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Development Strategies in India

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About a century of direct British colonial rule had made Indian economy dependent on the requirements of the British economy. India, by 1947, had primarily become an exporter of raw material needed for the industries in Britain. The heavy and basic industries were hardly encouraged by the government, while the agricultural sector crumbled due to neglect in terms of investments and innovation. Hunger was rampant and India was faced with famine almost every decade. The regional development of the country had become significantly lopsided. After the independence, the major challenges before the country were to remove hunger and reconstruct the economy in such a way that it becomes self-sustaining. This required building strategies and their effective implementation. Many strategies themselves, in the course of time, became impediment for development, and therefore needed to be altered or abandoned. The vast and varied geography, cultural and social diversity, differing political belief and ideology, and highly skewed economic abilities of populace made successive Indian governments adopt differing and multi-pronged strategies for the country's development. The ideas of common man, people-centred development to neoliberal form of economic growth rooted in philosophy of hyper accumulation by a few have been experimented in the country. Although a number of development strategies with varied nature and contradicting outcomes are still in process, a significant change has taken place in the post-reform period (1991

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onwards) to that of pre-reform period (1947–90). The strategies have become more market based. As such, the history of India's development strategies is quite exciting. A number of lessons can be learnt from the history from their varied success and failures.

This chapter reviews the development strategies adopted in India since independence, specifically those adopted in the post-economic reform period, with a focus on spatial/regional development strategies. The emphasis is mainly on conceptual aspects and effectiveness of the strategies. The reference to empirical and other studies is made only wherever necessary. The pre-reform (1947–91) and post-reform (1990 onwards) periods form major division and organization of this chapter but due emphasis is placed on the development in the period 2003 onwards. Economic development strategies have often been developed in the core discipline of economics. Economic geography often borrows theoretical strands and models from economics to assess or predict the spatial organization. The chapter, therefore, acknowledges the recipient nature of economic geography at the outset. The rest of the chapter is organized broadly into three main sections. The next section deals with the theoretical basis of the development strategies, while the following section briefly, as a background, discusses the development strategies adopted during the pre-economic reform period in the country. Many of these strategies still continue. This section broadly discusses the continuity and changes in development strategies in the post-reform period, with special reference to the period 2003 onwards. This section also discusses the marginalization of the spatial and directive development strategies in the post-economic reform period. The last section sums up the study with an acknowledgement that there is a need to re-examine the relevance of the strategies (adopted mainly in the post-reform period) which are widening development divides among people and regions in the country.

It is important to underscore that what may seem 'spatial' or 'aspatial' (development strategies) may be a matter of geographic scale. In that sense, state policies of planning, health care, etc., adopted at the state level, become much relevant when examining differential outcomes in those sectors at the inter-state level, while at intra-state level, the policies may be (though riskily) construed as 'aspatial'. Similarly, national economic policies become significantly relevant

in international analysis. However, notwithstanding the scale, the policies/strategies have their own intra-regional differing impacts owing to variations in physical and socio-economic characteristics among sub-regions. Moreover, one must also emphasize here that the understanding processes/flows (policies/strategies) are as important as understanding the geographic patterns (the latter has unfortunately become the only core concern of the present discipline of geography in India) which generate them. I am making this point in order to clarify and legitimize my approach of review/analysis of those strategies which to many may appear as 'ageographical', 'aspatial', or 'non-subject matter of geography'. To me, flows/policies/strategies are as important constituent and subject matter of geography as the spatial patterns produced by these flows/policies/strategies, as the 'flows' and 'patterns' are largely related in 'cause' and 'effect' manner.

THEORETICAL BASIS FOR DEVELOPMENT STRATEGIES

Spatial development is a multidimensional concept and is determined by a number of socio-economic factors, such as natural resource endowment, quantity and quality of labour, capital availability and access, productive and overhead investments, entrepreneurial culture and attitude, physical infrastructures, sectoral structure, technological infrastructure and progress, and so forth (Nijkamp and Abreu n.d.). In spatial or regional development, we often confront two basic questions: how can spatial/regional development be brought about; and how disparities among the regions can be ironed out? The first problem depends on the spatial allocative efficiency or the efficient spatial use of scarce economic resources (that is, inputs such as capital, labour, physical resources, and knowledge). The second question refers to the equity concerns or political issue and demands for the policy intervention for overcoming the regional inequalities. However, both the questions are interrelated as one feeds to another: the rising inequalities will require reconsideration of resource allocation; and to provide a push to growth, the limited resources will need to be allocated unequally. India's spatial development strategy over the years has been to address these two basic issues. A number of theoretical models, specifically related to the first question, have been employed.

The economic growth theories have often been combined with location theories. The location theories itself have been the blend of physical geography (determining the accessibility of a location and availability of resources) and smart economic behaviour (a clever combination of production factors and market potential in space) (Nijkamp and Abreu n.d.). The location theories of Christaller (1933[1966]), Hoover (1937), Isard (1956), Losch (1954), Von Thunen, and Weber (1929) are relevant examples in this regard. Both the trickle-down effect and Marshallian external economies of scale have been used to study growth and dispersal of economic activities in India. The reliance on market-led development, particularly after the economic liberalization, also reinforces planners/policymakers' belief in the neoclassical growth theories (Barro and Sala-i-Martin 1999; Solow 1956; Swan 1956) and convergence of regional economies in the long run. However, simultaneously, there has been attempt by the government to concentrate economic activities like information technology (IT) sector in certain metropolitan centres for reaping agglomeration economies and increasing return to scale (as advocated by the endogenous growth theories) in order to get an edge in international trade of the commodities and services.

In sum, to address the two basic questions related to regional development in India, the following perspectives have been adopted:

1. Supply-side policy of Keynesian nature, with a pronounced interest in public spending in less privileged regions (it includes investment in agriculture, soil improvement, supply of bank credit, making available raw materials for industrialization, subsidy on the capital goods, etc.).
2. Infrastructure policy, with an aim to create necessary physical conditions in order to enhance competitive capability of a region (it includes development of irrigation system, road transport networks, railways, telecommunication sector, health sector, etc.).
3. Growth pole strategies, with a clear emphasis on a concentrated growth impulse in few designated places or areas (it includes attempt to create hierarchy of growth centres from state to *mandi/tehsil* levels).

4. The superstructure policy in which regions have been provided with favourable research and development (R&D) conditions, educational facilities, knowledge centres, and the like in order to create the conditions for a self-sustained development (it includes development of research and extension centres).
5. Self-organizing policy where regions are encouraged to get their acts together on the basis of indigenous strength, with a limited role of the government (especially this policy has been adopted since the liberalization of the economy in early 1990s).

To encourage investments in less developed regions, the identification, delineation, preparation of resources inventory, design of spatial hierarchy governing the policy implementations, and resource allocations are extremely important processes. Towards this, the geographers in India have played a significant role in the early years (especially till the 1970s) of planning.

REGIONAL DEVELOPMENT STRATEGIES

In order to achieve balanced sectoral and spatial development, India, after independence, adopted both spatial and aspatial development strategies. The spatial development strategies were tied to the locations. Although all the states in India have planning departments, but planning in India has largely been attempted through the Five Year Plans as per the indications and directions provided by the think tanks at the Planning Commission, New Delhi. The planning has been both directive and indicative as the Planning Commission of India has operated under mixed economic system rather than totally market-oriented system, or as absolutist authority, like that in erstwhile Soviet Union. The mixed economic model was adopted in India as it was assumed to inherit virtues of both the capitalist and socialist economic models. Given the size of absolute poverty in the country, the linear thinking of growth-led development dominated the planning strategies in the initial years after independence. An attempt during this period was also made to map the economic resources for economic and resource regionalization of the country for effective

socio-economic planning. The agro-climatic regions were also worked out for strategizing agricultural planning to address the food security issue through increased production, and also to decrease dependence on imports from the United States (US) (under PL 480) and other countries. In sum, the first two decades after independence, that is, the 1950s and 1960s, saw intense experimentation by Indian planners with theoretical models related to agricultural, industrial, and regional development. The 1970s became watershed, and planners moved away from linear growth-generating thinking to address the human needs through basic needs and employment-generating and skill-enhancing programmes, which has continued in various forms till date.

All the Five Years Plan in India, implicitly or explicitly, adopted spatial development strategy. Second Five Year Plan clearly mentioned ironing out of regional disparity as one of its objectives (Government of India [GoI] 1956), while the Third Five Year Plan devoted a chapter to the need and strategy for 'balanced regional development' (GoI 1961). The Fourth Five Year Plan emphasized need for resource allocations and dispersal of economic activities to overcome the regional disparities (GoI 1969). However, it was also realized that states as regions for planning—which was adopted due to political and administrative convenience—were large spatial units and inherent in them were sub-regional differences. It was also realized that economic and resource regions, in many ways, were mismatching in terms of their boundaries and spatial extent to those of states, which were created on linguistic basis. This led to the argument by many planners to initiate physical plan based on the resource endowment realities and economic characteristics of the regions (see Bhat 1972). Although at the sub-state levels, this idea was implemented in a few states such as Andhra Pradesh (through Rayalaseema sub-plan) and Maharashtra (through Vidarbha sub-plan), it could not progress much beyond the state political borders. Preparation of an integrated plan for south-east resources region, comprising of 25 contiguous districts involving Bihar (including present Jharkhand), Madhya Pradesh (including present Chhattisgarh), Orissa, and West Bengal, was an idea and some documentary progress was made on this (see Bhat 1972), but it could not progress beyond that due to political hindrance and compulsions.

Besides the usual tussle between sectoral and regional planning for maximization of economic growth and the regional-scale planning needed to be started, there have also been quite different interpretations of region. The concept of region has largely differed from one scholar to another, and that has found its way into economic planning. To highlight a few such differences in conceptualization of 'region', for example, see L.D. Stamp (1929), who divided India into three major regions and 22 sub-regions on the basis of physiography at primary level and climate at sub-regional level. O.H.K. Spate (1954) further improved upon the classification by Stamp. Later on, many other classifications emerged, including those largely based on physical phenomena like climate and soil condition (as in case of agro-climatic regions), National Sample Survey (NSS) regions, to the railway subdivisions for movement of goods and services, etc. (for details, see Bhat 1972, 1998). This all resulted in unfocused, confusing, and overlapping regional planning and related strategies in India. State political boundaries as such then emerged as the most powerful boundary for resource allocation and planning.

Another major challenge the regional development planning in India faced was due to the differential development levels of the 500 odd princely states which came to join other states in 1947 to form what is India today. For example, the small state of Coorg had plantation economy, much different from Madras Province of which it became a part; and the former Mysore state (prior to 1953) had a better network of roads, electricity supply, irrigation, and town development, which stood in sharp contrast within enlarged Mysore state (after 1953) (see Bhat 1972). Similar patterns of development were also seen elsewhere. The linguistic division of states resulted in coming together of physiographically and economically dissimilar, and differentially developed, areas in a state, and that posed further challenges to development planning. The British colonial economic policy of extraction of resources from India had also created significant regional imbalances in development in the country.

Post-independent India inherited from the British a few developed enclaves that centred on the port cities of Calcutta, Bombay, and Madras, and a vastly neglected north-east and central part. To correct the lopsidedness in development, the Backward Area Development programmes were initiated during the Second Five Year Plan, and

especially during the Third Five Year Plan, to counter the imbalances. Depending on the nature of backwardness, several programmes were initiated, such as: (i) industrially backward area programme was introduced in the economically backward areas; (ii) tribal area programmes were introduced to uplift the tribal communities in the remotely backward areas; and (iii) drought-prone area, desert area, and hill area programmes were introduced to tackle the special problem regions. Some of these are discussed next.

During the late 1960s, the National Development Council (NDC) set up two working committees to understand the issue of regional imbalances with the object of finding: (i) what criteria should be used to define backwardness; and (ii) what financial and fiscal actions should be taken to start industries in the backward areas. The B.D. Pande Committee (Planning Commission 1969a), assigned for the first task, recommended the criteria for identifying backward areas at the state level, while the Wanchoo Committee report (Planning Commission 1969b) recommended the financial and fiscal actions for balanced regional development. Based on these recommendations, some of the measures adopted by various state governments to develop backward areas included (and still continue): (i) subsidized finance and electricity; (ii) reduced sales tax; (iii) technical guidance to industries; (iv) provision of developed land with electricity, water, and other facilities for establishing small-scale industries; (v) training of local youths for joining industries; (vi) concession on machinery, etc., purchase; (vii) allotment of subsidized land for industrial and worker colony development; and (viii) exemption from payment of octroi for import of raw materials, machineries, equipments, etc. (Chand and Puri 1983).

In addition to the above-mentioned provisions, other strategies adopted to move industries to backward areas were: industrial licensing policy directing industries to designated areas; location of large-scale public sector units in backward areas (these included steel plants, fertilizer plants, heavy electrical plants, etc.); and setting up of rural industries project in the backward areas, where: (i) agricultural conditions were favourable but there was heavy population pressure, (ii) agricultural land was not adequately irrigated and there was need for additional employment opportunities, (iii) there was considerable unemployment due to lack of natural resources and/or unfavourable

natural condition, and (iv) tribal and other backward areas. Rural industry entrepreneurs were assisted with loans, grants, technical assistance, and assistance for purchase of machineries, etc. (Chand and Puri 1983). Similarly, the 'tribal area development strategy', 'command area planning', etc., were also aimed to bring about development in specifically identified regions (for details, see Padhi 2005).

Inter-state Planning and Resource Transfer

Although inter-state planning in India has been required for effective resource utilization (given that the economic and resource regions overlap the state boundaries), there are only a few examples of it and those have been related to river valley planning. One of such examples is Damodar Valley Project between Bihar (including present Jharkhand) and West Bengal. This project is also one of India's most important inter-state planning initiatives taken ever since independence. The Damodar Valley Corporation (DVC) was established on the lines of Tennessee Valley Authority (TVA) in the US. Before the DVC was born, the Damodar River created havoc through its floods by washing away villages, devastating railway system, and submerging, particularly, a large part of the lower valley in West Bengal (Chand and Puri 1983).

In order to bring about balanced regional development, the central government allocates resources to the needy states. These resources are often mobilized from developed states and transferred to underdeveloped states. In India, there is a three-tier system for the fund allocation. Resources are distributed via: (i) the Finance Commission; (ii) the Planning Commission; and (iii) discretionary transfer through various union ministries and agencies. Recognizing the fact that the need and circumstances of fund allocation may vary with time, a Finance Commission is set up every fifth year (or before if necessary) to set the rules for devolution of funds across the states. The Finance Commission decides: (i) how the two most important taxes, income tax and excise duties, are to be shared by the states; and (ii) how much grant is to be allowed and for which purposes. Most Finance Commissions have distributed at least about 75–80 per cent of the income tax according to population of the state and the remaining on the basis of states revenue collection. Except during

the Second, Third, and Fourth Finance Commissions when the state's share of excise duties was reduced, most Finance Commissions have allocated about 40–5 per cent of excise duties to the state. From the Fourth Finance Commission onwards, relative economic and social backwardness, measured by various indices, was added as a criterion for sharing income or excise taxes. The Fourth Finance Commission took into account per capita gross value of agricultural production, per capita value added by manufacture, percentage of workers to the total population, percentage of rural population, and percentage of Scheduled Castes (SCs) and Scheduled Tribes (STs). The Fifth Finance Commission used ST population, number of factory workers per lakh population, net irrigated area per cultivator, and length of railways and surface roads per 100 square kilometre. The Tenth Finance Commission, using Gadgil–Mukherjee formula, recommended the following criteria and weight to transfer the central taxes to the state to overcome regional disparities: population (weight 25 per cent); income distance (50 per cent); area (10 per cent); tax efforts (7.5 per cent); and fiscal discipline (7.5 per cent) (Planning Commission 2008: 141). In addition to funds allocated by the Finance Commission, the Planning Commission provides funds for planning assistance. Centrally sponsored schemes also transfer resources to the states. Finally, there are discretionary grants from the centre to the states, whose size and distribution depends upon the discretion of the government.

Micro-level Planning and Innovations in Policies and Institutions

Micro-level planning connotes planning from below (Bhat 1998), that is, planning that is based on ground-level information and, often, by those who will be beneficiary of the planning. India has attempted for micro-level planning since the very First Five Year Plan through 'community development programme'. However, in this programme, the approach of planning was largely top-down, as the plans were made at the central level and then implemented at the community development block (cluster of village panchayats) level throughout the country. However, it was thought that the effectiveness and pragmatism of planning could be sharpened if the elected representatives of people

could also get associated with planning and implementation at the micro level. This led to setting up of Balwant Rai Mehta Committee in 1957. The Committee, in its findings, noted that devolution of power and responsibilities has not taken place below the state level in the country. Within the purview of three-tier micro-level planning system (village panchayat, community block, and zila parishad), the Committee recommended certain sectors like agriculture, animal husbandry, cooperatives, minor irrigation works, village industries, primary education, local communication, sanitation, health and medical relief, local amenities, and related aspects to be left to the Panchayati Raj Institutions (PRIs). Later, Gadgil Committee was constituted to work out the planning structure. The Gadgil Committee was of the view that community blocks or villages do not necessarily represent economic regions within districts and therefore, it recommended planning as per the functional region/economic region approach. The emphasis was to develop the nodal points or market centres (mandis) in the districts. Later, in 1969, the Planning Commission of India issued guidelines for district planning and emphasized that district would be the areal unit for planning. However, all this changed when Janata Party came to power in 1977. It set up a committee under M.L. Dantwala in 1978 to prepare guidelines for block-level planning. Ashok Mehta Committee, which was also appointed by the Janata Party government in 1977, was set up to find out ways to strengthen the declining PRIs in the country. The Committee submitted its report in 1978 and recommended for a two-tier system (zila parishad at the district level; and below it, the mandal panchayat consisting of a group of villages covering a population of 15,000–20,000) instead of the three-tier system (village panchayat, community development block, and zila parishad). As there were differential levels of implementations of the recommendations of the earlier committees on micro-level planning by the states, the Planning Commission of India constituted Hanumantha Rao Committee on methodology for district-level planning in 1984 (for details, see Bhat 1998). Later on, to provide constitutional validity to micro-level planning, 73rd and 74th Constitutional Amendments were passed in 1992. The 73rd Amendment relates to the Panchayati Raj or rural planning, while the 74th Constitutional Amendment relates to the urban local bodies (ULBs). Through provisions of fixed terms, timely elections, and demarcation of certain

subjects for planning, the amendments attempt to provide the needed stability and power to these micro-level planning institutions. These amendments also introduced Eleventh (for Panchayati Raj) and Twelfth (for ULBs) Schedules to the Constitution.

Kerala Model of Micro-level Planning

In recent years, the Kerala model of decentralized or micro-level planning has evoked considerable interest among the development practitioners, policymakers, and academics. People often compare the old Kerala model of development with new Kerala model of development, which is categorized as 'new democratic initiatives' or 'left-realism'. It is argued that the 'old' Kerala model was preoccupied with redistributive policies and failed to induce economic development. The 'new' Kerala model explicitly seeks reconciliation of social, industrial/productive, democratic, and environmental objectives at the local level, and attempts to develop synergies between civil society, local government bodies, and the state government. This new successful model holds important lessons for participatory and community-based sustainable development in India (Veron 2001). The new Kerala model is based on: (i) delegation of power and authority to the PRIs, specifically district councils, as per the guidelines of 73rd Constitutional Amendment; (ii) campaign for total literacy; (iii) environmental protection through campaign and innovations and installations like that of high-efficiency wood-burning stoves; and (iv) the People's Resource Mapping Programme or the Panchayat Resource Mapping and planning—preparation of resource inventory, land use demarcation, and land capability classification and use (Bhat 2005). It is claimed that during its several decades of working for progressive economic and social reforms, Kerala's left-wing movement failed to recognize the importance of environmental degradation. In recent years, however, they have made a remarkable transformation of their understanding and are now mobilizing people through their mass organizations to tackle the problems of declining forests, polluted rivers, loss of biodiversity, and other problems (Chattopadhyay and Franke 2006). This new Kerala model has brought about major improvements in the lives of the poor despite low per capita income. It is also emerging from researches that ULBs are also able to perform better where they have

delegated financial and other related administrative/governance functions. In this regard, besides Kerala, West Bengal is another example, though the studies are limited to the assessment of a few ULBs (see Ghosh and Sivaramakrishnan 2009).

POST-REFORMS DEVELOPMENT STRATEGIES (ESPECIALLY 2003 ONWARDS): FROM EMBEDDED CAPITALISM TO NEOLIBERAL TURN AND SOCIALIST PATTERN OF SOCIETY TO INCLUSIVE GROWTH

The socialist planning approach guiding development policy started giving way to the market-based economic thinking by 1985. The Chakravorty Committee report (1985) recommending the rationalization of public sector banking policy heralded the new beginning of development decision making. But it took another five years to effectively formalize the new economic policy. The balance of payment and exchange rate crises provided an opportunity to the Congress government to liberalize the economy in 1991, under the then Finance Minister, Manmohan Singh. The changing international economic and political environment also helped in reforming the economy. Soviet Union had got dismembered in 1989, and that led to the belief that the socialist policy framework was no longer relevant to guide future development. The Asian Tigers, under liberal economic regimes, were developing faster than India. The conditionality of structural reform was forced on India by the International Monetary Fund (IMF) and the World Bank, which salvaged India during the balance of payment crisis. Thus, in 1991, the stage was well set for initiating the policy for liberalization, privatization, and globalization of Indian economy and financial sectors. Sweeping changes were made in the industrial sectors and most government controls on this sector were removed. Under the previous system, government kept a close watch on what the private sector was investing in and by how much—making the industry inflexible, inefficient, and unresponsive to the market.

The embedded capitalism, where the government guided major economic decision making and spent heavily on welfare programmes, including balanced regional development, gave way to neoliberal economic regime. Neoliberal policies seek to transfer control of the economy from public to the private sector and this involves the

‘restoration or production of class power’ (Harvey 2005: 104). The neoliberal Indian state now enables capital to exploit new, or sometimes old, sources of wealth through accumulation by dispossession or primitive accumulation, as in tribal areas, by denying rights to common property and forcefully acquiring land from farmers for private sector. In the post-reform period, neoliberal economic thinking and foreign direct investment (FDI)-led development have become pervasive. The public–private partnership has come into vogue and much of this strategy has become part of infrastructure from national highway building to golden quadrangle plan (see Planning Commission 2008).

There has also been considerable shift in the desired form of society by the Indian state. Till the late 1980s, considerable emphasis was placed to create a ‘socialist pattern of society’, as mentioned in the Preamble of the Constitution of India, and that was thought to be the ultimate aim of the state. However, since economic reforms in the early 1990s, the term ‘socialist pattern of society’ has been replaced with ‘inclusive growth’ in government literature and policy documents (see Planning Commission 2008). The inclusive growth philosophy connotes that growth and development may be made inclusive (for all section of society), but unequal endowment or initial inequality in the society would not be corrected. Given the initial hyper inequality in ownership of means of production and wealth, interpersonal inequalities and similarly regional inequalities are expected to rise in the regime of this philosophy of ‘inclusive growth’.

India’s growth following the reforms has been highly capital and skilled labour intensive. Unfortunately, this has constrained the much-needed growth in employment. Many analysts think that India’s strategy of growth, via heavy industrialization, stress on higher education, and inflexible labour laws that have kept the firms from hiring labour efficiently, is one of the major reasons why capital intensity has been so high in the industry (Singh 2009). Without a major growth in employment, reforms cannot generate equitable development. Also, while urban India has seen major change in income, consumption, and access to resources, rural India has been left with a much smaller share of the fruit of development.

A distinctive characteristic of India’s neoliberal policy-led growth in the 1990s and thereafter is that the services sector picked up and became the fastest-growing segment of the economy. India’s services

sector accounts for more than 60 per cent of the gross domestic product (GDP) in the post-reform period. This is unusual, for none of the developing countries that had gone through similar phases in the past have had a similar experience. Neither was it planned in the reforms—at least, reforms were not directly targeted at the services sector—but it has still occurred. Particularly spectacular is India's growth in IT and information technology enabled services (ITES), such as business process outsourcing, customer service, medical transcription, and financial services (Chandrasekhar 2006). In spatial terms, this development implies concentration of economic activities in urban centres, or in a few regions, as the English-speaking and higher and technical education institutions are located in few big cities. The agglomeration economies have further helped locating these new knowledge economic activities in a few centres, like Bangalore, Pune, Noida, Mumbai, and Delhi.

As discussed earlier, India's growth during the post-reform period has not followed the expected route of agriculture to industry to services. It is rather agriculture to services directly. However, the expectation that growth will automatically generate employment remains unfulfilled. Therefore, employment generation needs to be part of policy now and the general consensus is that labour-intensive manufacturing sector needs to be encouraged to make this happen. The liberalization implied many fundamental changes in planning approach and emphases. These have been discussed later, along with new development initiatives.

The changes in socio-economic policy or globalization imply creation of new spaces—the spaces of new centrality and marginality. The repercussions of the policies can be seen from micro-regions to macro level or global level, and on various sectors. Next, we attempt to understand the changes these policies have created at sectoral and spatial levels with regard to development praxis.

Devalorization of Agriculture

India's reforms in the 1990s were not directly agriculture oriented. It was hoped that macroeconomic trade and industrial reforms will boost the agricultural sector as well. But, unfortunately, this did not happen. While the growth in India's industrial and services sectors

picked up after the 1990s reform, the agricultural sector growth slacked. However, despite their growth, India's industrial and services sectors failed to absorb the surplus workers from the rural sector. Today, agriculture's share in national income is about 15 per cent, but it still employs about 55 per cent of India's population. Therefore, industrial and services sectors, that mainly utilize skilled labour, have had no room to share their success with the rural labour. A natural consequence of this is that a burgeoning rural population has been putting pressure on the available resources in agriculture, so per capita land availability keeps on falling. Today, small and marginal farmers constitute nearly 80 per cent of the total cultivators. Also, since the Green Revolution, when high-yield variety of seeds and increased fertilizer and water usage increased production in agriculture, no major innovation or investment has been done to sustain the growth. Particularly lacking is investment in R&D, infrastructure, education, technology, etc. (Singh 2009). A large part of the cultivated land in the Green Revolution region (Punjab, Haryana, and western Uttar Pradesh) is deteriorating due to its overuse and overuse of irrigation. The distribution of means of production to tiller through land distribution formed an important objective in the early period of India's planning; however, it has almost been done away with in the post-reform period. Highlighting the importance of 'Operation Barga' (land distribution in West Bengal), Majumdar (2008) argues that relatively higher level of rural development and success of PRIs in the state is due to this land reform. The land reform provided landless means of production which added to their power of negotiation, thereby leading to their effective participation in local democracy and planning in West Bengal.

India has entered from excess credit regime (pre-liberalization phase under socialist banking) to shortage of credit to agricultural sector (under unregulated interest rate regime and private banking) and small and marginal farmers in post-reform regime. The credit shortage is hurting the farmers, specially the small and marginal ones. Rural credit market is imperfect, and small and marginal farmers with very little or low collateral face difficulties in getting loans. Most of these farmers, therefore, borrow from local moneylenders at a very high interest rate, or else from friends or family. Consequently, government's debt relief programmes fail to release these marginal

farmers from their debt commitments. In many regions in the country (as in Vidarbha, Bundelkhand, Punjab, and Kerala), farmers are committing suicide due to low returns from farming, loss of crops, and high indebtedness (Indira Gandhi Institute of Development Research [IGIDR] 2006; Shaban 2006, 2007a, 2010; Tata Institute for Social Sciences [TISS] 2006).

Strategy of FDI-led Growth

In the post-reform period, a strategy has been adopted by the government to attract FDI in key sectors and promote special economic zones (SEZs). The policy related to foreign investment has been completely overhauled and single-window clearance has been introduced. In addition, foreign investments that are not qualified for automatic approval are allowed to obtain investment permission from the Foreign Investment Promotion Board. Foreign investment is now allowed in virtually all industries, except defence, railway transport, and atomic energy. There is no doubt that the reforms in the external sector have helped India's growth. Further, some researchers argue that India's FDI-growth link is still weak and that the link is relatively stronger in richer states (Nunnenkamp and Stracke 2007). Even with all the reforms, investment environment varies across the states widely. A World Bank study (Stern 2001) shows that some states (like Maharashtra, Gujarat, and Tamil Nadu) have tended to attract more FDI compared to others (Bihar and West Bengal). Further, Sharma and Shaban (2007) show that most of the FDIs are concentrated in big urban centres of these states. This has further accentuated regional disparities in the post-reform period (Shaban 2006).

Emphasis on Urban Development and Urban-led Growth

In the pre-reform period, the state governments, preoccupied with economic development and other issues of immediate importance, had neither the budget nor the will to craft any significant urban policies. Indian cities and towns grew, but as a natural consequence of negligence, haphazardly and on their own (for details, see Chaudhury 2001; Sharma and Shaban 2007).

In a low-profile industrial economy like India, a few large cities became the hub of industrial production and business and trade. They presented a two-way relationship to the international market systems and their own regions of influence. On one hand, they became the base for expansion of business of the multinationals, while on the other, they exploited resources of the regions under their influence—towns and rural hinterlands. Metropolitan cities like Mumbai, Calcutta, Delhi, Ahmedabad, Hyderabad, and Bangalore carry such a dubious distinction. They are the centres of power and wealth in the country. They also represent a duality in the form of a section of rich and privileged population, contrasted by a large population of the deprived and marginalized urban poor.

With the 'liberalization' of Indian economy and its opening up to the international market forces, significant changes are visible in these growth-oriented cities. They are turning into vibrant centres of capitalist expansion through market-driven economy. This requires overhauling of their infrastructure, which is virtually on the verge of collapse due to decades of neglect and financial crunch. Inter-state competition for attracting productive capital has added to their significance. Presently, any concern for dispersal of urban economy to small cities and towns is forgotten. The schemes for systematic development of identified cities and towns under the 'Integrated Development of Small and Medium Towns' (IDSMT) or the 'generators of economic momentum' (GEM)—as recommended by the Commission of Urbanization—have been kept aside. It is therefore not surprising that under the annual financial budget for the country (2005–6), a 'National Urban Renewal Mission' (now known as Jawaharlal Nehru National Urban Renewal Mission [JNNURM]) was set up for revitalizing the 'megacities'.

Urban centres development has fallen short of what is required to support the millions that live in the town and cities. Major constraints facing the cities and towns are: inadequate housing, particularly for the poor; congestion by traffic; underserved utilities; etc. Recognizing these issues, JNNURM was launched in 2005 for a fast, reform-linked development, with major emphasis on infrastructure and basic services to the poor so that urban economic growth is both sustainable and inclusive. The main purposes of JNNURM are as follows: (i) development of infrastructural services, housing,

and capacity in the cities; (ii) ensuring adequate funds for the mission; (iii) providing basic services and improved housing to the urban poor; and (iv) planned development of growth and dispersal of growth in cities, peri-urban areas, outgrowths, and urban corridors, with special emphasis on inner/old cities. The scope of the project covers 63 identified cities for which Urban Infrastructure and Governance (UIG) and Basic Services for the Urban Poor (BSUP) are two sub-missions. Additionally, for other cities and towns, Urban Infrastructure Development in Small and Medium Towns (UIDSMT) and Integrated Housing and Slum Development Programme (IHSDP) are the two sub-missions. The basic objective of the BSUP scheme is to strive for holistic slum development, with a healthy and enabling urban environment, by providing adequate shelter and basic infrastructure facilities to the urban slum dwellers. The IHSDP has been launched with a view to ameliorate the dilapidated living conditions of the urban slum dwellers, covering all the towns except the 63 identified mission cities covered under the programme for BSUP. Like the 74th Amendment to the Constitution envisaged, the JNNURM also looks to improve urban governance so that the ULBs and para-statal agencies become stronger and financially sound by accessing credit markets on their own. But in addition to that, JNNURM: (i) makes urban reform mandatory; and (ii) requires state government, local bodies, and para-state agencies to establish a city development plan (CDP) covering land tenure, housing, water supply, sanitation, health, education, and social security. Substantial central financial assistance is made available under JNNURM but is conditional on implementation of points (i) and (ii) just mentioned (Maira 2010). Sharma and Shaban (2007) argue that one need not deny the need of even much more funds for achieving minimum quality of life for average dwellers of these large cities—irrespective of their becoming cities of international standards. However, the sad part is that the medium-paced cities and towns are left to their own fate, eroding any possibility of dispersal of urban development through economic decentralization. The large investment in the bigger cities is leading to further concentration of economic activities in these centres.

The development in Indian cities under the imperatives of the neoliberal agenda has been analysed by a few researchers. The neoliberal agenda is considered to be not only moulding the concept of

'urban' but also intensifying the unevenness in inter-urban development, specifically through JNNURM, the official career of neoliberal urbanism (Banerjee-Guha 2002, 2009). The rise in conflict, crime, and ethnic polarisation and their continuation in neoliberal cities, and surrender of working class and marginalised section of population before the State and market are other important emerging themes in urban research in recent years in India (Shaban 2010a; 2008)., The rural poverty, over the years, has also over-spilled to urban areas. A huge number of migrants with low human capital from rural areas, due to lack of employment opportunities and low wages in rural areas, have moved/are moving to urban centres. This adds to the already precarious situation of marginalized sections in the urban areas and the infrastructural woes (Adhikari 2005; Majumdar 2005; Sajjad *et al.* 2008; Sanyal and Kumra 2003). In this regard, Kothari and Kohli (2002) argue that unless we are able to create an effective mechanism to stop migration of poor from rural to urban areas, we will not be able to overcome urban poverty. The effective mechanism, as the authors argue, would be the all-round development of rural areas. The situation in small and medium towns is deteriorating as they are growing haphazardly. Due to various politico-economic reasons, not much attention is being paid to the development of small and medium towns. Tripathi's (2008) study of small towns in Ballia district very well brings out the pathetic conditions. One is not therefore surprised that more than one-third of the urban population in India still lives below the official poverty line (see Parveen 2004). Further, there are studies which show that the market-oriented policies are not only leading to imbalanced regional urbanization but also are putting acute stress on the environmental resources. For instance, S. Bhattacharyya (2004) shows that over-concentration of population in major metropolitan centres in the country has taken a toll on environmental quality of these cities (Mumbai, Kolkata, Delhi, Chennai, Bangalore, and Nagpur). There is now enormous pressure on water sources usable for drinking. Also, difficulty is now being faced with regard to disposal of solid and liquid waste, along with general deterioration in air quality. Nasir (2009) also voices concerns about deteriorating air, water, and land quality in Faridabad city. He argues that people in the city need to be protected from the harmful effects of industrialization and for that, effective environmental and economic planning is needed.

Adhikari (2005) also expresses concern about the consequences of fast-changing socio-economic life in Indian cities and argues that the increasing motorized transport can adversely impact the urban quality of life/environment. Bhaduri (2008) argues that the growth of personalized transport in major cities in India has outgrown the population and availability, thereby posing major health hazard to the population and adding to the congestions within Indian cities. Singh (2007) also expresses concerns on deteriorating environmental quality in the town of Panipat. He argues that the exhaust from industrial units and the ever-increasing vehicular traffic are deteriorating the air and water quality in the city, and the disposal of solid and liquid wastes in the city is highly unsatisfactory. Siddique and Tah (2007), examining solid waste disposal and management in Barddhaman town, West Bengal, also express similar concerns. They narrate the story of lack of suitable sites for dumping solid and liquid wastes, open dumping and unsafe handling of wastes being practised, lack of cost effective transportation, and lack of composting and incineration facilities in the town. Chatterjee (2007) expresses concern over the rapid dwindling of open spaces in urban areas due to densification of major cities. He argues that scarcity of open space in the Kolkata is quite alarming and the Maidan, 620 hectares (ha) in area, situated almost at the centre of the city, functions as its lung.

Export-promoting Industrialization—Export Processing Zones (EPZs) and SEZs

During the last two decades, many countries have come to accept that for growth, export promotion is likely to be a better strategy than import substitution. For India, decades of planning had virtually quelled any foreign competition and restricted the use of raw materials and other inputs from abroad. As a consequence, the overall growth rate hovered around 3.5 per cent for many years (Panagariya 2004). India took a few baby steps towards trade liberalization in the 1980s and building on its success, went on to open and liberalize foreign trade from 1991 onwards.

In April 1990, the government announced a new direction of its export-import (EXIM) policy. During the 2000s, the concept of free trade zones (FTZs) was created. The FTZs are essentially special

trading zones that enjoy immunity from custom interventions. All of India's EPZs were brought under the umbrella of FTZ. The EPZs are specially identified industrial enclaves that enjoy certain tariff and commercial benefits in a country. In economies where deliberate strategies are used to discourage import and encourage domestic production of substitutes, EPZs are used as counter-strategies to encourage export. As more and more countries have resorted to export-led development in the recent time, the popularity of EPZs has increased as a policy strategy (Aggarwal 2006).

The EPZs existed in India since the mid-1960s, but were plagued by controls, clearance requirement, inadequate infrastructure, and unstable fiscal regimes. To overcome these, the Special Economic Zones (SEZ) Act was passed in 2005 in order to give these zones greater incentives and to attract larger FDI. According to the Ministry of Commerce, the main objectives of the SEZ Act are: (i) generation of additional economic activity; (ii) promotion of exports of goods and services; (iii) promotion of investment from domestic and foreign sources; (iv) creation of employment opportunities; and (v) development of infrastructure facilities (<http://sezindia.nic.in/writereaddata/pdf/SEZ%20Act,%202005.pdf>).

Though SEZs in India can be important for the overall economic growth, they are facing opposition by peasants and civil society. The civil society concerns emerge mainly from the excessive incentives being provided to the SEZs by the government as the SEZs are treated as foreign territory in the country and many tax and labour laws are not applicable for them. The discontent of the peasants against SEZs is mainly regarding land acquisition. The state is forcing the farmers to surrender their lands at throwaway prices for the development of SEZs by private interests. Many claim that the state is in the process of dispossessing the farmers, while capitalists are accumulating. Further, EPZs and SEZs are changing the usual expectations from urban centres, as these centres are expected to have little consequences for their peripheries in terms of inducing growth, but act such parasite and benefit the rich and those in other countries. This space relation of capital and formation of development enclaves is considered to be important for 'accumulation by dispossession' to overcome the chronic problem of over-accumulation by the global capital (see Banerjee-Guha 2008; Shaban 2008; 2010a).

Knowledge-led Growth, Knowledge Management as a Strategy, and IT Sector

The new economy is mainly knowledge-led economy. The success and failure of economy depends on the intensity and quality of knowledge available to the economic agents. Since the 1990s, therefore, many countries have placed special emphasis on knowledge development, their patenting and management. According to a definition used by the World Bank, knowledge economy is: 'An economy that makes effective use of knowledge for its economic and social development' (Dahlman and Utz 2005). A number of analysts agree that starting from the 1990s onwards, the world economies are emerging with a new face and that innovation, human intelligence, and skill are driving productivity in these 'new economies'. There are two reasons for this change: (i) globalization, which changed the concept of what is going to be produced and where, at the lowest cost; and (ii) a series of innovation that swept the recent decades, particularly in the US and Europe, introducing a new set of knowledge-based products (Chandrasekhar 2006).

In the post-reform period, much of India's success in achieving the higher growth rate came from a boom in the IT sector. Information technology and ITES are part of the 'services' sector that grew at a very fast rate during the last two decades and the share of IT software exports constituted 19 per cent of total Indian export in 2002–3 (Dahlman and Utz 2005). While, in theory, services sector growth is supposed to come last after agriculture and manufacturing, in the case of India, the services sector growth, driven by knowledge, skill, and information-intensive production, has led the way from the 1990s onwards.

Indian planners have recognized that to establish India as the knowledge hub of the world, major investment in education is needed. The Ministry of Human Resource Development of the GoI has committed to make education the priority in the Eleventh Five Year Plan. The Plan allocation to education sector has been stepped up from 7.7 per cent of budgetary support in the Tenth Plan to over 19 per cent in the Eleventh Plan. Although information sector infrastructure has developed very fast in the country, digital divide still exists between the rural and urban areas, and also between the rich and the poor. The

bandwidth issues are still a concern in small and medium towns and rural areas.

Regional Development as a Problem of Coordination of Market Forces

In the post-liberalization phase, the fund allocation problem for development of backward regions has largely changed into the problem of coordination of market forces. In the initial years of planning with embedded capitalism, it was the state that was deciding the location and allocation of public funds to the regions. In the post-reform period, there has been considerable decline in public investments. Of the total investments, public investments now account only about 20 per cent (Planning Commission, 2008: 141, Vol. 1), and it is the private sector that has taken the main role with regard to new investments. The state role, and even the role of the Planning Commission of India, is shrinking to the coordination of the market forces such that the private sector investment moves to the backward areas. *Ceteris paribus*, the private capital in search of high returns will move to the locations and sectors where it earns the maximum profit. Given the backwardness of many regions in terms of infrastructural development, human resources, market, and also political and social discontents, the private capital movement to these regions has been sluggish. Some of these regions and states are eastern Uttar Pradesh, Bihar, Jammu and Kashmir, Himachal Pradesh, Rajasthan, Vidarbha, Telangana, Rayalaseema, Madhya Pradesh, Chhattisgarh, West Bengal, and north-eastern states. In some of the states like Jharkhand, Orissa, and parts of West Bengal, heavy investments in extractive and smelting industries are proposed. However, these industries have less local (employment and economic) multiplier effects. These extractive and smelting industries are also facing protest as they displace the peasants, farmers, and tribals. In the post-reform period, Gujarat, western and coastal Maharashtra, Haryana, Punjab, western Uttar Pradesh, Tamil Nadu, and Karnataka have been the favourable states for private sector investments and FDI (Sharma and Shaban 2007).

The response of the states and central governments has been to offer various kinds of tax and infrastructure incentives to the private sector to attract them to the backward areas. Almost all the states in

the country have their own plans for attracting private sector investments. Thus, the pendulum with regard to regional development policies has moved from directive policies (public investments) in the pre-reform period, to the problem of coordination of market forces in these regions in the post-reform period. Although many pre-reform development strategies and new investments by the government continue in backward regions, they are comparatively much lower than that from private sources.

It is not surprising then that most of the studies show that in the post-reform period, the disparity in regional development at the inter-state level has worsened (see Bhattacharya and Sakhtivel 2004; Chakravorty 2000; Dev and Ravi 2007; Shaban 2002, 2006; World Bank 2008). The role of market forces, like those of financial institutional, promoting unbalanced regional and sectoral developments have also been studied (Shaban 2010b; Shaban 2007a). Notwithstanding the widening differences at the state level, intra-state inequalities (inter-district inequalities) have shown declining trends in some developed states such as Maharashtra and Gujarat (Shaban 2006; Sidhu 2009). However, there are local trenches of underdevelopment in most of the states, however developed (see J. Bhattacharya 2004). Some studies have also been undertaken by geographers to understand the level and pattern of industrial development in different regions of the country. In this regard, Sharma (2004), in his study of Madhya Pradesh, points out that the industrial development in the state has been polarized and concentrated in the western part of the state and there are a number of districts in the state which have no modern industries, though they are rich in resources. The author argues that these districts should be given first priority for development.

The economy of leisure has become very important in the new economic and social environment. Leisure is sought and valued and people move to pristine environmental areas, or areas which provide them sufficient natural, cultural, religious, historical, and architectural attractions. In India, too, the tourism industry has risen enormously and millions of people move from one state/region to another state/region for tourism. India also attracts millions of foreign tourists every year. Consequently, tourism has now been recognized as one of the important industries which can bring about regional development and growth. The Himalayan regions endowed with great natural

beauty can reap great economic benefit from this. Some studies have also been taken up to assess the tourism potential of parts of Himalaya (see Bhattacharya and Bhagabati 2005). With their various economic incentives, Indian states now compete to attract local and foreign tourists. In fact, in some of the states like Goa, Sikkim, and Kerala, tourism has started yielding significant revenue to the governments. Some of the studies in recent years by geographers have attempted to capture the growth in the number of tourists, economic multiplier effects of tourist spending, and sociocultural and environmental impacts of tourism (see Ramotra and Potdar 2009; Sattar 2010). Choudhury (2004), highlighting the potential of tourism development in Sikkim and its implication for regional development, argues that ecotourism policy adopted by the state may guarantee the long-run development of the state.

Pro-poor to Protection of Poor

There has been considerable shift in Plan priority and development strategy in the country in the post-liberalization phase. From pro-poor Plans, where universal rights and entitlements were considered for the welfare programmes and means of production (such as through land distribution) in the pre-reform period, the strategy has shifted to protection of the poor. For example, the government policies now do not talk about land reform or Urban Land Ceiling Act (ULCA), 1977. In fact, JNNURM puts condition that ULCA, 1977 be repealed. The public distribution system (PDS) which ensured universal coverage has been changed into a targeted system. Now, below the poverty line (BPL) category is getting subsidized foodgrains from PDS. This implies that any error in identification can cast huge stress on poor families. Under National Rural Employment Guarantee Act (NREGA), the government has adopted 100 days employment guarantee to one person from a family of the poor per year, but, as mentioned earlier, not initiating land distribution or endowing the workers with the means of production. This implies that the poor can survive but cannot have socio-economic mobility in the long run. The protection plan, often, financially, socially, and politically costs less than the direct provisions. The private sector also finds suitable these protection programmes, as the state does not directly interfere with

the market. In sum, it is seen that in the neoliberal phase, the marginality and discontents which private capital and withdrawal of several state welfare policies generate, a few protection policies attempt to manage.

It is not therefore surprising that the GoI misses the targets which it sets with regards to social attainments. For instance, the Tenth Five Year Plan set the target to reduce the share of total BPL population to 20 per cent (Pathak 2002), but we are all aware that poverty, in fact, has risen in the recent years (see Planning Commission 2009).

Shift in States Role from Wealth Distributor, Generator to Capability Enhancer

In the port-reform period, the strategy of the government has been to move out of inefficient and loss-making productive activities. The state is vacating industrial and financial spheres to the private sector and becoming rent and tax seeker. It is shifting its strategy to provide for some basic needs of security, education, health, and shelter to its citizens. In this regard, to raise the level of the basic human development indicators, Millennium Development Goals (MDGs) were launched in 2000–1. The MDGs are set of numerical and time-bound targets related to key indicators in human development. They include halving income poverty and hunger, achieving universal primary education and gender equality, reducing infant and child mortality by two-thirds and maternal mortality by three-quarters, reversing the spread of human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) and other communicable diseases, and halving the proportion of people without access to safe water. These targets have to be achieved by 2015, from their levels in 1990. Various health and educational programmes to meet the goals were launched by the GoI and state governments. Some of these programmes include National Rural Health Mission, NREGA, Sarva Siksha Abhiyan, etc.

Notwithstanding all these efforts and plans, local studies have shown that malnutrition among population, specifically among children and women, prevails. Rather (2004) found that about 69 per cent of preschool children suffer from deficiency disease like scurvy, night blindness, beriberi, and pellagra in rural communities in Bandipora and Gurez tehsils of Jammu and Kashmir. Similarly, Panda (2006)

shows prevailing ill health among Nishis in Arunachal Pradesh. Shukla (2009) shows that although mid-day meal programme in its initial stage was able to increase the attendance of students in Sagar district, Madhya Pradesh, but in recent years, various corrupt practices have emerged which are leading to dwindling attendance of the students.

Rights-based Employment Strategy: NREGA and Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA)

The rising discontent due to higher unemployment in a period of rapid economic growth and its political implications forced the Indian government to initiate rights-based paradigm of employment in the country. The NREGA, 2005, for the first time, attempted to provide at least 100 days employment to one member of the poor family in rural areas. In other words, the Act provides rural workers 'right to work', and if jobs are unavailable, it gives workers 'right to compensation' from the government. Unlike any former employment programme in India (except for Maharashtra's Employment Guarantee Scheme of 1973), NREGA gives a rural worker the right to demand employment and the right to move the court for compensation if employment is not available within 15 days. The programme also is premised in the institution of Panchayati Raj. It has been planned that at least 50 per cent of all rural development plans under the programme should conceptualized, initiated, and implemented through local system of governance, including its lowest level, the 'gram sabha'. Additionally, NREGA aims to create employment in 'productive work' for creating durable assets, preserving environment, or for improving quality of life. The NREGA was recently named as Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) in 2010. In 2006, NREGA became operative in initial 200 districts (the most backward areas). By the end of 2008, the scheme covered 593 districts, that is, almost all of India.

The NREGA has so far had varied success across states. In fact, barring the states of Andhra Pradesh and Rajasthan, which have emerged as 'model' states in terms of success, NREGA's impact has been marginal in rural India. The success in these couple of states came through what is missing in the failed states. In Andhra Pradesh, unlike in other states where unmotivated Panchayati Raj has been unable to

effectively plan development initiatives, success has come through an 'extraordinary support of political and bureaucratic leadership' (Shah and Ambasthi 2008). The government's effort is supplemented by a dedicated civil society action group. As Menon (2008) explains (see also Dreze and Oldiges 2007), Rajasthan has not only done well in terms of creation of job, it is the only state that has been able 'to meet some of the core objective of rural asset creation, watershed development and checking urban migration'. Menon summarizes that Rajasthan's success is built upon three things:

1. People's awareness of Right to Information (RTI) Act and its whole-hearted implementation.
2. The NGO, Mazdoor Kisan Shakti Sangathan (MKSS), took active role in social auditing in this state.
3. Rajasthan already had a history of drought-relief programmes founded by grassroots-level participation.

There are regions, however, where performance has been dismal. For example, in Kalahandi, Orissa, NREGA has been able to do very little. Lack of awareness among the people about the scheme, inefficient and uninterested administration, lack of planning, delay in wage payments, etc., have been blamed for the failure. One of the major objectives of NREGA was to check migration. Reports suggest mass outmigration is still taking place from these areas. Failure of the programme is also reported from Chhattisgarh, Jharkhand, and Orissa (Banerjee and Saha 2010).

Critics have also pointed out drawbacks in the Act. First, the Act provides employment per household and not per worker. Also, '100' days of employment may fall short of what is needed to pull poor households out of poverty in years and areas of drought (Basu 2008; Shah 2004). Also, corruption cases in the implementation of NREGA are emerging from every corner of the country. It is found that panchayat officials and politicians, in connivance with bureaucrats, are siphoning off the resources on false workers' names (Mohanty 2009).

Environmental and Sustainable Development Strategies

By the late 1970s, it was realized that the resource-intensive and environmentally polluting economic growth is unsustainable. Some of the

major studies in the 1970s and the previous decade, like *Silent Spring* in 1962 by Rachel Carson and D. Meadow et al.'s *Limits to Growth* in 1974, widened and deepened public concerns regarding environmental sustainability of the growth model. The environmental concerns started appearing in public policies in many countries, and Stockholm Conference on Human Environment in 1972 further underscored the need to recognize the environmental and equity dimension in economic growth thinking. In the late 1970s, environmental assessment of development projects was made mandatory in the US and many countries started emulating the US policies. The equity concerns raised by economists like Dudley Seers, Mahbub ul Haq, and Amartya Sen, and a number of other social scientists, started getting cognizance in public policy by the late 1970s. The Brundtland Commission on 'Environment and Development' in 1987 further highlighted the equity and environmental concerns. Besides the environmental concerns, both intra and intergeneration equity got their due recognition in the development framework of the report. With these two components intertwined, the Commission provided a definition of sustainable development. Although sustainable development has come to be defined variously, the core definition remains that of development that is 'environmentally sound' and promotes 'intra and intergenerational equity'. Like other countries, India has, over the past two decades, strengthened its environmental laws to protect the nature from undue exploitation and pollution. However, equity concerns have somehow been missed in the whole debate or manipulated such that it is only for assurance of basic needs to the poor. This is very much visible from the rising relative inequality in the country in the last two decades. In what follows, we discuss the environmental concerns in development process in India in last two decades, which has often been understood as sustainable development in public policy.

Like other developing countries, India's growth also has brought the question of sustainability to the forefront. For sustainable and ecologically sound development, among others, India has enacted many laws for environmental protection. Some of these are: (i) the Environment (Protection) Act, 1986; (ii) the Water (Prevention and Control of Pollution) Act, 1974, amended in 1988; (iii) the Water (Prevention and Control of Pollution) Cess Act, 1977, as amended by Amendment Act, 1991; (iv) the Air (Prevention and Control of Pollution) Act, 1981, as

amended by Amendment Act, 1987; (v) National Forest Policy, 1988; (vi) Forest (Conservation) Act, 1980; (vii) the National Environment Tribunal Act, 1995; (viii) Re-cycled Plastics Manufacture and Usage Rules, 1999; (ix) Hazardous Wastes (Management and Handling) Rules, 1989; (x) Bio-Medical Waste (Management and Handling) Rules, 1998; (xi) Municipal Solid Wastes (Management & Handling) Rules, 2000; (xii) Noise Pollution (Regulation and Control) Rules, 2000; (xiii) Ozone Depleting Substances (Regulation) Rules, 2000; (xiv) New Biodiversity Bill, 2000; and (xv) the Prevention and Control of Pollution (Uniform Consent Procedure) Rules, 1999 (GoI 2002). Many of these acts and laws have been further modified and sharpened for protection of the environment. For conservation of water resources and soil, watershed development programme has been launched, with great success. Other strategies relate to harnessing renewable energy sources under the aegis of Indian Renewable Energy Development Agency (IREDA), National Solar Mission, National Mission for Energy Efficiency Plans, etc. Similarly, National Water Mission seeks to improve water use efficiency; National Mission of Sustainable Agriculture plans to introduce climate resistance crops, expansion of insurance for weather variability, and other sustainable agriculture practices; National Mission for sustaining Himalayan Ecosystem aims to preserve biodiversity, forests, and other ecological systems in the Himalayan area; and National Mission on Sustainable Habitat plans to emphasize urban waste management and recycling, enforce fuel economy standards for automobiles, and encourage public transportation.

Most of the studies in recent years express increased concern about the sustainable development outcomes of current policies. These studies range from testing the environmental Kuznets curves with regard to carbon emission from various sources to urban environmental pollution (see Shaban 2002, 2007b). Development and environment have been important areas of research for the students of geography in India. The destruction of Ganga basin through development of Ganga Expressway has been brought out by Rai *et al.* (2010). They argue that development is like a corporate imperialism which destroys environment and uproots culture and people. The recent studies have also expressed their grave concern with regard to gargantuanization of cities and their capture and command of water resources from their

peripheries. These studies argue that in very near future, urban development faces impediments due to the lack of freshwater supply and proper environment management (Shaban and Sharma 2007). The concerns about the depletion of wetlands in various regions of India by development and other human actions are also being expressed (see Ahmed and Tiwana 2005; Singh and Moirangleima 2009). Das (2009) argues that east Kolkata wetland is shrinking and it can endanger the city, therefore there is an urgent need to protect it. So are the concerns about depleting groundwater (Mohammad and Sekhri 2006; Rai 2004, 2006), vegetation, and salinization of soil. The humans are embedded in their physical environment and this requires that ecological security must be ensured for human biological survival and socio-economic security (Chattopadhyay 2005). Rajput (2005) laments on the strategies that the South Asian countries have adopted for their development which, in way or other, compromise the environmental quality. She argues that South Asian nations must proceed to work out strategies for sustainable development, rather than thinking about just economic gains. In the new economic regime, environment is being assessed for its value reflected through users' indirect (through travel cost method and hedonic pricing methods) or direct use (through contingent valuation method), and the value of environment or environmental protection is being so assigned. In this important area of environmental research, a few papers have also been contributed by Indian geographers (see Bandyopadhyay 2009). There is some definite evidence of likelihood of climate change in India. Some of the studies have shown that north-western India, in recent decades, has experienced more rainfall than the average normal rainfall, and also the variability in temperature has increased (see Singh *et al.* 2004). A study by Singh (2003) also shows the declining trend of rainfall in Uttar Pradesh plains. Still, there is hardly any concrete realization of this change in policy and practice arenas. An effort should be made to devise a development strategy such that it does not affect much the climate and also, simultaneously, mitigation and climate change adaptation mechanisms need to be worked out. However, Rehman (2003) laments the lack of clear-cut vision of the Indian government about strategies to tackle the local and global causes and implications of climate change.

Strategic Management of Bureaucracy and Strengthening of Democracy through RTI and Social Audit

The RTI Act was passed in 2005 to bring about transparency and accountability in public administration at all levels of government. The purpose of this Act was to make democracy more participatory, by allowing citizens access to all decision-making processes of the government. With RTI Act passed, the government showed its commitment to work in partnership with voluntary sector further when it gave the sector full access to all the data pertaining to rural development and social welfare schemes by making information a right by law (<http://www.humanrightsinitiative.org/programs/ai/rti/india/articles/The%20Movement%20for%20RTI%20in%20India.pdf>).

Indian planning, in the recent years, has increasingly emphasized that along with decentralization of power and devolution of fund, it is crucial to have social auditing of schemes to further remove structural impediments. The comptroller and Auditor General (CAG) of India set up a Task Group on Social Audit in 2009 to review the role of social audit in successful implementation of development projects (CAG 2010). The Task Group points out that given the way Indian democracy is evolving, the role of social audit is not only important but necessary. As the committee clarifies, social audit can be of two types: (i) social audit by the civil society; and (ii) social audit by government stipulation. The Planning Commission has incorporated social audit as a component of some of its major developmental schemes. The 73rd Constitutional Amendment empowered the gram sabhas to conduct social audits in addition to other functions. Social audit is a major component of NREGA and JNNURM.

It is obvious from the foregoing discussion that the spatial development strategies had a good start in the country. In the initial three decades of the planning, the reference to spatial aspects of development in programme development and implementation was quite frequent. The spatial development strategies implemented during the period largely followed the Keynesian supply-led growth and development and a hope pitched on trickle-down effect of neoclassical growth theory. However, in the later period, particularly after 1985, the development strategies have become market oriented. In the post-liberalization phase of India's economy, spatial development has

largely become a problem of coordination of market forces, rather than authoritative allocation of resource-led development. It is not just in India, but across the globe that the neoliberal economic policies have taken centre stage, relegating the state to the background. The consequences are increasing development disparities across regions, hyper growth of and concentration of wealth in megacities, crumbling rural economy and migration of unemployed to the megacities, displacement of marginalized sections of population like tribals and resultant arm struggles, and development projects-led damages to ecologies and environment. The challenge before the government now is how to design strategies to efficiently harness the market (which seems to better in growth generation), without much socio-economic and ecological damages and deprivation of marginalized sections of population, and without amplifying sectoral and regional inequalities.

REFERENCES

- Adhikari, Sumit. 2005. 'Urban Transportation and Travel in India: Problems and Prospects', *Geographical Review of India*, 67(1): 70–9.
- Aggarwal, Aradhna. 2006. 'Performance of Export Promoting Zones: A Comparative Analysis of India, Sri Lanka and Bangladesh', *Journal of Instafalg Institute*, 30(1): 33–122.
- Ahmed, Shaik Iftikhar and Anupreet Singh Tiwana. 2005. 'Disappearing Wetlands: A Threat to Biodiversity', *Geographical Review of India*, 67(1): 96–9.
- Ambasta, Pramathesh, P.S. Vijay Shankar and Mihir Shah (2008), 'Two Years of NREGA: The Road Ahead', *Economic and Political Weekly*, 43(8):4–50.
- Bandyopadhyay, Sumana. 2009 'Perceptions of Urban Wetland Conservation: A Discriminant Function Analysis', *Indian Journal of Regional Sciences*, 41(2): 73–81.
- Banerjee, Kaustav and Partha Saha. 2010. 'The NREGA, the Maoist and the Developmental Woes of the Indian State', *Economic and Political Weekly*, 45(28): 42–7.
- Banerjee-Guha, Swapna. 2002. 'Shifting Cities', *Economic and Political Weekly*, 37(2): 121–8.
- . 2008. 'Space Relation of Capital', *Economic and Political Weekly*, 43(47): 51–9.
- . 2009. 'Neoliberalising the "Urban": New Geographies of Power and Injustice in Indian Cities', *Economic and Political Weekly*, 44(22): 95–107.
- Barro, Robert J. and Xavier Sala-i-Martin. 1999. *Economic Growth*. Cambridge, MA: MIT Press.

- Basu, Kaushik. 2008. 'India's Dilemmas: The Political Economy of Policy Making in a Globalised World', *Economic and Political Weekly*, 43(5): 53–62.
- . 2008. 'Not Much of a Guarantee', available at <http://www.hindustantimes.com/Not-much-of-a-guarantee/Article1-304151.aspx>, accessed 7 September 2010.
- Bhaduri, Shukla. 2008. 'Growth of Personalised Transport in Mega-cities of India and its Impact', *Indian Journal of Regional Sciences*, 40(1): 21–33.
- Bhat, L.S. 1972. *Regional Planning in India*. Calcutta: Statistical Publishing Society.
- . 1998. 'Geography and the Development Process with Special Reference to Planning in India', Monograph, Indian Statistical Institute, New Delhi.
- . 2005. 'Decentralised Planning in India: Spatial Perspective', Study report submitted to ICSSR, New Delhi.
- Bhattacharya, B.B. and S. Sakhtivel. 2004. 'Regional Growth and Disparity in India: Comparison of Pre and Post-reform Decades', *Economic and Political Weekly*, 29(10): 1071–7.
- Bhattacharya, Prasanta and Abani Kumar Bhagabati. 2005. 'Potentiality of Tourism Development in Hill Districts of Assam', *Geographical Review of India*, 67(2): 145–61.
- Bhattacharyya, S. 2004. 'Population, Development and Environment: Indian Metropolitan Scenario', *Geographical Review of India*, 66(4): 371–80.
- Bhattacharyya, Jayati. 2004. 'Present Socio-economic Features and Related Problems of Purlia District, West Bengal', *Geographical Review of India*, 66(2): 131–42.
- Carson, Rachel. 1962. *Silent Spring*. London: Penguin Books.
- Chakravorty, Sanjoy. 2000. 'How does Structural Reform affect Regional Development?: Resolving Contradictory Theory with Evidence from India', *Economic Geography*, 76(4): 367–94.
- Chand, Mahesh and V.K. Puri. 1983. *Regional Planning in India*. New Delhi: Allied Publishers.
- Chandrasekhar, C.P. 2006. 'Who Needs a "Knowledge Economy": Information, Knowledge and Flexible Labor', Working Paper, Centre for Economic Studies and Planning, Jawaharlal Nehru University, New Delhi.
- Chatterjee, Sisir. 2007. 'Urbanisation in Kolkata: An Appraisal of the Crisis of Open Spaces', *Geographical Review of India*, 69(3): 299–304.
- Chattopadhyay, Srikumar. 2005. 'Ecological Security as a Base for Social Security: Context Kerala', *Geographical Review of India*, 67(2): 109–25.
- Chattopadhyay, Srikumar and Richard W. Franke. 2006. *Striving for Sustainability: Environmental Stress and Democratic Initiatives in Kerala*. New Delhi: Concept Publishing.
- Chaudhuri, Jayasri Ray. 2001. *An Introduction to Development and Regional Planning*. Hyderabad: Orient Longman.
- Choudhury, M. 2004. 'Development and Utilization of Tourism Resources in Sikkim', *Geographical Review of India*, 66(4): 341–8.
- Christaller, Walter (trans. by W. Baskin). 1933[1966]. *Central Place in Southern Germany*. London: Prentice Hall.

- Dahlman, Carl and Anuja Utz. 2005. *India and the Knowledge Economy: Leveraging Strengths and Opportunities*. WBI Development Studies. Washington, DC: World Bank.
- Das, Ujjaini. 2009. 'Decaying East Kolkata Wetland: A Danger to the City', *Geographical Review of India*, 71(1): 69–77.
- Datt, Ruddar and K.P.M. Sundaram. 2004. *Indian Economy*. New Delhi: S. Chand and Company Ltd.
- Dev, S.M. and C. Ravi. 2007. 'Poverty and Inequality: All-India and States, 1983–2005', *Economic and Political Weekly*, 42(6): 509–21.
- Dreze, Jean and Christian Oldiges. 2007. 'Commendable Act', available at <http://www.hinduonnet.com/fline/fl2414/stories/20070727001804100.htm>, accessed 13 September 2010.
- Ghosh, Rituparna and Lakshmi Sivaramakrishnan. 2009. 'Grass Root Level Urban Governance: A Case Study of Durgapur Industrial City', *Indian Journal of Regional Sciences*, 41(2): 111–17.
- Government of India (GoI). 1956. *Second Five Year Plan*. New Delhi: Planning Commission.
- . 1961. *Third Five Year Plan*. New Delhi: Planning Commission.
- . 1969. *Fourth Five Year Plan*. New Delhi: Planning Commission.
- . 2002. *Environmental Information Systems*. New Delhi: Centre Pollution Control Board, Ministry of Environment and Forests.
- Harvey, David. 2005. *A Brief History of Neoliberalism*. New York: Oxford University Press.
- Hoover, Edgar Malone. 1937. *Location Theory and the Shoe Leather Industries*. Cambridge: Harvard University Press.
- Indira Gandhi Institute of Development Research (IGIDR). 2006. *Suicide of Farmers in Maharashtra: A Report*. Mumbai: IGIDR.
- Isard, Walter. 1956. *Location and Space Economy*. Cambridge, MA: MIT Press.
- Kothari, Sadhna and Anju Kohli. 2002. 'Urbanization and Urban Poverty in India: Regional Analysis', *Geographical Review of India*, 64(4): 331–6.
- Losch, August. 1954. *The Economics of Location*. New Haven, CT: Yale University Press.
- Maira, Arun. 2010. 'JNNURM: How has it Transformed Cities?', available at <http://business.rediff.com/column/2010/mar/22/guest-jnnurm-how-has-it-transformed-cities.htm>, accessed 13 September 2010.
- Majumdar, Paramita. 2005. 'Urban Development in Jammu and Kashmir', *Geographical Review of India*, 67(1): 55–69.
- Majumdar, Panchali. 2008. 'Land Reforms in West Bengal', *Geographical Review of India*, 70(4): 360–8.
- Menon, Sudha Venu. 2008. 'Right to Information Act and NREGA: Reflections on Rajasthan', Munich Personal RePEc Archive Working Paper No. 7351.
- Mohammad, Noor and Neha Sekhri. 2006. 'Agricultural Modernisation and Groundwater Depletion in Ludhiana District, Punjab', *Geographical Review of India*, 68(1): 12–29.

- Mohanty, Bidyut. 2009. 'Working of NREGA: Voices from Panchayats', available at <http://www.mainstreamweekly.net/article1256.html>, accessed 13 September 2010.
- Nasir, Jamshed. 2009. 'Industrial Development, Environmental Pollution and Health Hazards: A Case Study of Faridabad City, Haryana', *Geographical Review of India*, 71(1): 505–60.
- Nijkamp, P. and M. Abreu. n.d. 'Regional Development Theory', available at <ftp://zappa.ubvu.vu.nl/20090029.pdf>, accessed 22 December 2010.
- Nunnenkamp, P. and R. Stracke. 2007. 'Foreign Direct Investment in Post-Reform India: Likely to Work Wonders for Regional Development?', Kiel Working Paper No. 1375.
- Padhi, Kulamani. 2005. 'Tribal Development in India: A Study in Human Development', available at <http://webcache.googleusercontent.com/search?q=cache:LgVXMmUEECYJ:www.orissa.gov.in/emagazine/Orissareview/febmar2005/englishpdf/tribaldiiasihd.pdf+Tribal+development+in+India&cd=5&hl=en&ct=clnk&gl=in>, accessed 5 September 2010.
- Panagariya, Arvind. 2004. 'Growth and Reforms during 1980s and 1990s', *Economic and Political Weekly*, 39(25): 2581–94.
- Panda, Damodar. 2006. 'Food, Nutrition and Health Status of the Nishis: A Study of Chimpu Village, Arunachal Pradesh', *Geographical Review of India*, 68(3): 368–73.
- Parveen, Shahnaz. 2004. 'Urban Poverty in India: Approaches and Strategies', *Geographical Review of India*, 66(3): 233–42.
- Pathak, C.R. 2002. 'The Planning Process in India: Search for a Paradigm', *Geographical Review of India*, 64(3): 214–32.
- Planning Commission. 1969a. *Report of the Working Group on Identification of Backward Areas—Pande Committee*. New Delhi: Government of India.
- . 1969b. *Report of the Working Group on Incentives for Industrialisation in Backward Areas—Wanchoo Committee*. New Delhi: Government of India.
- . 2008. *Eleventh Five Year Plan (2007–2012): Inclusive Growth*. New Delhi: Government of India.
- . 2009. *Report of the Expert Group to Review the Methodology for Estimation of Poverty*. New Delhi: Government of India.
- Rai, V.K. 2004. 'Sustainability of Surface and Ground Water for Irrigation: A Case Study', *National Geographical Journal of India*, 50(1–2): 83–94.
- . 2006. 'Ground Water Resource Development in India: Problem and Prospects', *National Geographical Journal of India*, 52(3–4): 145–54.
- Rai, V.K., A.P. Mishra, and A.K. Singh. 2010. 'Environmental Impact Assessment of the Ganga Expressway: A Study in Contemporary Development', *Indian Journal of Regional Science*, 42(2): 29–39.
- Rajput, Swati. 2005. 'Population, Development and Environment: The South Asian Scenario', *Geographical Review of India*, 67(1): 44–54.
- Ramotra, K.C. and M.B. Potdar. 2009. 'Economic Impact of Tourism on Amboli Hill Station: A Geographical Analysis', *Indian Journal of Regional Science*, 41(2): 149–54.

- Rather, G.M. 2004. 'Level of Malnutrition in Pre-school Children of Four Rural Communities in Bandipora and Gurez Tehsils (J&K State)', *Geographical Review of India*, 66(1): 28–39.
- Rehman, Hifzur. 2003. 'Environment, Population and Sustainable Development', *Geographical Review of India*, 65(4): 379–83.
- Sajjad, Haroon, Abha Lakshmi Singh, and Harish Kumar. 2008. 'Socio-economic and Health Condition of Slum Dwellers in Meerut City, Uttar Pradesh', *National Geographical Journal of India*, 54(3–4): 103–16.
- Sanyal, Srabani and V.K. Kumra. 2003. 'Sustainable Management of Solid Waste in Indian Cities: A Case Study of Kolkata', *National Geographical Journal of India*, 49(3): 17–28.
- Sattar, Sanjukta. 2010. *Tourism in Sikkim (India): Impact on Society and Environment*. Saarbrücken, Germany: VDM Verlag.
- Shaban, Abdul. 2002. 'Growth and Disparities of Income across India States', *Man and Development*, 24(3): 31–48.
- . 2006. 'Regional Structure, Growth and Convergence of Income in Maharashtra', *Economic and Political Weekly*, 41(18): 1803–15.
- . 2007a. 'Rural–Urban Divide in Development in Maharashtra', in R. Sthanumoorthy (ed.), *Maharashtra Economy: Performance, Opportunities and Challenge*, pp. 297–316. Hyderabad: The ICFAI University Press.
- . 2007b. 'Urban Environmental Management in India: Issues and Challenges', in Abha Lakshmi Singh and Shahab Fazal (eds), *Urban Environmental Management*, pp. 107–34. Delhi: B.R. Publishing Corporation.
- . 2008. 'Ghettoisation, Crime and Punishment in Mumbai', *Economic and Political Weekly*, 43(33): 68–73.
- . 2010. 'Institutional Credit and Economic Entitlement: Emerging Regional and Sectoral Divides in Maharashtra', in C. Sengupta and Stuart Corbridge (eds), *Democracy, Development and Decentralisation in India: Continuing Debate*, pp. 111–46. New Delhi and London: Routledge.
- . 2010. *Mumbai: Political Economy of Crime and Space*. Hyderabad, India: Orient Blackswan.
- Shaban, Abdul and R.N. Sharma. 2007. 'Water Consumption and Wastage Patterns in Domestic Households in Major Cities in India', *Economic and Political Weekly*, 42(23): 2190–7.
- Shah, Mihir. 2004. 'National Rural Employment Guarantee Act: A Historic Opportunity', *Economic and Political Weekly*, 39(50): 5287–91.
- Shah, Mihir and Pramathesh Ambasthi. 2008. 'Andhra Pradesh Shows the Way', *The Hindu*, available at <http://www.hindu.com/2008/09/08/stories/2008090856271000.htm>, accessed 23 September 2010.
- Sharma, R.N. and A. Shaban. 2007. 'Metropolitanisation of Indian Economy: Lessons in Urban Development', *The ICFAI Journal of Governance and Public Policy*, I(2): 17–35.
- Sharma, V.N. 2004. 'Level of Industrial Development in Madhya Pradesh (A GIS Based Integrated Approach)', *Geographical Review of India*, 66(1): 15–27.

- Shukla, Prabhati. 2009. 'Impact of Mid-day Meal in Primary Schools of Sagar District, M.P.', *Geographical Review of India*, 71(1): 25–31.
- Siddique, G. and S. Tah. 2007. 'Solid Waste Disposal and Management in Barddhaman Town, West Bengal', *Geographical Review of India*, 69(4): 386–93.
- Sidhu, Hina. 2009. 'Industrialisation for Sustainable Development in Gujarat', *Indian Journal of Regional Science*, 41(2): 60–72.
- Singh, Abha Lakshmi, and Khundrakpam Moirangleima. 2009. 'Threats to Wetlands in the Valley Regions of Manipur', *Indian Journal of Regional Sciences*, 41(2): 118–26.
- Singh, Nirvikar. 2009. 'India's Development Strategy: Accidents, Design and Replicability', Research Paper 2009/31, UNU-WIDER, Helsinki.
- Singh, Surender, V.U.M. Rao, and Diwan Singh. 2004. 'Climate Variability on Local/regional Scale in India', *Geographical Review of India*, 66(2): 22–130.
- Singh, Tapas. 2003. 'Climate Variability in Indo-Gangetic Plain of India: Identifying Trends', *National Geographical Journal of India*, 49(2): 31–40.
- Singh, Yadvinder. 2007. 'Ecological Implications in an Urban–Industrial Ecosystem of Panipat City, Haryana', *Geographical Review of India*, 69(4): 341–50.
- Solow, Robert M. 1956. 'A Contribution to the Theory of Economic Growth', *Quarterly Journal of Economics*, 70(1): 65–94.
- Spate, O.H.K. 1954. *India and Pakistan*. London: Methuen.
- Stamp, L.D. 1929. *Asia*. London: Mathuen.
- Stern, Nicholas. 2001. 'Building a Climate for Investment, Growth and Poverty Reduction in India', Speech at EXIM Bank, Mumbai, 22 March.
- Swan, Trevor W. 1956. 'Economic Growth and Capital Accumulation', *Economic Record*, 32(44): 334–61.
- Tata Institute for Social Sciences (TISS). 2006. 'Causes of Farmer Suicide in Maharashtra: An Inquiry', Report Submitted to the Mumbai High Court, Mumbai.
- Tripathi, V.K. 2008. 'Trend of Urbanisation, Problems and Planning of Small Towns in Ballia District, Uttar Pradesh', *National Geographical Journal of India*, 54(1–2): 25–40.
- Veron, Rene. 2001. 'The "New" Kerala Model: Lessons for Sustainable Development', *The World Development*, 29(4): 601–7.
- Weber, Alfred. 1929. *Theory of Location of Industries*. Chicago: University of Chicago Press.
- World Bank. 2008. *The Growth Report: Strategies for Sustained Growth and Inclusive Development*. Washington, DC: Commission on Growth and Development.