaucrats in high positions have supported liberalization and taken decisions accordingly. Unlike other developing economies, there has been no aggressive policy of privatization of the public sector. The focus has been on general commercialization and de-bureaucratization. The most significant area to be thus challenged has been that of infrastructure, as will be discussed in Chapter 2. The thrust of the economic policy remains on industrialization and modernization, but with a very different context and content.

Romesh Diwan locates the reforms in a particular group with well entrenched interests[23]. This group, which he refers to as resident non-Indians, are the powerful elite which has the requisite power and the capacity to make its interest seem like a larger interest. It propagates these images

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[23] Romesh Diwan, "Economic Reforms as Ideology", *Economic and Political Weekly*, July 29, 1995.

via rhetoric. In its initial stages, the support of economists and experts was asserted in order to legitimize the reforms. Another form of assertion is to make the reforms tautological and future related[24].

It is with the Rao government that Diwan marks the arrival of the economic reform ideology. Ideology, according to Diwan, was an instrument for this minority government to further and strengthen its hold. The reforms were presented as technical exercise or a panacea to economic problems. Its legitimacy is provided by support of the World Bank and IMF and its cause furthered by a finance minister with an appropriate background.

Patnaik and Chandrashekhar take the argument further and contend that the structural adjustment reforms were accepted in India not because

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[24] Romesh Diwan projects the reforms as part of an ideology. In this context, he cites J. Bhagwati and T.N. Srinivasan (India's Economic Reforms: mimeo 1993). "The government needs to educate the public continually about the foregoing misunderstandings, and every important minister of the cabinet and every available occasion must be exploited to do this, and thus to put the rationale and the importance of the reforms before the public. If this is not done, the reforms are likely to lose support as misunderstanding multiplies and acquires cogency, simply because no coherent rationale and defence of the reforms is available. ... The efficiency of the reforms were often misinterpreted as 'yuppie earnings', when in fact they could have been explained as truly anti-poverty measures. ... The credibility of the reforms is necessary". It is interesting to note the degree of correspondence between this view and the fund Bank prescriptions which are discussed in Chapter Two.

of any objective necessity being faced by the economy, but because of the liberalization lobby consisting of the Fund and the Bank, as well as because elements within the government and business classes seized the opportunity. Hence the balance of payments crisis, which was a contribution of speculative forces was blown out of proportion[25].

In contrast, J. Bhagwati sees the reforms as the product of an internationally informed Indian elite, which was sensitive to the marginalization of India in the global economy i.e. fall in credit rating, decline in exports etc. The reforms are therefore forceful and explicit, and are assisted by a reform-minded finance minister, which enhances their credibility[26].

The domestic credibility and legitimacy is sought to be maintained by retaining the state's role as "the protector of the vulnerable and the promoter of development". In an extensive discussion on the sustainability of reforms, James Manor focuses on the political developments, which in a way set the stage for the reform process. Over the years, there has been a decay of political institutions, both formal and informal[27]. The rapid turnover of governments at the state and central levels are symptoms of

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[25] Prabhat Patnaik and C.P. Chandrashekhar, *op. cit.*, 1995.

[26] J. Bhagwati, *op. cit.*, 1993.

[27] James Manor, "The Political Sustainability of Economic Liberalization in India", in Cassen and Joshi, *op. cit.*, 1995.

deep decay which affects formal organizations and important informal organizations such as parties. These institutions have been unable to respond adequately to society and have been damaged by political leaders who harnessed them for personal gain. Manor also notes the general political awakening in society amongst all sections, which have become vocal, organized and assertive. All this has made governance a difficult task, especially when combined with slow economic growth.

These plural problems have been tackled by Narasimha Rao by attempting to strengthen formal institutions. He has also sought to rejuvenate the Congress with intra-party democracy. In this context Manor perceives the reforms as a means to relieve the state of additional burden in its "present decayed conditions". The role of market forces is thereby enlarged so that the state is free to redistribute resources in some areas. Hence it can gain political support from important interests and can simultaneously retain a pro-poor and pro-development stance as well. Economic reforms through economic growth are expected to generate political support and provide tax revenue which would enable the state to perform the above functions.

The reforms themselves have been incremental, piecemeal, and low key. Each step taken affected only a part of the economy and limited interests. Devaluation was also carried out in two phases to assess reactions and respond when important interests showed signs of alarm. Potential opponents are tackled one at a time to prevent the rise of a united opposition. Manor also notes the use of time intervals between sets of initiatives so as to allow resentment to dissipate. Manor also highlights the clever presentation of reforms so as to generate support. For instance, the National Renewal Fund was set up with an initial allocation of Rs. 2 billion to smooth out the process of industrial restructuring. Initially presented as a scheme for redeployment and retraining labour, the fund has come more into use for voluntary retirement compensation, especially in the case of the National Textiles Corporation. There has been no major upheaval or an out and out attempt to gain consensus. The future of the reforms and the Congress too are greatly dependent on the perceptions of various demand groups regarding the reforms.

The structuralist argument has given way to neo-classical perceptions[28]. The dominant economic philosophy is supported by most policy makers and there is a remarkable consonance between the Fund-Bank perceptions and the Indian programme of economic reforms. No efforts are being spared in order to successfully integrate with the global economy. Perhaps the most striking move in the Indian context has been with regard to the

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[28] Richard Heeks makes this point in the book *India's Software Industry*, Sage, 1995.

public sector, in particular, infrastructure, which was hitherto a sacrosanct state preserve. There is a plethora of literature on reform and private investment in infrastructure and this is what receives attention in the next chapter.

CHAPTER II

WITHDRAWAL OF THE STATE FROM INFRASTRUCTURE: POLICY AND PRESCRIPTION

CHAPTER II WITHDRAWAL OF THE STATE FROM INFRASTRUCTURE: POLICY AND PRESCRIPTION

Developing countries have a number of common features ranging from poverty, low productivity, poor technological capabilities, and problems of balance of payments, to social and sub-regional inequalities. All these have a major impact on the challenges and issues which the electricity supply industry has to face.

It was the perception that energy, especially electricity supply, is an essential component of any strategy for economic development that led governments in developing nations to establish ambitious electrification goals. Nationalized utilities were given the goal of providing cheap and reliable electricity to all regions and citizens. Conditions were favourable for the acquisition of loans, and this made large projects possible in these developing economies. The tendency in this sector was always towards public control[29]. The economies of scale and co-ordination which technology permitted pushed the industry in this direction towards regional or natural

[29] Gerald Foley, "Electrification in the Developing World: Where Are We Going ?", article in *Electricity in the Third World*, P. Pearson (Ed.), SEED series No. 68.

monopolies. In most cases, different aspects such as production, transmission, and distribution necessitated state intervention at a national level in order to trigger the consolidation of the industry, exploit scale economies, and even out imbalances in the quality and cost of supply. In other cases, state intervention was seen as necessary to counter monopoly power which this sector involved. Elsewhere, intervention was an act of strategic planning, wherein the sector was a catalyst to foster economic development. This sector was in essence a microcosm of the reasons for intervention in the economy as a whole[30].

Until the oil crisis of 1973-74, the electricity systems of most developing countries were similar to the industrial countries. They were growing rapidly and supplying power at declining real prices. The underlying situation of developing country utilities also changed in the 70s but this did not affect the consumers or to a large extent the utilities themselves. Costs escalated but real prices did not increase accordingly. Social and political considerations led many governments to reduce the impact of rising electricity prices on consumers. The commitment to supply electricity to meet a rising demand while facing a reduced cash flow compelled the utilities to borrow heavily

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[30] *Ibid.*

because of pricing policies in developing countries[31]. Initially, the easy availability of petro dollars made this possible. However, devaluations of domestic currencies had been done to overcome macro-economic problems resulting from interruption of international flow of capital into developing countries. These devaluations had an extremely adverse affect on the utilities and their financial position. These utilities in the public sector had to rely on government measures to solve their problems. The debt crisis however destroyed the financial equilibrium of most developing country public accounts. The issue was compounded by the fact that in most cases, these utilities only absorbed foreign exchange but generated none[32]. Consequently, utilities were compelled to postpone vital investments and maintenance expenditures. In a classic vicious cycle, this worsened their financial and technological performance. Quality of service deteriorated, and in many cases rationing emerged as a short term response.

As a result, there was large scale alienation with regard to public utilities and they came to be associated with inefficiency and poor performance. It is therefore directly implied that private enterprise is necessarily better and more efficient. When the public sector was set up,

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[31] Adison de Oliviera. *The Key Issues Facing the Electricity Systems of Developing Countries*, Commission of European Communities, 1991.

[32] *Ibid.* The World Bank also takes cognizance of this fact.

profit was not the motivating factor, and hence they were expected to cover costs. For instance, if BHEL makes huge profits, by implication the SEBs would be paying more for turbines. This would be reflected in higher transits. The aim was to utilize resources effectively for general welfare[33].

It was unfortunate that private purposes intervened to subvert the true aims of public enterprises. There is no doubt that autonomy and accountability are extremely desirable. "A competent, customer-driven public sector is necessary partly to provide services and partly to keep the private sector honest ... private bureaucracies are neither as efficient or self-cleansing as many of their champions insist"[34]. If the performance of public enterprise has been disappointing in India, it is because those who controlled them were either not interested or pursued their own objectives. There has been a lack of coordination and planning where public enterprises are concerned.

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[33] For a detailed discussion of the ideology of the public sector, see *India's Mixed Economy*, Baldev Raj Nayar, Popular Prakashan Pvt. Ltd., 1989.

[34] cited by Arun Ghosh in "Ideologues and Ideology: Privatization of Public Enterprises", *Economic and Political Weekly*, July 23, 1994. vide Robert Kuttner in *International Business Week*, June 28, 1994.

Public enterprises eventually reflect the priorities of the political authority. Galbraith writes, "What matters is that the management of enterprise have full right of decision and be fully accountable for performance"[35].

In a detailed analysis, Brendan Martin analyzes the ideology of privatization and demonstrates that privatization of public enterprises is not necessarily in the public interest but in the interests of certain identifiable pressure groups. The ideology coupled with other polices pushed forward by the World Bank and IMF are not favourable to developing countries. The viable alternative would be to decentralize, regulate, and reform as well as restructure the management of public enterprises and utilities[36].

In an interesting analysis, Mariusz Dobek argues that privatization reflects politicians' desire to acquire power[37]. This method offers to lucrative opportunities as

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[35] cited by Prajapati Trivedi in "What is India's Privatization Policy", *Economic and Political Weekly*, May 29, 1993.

[36] Brendan Martin, *In the Public Interest: Privatization and Public Sector Reform*, Ted Books (Pub.), London, 1993.

[37] This theme is discussed at length by Cristopher Hood in *Explaining Economic Policy Reversals*, Open University Press, 1994.

(i) a means for buying votes and rewarding funds.

(ii) a means of gaining electoral funds.

iii) minimizing public accountability.

In addition, other scholars argue that public enterprise through policy degradation may lead to a destruction of its original rationale. They may economically become a drag on national efficiency. Alternately, politically, the patronage capacity may dry up[38].

One of the crucial catalysts in propelling the reforms in India has been the large scale disillusionment with the public sector ideology and its performance. Reform of the public sector is a crucial part of structural reform programmes. The failures in the infrastructural area have been extensively documented by Ahluwalia. The study reveals how inadequate investment and poor management combined to take their toll on infrastructural facilities[39]. Infrastructural investment dropped down from above 15% per annum to 4.2% per annum. Underinvestment in infrastructure was associated with growing inefficiency. Despite some care being given to these aspects in the 80's, there was only marginal improvement. The public sector also failed to expand by augmenting internally generated resources or provide

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[38] *Ibid.*

[39] Isher J. Ahluwalia, *Industrial Growth in India: Stagnation Since the Mid-sixties*, Oxford University Press, Delhi, 1985.

additional resources for development, thereby causing widespread disillusionment. The Centre for Monitoring the Indian Economy also revealed a lower profitability in the public sector. The financial performance was far weaker at the state level and is best exemplified by the heavy losses incurred by State Electricity Boards. The larger economic crisis, according to policy makers, led to a situation wherein the state was unable to subsidize the public sector and public enterprises were encouraged to approach the capital market by strengthening their economic performance. However, the memoranda of understanding which are cited to be instruments of rolling back the state do not address the real problems of accountability and autonomy.

The new economic policies attempt to tackle wastage and stagnation and simultaneously ease the burden of the resource crunch. Private investors have been prompted to venture into infrastructural areas which were hitherto the exclusive domain of the state, such as power, aviation, telecommunications, etc. In other sectors, public sector units are being encouraged to expand by tying up with multinationals interested in investing in these areas.

The public sector, according to J. Bhagwati, has suffered from overstaffing, soft budget constraints, and bureaucratization[40]. Since the public sector had a heavy presence in infrastructure, the inefficiency was carried over to other sectors and affected the entire economy. Economic inefficiency was the microeconomic aspect while low productivity was a manifestation of the macroeconomic failure.

It would interesting to juxtapose these explanations for economic policy reversals with the shifts in policy in India that tout privatization as a functional policy of economic rationalism.

The World Development Report of 1994 on infrastructure is an articulation of the Bank's overall thinking[41]. For instance, in the power sector the Bank had already formulated its current policy in 1992, i.e. the provision of loans only for those recipients agreeing to wholesale privatization. The report took the argument further. It argues that the poor performance of infrastructure implies that the capital invested is development foregone. The Bank's analysis is typical. It asks for a shift of the state away from conflicting responsibilities as owner, and operation of electric utilities towards

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[40] J. Bhagwati, "India in Transition", *op. cit.* World Development Report, World Bank, Washington D.C., 1994.

[41] *The World Bank's Role in the Electric Power Sector*, World Bank Policy Paper, Washington D.C., 1993.

decentralization and market based incentives. It calls for commercialization and corporatization, and an invitation to the private sector to participate. Investment in infrastructure must be made more effective. The key is the introduction of competition and liberation from government monopoly. The Bank argues for a more innovative structure for the delivery of infrastructure and making the system more responsible to the stake holders. It ends by arguing that if the system becomes more responsive to cost prices, it will become more responsive overall. The argument is therefore that all infrastructure should be run on commercial lines. The argument runs dry when seen in light of the fact that competition in infrastructure is entirely artificial and has to be introduced through regulation rather than the market.

The World Bank has lent heavily in the power sector which absorbed nearly a third ($ 14.6 billion) of the Bank's cumulative project lending. The loans to the sector went up from 15% before 1970 to nearly 22% in the 70s and 35% in the 80s. In India the Bank lent mainly for transmission and distribution[42]. Many of the loans went to different states in order to strengthen regional grids. The Bank has also been prescribing certain guidelines. For instance, in the seventies, the Bank convinced the Indian government to appoint a high level committee to prescribe financial norms

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[42] S. Guhan, "The World Bank's Lending in South Asia", Brooking's Occasional Papers, Washington D.C., 1995.

to SEBs. Subsequently a statutory requirement of minimum 3% rate of return was prescribed in 1985. Most Boards were unable to emerge from their financial crisis. The Bank therefore turned towards central organizations such as the NTPC so as to gain leverage at the central level. The NTPC was unable to reform SEBs as expected. It was instead offloaded with SEB arrears. Since power was an issue in the concurrent list, the Bank's options were limited. It had three courses of action: it could cut or stop lending till reforms were implemented; it could continue to exert pressure on central agencies; or it could interact and influence the SEBs directly. At the end of the 80s, the World Bank was using all three methods, and in the recent past has been interacting and supporting schemes for private sector participation in the states[43]. In April 96, in cognizance of India's reforms, the World Bank approved a $ 200 million loan for the expansion of infrastructure.

With regard to the public sector, the World Bank arguments posit that the justification of the State owned enterprises' performance on the basis of non-commercial goals do not hold water. It is a little doubtful whether non-commercial objectives were achieved. Holding selling prices below marginal cost may not help the poor. For instance, the study cites that low electricity prices designed to help the poor don't actually do so since

[43] *Ibid.*

the rural affluent are able to utilize its benefits more. Hence, the prescription handed out is that states should focus on direct poverty alleviation programmes.

'Bureaucrats in Business' sets out the case for gradually withdrawing State owned enterprises in very strong terms. It pleads for the following reforms [44]:

(a) Divestiture

(b) Competition

(c) Hard Budgets

(d) Financial reforms and changes in the relationship between the government and Public Sector managers

Divestiture improves performance by eliminating imperfect participants from the market and competition brings forth inefficiencies of the State sector enterprises[45]. The absence of subsidies, privileges, or other forms of State capital drives them to be competitive. Hard budgets are crucial to reforming state enterprises and provide a standard for evaluating monopolies. A hard budget would imply :

(a) Access to credit on commercial principles, without governmental

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[44] *Bureaucrats in Business*, World Bank, Washington D.C., 1995.

[45] *Ibid.*

guarantees

(b) Determination of prices by the market and for monopolies through regulation.

The response of State enterprises depends on management, and it must be provided with the necessary autonomy to react to various situations, such as seeking cheaper suppliers, etc.

The success of reform or avenues for implementing reform are correlated with several factors[46]. One of them is political desirability. Any government that seeks to implement reforms must be free of insecurity of tenure. For instance, Korea was able to carry out reform successfully because the political authority is wielded by the executive branch and the legislature did not play an important part in policy making. Consequently gaining consensus was not a significant constraint. In addition, a regime must be able to withstand alienation of groups that would oppose reforms and continue without their support. Chile is cited as a success here although it laid off thousands of workers without awarding compensation.

The second criterion for successful reform is the political feasibility of reform. The leadership must be able to implement reform by securing the

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[46] *Ibid.*

co-operation of other agencies, i.e. the bureaucracy and the legislature. It must also be able to withstand opposition to reform. The study thereby suggests control by a strong leadership and the suppression of protest such as through banning strikes in strategic industries or reducing union power. It suggests a combination of persuasion and compulsion to silence dissent. In Mexico, for instance, policy makers provided compensation and rural assistance with funds generated from privatization, and also used force by firing at striking employees at Aeromexico before selling the airline.

The third criterion for successful reform is the government's credibility. It thereby staves off potential obstacles such as compensating those affected by reform, and secondly creates an environment to ensure investor confidence and security. The latter is crucial. Excessive discounts and high guaranteed returns would lead to allegations of frittering away the nation's resources. In the Indian context, the study finds that neither the governing party nor any major party had a support base that favoured such reform. The absence of any economic crisis in the 80s perpetuated the system as there was no crisis that might have led constituent groups to reverse their opposition to reform.

The study almost reads like a handbook on ensuring reform at any cost. The study therefore lays out in detail the desirability of reform and the procedure to ensure it. The World Bank perceptions accept that some state owned enterprises are likely to be in public hands for some time to come for political if not economic reasons. The next best alternative to privatization is contracts with private management. In a situation where this is not possible, strengthening competition, providing hard budget constraints, and reform of financial and institutional arrangements is recommended as the logical alternative.

It has also been contended that the World Bank's statements regarding the efficiency of the private sector are not supported by any closely held data. The Indian experience with private investors has not borne out these claims. The picture of private enterprise in the telecom sector in Brazil subsequently led to only state sector enterprises being permitted to enter telecom.

Overall the World Bank argues for the concept of 'contestable markets in infrastructure' as against the general view of infrastructure as a naturally held monopoly. The policy review with regard to the power sector stems from a study of 300 power projects financed by the World Bank between

1965 and 1983[47]. The study concludes that it is questionable whether the prevention of expansion in electricity supply is possible or even desirable. Two main findings of the study are :

(a) Developing countries have been partly successful in extending access to electricity to large sections of their population. The average growth rate of connections indicates the widening of opportunities for economic development and industrialization.

(b) Utility performance has however been deteriorating over time and this decline has been parallelled by a shift towards large monolithic controlled electric utilities. Network losses are far above industrial countries' (8%) levels, reaching 21% in Africa. Project delays amount to 44% of planned construction time. Demand forecasts are 20% above actual consumptions. Underinvestment in distribution generates bottlenecks, while overinvestment in generation produces supply overcapacity. This deteriorating performance is an unfavourable context for utilities to handle problems of long term expansion of capacity.

The study therefore recommends that greater emphasis be put on efficiency and restructuring rather than concentrating on expansion. It

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[47] Discussed in Adilson de Oliviera, MacKerron, and Gordon: *op. cit.* The study is contained in M. Mason, T. Gilling and M. Munasinghe, "A Review of World Bank Lending for Electric Power", World Bank, Washington D.C., 1988.

contends that such a strategy leads to lower levels of electrification in rural and urban areas thereby reducing the possibility of economic development. However, it argues that it is not possible to sustain expansion of the electricity system in developing countries if the current poor technological and economic performance of utilities is not substantially improved.

It is worth noting that such a strategy, if enforced by multilateral and bilateral financial organizations, is likely to harm the development of those countries in particular that have not extended electricity to most of their populations. There is a tendency to see the problems as outstanding and thereby seek solutions within the utilities themselves and their relationship with government. The policy guidelines for the power sector under this study are:[48]

Institutional Change: Developing countries should look for new institutional arrangements to strengthen the role of market forces. Management of utilities should be free from political interference that is a major source of inefficiency, but they must continue to remain accountable. Privatization

[48] *Ibid.*

will eliminate government interference, introduce competition, and decentralize decision making thereby creating the necessary environment for improving financial and technological capabilities of these utilities.

Financial Change: Electricity prices must reflect actual costs and therefore need to be raised. This will ease the financial crisis and increase their level of self financing. Inducting private funds, domestic as well as international, will assist this sector.

To attract private capital, the study suggests a set of incentives to reduce risks, particularly with regard to foreign capital, e.g. tax concessions, security of prices, and guarantees that projects can be repatriated in hard currency. It also suggests that future expansion be primarily oriented towards technology of low capital intensity such as natural gas so as to reduce the gestation period.

Management: Priorities of management are to be re-oriented towards reducing losses and reducing demand. A careful assessment of links between the electricity sector and the macroeconomic situation of the country must be made. Therefore maintenance, rehabilitation, and distribution should be given greater attention, and adaptation to socio-economic conditions is essential.

The Bank believes that strong cash inflow is possible with an operation on commercial lines which are not "compromised" by the historical requirement to meet 'national' objectives of supplying power to rural people and stimulating development either through procurement policies or cheaper power. It is the inability of international capital markets to meet the needs of the power sector for additional capital to build additional capacity, that drives the ideological preference for private sector involvement, i.e. acquisition of funds from any source. The Bank's strategy also recognizes that it does not have the capacity to provide for the utilities in crisis. The new strategy has five basic tenets.

1) Independent and transparent regulation.
2) Commercialization and corporatization.
3) Importation of service to improve technological and financial efficiency.
4) Limitation of bank lending to utilities that display a commitment to improving sector performance.
5) Encouragement to private investment power sector.

The internationalization of the industry is thereby gathering pace. Although in the developing world the power sector has never been purely national, foreign investment has always played a role both in the developing and the developed world, especially in the early years. But in the present context, McGowan argues that the south is being seen as a market, and consequently developing countries are being exposed to everything from advice to investment by developed country firms. Thereby the North becomes a model for the South[49].

To elaborate the argument: in the period of economic nationalism and the cutback in foreign investments in this sector, international linkages in this sector declined and were confined to extensions of aid budgets although they remained and did not disappear absolutely. For instance, planning and construction of electric power plants in the third world in imitation of the prototype in developed nations required expertise in rural, mechanical and electrical engineering equipment[50]. In general, foreign contractors were in charge of turnkey projects. The consultant engineers in most cases are linked with the transnational corporations in power equipment. So the order is placed with the associated TNC without looking for more competitive sources of equipment or expertise.

Like any other developing country embarking on a mammoth power generation programme, India depended on imports extensively in the initial

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[49] Francis, McGowan, "Reforming the Electricity Sector: The North as a Model; the South as a Market", in P. Pearson (Ed.), *op. cit.*

[50] Shubendu Dasgupta, "Transnational Corporations in the Electric Power Sector. (1947-1967): Continuity of Linkages", *Economic and Political Weekly*, July 11-18, 1981.

stages[51]. This was the result of a double constraint. There was an absence of adequate manufacturing capabilities and in addition there were severe foreign exchange limitations. In each of the five-year plans, the import of power generating machinery has been an important constituent of many foreign aid programmes. At times, such imports were part of a package of credit from aid-giving countries, and in others they were the sole item of aid. The remarkable diversity of sources of aid for power led to different sets, different technologies, etc. being absorbed, and was an obstacle to standardization.

In addition, the World Bank, which procured finance for projects, imposed several conditionalities. Official bilateral sources were usually tied to the purchase of the capital equipment from donor countries, e.g. half of the United States heavy electrical equipment sold in the 1960's was under the aegis of the Agency for International Development Loans. Projects financed by the World Bank are subject to international tenders and tend to support well known firms[52].

The linkages of TNCs with developing countries extended to the manufacture of power equipment and their participation was through the

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[51] *Ibid.*

[52] *Ibid.*

establishment of subsidiary firms, acquiring existing firms, or setting up joint ventures with local entrepreneurs. Nevertheless, state control restricted and constrained their level of participation. The current reforms however have left the industry more open in developed and developing countries. The industry is not obliged any longer to confine itself to any territory nor is it insulated against 'incursions' from outside. The main flow of activity is from the North to the South. Such intervention is following a broad pattern whereby privatization in these countries often involves a Northern partner acquiring a major share. In other cases, Northern firms participate through investment where private sector participation is invited.

This schema of privatization, reorganization, and competition is best exemplified by developments in the United Kingdom. It represents an ambitious attempt to put into practice the major principles the World Bank now advocates for developing countries[53]. The unique feature of the UK experiment was that it attempted to tackle three issues simultaneously, i.e. centralization, public ownership, and monopoly. It divided transmission, generation, and distribution into separate independent organizations before

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[53] See White Paper on Privatizing Electricity in the United Kingdom. Also see T.G. Weynman-Jones, "Regulating the Privatized Electric Utilities in the UK"; Thomas Clarke, "The Political Economy of the UK Privatization Programme", in *The Political Economy of Privatization*, T. Clarke and C. Piteris (Eds.), Routledge, 1993.

privatization. It thereby permitted free contracting between these organizations and even permitted their interaction with a large user. The idea of introducing competition into the supply and permitting large consumers to contract whichever supplier they desire is unique to the UK. In the US, activities were privately owned and were asked to provide transmission access to independent power producers having ownership and structure unaltered. In the US, power is provided at avoided costs while in the UK, quotations for power requirements are given for the next day and distributing authorities choose the lowest bidder.

However critics point out that the UK has not developed any real competition, but has developed a duopoly between National Power and Power Gen. Costs have risen and the consumers have not benefitted. It is also alleged that sample polls reveal that four-fifths to two-thirds of the people are not in favour of privatization of infrastructure[54]. Keeping in mind the UK example, one may make some broad generalizations. Primarily, it is true that the public utility structures are in dire need for reform as a result of several problems, in particular, financial and technological. The World Bank however focused on ownership as the central question. It advocates the entry of private capital, especially foreign, into monopoly

[54] This argument is presented by P. Purkayastha in "Infrastructure and the Withdrawal of the State", Purkayastha, 1995c.

sectors, assuming that it will bring decentralization and competition in its wake. The UK model reveals that there are severe limits to the amount of competition possible Nuclear power and coal are protected even in the UK. To elaborate, Regional Electric Companies (RECs) are compelled to buy non-fossil fuel electricity i.e. nuclear power, and there is also a fossil fuel levy of 11%[55]. This levy creates the surplus revenues needed to subsidize nuclear electricity. Since the coal industry needs protection, the government forced the two generators to sign fixed price contracts on a relatively high non-commercial price basis for a bulk of coal supplies till 1993.

This apart, it remains extremely doubtful whether in developing countries this model is applicable. The level of competition introduced in the UK cannot be duplicated in these economies[56]. The withdrawal of the state from infrastructure services such as power and telecom has serious consequences for the entire economy. The arguments in favour have revolved around efficiency, and the questions that continue to dog us are whether there is a market for infrastructure as there is for other commodities.

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[55] Adilson de Oliviera and Gordon MacKerron, "Is the World Bank Approach to Structural Reform Supported by the Experience of Electricity Privatization in the UK ?", *Energy Policy*.

[56] This point is taken up by Purkayastha, 1995c, *op. cit.*; as well as by Oliviera and McKerron, *op. cit.*

Given the nature of infrastructure, it is far more likely to result in monopoly or duopoly. In addition, what would be the impact of supply constrained delivery of infrastructure on the price of such infrastructural services ? If infrastructure is seen as an independent commercial activity, the impact of such high cost infrastructure on the development process as a whole has serious consequences. Infrastructural sectors, i.e. telecom, irrigation, power etc., as has been discussed earlier, were considered pre-requisites for economic growth. Under conditions of large supply deficits, private sector investments lead to monopolies and not to competition[57]. Consequently it becomes a high cost service and cannot be utilized by all people. What needs to be considered is that the threat of withdrawal in the condition of shortage can threaten the regulatory role of the state. In all likelihood, private sector investment would tend to move towards advanced areas. In such a situation, the agrarian and industrial areas would not be able to develop and consequently, this may lead to lower growth and increase existing disparities.

The Fund-Bank argument hinges around the contention that introducing competition in infrastructure will ensure efficiency. The degree of competition then is the vital element. However, Nigel Adam points out "the jury is still out on the success of the UK privatization experiment .... the big utilities

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[57] P. Purkayastha, 1995c, *op. cit.*

like British Gas and Telecom have generated respectable profits since becoming privatized but this is largely because they still hold monopolies in their market ..."[58]. Pool prices are determined by two dominant suppliers quoting in collusion, which brings in excessive profits to the producers at the expense of consumers. Therefore, privatization has not succeeded in establishing commercial principles in pricing. P. Purkayastha argues that infrastructure in most countries is a monopoly.

For instance, in the UK, the regulation sets a five-year price cap adjusted for inflation in order to encourage technological innovation. The price cap is, however, not fully adjusted for inflation, and the companies can keep extra profits if they reduce costs. The net results have been the enormous profits made by utilities, greatly increasing the popular discontent against privatization measures[59].

As regards efficiency in infrastructure, it can be analyzed in many ways. It can be defined as producing maximum physical output at lowest cost. It can be seen as maximum output for a given capacity. It can be defined as commercial efficiency, too, i.e. earning maximum returns on investments. Although in isolation, each of these is an incomplete indicator,

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[58] Nigel Adam, former editor of *Business*, is cited by Prajapati Trivedi, *op. cit. : (M-75).*

[59] P. Purkayastha, 1995c, *op. cit.*

the World Bank relies on the notion of commercial efficiency alone. This only means the ability to escalate prices, but does not mean the efficient utilization of resources.

The costs plus basis and sliding price caps have been two measures used to calibrate efficiency in real terms. But it is not privatization that prompts efficiency. For instance, in the case of UK privatization British telecom can be seen to have made remarkable progress, which is to be attributed to the tremendous pace of technological achievement above any factor. Technological change is minimal in gas and power and therefore the related utilities are shown to be at par with state-run services such as post and railways.

In the case of power, Plant Load Factor (PLF) is considered an indicator of efficiency. PLF, however, depends on the load curve and with a load factor of 60-65% cannot exceed this in a power surplus system. For the consumer, the continuity of supply and its quality are equally important. Power must be produced economically as well. Hence, commercial efficiency is an inadequate indicator. The consumer if considered seriously rejects both high cost power and power cuts[60].

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60 *Ibid.*

Undoubtedly, state enterprises have not provided good service to the consumer. The neglect of this aspect has led to large scale alienation of the people from state run enterprises. This however does not imply that eliminating or marginalizing them is the panacea for all ills.

It is important to remember that utilities like power and telecom have clearly defined economies of scale. Advanced countries moved into selective competition in power and telecom only after they had achieved economies of scale, and the advantages of integration of their systems. Technical efficiency of integration had been exhausted, and so competition was sought in selective segments such as generation in power, or through wireless and cable networks in telecom.

The picture is very different in developing nations. In India, telecom coverage is extremely limited. With regard to the power sector, the Indian grid is only partially integrated and there is no grid discipline. In fact, South Korea re-nationalized the power sector after being unable to impose grid discipline. Therefore, weakening state-run infrastructure, and at this stage, is not a wise strategy.

Ownership may not be the central issue in attaining better performance, especially in an industry with strong natural tendencies towards monopoly. It requires continued and novel forms of state activity rather the World

Bank view of a simple linear removal of the state. Private sector participation may solve the financial crisis of some developing countries' power sectors, but infrastructure must remain largely under state control and regulation in the larger economic interest. Alternately, it could signal the extraction of substantial and secure profits from the ownership of significant sections of developing country power systems. The presence of a strong regulatory framework is essential, especially in the context of natural monopolies. Haste could spell disaster, and corporate collapse is possible. This is what occurred in East Germany, where ruthless speed without a search for a sympathetic buyer only led to collapse and unemployment[61]. In such a situation, there would be popular protest and resentment with regard to infrastructural changes and reforms in general.

India's reforms in the infrastructural areas have also generated debate and controversy. The next chapter focusses on the power sector, the ideas and concerns that lay behind its early development, and the motivations behind the current power policy.

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[61] Isher J. Ahluwalia, "New Economic Policies, Enterprises, and Privatization in India", in Cassen and Joshi, *op. cit.*

CHAPTER III

THE NEW POWER POLICY: PANACEA OR PANDORA'S BOX ?

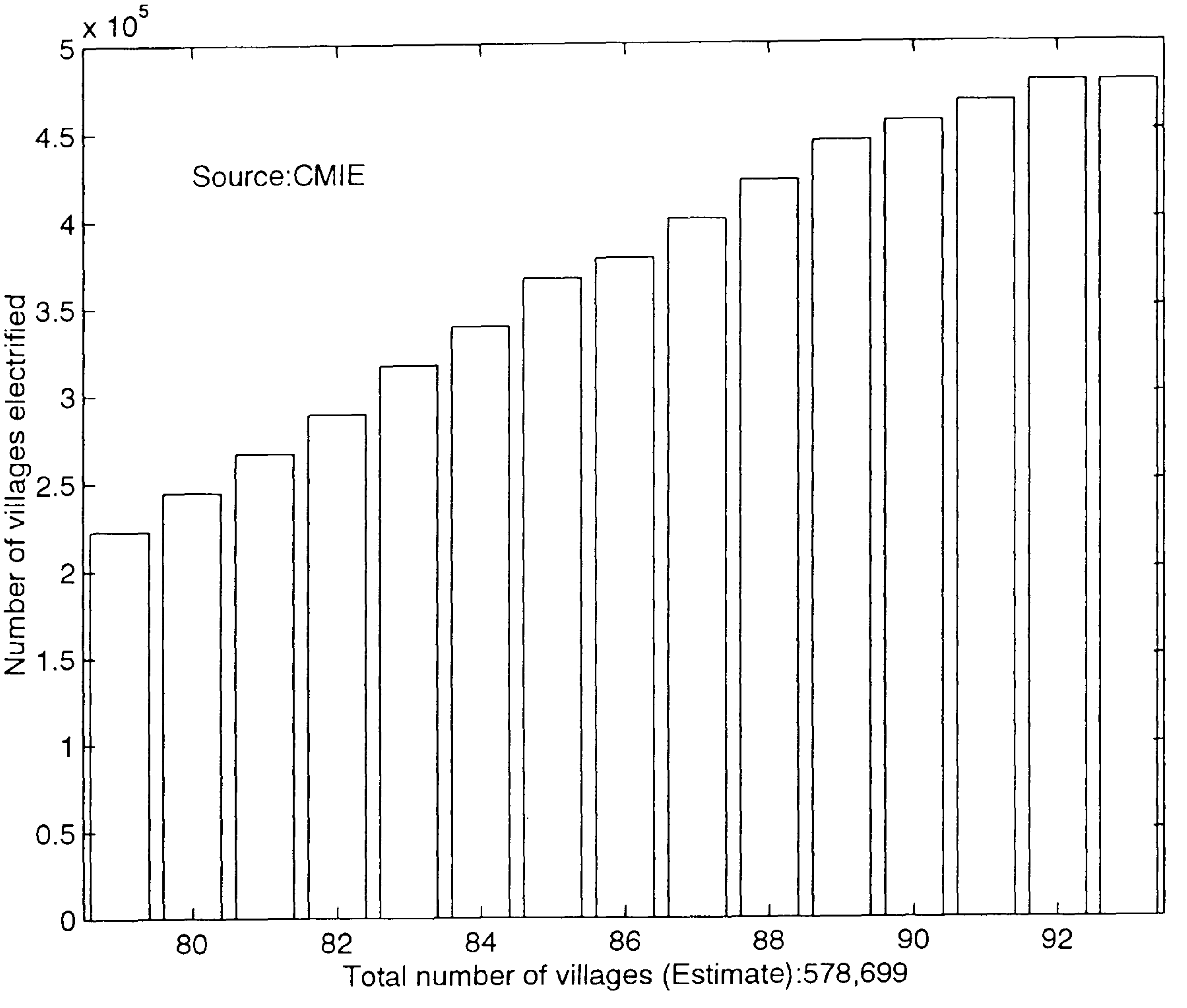
CHAPTER III THE NEW POWER POLICY: PANACEA OR PANDORA'S BOX ?

Till the attainment of independence in 1947, the responsibility for power generation lay with the private sector. The Indian Electricity Act of 1910 covered the provisions for electricity generation, transmission, and distribution by these private agencies. It was hence a limited and sporadic growth.

With independence however, and the adoption of an industrialization cum modernization development strategy, power was seen as a critical intermediate input into economic development as well as an essential requirement for boosting the quality of life in rural and urban areas. With this aim in mind as well as cognizance of the level of investment required, the government assumed control of this sector. Rural electrification was of prime concern, and the number of electrified villages moved up from 300 at the end of 1950 to 84% of nearly 4.87 lakh villages at the beginning of the 8th plan[62]. This growth was possible only with the direct involvement of public utility enterprises and heavy investment by the state. The

[62] See Figure 3.1

Fig. 3.1. Rural Electrification



sub-committee on power recorded the singular significance of SEBs in extending benefits to remote rural areas which would otherwise have remained aloof from the process of modernization[63].

The first five year plan provided an expenditure of Rs. 2,600 million for power development. However, the progress was slow. Considerable delay was incurred in the initial stages in completing investigations, determining the scope of projects, and setting up the necessary organization for their execution. Difficulties also emerged in acquiring machinery and equipment from foreign manufacturers. Delays in procuring materials like steel and cement also slowed down projects.

The second five year plan revealed major shifts towards industrial consumption, and to some extent, irrigation. It was by the third plan that the power sector began to take shape. Steps were taken to provide foreign exchange for implementing the remaining power schemes of the second plan. The plan also recognized the need for coordinated development of power grids to ensure balanced development. This would eliminate the disparities in electricity tariffs in neighbouring states as well as distribute the benefits of unequally distributed resources.

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[63] Report of the sub-committee to NDC on power, October 1993.

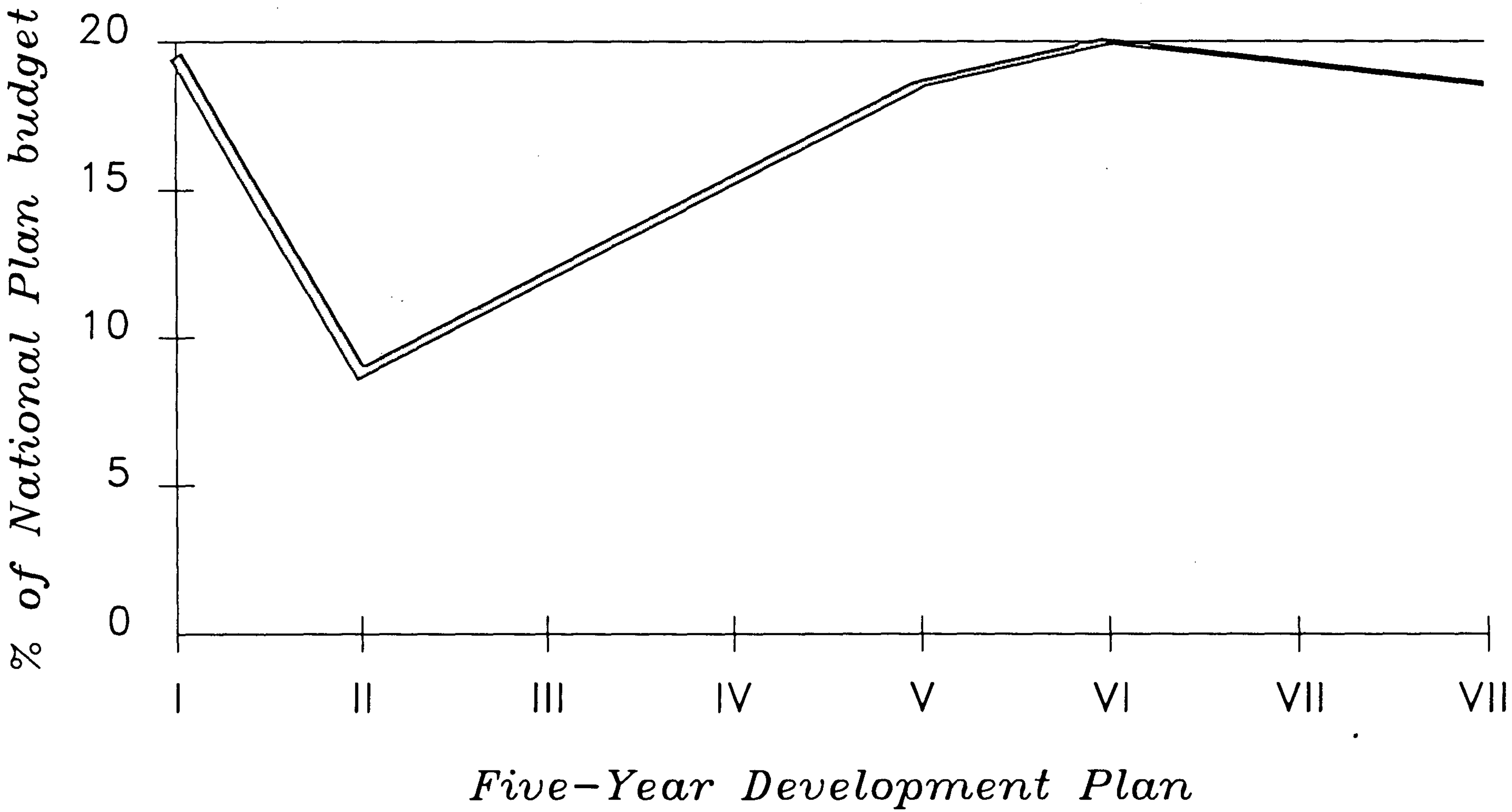
The power sector received a fillip in the 2nd plan, which emphasized heavy and basic industry in pursuit of the twin goals of rapid industrialization and economic diversification. For creating the appropriate conditions, the plan states that the state has to take on heavy responsibilities as the principal agency speaking and acting on behalf of the community as a whole[64]. The lines of advance were determined by social gain ad not private profit. FICCI also supported the stance that the proper sphere of activity for the public sector in the future was the formation and maintenance of social capital. In an underdeveloped country like India, the task of providing basic requirements such as power was in itself sufficient for any government administration to be fully occupied with[65].

As power is an expensive and unreliable product, the 1948 Electric Supply Act set out an elaborate institutional framework for planning and implementing projects. The framework evolved was loose and scattered, and obstructed effective coordination or flexible decentralized planning. The large regional variations in electricity consumption were correlated to regional

[64] Since the mid-70s, the public sector has allocated 18-20% of its national budget to the power sector. The larger share is provided by the Central Government. See Figure 3.2 and Table 3.1.

[65] K. Venkataraman, *Power Development in India*, Uppal Publishers (Pub.), 1979.

FIG. 3.2. POWER SECTOR SPENDING AS % OF NATIONAL PLAN BUDGETS



Periods when disruptions in the continuity of the Five-Year Economic Development Plans occurred are not included in this exhibit.

Source: Council of Power Utilities

Table 3.1. Public Sector Spending on Power

	% of total power outlay		Total Power	as % of National	Total National
Plan Period*	States	Central	Spending	Plan	Plan Budget
I (1951-56)	32.4%	67.6%	Rs. 3.9 bn	19.0%	Rs. 20.7 bn
II (1956-61)	97.1%	2.9%	Rs. 4.3 bn	8.9%	Rs. 48.0 bn
III (1961-66)	88.9%	11.1%	Rs. 10.2 bn	12.6%	Rs. 80 bn
Annual (1966-69)	*85.6%*	*14.4%*	*Rs. 10.6 bn*	*16.0%*	*Rs. 66.7 bn*
IV (1969-74)	81.7%	18.3%	Rs. 24.5 bn	15.4%	Rs. 159.0 bn
V (1974-79)	88.7%	11/3%	Rs. 72.9 bn	18.6%	Rs. 392.9 bn
Annual (1979-80)	*84.1%*	*15.9%*	*Rs. 24.0 bn*	*19.1%*	*Rs. 125.5 bn*
VI (1980-85)	75.5%	24.5%	Rs. 192.7 bn	19.8%	Rs. 975.0 bn
VII (1985-90)	67.7%	32.3%	Rs. 342.7 bn	19.0%	Rs. 1,800 bn
Annual (1990-91)	*52.6%*	*47.4%*	*Rs. 124.8 bn*	*19.3%*	*Rs. 674.2 bn*
Annual (1991-92)	*56.7%*	*43.3%*	*Rs. 136.8 bn*	*18.9%*	*Rs. 723.2 bn*
VIII (1992-97)	60.8%	39.2%	Rs. 795.9 bn	18.3%	Rs. 4,341.0 bn

* *Annual figures are indicated for the periods when breaks occurred in between the National Plans.*
Source: Ministry of Power, Council of Power Utilities

disparities in economic development. Planning was centralized, but the placement of power in the concurrent list gradually shifted the burden of financial organization and policy execution to the states.

Apart from these deficiencies, the State Electricity Boards, which were envisaged as autonomous corporate bodies, gradually deteriorated into internal departments. The high investment character of power and the large employment facilities present in this sector made it an area of high political interference. Consequently, they were unable to evolve an independent tariff policy as specified in the ESA (1948) or have control over recruitment and deployment of personnel. The Rajyadhyaksha committee summed up the situation ..."the Boards are regarded as promotional agencies to be used to subsidize different classes of consumers and with little or no control over their tariff policies"[66].

The average price of power has seen only marginal increases in the past ten years. Overall tariffs cover about 50% of the long run marginal cost. The rise of the subsidized sectors, i.e. agriculture and domestic sectors account for an increasing share of total power consumption.

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[66] *Rajyadhyaksha Committee Report*, Government of India, 1977.

Share of Power Consumption		
Area	**1982-83**	**1992-93**
Agriculture	**16.8%**	**28.9%**
Domestic	**12.7%**	**17.9%**

Because of this increased share, the higher rates charged to industry and commercial users did not cover the low revenues from these subsidized consumers. In fact, as the annual report on the working of SEBs revealed[67], the average unit revenue realized from the agricultural sector and domestic lighting is lower than the overall average unit revenue realization for all other categories. The report also noted "while the electric utilities in the country have no doubt made significant progress during the last decade in improving their operational performance, it is a matter of concern that many thermal power stations continue to operate at sub-optimal levels .... financial constraints of the utilities have also led to shortfalls in investments on R&D facilities and other critical schemes. This in turn has led to high

[67] *Annual Report on the Working of State Electricity Boards and Electricity Departments*, Planning Commission, February 1994.

R&D losses, poor quality of electricity supply and consumer dissatisfaction[68]. Problems persisted in the areas of power loss, pilferage and inefficient distribution. The U.P. State Electricity Board is the worst offender with as much as 18% lost through pilferage. More importantly, these shortfalls in investment have further eroded the financial viability of the utilities". In addition, this ill-health adversely affected PSUs which had internal linkages. Tariffs, despite minimal increase, did not keep pace with rising costs and led to a steady erosion of finances. The government's Economic Review also noted that a radical reform of SEBs along with substantial revision of tariffs and cuts in subsidies was essential to make the power sector viable. However the fact that pricing of power for the agriculture sector is a politically sensitive issue has hindered reforms. The farmers' lobby, having considerable presence at various levels, has put up stiff resistance. Hence, although in the Power Ministers' Conference in 1993 it was decided to implement the national minimum tariff of 50 paise/KW by March 1993, this decision is yet to be realized.

These issues, coupled with R&D losses, thefts and inadequacies in billing collection, have all contributed to the debacle of the public sector in power, and have provided the context in which the government justifies

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[68] This only serves to emphasize the point that there is an absence of political will in India to tackle the true defects of public enterprise working.

its current power policy. Modernization of the agricultural sector as well as the rural areas has been an integral part of policies since 1950. Social cost benefit analysis coupled with benefits such as creating greater agricultural and industrial production and a better quality of life were the driving forces behind rural electrification schemes[69]. Rural electrification was therefore considered as a catalyst to development. The importance of irrigation in promoting agricultural productivity led to subsidies being provided to farmers. These policies received a boost during the Green Revolution with active support from international agencies[70].

Undoubtedly, rural electrification is uneconomic initially and requires an element of subsidy. This subsidy was provided in most nations. Italy, for instance, provided for a system of subsidy ranging from 50% to 60%. In France, subsidies accounted for 30% to 40% of the total cost of extension and development work. Similar systems existed in Belgium,

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[69] Hirschmann was the first to argue that investment in social overhead capital such as electricity and roads will lead to induced investment in directly productive, by bringing down the costs of the latter. For a discussion of rural electrification in particular, see V. Ranganathan, "Rural Electrification Revisited", *Energy Policy*, February 1993.

[70] *Ibid.* Also see Purkayastha, 1995c, *op. cit.*

Canada, and Switzerland, too. But subsidies were absorbed into the larger plan for development. Rural electrification was considered a catalyst to development.

From the beginning of the third five-year plan, the emphasis shifted from electrification of small towns and big villages to the energization of pump sets. This was with a view to make an impact on agricultural production. At the end of the third plan, only 10,000 villages had been electrified. But a serious food shortage led to a crash programme of electrification to enhance food production, and subsequent plans endorsed this view. The benefits were

(a) increase in irrigated area

(b) saving and better utilization of animal and human labour

(c) establishment of and benefits to rural industries and commercial users

(d) saving in commercial and domestic fuels

(e) gain of working hours

(f) Overall improvement in the quality of life of individuals and the community.

At this point of time, rural electrification was encouraged by other nations as well. For instance, during the fourth plan, USAID provided Rs. 1050 million to this end[71]. The provision of electricity and extension

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[71] Venkataraman, *op. cit.*

of rural electrification programmes were closely linked to the food security India achieved. In addition, the provision of secure electricity and a good telecom network linking rural, semi-urban, and urban areas would correct regional disparities and decrease pressure on urban areas. The consequent development of the region is an event that requires no emphasis.

The removal of subsidies as being insisted upon at this juncture will make rural electrification unviable. The cross-subsidies provided were a part of any state-run monopoly, but provided the underpinning for all infrastructural services. This runs on the logic that initial use involves low initial cost and higher usage slabs cost more. Depending on purely commercial logic would deprive large sections of usage of infrastructure[72].

The contemporary situation has been calling for a review of these policies. However, providing these facilities to rural areas makes hard economic sense apart being considered a social obligation. Yet, the removal of these subsidies as is being insisted upon at present will make rural electrification unviable. The World Bank permits subsidies only for lifeline consumers, i.e. those with a single bulb connection. However, rural supply requires step-down transformers, a thinly spread distribution network, and low tension wires. This would cost more than the supply to high tension

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[72] *Purkayastha*, 1995a, *op. cit.*

industrial consumers concentrated in industrial belts. Elimination of cross-subsidies will therefore mean that rural consumers would be charged more. Such a policy would not have distinction between categories of consumers. The 8th plan accordingly has stated that rural electrification will be carried out to the extent possible. That the provision of cheap electricity and extension of rural electrification has much to do with food security is being ignored. Infrastructural development has been a catalyst for overall progress. Hence, an evaluation must be made on the basis of more than a return on investment[73].

While the benefits are clearly visible, it is also true that subsidization has taken place at the cost of the utilities. Utilities have not been compensated for these programmes which were often populist, politically motivated, and hasty. For instance, the sub-committee on energy notes that most of the state governments do not compensate the SEBs for subsidized sale of electricity[74]. In 1994-95 only seven state governments had plans to give subvention to their SEBs totalling a sum of Rs. 2,050 crores. In many a case, funds for power development accounting for a

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[73] *Ibid.*

[74] Report of the sub-committee to the NDC on Power, October 1993.

third of state plan outlays were cut because they were large. Funds and benefits diverted from long gestation period power projects are ignored in populist political perceptions and do not attract attention.

The Economic Survey (1995) pointed out that "restoration of the financial health of the SEBs and improvement in their operational performances are the most critical issues in the power sector". It goes on to state that the 'absence of legally enforceable fuel linkages, lack of access to the final market for electricity, the poor finances of SEBs, their poor record in settling debts and hence poor credibility as buyers of power, are the major obstacles to the attraction of private investment into the power sector.

The government's Economic Review (1994-95) published on 15th March, 1995 stated: "...while there is substantial scope for productivity improvements in generation, transmission, and distribution, there is no escape from ensuring adequate investment in future capacity. Investment requires resources, which either have to be generated from current operations or attracted through an acceptable policy framework.

In either case, this will entail substantial revision of electricity tariffs and drastic reduction in subsidies. The brute fact is that for power sector investments to be viable, the user of electricity must pay for its cost. Guarantees and counter-guarantees can at best provide a temporary breathing space for carrying out radical reform of institutional arrangements, operating practices, and tariffs of State Electricity Boards. They cannot substitute for the necessary reforms".

The new policy has emerged in that context, wherein a dangerous resource crunch along with the need for the rapid growth of generation capacity are cited as the reasons for inviting the private sector. Hence, in order to provide a boost to industrial and agricultural growth programmes and provide stable power, the new policy was seen as necessary.

DETAILS OF POLICY

The new power policy amends the Electricity Supply Act (1948) to permit private sector participation in generation or as licencees, i.e. to supply and distribute energy in a specified area. It also provides for captive power plants in the private sector to serve an industrial unit. Surplus power can be offered for sale to SEBs.

It allows a debt-equity ratio of 4:1 and 60% of the total outlay to be provided for by sources other than Indian public financial institutions. Up to 10% foreign equity participation is permitted for projects set up by foreign private investors. It permits the import of equipment with the government's approval.

Hitherto, all electricity schemes above Rs. 5 crores had to be submitted to the CEA for concurrence. The ceiling has now been raised to Rs. 25 crores. The policy offers a set of incentives significant among which are :

- The condition of dividend balancing by export earning, which is normally applied to cases of foreign investment with up to 15% equity, will not be applicable to foreign investment in the power sector.
- The rates of depreciation with respect to assets have been liberalized.
- The customs duty for import of power equipment has been reduced to 20% and has been extended to machinery required for modernization and renovation of power plants.
- A five year tax holiday in respect of profits and gains.
- A 16% return on foreign equity is provided in the respective foreign currency.

Some of these provisions have generated controversy and debate. A brief analysis of these would be of assistance in evaluating the policy at large.

GUARANTEED RETURNS

Several state governments expressed dissatisfaction over not being consulted prior to the policy formulation and its details. The West Bengal government particularly expressed its disapproval of the guaranteed returns: "The Government of West Bengal had earlier expressed reservation about the guaranteed return of 16% on equity linked to 68.5% PLF, with additional return for increase over the prescribed PLF percentage. The government has also expressed its views regarding the returns for investors being protected in foreign exchange terms and the necessity of extending guarantees and counter guarantees. Even in the context of a free market economy, returns and risks go together in any investment and there is no reason whatever to protect the returns by assuring to assume responsibility for the risk factors"[75].

Pointing out that 16% Rate of Return (ROR) is on the high side and making a comparison with China, it was also contended that against a ceiling of 125 imposed by the Chinese government, several large cities only offer 10% ROR. It was also stated that for Shajiao B power plant,

[75] Standing Committee on Energy (1995-96). New Policy Initiatives in the Power Sector, Lok Sabha Secretariat, New Delhi, p. 12.

an all-inclusive tariff on take or pay basis is formulated. The all inclusive charges are fixed up to 60% PLF and additional charges are provided in excess of 60% PLF[76].

N. Tata Rao, former Chairman, Andhra Pradesh State Electricity Board stated "The guaranteed return of 16% on the basis of about 68% PLF is very high and need not have been given at all. They should have been asked to quote the lowest price per KWH subject to the condition that not less than 68% of the energy generated would be taken by SEBs. For any higher PLF, the benefit should accrue essentially to the consumers. About 15-20% of the benefit could go as an incentive to the investor"[77]. The government however argues that the capital intensive nature of the sector and the long gestation period justify the guarantee. At the time of the initiation of the policy, the overall economic condition was extremely poor and hence generating confidence among investors was a prerogative. It is further argued that in the absence of such a return there was no possibility of private investment in the power sector. The Ministry also stated that 16% return was not on equity but on equity at 68.5% PLF. and there would be a reduction if performance went below that level. In

[76] *Ibid.*, p. 18

[77] *Ibid.*, p. 19

addition the return was not valid for the period it took for the plants to come up. When the policy was framed, the bad forex position necessitated a good rate of return.

The National Working Group on Power however contends that if the returns are to be guaranteed, the SEBs who are the distributing agents have to raise the revenue from sale of electricity[78]. Their calculations show that for every MW of such contracted power, the SEBs would have to pay Rs. 5 per unit as against the current cost of generation per unit of Rs. 1.05. If no tariff changes take place, the loss to SEBs on account of paying for such power will be nearly equal to the total revenue being earned by SEBs today. The SEBs would have to suffer an additional loss of ten to fifteen thousand crores per year for an additional installed capacity of only 8% (8th plan as end base).

The alternative would be to hike the tariff rate. Currently the SEBs have about Rs 4300 crores in accumulated losses and owe Coal India and NTPC large amounts. If we don't take into account the past losses and focus on current realization, then the SEBs would not be able to recover financially. Tariff revision to offset this would be about 300%.

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[78] National Working Group on the Power Sector. Current Power Policy: A Critique, 1995.

COUNTER - GUARANTEES

The government's policy with regard to counter guarantees also appears to lack clarity and consistency. The National Working Group on the Power Sector states that there are indications are that only those states generating 3% rate of return would be given counter guarantees[79]. But if this 3% were realized and made available to the Boards, it would have generated resources and negated the need for foreign investment. The proposal to hold up the Boards' revenue in an escrow account and furnishing counter guarantees through banks would mean the blocking up of the Boards' working capital.

In its 36th report, the Standing Committee on Energy (1996) also recommended that since private investors were willing to take risks, there was no need for the Centre to provide counter guarantees. All the initial fast track projects had been delayed, while in the meantime many other projects had matured without guarantees. Since most of the projects had been re-negotiated since then, the counter guarantee was deemed ineffective. The report also stressed the need to formulate a model agreement to bring uniformity and enable quick scrutiny.

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[79] *Ibid.*

COMPETITIVE BIDDING

There has been strident criticism of the absence of competitive bidding in awarding projects. In a rather weak reply, the Ministry of Power pointed out that limited experience exists in the area of competitive bidding. Most of the project developers find this to be a costly and time-consuming exercise as preparation of feasibility reports etc. involves high costs. However, considering the sector involved and the level of investment at stake, one may argue that bidding would be highly desirable. Emphasizing the need for bidding, an ASSOCHAM memorandum stated "while the initial few projects have been awarded on the basis of negotiated offers and MOUs, the time has come for competitive bidding in awarding projects based on clearly spelt out guidelines and evaluation criteria. The bids presently being invited by various state governments are not on clearly competitive terms and evaluation norms are not clearly spelt out. Most of the negotiations and decisions are therefore taken at the political level with obvious implication and leading to higher costs"[80].

The Ministry supported the cause of competitive bidding in a statement in February 1995, but denied that costs were inflated. "The cost of equipment during the period of construction of the recently commissioned

[80] Standing Committee on Energy (1995-96) Report. *op. cit.*, p. 19.

power stations was much lower than the present day cost because the foreign exchange rate has increased 2-3 times and price indices have increased from 50% to 70%. Furthermore, World Bank funded projects attracted certain concessions, such as deemed export benefit exemption for excise. As regards the private sector schemes the cost of projects cleared by CEA is the completion cost and includes escalation as against present day costs of public sector projects.

Perhaps the most significant concern has been with regard to the indigenous manufacturing industry and the massive assets created over the years. The electric power equipment industry, it must be mentioned, is characterized by three important features[81]. Firstly, the industry is dominated by very few big transnationals, mostly originating from the United States. The West European firms and the Japanese firms are dependent on the industry leaders. All the major firms are interlinked with each other in several ways.

Secondly, excess capacity, large capital requirements for research and development, high overhead costs, fluctuating demand, and the fear of competition led to international cartel-like agreements. The desire to restrain

[81] Shubendu Dasgupta, *op. cit.*

competition and the creation of informal divisions successfully curtailed new entrants. These cartels were then free to set prices, allocate markets, and set quotas.

Thirdly, the main emphasis in the power equipment industry was on continually expanding the system. Technological progress has also been in terms of producing ever larger equipment. This industry established linkages in two forms. One linkage was through exporting design and equipment, and the second linkage was in the form of export of technology.

The indigenous power equipment industry underwent many struggles and ups and downs before being able to establish itself. Despite incurring losses in the early period, this industry was able to attain world standards with active intervention and assistance from the state.

The BHEL submitted a memorandum which stated that in other countries the policy ensures that a substantial part of the equipment is purchased by the power producers from local sources. It also stated that no regular tendering procedures were followed by IPPs and they tie up directly with suppliers.

The Ministry however responded by stating that it was difficult to compel private sector investors about the modality to be adopted by them in acquiring their equipment. Equipment constitutes the major capital cost and is funded by supplier's credit. Hence conditionality in equipment was not practicable. The Ministry in fact placed the onus of being competitive and standing up on its own in the market on the manufacturers. However Purkayastha points out that in tied credit[82], even if cheaper equipment is available locally, purchases are made according to the choice of financiers. Initial global competitive bidding and World Bank specifications had hitched up domestic power equipment costs. Nevertheless, these manufacturers have been able to maintain a clear price advantage. BHEL turbines and boilers have prices substantially lower than where tied foreign credit was involved.

The World bank and IMF are bringing pressure to open up the power sector to import of power equipment. The world power market especially in advanced countries is depressed as power consumption is static or declining. Hence power equipment MNCs are looking to external markets. In line with this thinking, indigenous power equipment manufacturers who are external to these MNCs are being marginalized. With the current mergers, the number of players in the industry has dropped to seven. The importance of marginalizing BHEL lies in removing a potential global

[82] P. Purkayastha, 1995c, *op. cit.*

competition, however small, as it removes all obstacles to price fixation[83]. The difficulty for BHEL lies in financial capability and an inability to arrange export credit, commercial guarantees, etc. The present duty structure is also disadvantageous as completely imported power equipment is free of countervailing duty, but the customer has to pay excise and sales tax on equipment supplied indigenously by BHEL. As of now, the power equipment manufacturers are free to choose the suppliers of equipment, thereby preventing standardization.

Dr. Arun Ghosh emphasized the need for standardization of equipment without which the result would be:[84]

a) Inefficiency and higher costs of maintenance
b) Serious problems of breakdown where imported plant equipment is used and spares are not readily available.
c) Higher inventory cost of spares with each new power station having its own special equipment for which there would be different suppliers.

The standing committee on energy (95-96) found that there was haste and implicit bias in the policy. There appeared to be a rush of transferring public sector projects to the private sector. In one case, 50% of the work

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[83] P. Purkayastha, "New Power Policy: Bankrupting the Power Sector", *Economic and Political Weekly*, May 15, 1993.

[84] Standing Committee on Energy (1995-96), *op. cit.*, p. 75.

was stated to the completed before the project was transferred to the joint sector. The new policy also had some disquieting features and indicated undue incentives to the private sector[85].

(i) The tariff for central PSUs provides for a meagre incentive of one paise per KWH for every percent increase in PLF over the normative level of 68.5%, as against an incentive of up to 7% increase in return on equity for every one per cent increase in PLF for private producers.

(ii) No guaranteed off take of power from central generating station as against guaranteed offtake of power for private sector plants.

(iii) The guarantee of payment applicable to the private sector is not available to PSUs.

(iv) Approval of cost at the level of start up of construction for PSUs as against completed costs provided for private producers.

It would be appropriate to discuss here the highly publicized Dabhol project. Initially when the Enron project was approved, it involved setting up of a 1,920 MW plant at a cost Rs. 7,800 crore i.e. Rs. 40,600 per KWH. However it rose to Rs. 9,053 for a 2,015 MW plant i.e. Rs. 45,000 per KW. Thus the capital cost shot up to Rs. 4.50 crores per MW as against the Rs. 1.62 crores per MW estimated by the Eighth Plan working group on power.

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[85] *Ibid.*

Enron officials defended the cost by attributing it to infrastructural outlays such as the construction of an airstrip, harbour, port etc. The argument however does not seem to very convincing since these would not involve an expenditure of more than Rs. 100 crore. In addition, the government in its budget reduced customs duties on power projects from 80% to 30% thus rendering construction of power projects less expensive.

As per the power purchase agreement, MSEB would buy all the power at Rs. 2.39 rupees per KWH in Phase I, and Rs. 2.44 per KWH in Phase II, as against the Rs. 2.29 per unit and Rs. 1.83 per unit it pays the Kakrapara and Kawas power stations. The MSEB is expected to generate a PLF of 68% with a guaranteed return of 16% in dollar terms. In addition, the government has provided a counter-guarantee, i.e. if MSEB defaults on its payment, the centre would pay. Enron's dues are ensured even if MSEB does not find users for the power. MSEB would be bearing exchange rate fluctuations and extra costs if the rupee depreciates. Experts opine that when the project takes off, the cost would work out to about Rs. 4 per unit as compared to the current average of Re. 1. If subsidies in agriculture are maintained, the industry would have to bear higher costs.

Enron, G.E., and Bechtel are unlimited liability shell companies i.e., in case Enron defaults, the only recourse the government and lenders will have will be in the form of the assets of the power plant[86].

Another point of concern was the stipulation in the agreement that any dispute would be settled in the United Kingdom. The question is whether foreign arbitration is appropriate thereby subjecting MSEB to foreign jurisdiction. Moreover, the arbitrators cannot compel witnesses to appear in London. Production of all documents or their transportation cannot be ensured. Critics point out that the Dabhol power company is composed of three units and exists here to be taxed in India as an Indian company. Hence the attempts to oust Indian jurisdiction is incorrect. But in fact what exists is the anomaly of a sovereign waiving its immunity to permit itself to be sued by one of its subjects in a foreign nation. An advocate points out that the provision of the agreement preventing compulsory acquisition of the company's assets is ultra vires the Constitution of India. This argument is based on Supreme Court judgements, which have laid down that electricity is a material resource of the Indian people, which can override the private ownership principle and limit profits. Justice Venkat Chelliah in his judgement rules "The idea of market value was done away

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[86] Kannan Srinivasan, "Indian Laws and the Enron Agreement", *Economic and Political Weekly*, May 20, 1995.

with and was substituted by the concept of an 'amount' which was to be limited to depreciated book value. There can be no dispute that electricity supplied by even a private enterprise will amount to material resources of the community ..."[87] Hence the provision that the assets of the Dabhol company can be acquired if sold by the company at fair market value, are objectionable.

If the contract raised these questions, its cancellation with the acceptance of the Munde Committee report brought up some important issues. It firstly substantiated the standing committee's report that the costs were too high and that the delivered costs of power meant heavy losses for MSEB. The cancellation was an implementation of the campaign promise made by the BJP-Shiv Sena alliance. However what weakens this nationalist anti-corruption stance is that this government has been equally rigid in breaking the struggle of the local people in the affected villages. The Maharashtra government also allowed Enron to continue its construction, which allowed it to boost its compensation claims[88]. When the review of project began, Enron claimed that it had spent only $ 100 million, but they

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[87] as cited in the above reference.

[88] This has been discussed in Subodh Wagle's article, "Enron Renegotiation: What has been achieved ?", *Economic and Political Weekly*, December 9, 1995. Also see P. Purkayastha, "Enron: The Drama Continues", *Economic and Political Weekly*, August 19, 1995.

got time to boost their termination claims. By bringing in its equity early and awarding several contracts, the claim was boosted to $ 300 million. The large claim was used to justify a negotiated settlement and bring back Enron. The government has been silent about the fact that the renegotiated project has not touched many of the alleged flaws.

The renegotiation committee had argued that the guaranteed offtake of 90% put an unfair burden on the MSEB, and that Maharashtra didn't need such large amounts of power. The renegotiated deal also retains the guarantee, but since the project size is larger within the 2nd phase, the burden is likely to be larger.

The reduction of capital costs by $ 365 million has come about primarily because of the fall in international power equipment prices in the past two years[89]. While the threat of cancellation has passed on some benefits to the SEBs, from a wider standpoint the Enron issue has highlighted the high cost of MNCs. This has brought into question the open door policy towards MNCs as a part of economic reforms. It also projects the absence of political will and reflects a tendency to look for soft options. "... if tax concessions have to be doled out to entice capital to stay in the country, and even if infrastructural development like power becomes the responsibility

[89] "Enron: Victory More Illusory than Real", *India Today*, Jan. 31, 1996.

of the private sector, especially foreign capital, with profitability being the main consideration, then there is no scope left for an improvement in the conditions of the rural poor or for rural development generally"[90].

Another case in point is the Andhra Pradesh State Electricity Board's agreement with Spectrum Power Generation[91]. The contract was a negotiated one like the others, and similarly, there is an assured return on equity. The investors include a power equipment manufacturer and there was minimal effort to cut costs. Spectrum would be paid on the basis of the power it offers to generate, irrespective of the Board's requirement. This would include deemed generation, i.e. the capacity to generate but not being generated because of

(a) any direction from the board in writing.
(b) any failure on the board's part to purchase.
(c) non supply or short supply of gas or alternate fuel by the supplier.
(d) emergencies in the board's grid.

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[90] Ref. Prabhat Patnaik, "International Capital, National Economic Policy", *Economic and Political Weekly*, March 19, 1994.

[91] Kannan Srinivasan, "One-sided Power Agreements: Spectrum's PPA", *Economic and Political Weekly*, June 3, 1995.

(e) any political events.

(f) instability associated with low voltage or frequency on the board's system.

In addition, on an investment of Rs. 956 million the promoters should make profits of Rs. 300 million annually after the plant begins operations. Far more striking has been the World Bank ordained restructuring of the Orissa power sector. The Orissa Electricity Reform Act of 1995 authorized the transfer of assets from the erstwhile State Electricity Board to the Orissa Hydro Power Corporation (OHPC), the Orissa Power Generation Corporation (OPGC), and the Grid Corporation of Orissa (GRIDCO). It is sought to inject commercial principles in pricing so that GRIDCO, the distributive body, would receive power from OPGC and OHPC at rationalized tariffs. The reforms also envision privatization of these two bodies over time. The World Bank Staff Appraisal Report, which lists out the various reform steps, also specifies the conditions attached to the $350 million loan to the Orissa power sector. The loan is conditional and the interest is being charged at 7%, which at the time of signature was comparable to international commercial lending rates. The World Bank has also specified that the Orissa Government would lend this amount to OHPC, GRIDCO, or other distribution companies at not less than 13% interest. These tough conditions are being imposed when the Bank does not even assume any commercial risk as the loan has been counter-guaranteed by the Government of India. In addition, the Bank has insisted that GRIDCO buy power at commercial prices and that it earn 10% interest on investments. This would reflect on consumers. GRIDCO has already raised tariffs twice in the last year, raising them each time by 17%.

These instances bring into focus the easy reliance on foreign capital and MNCs. The mobilization of indigenous resources and capabilities is not a significant part of the agenda, despite the fact that indigenous equipment making capacity and local expertise in this sector is of global standards. Using indigenous equipment and skills and a rational tariff policy would be a step in the right direction.

Universal access to water and energy is recognized as one of the fundamental quality of life benchmarks of contemporary society. Power is a vital component of social infrastructure and the backbone of an industrial economy. It is this centrality that makes planning in power a crucial exercise. The current policy however displays unfortunately haste on the government's part. While complete de-linking or isolation from the global economy is no longer possible, maneuverability and sovereignty have not been eliminated either. Hence, when the power industry worldwide was facing a recession it would have been possible to strike favourable contracts. The government however has overstretched itself in order to accommodate private investors. The investors are being protected against the market. The policy also puts to take into account the particular features of a developing nation. John Galbraith makes a related point in this convenient. "There is no overriding rule as to privatization by which anyone or any country should be guided. There is no substitute for careful case by case thought, painful as that may be. Far easier is the oratory laying down broad if sadly unplausible principles"[92]. A perceptive comment by Y. Rao, Chairman of GRIDCO and former Chairman of OSEB clarifies this point. "There is no reason to believe that privatization is a ready cure for the problems of the industry ... It is being attempted purely out of dissatisfaction with the existing arrangement. Whether it will work or not only the future can tell ... When we entrusted the job of repairing transformers to private parties, it turned out to be a messy and troublesome exercise. There is really no way we can ensure that private management will deliver the goods better than government management. It is only a hope"[93].

Nevertheless, liberalization and private enterprise are being touted as magic potions for growth, with little thought for ground realities. Any policy shift must be a thoughtful adjustment to a particular circumstance. Keeping in mind the fact that regional imbalances and socio-economic divisions

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[92] cited in Prajapati Trivedi, *op. cit.*

[93] Power Sector: Restructuring in Orissa, *Frontline*, June 1-14, 1996.

persist in India, a correction though market forces and privatization cannot be expected. It is likely that disparities would increase in favour of industrialized states if the major responsibility is shifted to the private sector. Treating electricity like any other commodity is incorrect and undermines its significance. Some critics argue that the current policy will only solve the problems of industrial load and the sections with the ability to pay while the vast majority would suffer[94].

The British experience has only served to prove that privatization is a successful endeavour only when all the components are in place as has been discussed previously. One has noted the debacle of the state electricity boards due to political interference and unethical practices. The current emphasis on efficiency and regulation by restructuring SEBs is a product of current thinking. Despite several recommendations to enhance their working, the current reforms are an instrument only to assist the private sector's participation. Had this will and effort been displayed earlier, the power sector would have prospered. Paradoxically, it is the PSUs that are being blamed for inefficiency and mismanagement, while the root cause lay outside the organizational setup.

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[94] P. Purkayastha, *Economic and Political Weekly*, August 26, 1995, *op. cit.*

Studies by the National Working Group on Power have presented evidence of heavy outflows and a possibility of balance of payments crises in the future[95]. Considering that petroleum imports are one of the prime causes of a balance of payments crisis. The import of fuel for these projects must be considered carefully. The issue of captive generation looms large in this context. Captive generation makes sense for large industries requiring heat and electricity, but the creation of captive power capacity for smaller requirements of industrial power, which has gained popularity, is not desirable at all. Primarily, diesel is an efficient fuel for transportation. Secondly, India is a net importer of diesel oil and it should be conserved rather than being diverted towards a small section. Assured power is necessary, but effective use of resources is far more important.

The public sector is the best bet for efficient use of resources and yields the greatest benefits, if complemented by sincere planning and accountability. As mentioned earlier, the power sector is a natural monopoly; the heavy investments required and the long gestation period make this a natural consequence. The heavy reliance on foreign capital is therefore an uneasy option.

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[95] National Working Group on Power, *op. cit.*

Foreign investment has undoubtedly eased the burden of providing funds for power projects in order to appease the growing demand. However, genuine economic growth would come only if savings rise. As profitability comes to the fore, the public ethos associated with lower priced provisions would be undermined.

CONCLUSION

CONCLUSION

Seen as a microcosm of the larger project of policy making, the power policy reflects the altered perceptions regarding the role of the state. The policies are in general in line with the thinking of international monetary organizations. The state is seen as a facilitator of economic activity and is strongly discouraged from donning the mantle of an economic actor. The creation of a competitive environment devoid of intervention and protectionism would enable a successful integration into the global economy. Sceptics, however feel that simultaneously reducing the state's productive and regulatory roles may undermine its ability to influence the activities of other important economic actors and to provide essential services. On the other hand, supporters of reforms feel that divesting the state of cumbersome tasks leaves it free with resources for specific projects such as anti-poverty programmes. It is this argument that is being used to encourage private participation in the power sector. It is also clear that reforms have been necessitated by the growing vulnerability of the Indian economy and the constraining forces of the international economic system. The policy shifts are thereby presented as pragmatic, realistic responses free of ideological shackles.

However, there are reports from several African countries that expose such structural adjustment programmes as having caused damage to their economies and having generated political and social tensions. In Africa and Latin America, the net flows of capital between the North and South has reversed. The downward trend of most non-oil commodity prices has shifted the brunt of the resource shift on imports and domestic investments. In many developing countries, the repercussions are likely to slow growth for many years.

At another level, the policy reflects an altered perception of the public sector. The alienation from the public sector and its decline has been discussed previously. What is significant, however, is that India will continue to remain a strong mixed economy and the public sector should remain a strong force. The emergence of private monopolies must be guarded against and a strong public sector is essential for this purpose. Else the disillusionment is likely to deepen and undermine the legitimacy of the state. The state role in redistribution and infrastructure is of critical significance here. Doubts continue to linger with regard to the withdrawal of the state from the infrastructural area and in particular a crucial area like power. Considering society's dependence on electricity to meet industrial and domestic needs, the power sector involves public interest. The demand for power must be met instantly for a growing economy. The decentralization of power generation and the utilization of non-conventional sources of power are excellent alternatives which have not been explored or pushed forward adequately.

Privatization cannot be seen as a foolproof method of introducing operational autonomy, efficiency, and competition. Experience elsewhere also reveals this. In the United Kingdom, the generation company Scottish Power emerged with its distribution company. Similarly, National Power and Powergen have also ventured into distribution. Although the British Board of Trade has constrained such moves, it would seem difficult to stop the emergence of such vertically integrated private monopolies.

It would also be difficult to prevent takeovers of utilities. One American utility in power made a 1.7 billion pound sterling offer for Midland Electricity plc. Similar bids have come for National Power and Powergen. If such bids or takeovers succeed in India, the implications would be serious. National interest would be buried under foreign interests that control Indian utilities.

An area of infrastructure like power is politically and economically sensitive. There is a general commitment to the belief that with regard to public goods as in the infrastructural area, resources must be exploited for general benefit. Since the private sector strives for minimum cost to itself, if it is permitted to exploit natural monopolies, then it is necessary to control prices by introducing genuine competition or by some form of public regulation.

In the Indian context, keeping in mind the dependencies of the power sector, it becomes imperative to involve domestic producers. The continuous inflow of funds for this sector from external sources is likely to create a balance of payments problem. Therefore, a smooth and efficient functioning of the sector is essential to keep domestic investments flowing in. Decentralised energy planning and joint power projects within the SAARC region are alternatives that have either been ignored or marginalised.

It is to be hoped that a few dazzling concepts would not lead to a neglect of ground realities and fail to satisfy the larger interests of society. The success of any policy depends on the level of consensus it acquires in society. In the absence of this consensus, policy shifts and reforms cannot take off. The absence of support and faith does not harbour well for any democracy in the long run.

Appendices

Appendix 1

Eighth Plan Investment Targets for the Power Sector		
	share of total	*Total (Rs. bn)*
Generation	62.1%	494.24
Transmission & Distribution	28.0%	222.81
Rural Electrification	5.0%	40.00
Renovation and Modernisation	2.2%	17.76
Miscallenous	2.7%	21.08
Total	100%	**795.89**

Source: Planning Commission

Appendix 2

SEBs: Average Revenues Realized by Type of Consumer									
	Type of Consumer								
Name of SEB	Domestic	Commercial	Agriculture	Industry	Railway	Public	Outside	Others	Overall
Andhra Pradesh	86.00	165.00	12.12	188.84	184.30	73.00	8.00	51.75	103.69
Assam	60.00	102.81	50.00	88.25		100.00	110.00	107.25	116.01
Bihar	106.00	120.54	9.00	174.58	188.59	91.59	80.00	106.99	113.09
Delhi	65.59	150.00	20.00	166.79		159.63		134.78	118.71
Gujarat	107.00	237.00	12.00	196.49	203.00	135.00	78.00	153.87	115.00
Haryana	82.51	168.00	32.50	155.18		130.42	110.60	50.62	81.20
Himachal Pradesh	54.00	126.66	33.00	94.51		67.00	108.28	58.05	90.89
Jammu & Kashmir	30.00	45.00	10.00	40.00		10.00		52.02	39.31
Karnataka	85.45	244.97	1.33	161.90		92.39		107.43	101.04
Kerala	65.06	104.29	29.42	70.07		187.19		69.12	75.21
Madhya Pradesh	28.09	114.00	16.20	170.15	266.38	44.24	105.60	98.82	110.90
Maharashtra	81.04	179.35	15.00	207.07	204.00	88.00	72.01	188.99	131.67
Meghalaya	73.50	115.70	42.67	105.20		111.69	70.00	126.51	92.81
Orissa	50.00	102.00	30.00	97.04	119.00	55.00		60.00	80.80
Punjab	93.24	155.65	8.80	105. 94		115.71	84.90	106.63	63.93
Rajasthan	78.00	154.00	33.00	157.82	163.00	85.00		138.58	110.09
Tamil Nadu	73.90	187.29	0.00	163.50	112.00	112.91	45.00	189.82	108.71
Uttar Pradesh	91.22	158.18	34.37	204.99	213.96	135.02	36.75	185.19	106.99
West Bengal	72.77	115.05	32.64	122.47	131.92	63.60		58.19	119.30
Average	75.57	158.12	16.61	166.14	190.53	108.53	79.61	120.55	106.05

Unit: paise/KWh
Source: Council of Power Utilities

Appendix 3

Financial Performance of SEBs (1992-93)							
Name of SEB	Revenue Receipts	Operating Expenditure	Gross Op. Surplus or Deficit(1-2)	Depreciation	Institutions	State Govts.	Net Surplus or Deficit 3-(4+5+6)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	19.11	12.76	6.36	1.28	2.23	1.72	1.13
Assam	23.15	2.90	-0.58	0.33	0.79	0.91	-2.62
Bihar	7.51	9.22	-1.70	0.69	1.31		-3.71
Gujarat	18.19	19.98	-1.79	1.33	1.68	1.14	-5.95
Haryana	6.97	8.73	-1.30	0.50	0.78	1.03	-3.61
Himachal Pradesh	0.50	1.24	0.26	0.11	0.40	0.46	-0.72
Jammu & Kashmir	0.80	2.35	-1.55	0.15	0.31	0.43	-2.44
Karnataka	9.81	10.67	-0.87	0.40	0.89	0.42	-2.57
K.P.C.	5.02	2.70	2.32	0.44	0.61	1.07	0.20
Kerala	4.45	2.99	1.46	0.30	0.60	0.52	0.03
Madhya Pradesh	19.11	14.17	4.94	1.53	3.50	3.57	-3.66
Maharashtra	42.01	29.97	12.04	2.54	4.40	3.08	-2.04
Meghalaya	0.38	0.23	0.15	0.06	0.21	0.10	-0.22
Orissa	4.59	2.99	1.60	0.44	0.87	0.29	
Punjab	9.87	11.66	-1.79	1.06		3.62	-7.49
Rajasthan	10.13	10.28	-0.15	0.90	1.06	0.90	-3.01
Tamil Nadu	17.31	19.75	-2.44	1.21	2.83	1.05	-7.53
Uttar Pradesh	18.96	19.17	-0.21	1.72	2.64	4.93	-9.50
West Bengal	8.67	7.73	8.94	0.37	1.46	0.69	-1.57
Average	206.73	189.04	17.66	15.35	27.59	25.95	-51.21

Unit: Rs. billion, excluding subsidies
Source: Council of Power Utilities

References

REFERENCES

ARTICLES

1. $ 200 Million World Bank Loan for Private Infrastructure. *The Hindustan Times*, March 31, 1996.

2. Arun, T.K. Structural Reform: A Shot in the Dark. *Economic Times*, 13th August 1991.

3. Barnett, A. Aid Donor Policies and Power Sector Performance in Developing Countries. *Energy Policy*, **21**, 1993.

4. Batra, G.S and Bhatia, B.S. Liberalisation of Indian Economy: An Evaluation of Recent Public Sector Reforms and Privatisation Strategies. *The Journal of the Institute of Public Enterprises*, **17**, No. 1, 1994.

5. Biersteker, T.J. Reducing the Role of the State in the Economy: A Conceptual Exploration of IMF and World Bank Prescriptions. *International Studies Quarterly*, **34**, (1990).

6. BM - New Delhi: Enron and the High Cost of MNCs. *Economic and Political Weekly*, August 5- 12, 1995.

7. Bumbling on Power. *The Hindu*, November 9, 1995.

8. Burr, M.T. Mobilising Private Power. *Independent Energy*, July-August 1994.

9. Byrd, W.J. Planning in India: Lessons From 4 Decades of Experience. *Journal of Comparative Economics*, **14**, 1990.

10. Chaudhari, Sudip. Public Enterprises and Private Purposes. *Economic and Political Weekly*, May 28, 1994.

11. Dasgupta, Shubendu. Transnational Corporations in Electric Power Sector, 1947-67: Continuity of Linkages. *Economic and Political Weekly* July 11-18, 1981.

12. De Oliviera, Adilson and MacKerran, G.. Is the World Bank Approach to Structural Reform Supported by Experience of Electricity Privatisation in the U.K. ?

13. Dewan, Romesh. Economic Reforms as Ideology. *Economic and Political Weekly*, July 29, 1995.

14. Dhameja, N. Liberalisation and Infrastructure Financing: Private Sector Involvement. *Indian Journal of Public Administration*, October-December 1995.

15. Dhameja, N. Privatisation Experiences: Lessons for Developing Countries. *Productivity*, **33**, No. 4, 1993.

16. Energy Panel Against Counter Guarantees. *The Hindustan Times*, March 9, 1996.

17. Enron Project: A Legal Challenge. *Frontline*, May 18-31, 1996.

18. Fellows, Robert. Energy Projects, Private or Public Sector. *Electrical India*, **33**, 19, 15th October, 1992.

19. Foreign Investment in Power: Dabhol - Suicidal 1st step. *Economic and Political Weekly*, Jan. 1-8, 1994.

20. Ghosh, Arun. Power Generation - Foreign Investors and Brokers. *Economic and Political Weekly*, June 26, 1993.

21. Ghosh, Arun. Rent Seeking and Economic Reform. *Economic and Political Weekly*, Jan 1-8, 1994 (a).

22. Ghosh, Arun. Ideologues and Ideology: Privatisation of Public Enterprises. *Economic and Political Weekly*, July 23, 1994 (b).

23. Ghosh, Arun. Rational Energy Policy - A Casualty of Economic Reform. *The Hindu*, January 23, 1996.

24. Ghosh, Jayati Abhjit, Sen C.P., Chandrashekhar. Life After Enron. *Economic and Political Weekly*, August 19, 1995.

25. Going on a Privatisation Binge. *Business India*, Issue 348, 1991.

26. Iyer, Ramaswamy R. The NEP: The Dangers Ahead. *Economic and Political Weekly*, July 29, 1995.

27. Kohli, Atul. Politics of Economic Liberalisation. World Development, Vol.17, No.3, 1989.

28. Kothari, S.P. Economics of Investment in Power. The Economic Times, 18th September, 1995.

29. Krishna Kumar T., Fund Bank Policies of Stabilisation and Structural Adjustment: A Global and Historical Perspective. *Economic and Political Weekly*, April 24, 1993.

30. Lyons, John. Privatising Electricity Supply Cannot be Justified. Energy Policy, April 1989.

31. Meera and Harvey Demaine. Issues in Energy Subsidies for Irrigation Pumping. *Energy Policy*, January 1994.

32. Morris, S. Political Economy of Electric Power in India. *Economic and Political Weekly*, May 18 and 25, 1996.

33. Numbalkar, Ajit. State Electricity Boards - What future? *Indian Express*, March 7, 1995.

34. Parikh, Kirit S. Competitive Transperent Bidding is Easy. *Economic and Political Weekly*, March 7, 1995.

35. Patnaik, Prabhat. International Capital and National Economic Policy. *Economic and Political Weekly*, March 19, 1994.

36. Patnaik, Prabhat and CP Chandrashekhar. Indian Economy Under Structural Adjustment. *Economic and Political Weekly*, November 25, 1995.

37. Paul, Samuel. Privatisation and the Public Sector: Relevance and Limits. *Economic and Political Weekly*, Review of Management, February 23, 1985.

38. Pereira, O. Darkness Visible. *Outlook*, June 19, 1996.

39. Plan to Privatise Power. *Business India*, Issue 340, 1991.

40. Power: Uses of Public Sector. *Economic and Political Weekly*, **29**, No. 34, 1994.

41. Power Sector: Restructuring in Orissa. *Frontline*, June 1-14, 1996.

42. Power Waiting for the Foreign Investor. *Economic and Political Weekly*, **28**, No. 15, 1993.

43. Prasad, Y.S.R. PSUs - Key players in Power Sector. *Financial Express*, 14th September, 1995.

44. Purkayastha, P. New Power Policy: Bankrupting the Power Sector. *Economic and Political Weekly*, May 15, 1993.

45. Purkayastha, P. The Enron Caper. *Economic and Political Weekly*, April 22, 1995 (a).

46. Purkayastha, P. Enron: The Drama Continues. *Economic and Political Weekly*, August 19, 1995 (b).

47. Purkayastha, P. Infrastructure and the Withdrawal of the State. *Economic and Political Weekly*, August 26, 1995 (c).

48. Rajagopal, S. Private Power in India: A Perspective. *Indian Express*, March 7, 1995.

49. Ramji, N. Policy to Encourage Private Investment in Indian Power Sector *TIDE* (TERI pub.) 4(2), June 1994.

50. Ranganathan, V. Rural Electrification Revisited. Energy Policy, February 1993 (a).

51. Ranganathan, V. Electricity Privatisation : The Case of India. *Energy Policy*, August 1993 (b).

52. Ranganathan, V. Privatise Power to Serve the Consumer. *Economic Times*, 5th January, 1996.

53. Reddi, Balarama. Role of a Regulatory Body. *The Hindu*, November 22, 1995.

54. Reddy, Amulya K.N. and D'Sa, Antonette. Enron, Other Similar Deals v/s New Energy Paradigm. *Economic and Political Weekly*, June 17, 1995.

55. Sant, G., Dixit, S., and Wagle, S. Dabhol Project PPA structure and Techno-economic Implications. *Economic and Political Weekly*, June 17, 1995.

56. Srinivasan, Kannan. Indian Law, Enron Agreement._*Economic and Political Weekly*, May 20, 1995 (a).

57. Srinivasan, Kannan. One Sided Power Agreements: Spectrum's PPA. *Economic and Political Weekly*, June 3, 1995 (b).

58. Sriram, R. Private Sector Participation in Power Development: An Overview of Current Status and Problems. *Urja*, Vol. 32, No. 6, 1992.

59. Sullivan, J.B. Private Power in Developing Countries. *Annual Review of Energy*, 1990.

60. Sullivan, J.B. Private Power in Developing Countries: Early Experience and a Framework for Development. *Independent Energy*, July-August, 1994.

61. Trivedi, Prajapati. What is India's Privatisation Policy. *Economic and Political Weekly*, May 29, 1993.

62. Vasant, N.S. and Aggarwal, S.K. Rational Power Policy Needed. *The Hindustan Times*, January 26, 1995.

63. Velyanovski, Cento. Privatisation: Experience with Regulation. Energy Policy, August 1989.

64. Vickers, J. and Yarrow, G. Economic Perspectives on Privatisation. *Journal of Economic Perspectives*, Vol.5, No.2, Spring 1991.

65. Vieux, Steve and James Petras. Selling Structural Adjustment: Intellectuals in Uniform. *Economic and Political Weekly*, January 27, 1996.

66. Wagle, Subodh. Enron Renegotiation: What Has Been Achieved ? *Economic and Political Weekly*, Dec 9, 1995.

REPORTS

1. A Profile of India's Power Sector. ABN AMRO March, 1995.

2. Annual Report on Working of SEBs and Electricity Departments. Planning Commission, February, 1994.

3. Collier, H. Developing Electric Power. John Hopkins Press, World Bank, 1994.

4. Current Power Policies : A Critique. National Working Group on the Power Sector, 1995.

5. Draft Report of the Subcommittee to NDC Committee on Power. October, 1993.

6. Galal, A. Public Enterprise Reform. World Bank Discussion Papers, World Bank, 1992.

7. India's Electricity Sector - Widening Scope for Private Participation. Government of India, Ministry of Power, 1994.

8. India: Economic Issues in the Power Sector, World Bank, Washington D.C., 1983.

9. Jack, G. Private Sector Electricity in Developing Countries. International Finance Corporation, World Bank, Washington D.C., 1992.

10. Jones, B. and John, E. Policies for Reforming the Power Sector in Developing Countries. Industry and Energy Development, World Bank, Washington D.C., 1989.

11. Kikeri, S., Shirley, and Nellis. Privatisation: The Lessons of Experience. World Bank, Washington D.C., 1992.

12. Private Investment in power. CII.

13. Private Investment in Power: Myths and Realities. Government of India, Ministry of Power, 1995.

14. Privatising Electricity. White Paper, United Kingdom, 1989.

15. Proceedings of the Workshop on Private Power and Reforms of State Electricity Boards. mimeo, FICCI, 28th September, 1995.

16. Purkayastha, P., Harsh Damodaran. Impact of Foreign Investments in Power Sector - Inflows and Outflows. mimeo.

17. Ramamurthi, R. and Vernon, R. Privatisation and Control of State-Owned Enterprises. EDI Series, World Bank, Washington D.C., 1991.

18. Roth, G. Private Provision of Public Services. EDI Series, Oxford University Press for the World Bank, 1987.

19. Shirley, M. and Nellis, J. Public Enterprise Reform: The Lessons of Experience. EDI Series, World Bank, Washington D.C., 1991.

20. Workshop on Private Power and Reforms in State Electricity Boards. Discussion Paper by Dr. Aditya Trivedi. mimeo, FICCI, 1995.

BOOKS

1. Ahluwalia, Isher Judge. Industrial Growth in India: Stagnation Since the Mid-Sixties. Oxford University Press, 1985.

2. Ahluwalia, Isher Judge. New Economic Policies, Enterprises and Privatisation in India, in Cassen, R. and Joshi, V., (Eds.), Oxford University Press, 1995.

3. Ahluwalia, Montek S. India's Economic Reforms, in The Future of Economic Reform, Cassen, R. and Joshi, V., (Eds.), Oxford University Press, 1995.

4. Bhagwati, J. India in Transition. Clarendon Press, Oxford, 1993.

5. Bureaucrats in Business. World Bank, Washington D.C., 1995.

6. Clarke, T. and Pitelis, C. The Political Economy of Privatisation. Routledge, 1993.

7. Clarke, T. The Political Economy of the UK Privatisation Programme, in Clarke and Pitelis *op. cit.*

8. Cook, P. and Kirkpatrick, C. (Ed.). Privatisation in Less Developed Countries, St. Martin's Press, 1988.

9. De Oliveira, Adilson (1991). The Key Issues Facing the Electricity Systems of Developing Countries. Commission of the European Communities, 1991.

10. Dehejia, Jay. Economic Reforms: Birth of an Asian Tiger, in India Briefing, Philip Oldenburg (Ed.), Westview Press, 1993.

11. Ernst, J. Whose Utility ? The Social Impact of Public Utility Privatisation and Regulation in Britain. Open University Press, Buckingham, 1994.

12. Guhan, S. World Bank Lending in South Asia. Brooking's Occasional Papers, Washington D.C., 1995.

13. Heald, D. The Relevance of UK Privatisation for LDCs, in Cook, P. and Kirkpatrick, C. (Ed.), Privatisation in Less Developed Countries, St. Martin's Press, 1988.

14. Heath, J. (Ed.). Public Enterprise at the Crossroads. Routledge, 1990. (articles by Hiten Bhaya and Venugopal Reddy).

15. Hood, C. Explaining Economic Policy Reversals. Open University Press, 1994.

16. Lewis, J.P. India's Political Economy: Governance and Reform. Oxford University Press, 1995.

17. Manor, J. The Political Sustainability of Economic Liberalisation in India, in Cassen, R. and Joshi, V., (Eds.), Oxford University Press, 1995.

18. Mohnot, S.R. (Ed.). Privatisation: Options and Challenges.

19. Mohnot, S.R. (Ed.) Privatisation: Options and Challenges. CIER, Delhi, 1991.

20. Mosley, P. Privatisation Policy Based Lending and World Bank Behaviour, in Cook, P. and Kirkpatrick, C. (Ed.), Privatisation in Less Developed Countries, St. Martin's Press, 1988.

21. Nayar, B.R. India's Mixed Economy. Popular Prakashan Pvt. Ltd., 1989.

22. Nayar, B.R. The Political Economy of India's Public Sector. Popular Prakashan Pvt. Ltd., 1990.

23. Nelson, J. Economic Crisis and Policy Choices: The Politics of Adjustment in the Third World. Princeton University, 1990.

24. Pachauri, R.K. The Political Economy of Global Energy. Oxford University Press, 1995.

25. Parikh, J. and Parikh, K. Energy Policy: Problems, Perceptions, and Reforms, in The Indian Economy, Jalan, B. (Ed.), Viking, 1992.

26. Pearson, P. (Ed.). Electricity in the Third World. Surrey Energy Economics Discussion Paper Series No.68., 1993.

27. Schydlowsky, D.M. (Ed.) Structural Adjustment: Retrospect and Prospect. Praeger, 1995.

28. Sinha, R.K. (Ed.) India's Economic Reforms and Beyond. Anamika Publishers, 1995.

29. Stretton, H. and Orchard, L. Public Goods, Public Enterprise, and Public Choice: Theoretical Foundations of the Contemporary Attack on Government. St. Martin's Press, 1994.

30. Venkataraman, K. Power Development in India. Uppal Publications, 1979.

31. Waterbury, J. Exposed to Innumerable Delusions: Public Enterprise and State Power in Egypt, India, Mexico and Turkey. Cambridge University Press, 1993.

32. Weynman-Jones, T.G. Electricity Privatisation. Brookfield, Avebury, 1989.

33. Weynman-Jones, T.G. Regulating the Privatised Electric Utilities in UK, in Clarke and Pitelis, *op. cit.*

34. Wheeler, T. Electricity Privatisation, in Power Generation Technology, Jones, D.A. (Ed.), Sterling, London, 1993.