

**INFLOW AND SECTORAL DISTRIBUTION OF
FOREIGN DIRECT INVESTMENT IN INDIA:
A REGIONAL ANALYSIS (1991 - 1999)**

*Dissertation submitted to Jawaharlal Nehru University in partial fulfilment of the
requirements for the award of the Degree of*

MASTER OF PHILOSOPHY

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2000



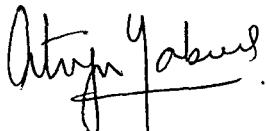
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CERTIFICATE

I, Siddhartha Dutta, certify that the dissertation entitled "INFLOW AND SECTORAL DISTRIBUTION OF FOREIGN DIRECT INVESTMENT IN INDIA : A REGIONAL ANALYSIS (1991 - 1999) " submitted by me for the degree of **MASTER OF PHILOSOPHY** is my bonafide work and may be placed before the examiners for evaluation.


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Acknowledgement

Completing a work of this magnitude, at my level, has been a challenge. And many people have stood with me to see me through this challenge successfully. A modest page or two and my limited vocabulary cannot do justice to my expression of gratitude to them for their support and help but I attempt with the belief that my sincere acknowledgement will be accepted.

To Prof. Atiya Habeeb Kidwai, my mentor, guide and supervisor, I owe this work. Without her constant help, guidance, patience and support this would not have been possible. She has tolerated my irregular working habits, constant mistakes and has always tried to inculcate in me an academic discipline and mental rigor which will help me throughout my life. I cannot thank her enough for this. I sincerely hope her efforts are reflected in this work.

Mr. Ranganathan of Institute for Studies in Industrial Development (ISID), Delhi, has been generous with his valuable time, comments and a regular supply of material which enabled me to enrich my dissertation and make qualitative improvement which would otherwise have been impossible. I also thank the librarian of ISID who made me welcome as an insider and helped me in every way possible and the members of Karnataka Udyog Mitra, who provided me with the necessary data for the present study.

My work place has been the Centre for the Study of Regional Development, Jawaharlal Nehru University, and I would be failing in my duty if I did not render my gratitude to the Chairperson and other members of the faculty

who have given me this opportunity and made themselves available over a period of time, always ready with comments and suggestions which have helped me refine my approach and understanding.

My friends, both in JNU and outside, have been a great source of encouragement and strength. Their company has always been refreshing in many ways than one. I would like to specially mention my gratitude to Mr. Sohail Firdos, my senior in CSRD and a true friend. In spite of his academic pressure and deadlines he has always allowed me willingly to draw upon his time and resources and was always ready to take on responsibilities - be it tabulating data or preparing maps.

I owe a special and deep debt to Saswati for her continuous support, help, company and patience which went a long way in allowing me to complete my work in time. I thank my friends Abhijit, Utteeyo, Rajeev, Gufran Mustafa and Ali Raza Moosvi for their enduring help and endearing friendship.

Last but not the least, words will never suffice to express my deep sense of gratitude to my parents whose tender love and affection has always been the cementing force for building the blocks of my academic career. The all round support rendered by them provided the much needed stimulant to sail through the phases of stress and strain.

*New Delhi,
July, 2000.*


(Siddhartha Dutta)

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Chapter I

INTRODUCTION

1.1 Foreign Direct Investment in India:

The last quarter of the twentieth century has seen a wave of economic policy reform in the developing world, with one country after another taking the liberalisation cure, often imposed by the international financial institutions. This wave of reforms had been preceded by a quarter-century of state directed effort at economic development, during which time the goals of economic self-reliance and import substitution industrialisation were the hallmarks of development strategies in the less developed countries. These goals seemed particularly justified, given the long experience of these countries with colonialism and the agricultural nature of their economies. Economic liberalisation covers many aspects of policy, but the central issues at stake is the relative role of the state and market in the operation and management of the national economy (Nayar, 1997, p. PE-93).

A speedy process of economic liberalisation, at least by Indian historical standards, can be quite clearly identified in the country in the 1990s. There can, of course, be some doubt or debate as to when this process actually began. India had begun to undertake less interventionist policies whether they be through the rudiments of trade reform, the stepwise introduction of a credit mechanism in excise taxation or some containment in directed bank lending by the mid-1980s. An economic framework based on regulations, institutional directives and controls, and a complex tax and subsidy structure, with multiple rates and truncated bases, essentially remained in place until its dismantling began in earnest after India underwent an economic crisis in the fiscal year 1990-91 (Shome, Mukhopadhyay, 1998, p. 1925).

Indian official policy towards private foreign investment was first announced by Prime Minister Jawaharlal Nehru in April 1949. While there were changes in emphasis, the basic policy frame remained the same until July 1991. Foreign private capital, it was

envisaged, would promote national objectives in the overall framework of planned development. The two major objectives were to : (i) treat foreign investment as a vehicle for obtaining modern advanced technology and (ii) have it play a supplementary role for resource mobilisation, especially in terms of foreign exchange (ISID,1995,p.1). The process of planned development demanded regulation of private capital, foreign and Indian, for differing purposes. As a consequence, a variety of rules and administrative norms were evolved giving rise to a wide and complex system of controls and procedures resulting in long delays and uncertainties. The regulatory mechanism contributed significantly, especially during the early stages, to channel new investments into private and public sectors. With the passage of time however, the regulatory system was overstretched and was ridden with discretionary and *ad hoc* process of decision making. The need for “*regulating the regulatory mechanisms*” was voiced frequently through national and international fora.

The industrial policy frame in India has been common to foreign and Indian national private capital. In this regard the significant legislation has been the Industrial (Development and Regulation) Act, 1951, (IDRA), monopolies and Restrictive Trade Practices Act, 1969 (MRTPA) and Foreign Exchange Regulation Act (FERA), 1973. The FERA allowed more than 40 percent foreign equity whenever either of the two conditions (namely, technology and export intensity) were satisfied. The general ceiling of 40 percent on foreign ownership seems to have influenced the foreign investors to have a local partner. The restrictions on the use of foreign brand names in the domestic market recognised the need to remove the disadvantages faced by local industry when competing with long established internationally known brand names. Indirectly, this was to facilitate the emergence of strong Indian Brands, which is a prerequisite for the country if it has to compete independently in the international markets in sectors where standardisation and high quality image encourages brand loyalty which in turn gives an edge in the competitive market.

A significant aspect of the economic policy changes introduced since 1991 is to the role and place of foreign private capital. A major reforms programme, commonly

known as the New Economic Policy (NEP) was ushered in by the Government of India in July 1991. The NEP has two broad dimensions:

- (i) The **Stabilisation programme** which has two main objectives
 - (a) to fill the gap between imports and exports and
 - (b) to reduce the deficit in the Union Government budget to a manageable extent.
- (ii) The **Structural Adjustment Programme (SAP)** the measures of which can be broadly classified in two broad categories:
 - (a) deregulation and privatisation of domestic economic activities in the form of debureaucratisation and encouragement to competition in the domestic market; and
 - (b) globalisation of the Indian Economy.

It is believed that if the restrictive and control regime is replaced by an open door policy and all barriers to entry are removed, the country would attract large foreign investments. The Industrial Policy statement of 1948 and the Industrial Policy Resolution (IPR) of 1956 visualised reservation of basic and strategic industries for the public sector. The approach towards public sector was influenced by the widely prevalent sentiment of the national struggle for political independence of India. Under the NEP a radically different view has been adopted. The basic industries and infrastructure are no longer reserved exclusively for development by the public sector. Power, oil, communications and a number of other areas have been opened for development by national and international private capital.

The scope for private sector expansion and participation by foreign capital has widened significantly due to the pruning of the areas reserved for the public sector. The restrictions imposed under the FERA philosophy have mostly been abandoned. Instead of the general rule of 40 percent ceiling on foreign equity, majority participation by foreign corporation is now allowed over a wide area. Private corporations have been permitted to use foreign brand names in the domestic market. The phased manufacturing

programme (PMP) has been withdrawn. The provisions of the MRTPA (1969) relating to concentration of economic power are no longer operative. Foreign investment, under the present regime is welcome even when it is not accompanied by new or sophisticated technology. The base on 'trading' area for foreign capital is also no more valid.

In brief, the new policy has vastly increased the scope for foreign capital by (i) throwing open larger area to the participation of private sector; (ii) abolishing industrial licensing over a vast area; (iii) taking a liberal attitude towards foreign share in Indian companies; (iv) doing away with provisions relating to concentration of economic power under the MRTP Act; and, (v) allowing foreign brand names in the domestic market.

The New Industrial policy states "*Foreign investment and technology collaboration will be welcomed to obtain higher technology, to increase exports and to increase production base.*" The new policy does not insist on technology accompanying investment. In the past too, there were pleas made from time to time, that foreign capital by way of direct investments was a substitute for commercial borrowings as the servicing of loans would not be related to the paying capacity of the project since outward remittances, on account of the investment, would commence only if the project becomes a commercial success.

Since the adoption of the NEP, considerable attention has been paid to ensure speedy transformation of the approvals into actual inflows. From July 1991 until the end of 1999, Foreign Direct Investment (FDI) of Rs.209760 crores (between 1981-1990 the approved amount was only Rs.1274.1 crores) has been approved in India out of which until 1998 the actual inflow was only 21.78 percent (SIA News Letter, January 2000; Economic Survey 1999-2000).

1.2 Objectives of the Study:

This study has two main objectives:

At the Macro level

1) **To analyse the flow of FDI in India before and after the liberalisation period.** This flow has been measured by Rao, Murthy and Ranganathan for the period 1991 - 1997 (1999, pp 423-453). This study is an extension of their analysis in the following respects:

- This analysis has been updated until 1999. Moreover, the flow of FDI from 1965 until 1999 has also been indicated to get a comparative picture of the pre and the post-liberalisation period and to assess how far the New Economic Policy (NEP) has paved the way for FDI in India.
- The role of the different agencies which have been formed by the Government of India to smoothen the process of approval of FDI (both financial and technical) after the declaration of NEP has been discussed in detail.
- The FDI flows have been analysed not only in terms of sectors as Rao et.al have done but also in terms of sub sectors from 1991 to 1999. The financial and technical collaborations have also been discussed in detail.

2) **To examine the regional distribution of FDI both at the meso i.e. the State and micro i.e. point location levels.** Banerjee Guha has analysed the regional distribution of 435 MNCs in India for the year 1990. This work is an extension of her work in the following respects:

- This study has been extended both temporally as well as in terms of its coverage. This study incorporates the total 4616 FDI approvals given by the Government of India from June 1996 until June 1998 as stated in the monthly bulletin of India Investment Centre (August 1996 to August 1998). The analysis could not be done

for the earlier period as the data for the location of both plants and the corporate office is available only from June 1996. Prior to that only the location of the corporate offices had been mentioned. In this study the exact location of the plants with FDI component approved from June 1996 up to June 1998 has been identified. Further the locational preference of the MNCs which emerged between June 1996 to June 1998 has been compared with Banerjee Guha's study to find out the trend of change (if any) before and after the declaration of NEP.

- The regional and sectoral distribution of FDI in a specific meso region i.e, Karnataka and a micro region i.e. Bangalore Metropolitan Area has been done to assess the impact of FDI on the industrialization process at these levels.

1.3 Literature Survey:

Literature on FDI in India is a vigorously growing corpus of facts and opinions. A great deal of pioneering work has been attempted by eminent scholars with a variety of methodology and in a range of formats yet to be standardized. Nevertheless, there does exist a critical mass of papers and books are relevant to the present study. The two papers entitled "Foreign Direct Investments in the post-Liberalisation period: An overview" by Rao, Murthy and Ranganathan (1999) and "Spatial Implications of India New Economic Policy" by Suryakant (1999) along with a monograph entitled "Spatial Dynamics of International Capital: A study of MNCs in India" by Banerjee Guha (1997) deserve special mention as they were very useful for this study.

Rao, Murthy, Ranganathan (1999) have provided empirical content to the development of FDI during the first seven years of liberalisation. They have studied India's approach towards FDI which has been governed by the multiple objectives of self-reliance, protection of national industry and entrepreneurs, import of select technologies and export promotion. As a part of the structural adjustment programme, along with virtually dismantling the industrial regulatory system, India sought to attract

FDI with special favours and persuasion. While the new regime places heavy emphasis on attracting large amount of FDI, there is a very little discussion on the various facets of actual implementation. This paper deals in brief with the NEP and the approved FDI between 1991 and 1997 along with the extent of foreign ownership, industry wise pattern of FDI, State wise location of new foreign investments and the impact of FDI on the Indian Stock market.

The fourth chapter of **Banerjee Guha's (1997)** monographs is relevant to the study where she has discussed the spatial organisation of the MNCs and its impact on the regional settlement system of India. She points out that locational decisions and the pattern of regional concentration of MNC offices and plants in the host country do not, reflect a search for only cheap labour but a complex set of factors such as, market, resource, institutions etc. While locating, shifting or relocating units in the host countries, international capital has been systematically found to follow the trajectory, often inequable, of regional growth. The distinct spatial scales that are hence created differentiate and divide regions within these countries tailored to the needs of an exogenous design. Aggravation of regional disparity, globalisation of selected cities, acute primacy in the urban systems, increasing rural-urban or town-country divide, thus become coherent products of the diverse and intersecting operations of International capital.

Banerjee Guha further states that the locational pattern of the MNC's exhibits a relentless drive to expand, to develop forces of production and to rearrange the social structure of accumulation. Regardless of the initial distribution of factor supplies, the MNC's attempt to alter the basis of industrial space economy in various directions. Each crisis is overcome by producing a new breed of corporation in terms of scale or organisation or range or degree of diversification of products. Old products, obsolete processes or uncompetitive plants disappear with their entire lot of labour and regional liabilities.

The spatial pattern of the MNC's is seen by Banerjee Guha as a process of centralising and perfecting the process of capital accumulation following the national specificity and regional specialisations. To analyse the given spatial pattern she has used the Chandler and Redlich's scheme of corporate structure as a useful starting point (Banerjee Guha, 1997,p. 39). The scheme is divided into 3 levels:

Level III is the lowest level, which is concerned with the day to day operation of the enterprises, production, and manufacturing etc., as a whole the plant level activities.

Level II is the corporate headquarters in the host country that is responsible for the entire operation in the host country. In many corporations, level II operations are considerably autonomous and are allowed to enjoy sufficient decision making power. MNC's depend largely on Level II managers to a large extent in their attempt to integrate with host countries.

Level I is the top management, the area of goal determination and planning. This level sets the framework according to which the lower levels operate. Geographically, it is completely separate from the other levels and invariably located in the parent country from where it plans strategy rather than tactics.

Banerjee Guha has analysed the spatial pattern of level I and II activities of MNC's in India by using data for 1990. The analysis includes all 435 MNC's operating in India at that time and no distinction has been made on the basis of size. She has divided the country into four regions i.e. North, West, South and East and has shown the distribution of Level II and Level III activities as in 1990. She has also mentioned the causes of location of offices as well as plants.

Surya Kant (1999) examines the spatial implications of India's new economic policy operating through two instrumentalities of stabilisation and structural adjustment. Stabilization is aimed at correcting the balance of payments situation and reducing the deficit in the Union Government budget, which has had an adverse effect on social

development, employment generation, poverty alleviation in hill, tribal, drought prone and other backward areas. Devaluation of the rupee benefited the major foreign remittance receiving states like Kerala, Gujarat, Punjab and Tamil Nadu. Structural adjustment, through rationalisation of trade; industrial, agricultural, human resource development and power policies has spatial implications of varying nature. Trade policy enhanced investment attraction of big urban industrial centres, FDI in mineral rich backward states: and export orientation in agriculture was to a greater advantages of rice and cotton producing states. Reduction in subsidies for fertilisers had more serious implication for the agriculturally backward areas. Higher tariff in power sector were to the disadvantage of Punjab, Haryana, Tamil Nadu, Kerala. Urban-Rural and interstate disparities in social development widened, with relatively lower allocations to education and health. The impact of the NEP on space economies according to Surya Kant can be determined in two ways:

- (1) Looking at those economic policies that are framed with geographic space in mind.
- (2) Examining those economic policies that induce changes in the organisation of space.

Surya Kant comes to the conclusion that on balance, though NEP offers new opportunities it does have a spatially differential impact.

Other Related studies on FDI:

The other works which have an interface with the study are as follows:

- The explosive growth of Bangalore in the software industry and in diversified high technology research has been examined by **Heitzman (1999)**. The MNC perspective has been examined because they have been driving formal job creation in the recent past. This study demonstrates the new challenges facing these IT companies and the consequences of the ongoing shift from the older paradigm of state intervention towards the new paradigm of entitled liberalisation.

- **Kumar (1998)** examines the emerging trends and patterns in FDI inflows in India. He has attempted to evaluate the role that policy liberalisation has played in shaping these patterns. This is followed with an analysis of changes in India's share in FDI outflows from European and other triad sources. As well as by analysing the changes in the shares of major source countries with policy liberalisation. He concludes with a few remarks for policy.
- **Majumdar and Chibber (1998)** examine an empirical regularity with respect to Indian industrial behaviour and set out the implication that follow from the result derived from the empirical analysis. The cross sectoral analysis explores the exporting behaviour patterns of over 1,000 firms with varying degrees of foreign ownership in India for the years between 1988 to 1994. According to them since the 1950's, India followed a command and control based economic regime. This regime become exceedingly autarkic, particularly in the 1960's, with negative consequences for the ability to make headway in export markets or to attract foreign investment. They also state that liberal trade policies are absolutely necessary since economic policy making in India seems to be entirely based on ad-hocism and intuition and not on the necessary and vital hard facts.
- **Shome and Mukhopadhyay (1998)** trace the main components of the economic reform process in India in the early 1990's, both in its stabilisation and structural aspects. They point to the inadequacy and the non-sustainability of the measures that were undertaken based on political economy.

A initial examination of the foreign investment approvals and implementation from August 1991 to December 1994 has been done by **Institute for Studies in Industrial Development (1995)**. The Indian Governments policy towards FDI has also been highlighted by them.

1.4 Related Concepts and Theories:

1.4.1 Foreign Investment :

Defined narrowly foreign investment is the act of acquiring assets outside one's home country. These may be financial assets such as *bonds, bank deposits and equity shares* or assets produced through, *direct investment* which involve the ownership of means of production such as factories and land. Direct investment is also considered to have taken place if the ownership of equity shares provides control over the ownership of a firm (Palgrave, 1998, p.403).

At the very outset it is very necessary to define the forms through which foreign participation can take place. The Multi National Companies (MNCs) also called Trans National Companies (TNCs) interact with the host countries via *a) Foreign Direct Investment (FDI), b) Portfolio Investment* and *c) Export or licensing of technology and patents*. FDI is primarily undertaken by corporations rather than individuals and includes a package of complementary inputs of both tangible and intangible assets and services. It consists of *equity capital, technical and managerial services, capital equipments and intermediate inputs*. It also includes *legal rights to patented and secret products, processes or trade marks* (Banerjee Guha,1997,p.66). According to Swamy, FDI has a very special meaning in that it refers to flows of equity capital into a subsidiary investor where the foreign investor (MNC) has a controlling interest. Portfolio Investment on the other hand consist of investment in shares and debentures of local firms by foreigners which is of the rentier category and need not imply management control over the firms (Banerjee Guha.1997, p.66).

The basic difference between FDI flows and portfolio investment is that the former has long term interests while the latter is typically guided by short term consideration of speculative gains (Pant, 1995,p.24).On the other hand, according to

Horst and Dunning, a TNC exports to a host country and then switches to domestic production when entry barriers (like tariffs) make exports uncompetitive or when such a move is necessary to internalise certain owner specific advantages. Thus, the crucial issues in classifying any foreign investment as FDI is that it must involve a) 'control' by the foreign interest and b) 'long term' considerations(Pant,1995,p24).

In the nineteenth century, foreign investment mostly involve the ownership of financial assets (Everson, 1936). After World War II, FDI took many forms and began to attract and dominate much theoretical and empirical research efforts of economists and the concerns of politicians (Hymer, 1976; MacDougall, 1960; Reddaway ,1967,1968; Kindleberger, 1968; Johnson 1970; Caves, 1971; Dunning, 1981; Vernon ,1966 cited in Palgrave,p.403).

1.4.2 Motives for FDI:

The most fundamental motive for foreign investment is the desire of wealth holdersto maximise the value of their portfolio or net worth. However analysts now consider the risk adjusted rate of return of wealth-portfolios as the main motive for foreign investment (Palgrave, 1998,p.403). According to Grubel, under this approach, foreign investment is possible even if the yield on assets abroad is expected to be lower than that on domestic assets simply because an imperfect correlation changes in foreign domestic yields is expected to increase the risk adjusted rate of return to the entire portfolio (cited in Palgrave, 1998, p.403).

In case of FDI, there are other motives for the purchase of assets abroad. They involve either externalities or market imperfections, which are internalised or eliminated by the MNCs. Technological externalities arise, for e.g. from the very high fixed cost in capital intensive industries. In such industries great efficiency gains can be had by measures, which stabilised operations at a high level of output. The ownership or control

over suppliers and marketing permits firms in these industries to achieve such stabilisation objectives which would be unattainable if separate owners perceived independent profit maximisation strategies (Palgrave, 1998, p.403).

Imperfection in factor input markets which give rise to direct foreign investment are due to economies of scale, mainly those arising from the use of knowledge. Firms are motivated to own foreign production facilities in order to assure control over the quality of products and the maintenance of commercial secrecy. Furthermore, through direct foreign investment firms are able to capture international 'spillover effects' of advertising expenditures (Palgrave, 1998, p.404).

The final major explanation of FDI involves distortion introduced by Government policies. Tariffs and other protective devices as well as subsidies and taxes can create conditions under which it is more profitable to produce in, rather than export to a foreign country (Palgrave, 1998, p.404).

1.4.3 Theories of FDI:

The theory of FDI encompasses analysis of several issues which appear non-central. These involve a) the firm's choice of location, b) decision to license rather than exploit technological assets through FDI and c) the legal forms of foreign ownership and d) the role of diversification. The usefulness of FDI as a method of diversification has been questioned in arguments which point to the opportunities of individual stockholders to obtain all the benefits of international diversification in their own portfolios.

Many theories of FDI hence have been forwarded. These theories assert that the basis for such investment lies in the transactions cost of transferring technical and other knowledge as well as in market imperfectness. Needless to say that in a world of perfect markets, the MNCs would not exist and there would be no FDI

(Golder, Isahami,1999,p.M-50).According to the Hymer - Kindleberger theory, the foreign owned firm would make an investment in the host country only if it possess some compensating advantage which allows it to compete on equal terms with indigenous firms. This is not a sufficient condition for FDI since the firm has the advantage of licensing the advantage (technology) to an indigenous producer or exporting the product to the host country. Clearly certain other conditions have to be satisfied for FDI to arise. Three such conditions are:

- a) the advantage is internally transferable (it can be exploited by a subsidiary of the parent firm without any additional cost to the parent firm or to the subsidiary already exploiting it);
- b) it is more profitable for the foreign owned firm to exploit the advantage itself rather than to license it to indigenous producer(because of imperfections in the market for knowledge and heavy firm to firm transfer costs to the advantage);
- c) exporting the product to the host country is not possible or unprofitable due to tariff or transport cost barriers (Golder, Isahami 1999, pp.M50-M51).

Attempts have been made to capture most of the motives of FDI under the concept of '*internalisation*' by Buckley and Casson and through the '*eclectic theory*' of Dunning (Palgrave, 1998, p.404). The '*internalisation theory*' is based on three simple postulates:

- i) firms maximize profit in a world of imperfect market;
- ii) when markets in intermediate products are imperfect there is an incentive to bypass them by creating internal markets (within the firms) and
- iii) internalization of markets across national boundaries generates Multinational Enterprises (Golder, Isahami, 1999,p.M-51).

The essence of 'internalisation ' theory is that the action of a firm can replace a market or augment it. The need to replace the market through internalisation arises when the market does not exist or is imperfect or does not allow the possessor of an advantage to exploit fully his monopoly power. On the other hand the firm may prefer to replace the market with internal transactions as a deterrent to entry by possible competitors.

According to 'eclectic theory' a firm will make direct investment in a foreign country if the following conditions are satisfied:

- i) it possesses some ownership advantages vis-à-vis firms of other nationalities in serving particular markets;
- ii) it is more beneficial for the firm to use the advantages itself than to sell or lease them to foreign firms; and,
- iii) it is profitable for the enterprise to utilise these advantages in conjunction with at least some factor inputs outside the home country. The greater the ownership advantage of the enterprise, the more the incentive to exploit these themselves. The more the economies of production and marketing favour a foreign location, the greater is the inducement for FDI (Golder, Isahami, 1999, p. M-52).

These approaches to the explanation of FDI have not been accepted widely. The phenomenon is too complex to be captured adequately by the theory of internalisation. and the 'eclectic theory' based as it includes many driving forces behind FDI (Black and Dunning, 1982; Buckley and Casson 1976; Kozima ,1978 *cited in* Palgrave,1998,p.404)

1.4.4 Welfare Effects of FDI:

During the 1960's concern over the welfare effects of foreign investment centered on its influence on the balance of payments as both USA and UK suffered from large and growing deficits. Two land mark studies by Reddaway and Hufbaur (cited in 1998,p.404) did much to sort out the different influences and interdependencies and produced some empirical estimates. Interest in the balance of payments effects of direct foreign investment has disappeared almost totally since the increased flexibility of exchange rates in the early 1970's. Thus the effects of FDI are as follows:

- FDI often embodies new technology which cannot be acquired separately, and it leads to the net creation of workers skills.
- FDI can lead to increased competition in the host country and through it, increased efficiency in the use of all domestic resources.
- Other more secondary welfare effects arise from changes in terms of trade the two countries in the of trade which could go either way.

1.4.5 Welfare Costs of FDI:

FDI have some welfare costs also, while area are as follows The owners of the FDI can make investment, employment and output decisions that maximise rates of return but do not necessarily serve the interest of the host country.

- They can use their large resources to influence public opinion and elections in the interest of a foreign power or ideology.
- They can frustrate the achievement of monetary control as they draw on global capital sources.
- They compete unfairly with domestic producers who do not have access to low-cost capital and technology.

- They destroy domestic culture and tradition by the introduction of cheap and new goods, entertainment, art.
 - They exploit monopoly and monopsony positions and thus charge too much for their products and pay too little for local inputs.
 - They use transfer pricing tricks to avoid the payment of host-country taxes.
- They create dependency on foreign supplies (Palgrave, 1998, p.404)

In the research documents of foreign investment little interplay between the welfare effects and the analysis, which stresses the costs. The former is taught and tend to dominate attitudes in industrial countries, while the latter is most popular and often very influential in developing countries and international organizations (Myrdal, 1956; Hymer, 1976; Berhman and Fischer, 1980 Lall and Streeten, 1977; UN, 1973, 1978 cited in Palgrave, 1998,p.405).

1.4.6 Policy Implications of FDI:

The Central policy issue in the field of international investment is whether or not it should be free, directed to achieve certain policy objectives or prohibited completely. The neoclassical paradigm implies that it should be free and the undesirable consequences accompanying it should be dealt with through policies directed at the problems themselves. As Bhagwati (1971) has shown, this approach permits the correction of market failures without any sacrifice of the benefits from free trade assets (cited in Palgrave, 1998, p.405).

The alternate paradigm implies controls over foreign investment as in the former Soviet Union and China after communist revolutions. These controls, have now been abandoned. Most countries of the world have some restrictions on foreign investment. Many insist that foreign investment has to be approved by a government agency, which

uses acceptance criteria consistent with political and economic concerns of the time and the ruling party. Some countries restrict foreign ownership to minority holdings, which give effective control to the entrepreneurs or their government. All these restrictions involve costs of administration and diminish the level of international capital-flows. Therefore, they reduce the potential welfare gains below those attainable under the policy dealing with market-failures directly (Palgrave, 1998, p. 405).

1.5 Data Base:

Data regarding FDI cannot be obtained from a single document. The database used for the present study were obtained from

- (a) Census of India, Karnataka, 1961 - 1991.
- (b) Report of Bangalore Development Authority (1995).
- (c) Report of Karantaka Udyog Mitra (2000).
- (d) Primary Data from the KASSIA office, Bangalore (2000).
- (e) SIA New letter issues from December 1996 to December 1999, and January 2000.
- (f) Economic Survey, 1999-2000.
- (g) India Investment Centre, monthly bulletins from August 1996 to August 1998..
- (h) www.bangaloreit.com.

1.6 Organisation of the Study :

The present study is divided into five chapters. **Chapter one** is the introduction to the study. **Chapter Two** presents a synoptic view of the concept of FDI, the different economic and Industrial policies of the Government of India after independence and a detailed study of FDI approved after the NEP. The distribution of the MNC's including the location of plants and offices in the different districts of India is the subject matter of the **Chapter Three**. The **Chapter Four** deals with the industrial development of Karnataka especially Bangalore since the colonial period. The impact of FDI in this

growth has also been accessed after the declaration of the liberalisation policy. The conclusion of the study are presented in **Chapter Five**.

Chapter II

POLICIES AND INFLOW OF FDI IN INDIA

2.1 Policies Governing FDI in India:

The attitudes of Indian business have been conspicuously expressed on the question on private foreign capital, since almost the beginning of the twentieth century. These views grew steadily more hostile to a point of eliciting demands that once independence was secured, the sterling balance accumulated during the war should be used to buy out existing foreign investment. Latent in these views was also the fear of competition with more powerful and resourceful foreign firms: a fear which was to dominate business attitudes and demands well into the mid fifties (Bhagwati, 1970, pp. 216-217).

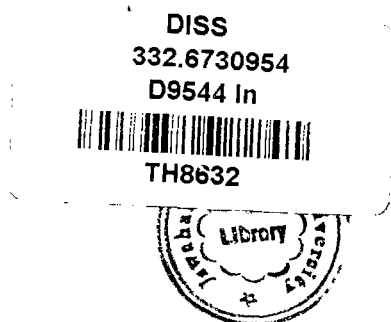
The views were paralleled by the National Planning Committee of the Indian National Congress which adopted a critical resolution on the subject in November 1945, proposing, among other things, that even existing foreign capital should be eliminated from 'key industries' and declaring that foreign capital had 'warped and retarded the nation's development'. Further in spirit they were carried over, into the **First Industrial Policy Resolution (I.P.R)** of the Government in 1948. While the I.P.R did concede the value of Private Foreign Investment in specific circumstances, it also promised to constrain such investment, and avoid its deleterious effects by legislation. In particular, stress was laid on *a) Indian majority ownership and effective control ; and b) on the training of Indian personnel* (Bhagwati, 1970,p.217). In the event, such legislation was not to be enacted ; and Governmental policy was to be far more favourable than could have been forecast in 1948 and was desired by the indigenous entrepreneurs until the mid 1950s. At the time of transfer of power in 1947, presence of foreign capital was

marked in most of the areas and later it was present in all the key sectors of the Indian Economy which expanded to some more crucial areas (Bhagwati, 1970,p.217).

In April 1949, Prime Minister Nehru formally announced the first liberalized policy towards private foreign investment of the Government. While there were changes in emphasis the basic policy frame remained the same until 1991. The major points of Nehru's liberalization policy were as follows:

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- Existing foreign interests were to be accorded 'national treatment': the Government did not intend to place any restrictions or impose any conditions, which were not applicable to similar Indian enterprises.
- New Foreign Capital were to be encouraged: the 'Government were to frame their policy as to enable further foreign capital to be invested in India on terms and conditions that are mutually advantageous'.
- Profits and remittances abroad were to be allowed, as would be capital remittances of concerns 'compulsorily acquired'.
- Fair compensations were to be paid 'if and when foreign enterprises were compulsorily acquired'.
- Although majority ownership by Indians was preferred, 'Government was not to object to foreign capital having control of a concern for a limited period, if it was found to be in the National Interest , and each individual case was to be dealt with on its own merits.'
- 'Vital Importance' was still attached to rapid industrialisation of personnel, but 'Government was not to object to the employment of Non Indians in posts requiring technical skill and experience, when Indians of requisite qualification were not available (Kindron , 1965, p.101; Bhagwati,1970.pp.217-218).



The domestic entrepreneurs were unsympathetic to such liberalization in the absence of a number of explicit safeguards to eliminate the threat of resulting foreign competition. They were joined in these attitudes by their natural foes: the communists and the socialists in Lok Sabha (Hanson, 1966, pp.457-459). Despite such opposition, the policy of liberalization was to stay and indeed be accentuated in the early years of planning. Foreign private capital, it was envisaged, would promote national objectives in the overall framework of planned development. The two major objectives were:

- i) to treat foreign investment as a vehicle for obtaining modern advanced technology, and
- ii) to have it play a supplementary role for resource mobilization, especially in terms of foreign exchange.

The process of planned development demanded regulation of private capital, foreign and Indian, for differing purposes. As a consequence, a variety of rules and administrative norms were evolved giving rise to a wide and complex system of controls and procedures resulting in long delays and uncertainties. The regulatory mechanism contributed significantly, especially during the early stages, to channel new investments into private and public sectors. The Government relaxed the policy concerning majority ownership in a number of occasions, on an '*ad hoc*' basis, and provisions concerning double taxation relief and tax exemptions for salaries of foreign personnel were negotiated successfully. These relaxation were prompted by the assessment that the industrial development of the country required the influx of technical know-how and capital, and private investment was an appropriate and, in fact , a possibly major source for these scarce resources. This view was reinforced by the foreign exchange crisis in 1956-57, with the initiation of the second plan: the shortage of foreign exchange, and the continued reliance on exchange and import controls which ensured, weakened the objection within the Government to absorbing private foreign capital (Bhagwati, 1970,p.218).

It was noticed in 1949-50, that though British and other foreign capital was getting replaced by Indian capital in traditionally important industries like cotton, and jute, new plants were being setup by the American and British capital in the heavy industry sector like machinery, engineering, chemicals and automobiles. Bagchi has noted that the pre-colonial ties with foreign capital actually provided a conduit for its flow during the later period (cited in Banerjee Guha, 1997, p.65). In 1950 out of the total foreign investment in India (both direct and portfolio) 72 percent was British investment of which, 82 percent was direct investment. U.S.A had a share of around 6 percent of which 99 percent was direct investment. This amply reflects the colonial control of Britain in the matter of foreign direct investment during that time (Banerjee Guha, 1997, p.66).

However, the liberalisation of the regulations concerning foreign investment followed from this conjunction of changing business and Governmental attitudes. These changes led to a simultaneous stiffening of other aspects of Governmental policy in this area. Since the long run balance-of-payments implications of the influx of foreign investment, consisting of the outflow of profits and dividends as also the royalty payments on sales of know-how, were equally in the minds of the policy makers, Governmental regulations required detailed scrutiny and approval of each such act of foreign investment and/or sale of technical know-how *per se*. This also prompted the Government to regulate the industrial pattern of private investment inflow: while, on political grounds certain 'key' industries such as steel continued to be out of bounds, there was also a definite tendency to exclude foreign investment on economic grounds, from inessential industries such as certain consumer goods, services and 'trade'. Provided these criteria were met and the terms and conditions were approved by the licensing authorities, Governmental policy generally encouraged the inflow of private capital from abroad (Bhagwati, 1970, pp.218-219). However, with the passage of time, the regulatory system got itself overstretched and it was ridden with discretionary and ad-hoc processes of decision making. The need for 'regulating the regulatory mechanisms' was voiced frequently through national and international fora (ISID, 1995, p.1).

During the pre independence period, national attitude towards foreign investment was hostile commensurate with the anti colonial national liberation movement. During years after independence, the attitude started getting diluted with a growing ambivalence towards foreign capital. Gradually there was a change in the approach and a realignment of attitudes towards foreign capital started taking shape from opposition to neutrality to warm welcome (IDPAD, 1984, *cited* in Banerjee Guha, 1997, p.66). The industrialist class of India due to its collaborative attitude towards the colonial imperialist power, had also always suffered from the misgivings in going against foreign capital. Thus the softening of the attitude since the fifties was a natural phenomenon (Banerjee Guha, 1997,p.66).

The Industrial Policy frame in India has been common to foreign and Indian national private capital. In this regard the significant legislation has been the Industrial (Development and Regulation) Act, 1951 (IDRA), the essential features of which owe their origin to the Second World War period (ISID, 1995, p.2). It follows closely upon the Industrial Policy Resolution of 1948, which provided the framework for the licensing and regulation of industrial investments (and related questions such as pricing and distribution controls) in the country during the First three Five - Year Plans and thereafter. The principle objectives which the Industrial Policy Resolution listed, and which the Industries Act 1951 was designed to implement, were:

- the development and regulation of industrial investments and production according to plan priorities and targets;
- the protection and encouragement of 'small' industries;
- the prevention of concentration of ownership of industries;
- balanced economic development of the different regions in the country, so as to reduce disparities in levels of development (Bhagwati,1970,p.249-250).

In order to pursue these objectives, the Industries Act conferred powers upon the Government, among them were: a) all existing undertakings in the 'scheduled' industries had to be registered with the Government and b) no 'new' industrial undertaking could be established, or any 'substantial expansion' effected to existing plants, without the prior procurement of a license from the Central Government (Bhagwati, 1970,p.250).

Thus the Industrial Policy Resolution of 1948 and 1951 highlighted the need for state control over the commanding sectors of the economy in black and white. According to Bettelheim, actually these industries were reserved for the public sector in which the private sector was unwilling to commit its resources but keeping enough loopholes and room for a loose implementation in order to offer concession to foreign capital and to Indian monopoly houses. Nehru, made repeated announcements during this time, reassuring private capital, both domestic and foreign(cited in Banerjee Guha, 1997,p.67).

According to the Planning Committee Report (1958),the Industrial Policy resolution of 1956 guaranteed existing facilities against nationalisation and permitted public-private co-operation in the development of some reserved sectors. Consequently licenses for industries scheduled 'A' under the 1956 resolution and earmarked entirely for the public sector were issued to the private sector too.

The contradiction in the attitude of the Indian Government towards foreign capital was no doubt rooted in the historical nature of the Indian state and Indian capital class. The official policy gradually swung unreservedly towards a dependence on foreign investment, imported technology and foreign collaboration (Banerjee Guha, 1997, p.68). Increased foreign dependency was explicitly recognized in the formulation of the third plan in the form of a foreign aid. The policy got fructified by the devaluation of the rupee in mid 1966. In 1958, The Associated Chambers of Commerce and Industry (ASSOCHAM) - an organization dominated by foreign capital had already expressed its willingness to create favourable conditions for foreign private investment

(ASSOCHAM, 1956). But, side by side many local industrialists also started demanding more liberal policies. Bagchi has stated that, one of the significant characteristics of the Indian planning process since then has been a close collaboration between Indian and foreign capital. An increase in the number of agreements for financial credit and technical borrowing was noticed during this period (cited in Banerjee Guha, 1997, p.69)

The move towards liberalisation in the late 1950s obviously necessiated the Indian Government disowning its earlier commitments. In the national interest, foreign capital was also invited to invest in the fields, which were hitherto been reserved for the public sector such as drugs, aluminium, heavy electrical equipments, fertilizer and synthetic rubber. Collaboration agreements were approved where already an indigenous production line existed. During this period several tax benefits and concessions were introduced and the processing of foreign investment further streamlined by establishing a Foreign Investment Board. External pressure was marked in the sphere of inter-industry priorities. Industrial licensing is not the only way through which foreign capital entered the economy during this time. It interfered with the country's agriculture, exchange rate and trade policies as well (Banerjee Guha, 1997, p.70). In 1965 and 1972 the Free Trade Zones (FTZ) were set up in Kandla ,Gujarat and Santacruz, Mumbai. Like in other Asian countries, a host of tax and other concessions were given to companies investing here for the export market. The concessions ranged from liberal depreciation allowances to complete tax exemptions. However, it is now well known that FTZ experiment was a failure. The main problem was that the policy towards FDI was being determined on a case by case basis. Except in the case of oil companies, the view was that the 1956 IPR was unfavourable to FDI. However, as the foreign exchange crisis developed in the late 1980s, some degree of pragmatism came in through exports (Pant, 1995,p.48).

In pursuance with the Directive Principles of State policy as enshrined in the constitution of India the Government was obliged to adopt Monopolies and Restrictive Trade Practices Act 1969, (MRTPA). Under this an undertaking which controlled more

than one third of the manufacturing of a product had to get itself registered. But, according to Kumar such restrictive acts, incomplete by their very structure could not be of much use (cited in Banerjee Guha, 1997, p.70-71). Bagchi has noted that the already curtailed mass consumers market and an expanding affluent 'elite' market, however exclusive, paved the way for more foreign collaborations (cited in Banerjee Guha, 1997, p.71). Hence those were the years when foreign capital penetrated deep into the Indian economy especially in its key sectors and increased their profitability margin which is reflected in the large remittance abroad.

Hence, despite contracting tendencies in policy formulation during the 1960s and 1970s, the Indian state did not face any serious opposition to its basic attitude towards foreign capital. Consequently in 1969 a more precise policy towards FDI was evolved (Pant, 1995, p.49). This consisted of setting out three groups of industries where there would be FDI:

- i) without technical collaboration;
- ii) only technical collaboration and
- iii) no foreign participation.

The New Industrial Policy of 1970 expressed its hope to augment Technological Development and export in the core sector with the help of foreign capital and hence permitted foreign financial participation in such industries, despite a strong observation made by the National Committee on Science and Technology that foreign equity participation was not essential for procurement of technology (Banerjee Guha, 1997, p.74). However, the above change in the Industrial Policy during 1970-73, brought in the Foreign Exchange Regulation Act (FERA) by the Indian Parliament in 1973, which aimed to promote self reliance, conserve the limited foreign exchange resources and encourage rational utilization of the same and contain external liabilities for the future generation.

In brief, the Act was meant to:

- place an obligation on all foreign branches operating in India to register themselves under the Companies Act, 1956; and
- direct all foreign subsidiaries and other foreign controlled companies to reduce their percentage of shares held abroad.

All branches of foreign companies were required to convert themselves into rupee companies with Indian participation ranging between 20 percent and 60 percent, depending on the nature of the activities. They were also to be guided by RBI guidelines. Only three categories of companies permitted to remain foreign majority companies with foreign equity ranging up to 51 percent or 74 percent. These were: a) Companies operating in specified high priority areas, b) companies whose activities involved use of sophisticated technology and c) companies exporting more than 40 percent to 60 percent of their own production (Banerjee Guha, 1997, p.75).

FERA allowed more than 40 percent foreign equity whenever either of the two conditions, namely, technology and export intensity were satisfied (ISID, 1995, p.2). FERA came into force in 1974 and all applications had been dealt with by 1979.

The Industrial Policy of 1973 restricted fresh foreign investment in non core industries but the guidelines issued under FERA kept possibilities open. Actually FERA was found not harmful to the foreign companies. Corporations that left India after the Introduction of FERA were trading companies like IBM or Coca-Cola who did not want to share their secrets in the respective fields (Banerjee Guha, 1997, p.75). FERA specified the detailed list of industries in which foreign firms could participate with or without FDI (i.e only technical collaborations). In particular foreign firms were kept out of consumer goods. Under the Industrial Licensing Policy the FERA companies (companies with more than 40 percent of foreign equity), and the local large houses

were expected to channelise resources into high technology and heavy investment industries leaving the remaining industries to be developed by small and medium entrepreneurs (ISID, 1995, p.2). According to Choudhury, the Act actually benefited foreign capital at the cost of subverting the Indian interest, as a result of which, foreign exchange outflow increased (cited in Banerjee Guha, 1997, p.75). The fallacious nature of the FERA strategy that was supposedly designed to reduce the level of foreign exchange remittances by foreign companies actually helped it. The Industrial Policy of 1970-73 also had a positive view about the MNC's contribution towards the increase in export (Banerjee Guha, 1997, pp.75-76)).

A more liberal attitude towards foreign investment emerged after about 1980. The shift of policies towards export led industrialisation became clearer. A ready response came from the US, Germany and other European countries and India was adjudged a less risky developing country for investment (Banerjee Guha, 1997, p.78). The Period begins with the Industrial Policy Statements of 1980 and 1982 and more importantly the Technology Policy Statement of 1983. With the policy statements began the process of delicensing and to some extent, reversing the negative effects on growth and competition of the I.P.Rs of 1948 and 1956. At the same time some of the restrictive features of MRTP Act were sought to be done away with (Pant, 1995, pp.51-52).

The proposal to set up four new Export Promotion Zones greatly encouraged FDI. MNC collaboration was hailed by none other than the Indian Finance Minister and MNC penetration was welcomed in both domestic and foreign markets. Various concessions were also given to foreign capital by the Industrial Policy introduced in 1980, where the role of the public sector was drastically reduced (Banerjee Guha, 1997). Even RBI (1985) stated that foreign investment was being viewed by the Government of India as a vehicle for development of technology and promotion of exports. The Government allowed 100 percent foreign equity for 100 percent export oriented units, paving the way for further growth of export promotion zones. This was also the period when there was a considerable degree of trade liberalisation by tariff

reductions and shifting of a large number of import items from import licensing to Open General License (OGL) (Pant, 1995, p.52).

2.2 The New Economic Policy (1991):

More than three decades after independence India maintained a selective approach towards FDI. The approach was governed by multiple objectives of self-reliance, protection of national industry and entrepreneurs, import of select technologies and export promotion. The emphasis was on technology imports without financial participation by technology supplier. This was intended to give much needed boost to technological development as the recipient of foreign technology were expected to absorb the technology and modify and develop further with the help of their R & D. It was believed that this could help India move on the road to technological self-reliance. Foreign Investment in low technology areas was not encouraged in order to shelter local industry and to conserve foreign exchange (Rao, Murthy, Ranganathan, 1999, p 423).

The policy regime since 1991 has been altered in terms of the restrictions on and regulation of foreign investment in India that made India a partially closed economy. It was argued, that restrictions on FDI and imports and strict internal regulations Monopoly and Restrictive Trade Act 1969 (MRTPA) and Industries (Development and Regulations) Act 1951 (IDRA), enabled local manufacturers to exploit monopoly rent, produce poor quality goods and services, gave high profits with no obligation or concern for the average consumer. From a position of selectivity, the transition to the present position is one of welcome to FDI and treating it with special favours and persuasion (Rao, Murthy, Ranganathan, 1999,p.423). Drastic changes in the Indian economic policy have been initiated to permit entry of foreign capital and free flow of international trade. The Governments liberalisation and economic reforms programme aims at rapid and substantial economic growth and integration with the global economy

in a harmonised manner. The industrial licensing requirements removed restrictions on investment and expansion and facilitated easy access to foreign technology and FDI.

Beginning with July 1991, The Government introduced a number of changes in the regulatory policies of the country under the general acceptance of the policy package known widely as the Structural Adjustment Programme (SAP). The important departures from the past were in the form of:

- Revision of the Industrial Policy Resolution, 1956 and schedules A & B, resulting in the opening up of many a public sector reserved area.
- Drastic revision of IDRA with the objective of removing a major entry point hurdle. Industrial Licensing is now confined to industries with 'security and strategic concerns, social reasons, problems related to safety and overriding environmental issues, manufacture of products of hazardous nature and articles of elitist consumption'. Under the New Economic Policy of 1991, all the industrial undertakings are exempt from obtaining an industrial license to manufacture except for:
 - i) industries reserved for Public Sector (Annex I of the Industrial Policy of 1991, see Appendix I)
 - ii) industries retained under compulsory licensing (Annex II of the Industrial Policy of 1991, see Appendix I)
 - iii) items of manufacture reserved for small scale sector
 - iv) if the proposal attracts locational restrictions
- Under the locational policy the industrial undertakings are free to select the location of a project. In case of Class I cities (as per 1991 census), the proposed location should be at least 25km away from the standard urban area limits of that city unless, it is to be located in an area designated as an

'industrial area' before 25 July 1991. Electronics, Computer Software, Printing and any other 'non polluting industry' are exempt from such locational restriction. The New Industrial Policy states for the first time 'Direct Foreign Investment has always been preferred to loans and other forms of assistance' (IPR 1991).

- The provisions of MRTPA, 1969, relating to the concentration of economic power are no more operative. Foreign investment, under the present regime is welcomed even when it is not accompanied by new or sophisticated technology. The ban on 'trading' area for foreign capital is also no more valid.
- The restrictions imposed under the FERA philosophy have mostly been abandoned. Instead of the general rule of 40 percent ceiling on foreign equity, majority participation by foreign corporation is now allowed over a wide area.
- Private corporations have been permitted to use foreign brand names in domestic market.
- The Phased Manufacturing Programme (PMP) has been withdrawn.
- The restrictions on FDI entry into low technology consumer goods have been removed.
- Dividend balancing condition and export obligation have been diluted.
- The terms for import of technology and royalty payments have been liberalised.
- Permission has been given to invest upto 24 percent in the equity of the small scale units etc. In the new policy regime, proposals for foreign investment need not necessarily be accompanied by foreign technology agreements (Rao, Murthy, Ranganathan, 1999,p.423; www.policy.htm at indmin.nic.in, dated 24/3/2000).

Government encourages FDI and investment from Non Resident Indians including Overseas Corporate Bodies, to complement or supplement domestic investment. Investment and returns are freely repatriable, except in the case of 22 specified items, (Annexure VI of New Industrial Policy, 1991, see Appendix I) which attract the condition of dividend balancing and/or where the approval is subject to specific conditions such as lock in period on original investment, dividend cap, foreign exchange neutrality etc. as per the notified sectoral policy. FDI is freely allowed in all sectors including the service sector, except where the existing and notified sectoral policy does not allow FDI beyond a ceiling.

In brief, the new policy have vastly increased the scope of foreign capital by:

- throwing open larger area to the participation of private sector,
- abolishing industrial licensing over a vast area,
- taking a liberal attitude towards foreign share in Indian companies,
- doing away with provisions relating to concentration of economic power under MRTP Act 1969,
- allowing foreign brand names in domestic market.

A shift in emphasis can be seen in the New Industrial Policy, which states "foreign investment and technology collaborations will be welcome to obtain higher technology, to increase exports and to expand the production base" (Paragraph 13 of Statement of Industrial Policy, July 24, 1991). In the past too, there were pleas made from time to time, that foreign capital by the way of direct investments was a substitute for commercial borrowings as a servicing of loans would not be related to the paying capacity of the project since outward remittance, on account of the investment, would commence only if the project becomes a commercial success. Besides substantial stake in the risk capital, it was argued that the foreign investor held a continuing interest in the project.

2.3 Institutional Arrangement for Approval of FDI:

The 1991 liberalisation of Industrial Policy led to the setting up of few organisations to facilitate FDI. These are:

Foreign Investment Promotion Board (FIPB):

The Government of India constituted this Board chaired by the Secretary (Department of Industrial Policy and Promotion, Government of India) to promote accelerated growth in the industrial sector and to:

- increase and promote inflows of FDI into the country by i) undertaking investment promotion activities and ii) facilitating investment in the country by international companies as well as Non Resident Indians (NRI's),
- provide appropriate institutional arrangements,
- introduce transparent procedures and guidelines for investment promotion and
- consider and recommend proposals for foreign investments (other than those eligible for automatic approval by the Reserve Bank of India [RBI]).

The Board considers all investment proposals with or without technical collaboration and/or industrial licenses. The Board meets every week and considers all application within 15 days of its receipt with the endeavour to communicate decisions to the applicants within four weeks. The Board has flexibility of purposeful negotiation with investors and considers project proposal in totality, free from parameters with a view of maximizing FDI into the country.

Secretariat for Industrial Assistance (SIA):

This Board has been set up by the Government of India in the Department of Industrial Policy and Promotion in the Ministry of Industry to provide Single window for:

- entrepreneurial assistance,

- investor facilitation,
- processing all applications which require Government approval,
- assisting entrepreneurs and investors in setting up projects (including liaison with other organization and State Governments),
- monitoring the implementation of projects.

Apart from these two Boards, RBI also plays a major role in the approval of FDI.

Foreign Investment Implementation Authority (FIIA):

This board has been set up for quick translation of FDI approvals into implementation as also to provide one stop service to foreign investors by helping them to obtain necessary approvals, sort out operational problems and meet with Government Agencies to find solutions to problems. The FIIA is headed by the Secretary of the Department of Industrial Policy and Promotion, Government of India.

Simplification Mechanisms:

Under the existing Industrial Policy, a short list of only six industries is kept under licensing (see Annexure II of the Industrial Policy of 1991). All applications for which approval is required from the government are to be filed with SIA and considered by subject specific committees/ boards and decisions are taken in a time bound manner. The committees include the Project Approval Board (PAB) for foreign technology agreement cases; the Board of Approval (BOA) for 100 percent export oriented units; the Licensing Committee (LC) for industrial license, the Inter Ministerial Committee for Electronic software and Electronic Hardware Technology Park Sector (EHTPS and STPs), Empowered Committee for granting concessions under the Income Tax Act for Industrial Model Towns, Industrial Parks etc.

2.3 Process of Approval of FDI:

The 1991 liberalisation of Industrial Policy introduced a two way approval process of FDI. These are as follows:

a) Automatic Approval: This is applicable to all the industries listed in Annexure III of the Industrial Policy Statement of 1991 and is subject to limits on foreign equity participation. The initial limit on foreign investment was 51 percent. Those seeking investment under automatic approval process, were required to formally inform the RBI. This requirement has since been dispensed with and companies need only to inform RBI after issue of shares of a foreign company. The upper limit for foreign equity participation under automatic approval has been raised from 51 percent to 74 percent of equity capital and 100 percent in case of NRI, in selected industries in January 1997. And now several foreign companies are also holding 100 percent equity in some selected industries. The list of industries open for automatic approval has also been expanded. In the budget speech 1999-2000 it was announced that the scope of automatic approval would be expanded further (Rao, Murthy, Ranganathan, 1999,p.424).

The Vajpayee Government is still not through with the planned liberalisation of the FDI regime. Policies allowing 100 percent FDI in plantation industries such as tea and coffee as well as in units located in the Special Economic Zones (SEZs) without sectoral caps will quickly follow the liberalisation made in refining, power and e-commerce sectors. The Government is relentlessly pursuing measures to open up the economy more to foreign investment. In 1999 the Government expanded the scope of automatic clearance of FDI proposals with the respective sectoral caps in all industries, barring a few sensitive sectors. Liberalisation of FDI regime is aimed at attracting an inflow of \$10 billion into India and is considered to be key area of the second generation of reforms the Government has embarked upon. The consultative committee of the

plantation industry had earlier suggested that foreign equity participation upto 74 percent should be allowed in tea and coffee industries. At present, foreign investment in the sector is not permitted. The rationale for allowing 100 percent FDI in plantation are:

- foreign investment will help raise output and yield in this export-oriented sector,
- it will also help boost the overall flow of FDI in India.

The proposal to allow 100 percent FDI in units located in the SEZs is an integral part of the SEZ scheme announced in this year's Export Import Policy. The concept of SEZs is that these areas will be treated as 'foreign territory' for the purpose of customs. The units in these zones will be export oriented though they will be allowed to sell on domestic tariff area on payment of applicable duties. SEZ is conceived as a major vehicle for attracting FDI. It is, therefore, proposed that there should be no restrictions on foreign investment in units located in these zones. Not only would there be no sectoral caps on the extent of foreign equity in any industry, FDI would also be allowed in sectors such as garments and toys, which are otherwise reserved for small-scale sector in the domestic tariff area (Times of India, New Delhi, June 14 , 2000).

b) If the foreign investor wishes to enter other industries or feels the need to secure higher percentage of foreign equity for themselves, they need to go through a formal process of case by case approval with the FIPB playing the main role.

As a result of the policy changes in 1991 and active promotion of India as a destination, the amount of FDI approved and received rose sharply. In terms of collaboration and amount approved FIPB occupies a more important position than RBI and SIA. Out of the total approvals from 1991 till 1999, the FIPB accounts for 44.91 percent of the total approval involving 91.35 percent of the total investment followed by RBI accounting for 33.53 percent of the total approval involving 6.84 percent of the total investment and SIA accounts for 21.57 percent of the total approval accounting for 1.81 percent of total investment (see Table 2.1 and 2.2).

Table 2.1 Foreign Collaboration Approvals in India by SIA, RBI, FIPB (1991 - 1999)

Year	Total Number of Foreign Collaboration Approvals						Total
	By						
	SIA	% of Tot	RBI	% of Tot	FIPB	% of Tot	
1991	760	80	188	19.79	2	0.21	950
1992	585	38.49	736	48.42	199	13.09	1520
1993	307	20.80	676	45.80	493	33.40	1476
1994	382	20.60	702	37.86	770	41.53	1854
1995	593	25.37	799	34.19	945	40.44	2337
1996	410	17.80	719	31.22	1174	50.98	2303
1997	167	7.18	801	34.45	1357	58.37	2325
1998	193	10.81	432	24.19	1161	65.01	1786
1999	221	9.94	571	25.67	1432	64.39	2224
TOTAL '91-'99	3618	21.57	5624	33.53	7533	44.91	16775*

Source: SIA News Letter, January 2000

Table 2.2 Foreign Investment Approvals in India by SIA, RBI, FIPB (1991 - 1999).

Year	Total Amount of Foreign Investment Involved (Rs in Billions)						Total
	SIA	% of Tot	RBI	% of Tot	FIPB	% of Tot	
	1991	3.6	67.92	1.4	26.42	0.3	
1992	4.2	10.80	7.8	20.05	26.9	69.15	38.9
1993	1.6	1.81	6.6	7.45	80.4	90.74	88.6
1994	3.2	2.26	5.3	3.74	133.4	94.01	141.9
1995	3	0.94	5.4	1.68	312.3	97.38	320.7
1996	11.8	3.26	12.5	3.46	337.2	93.28	361.5
1997	3.2	0.58	92.7	16.89	453	82.53	548.9
1998	7.2	2.34	1.9	0.62	299	97.05	308.1
1999	0.1	0.04	9.9	3.49	273.6	96.47	283.6
TOTAL '91-'99	37.9	1.81	143.5	6.84	1916.1	91.35	2097.5

Source: SIA News Letter, January 2000

SIA : Secretariate for Industrial Assistance,

RBI : Reserve Bank of India

FIPB : Foreign Investment Promotion Board

* includes 64 approvals approved by FIPB for Global Depository Receipts (GDR) /

Foreign Currency Convertible Bonds (FCCBs) involving investment of 222.36 Billion Rupees.

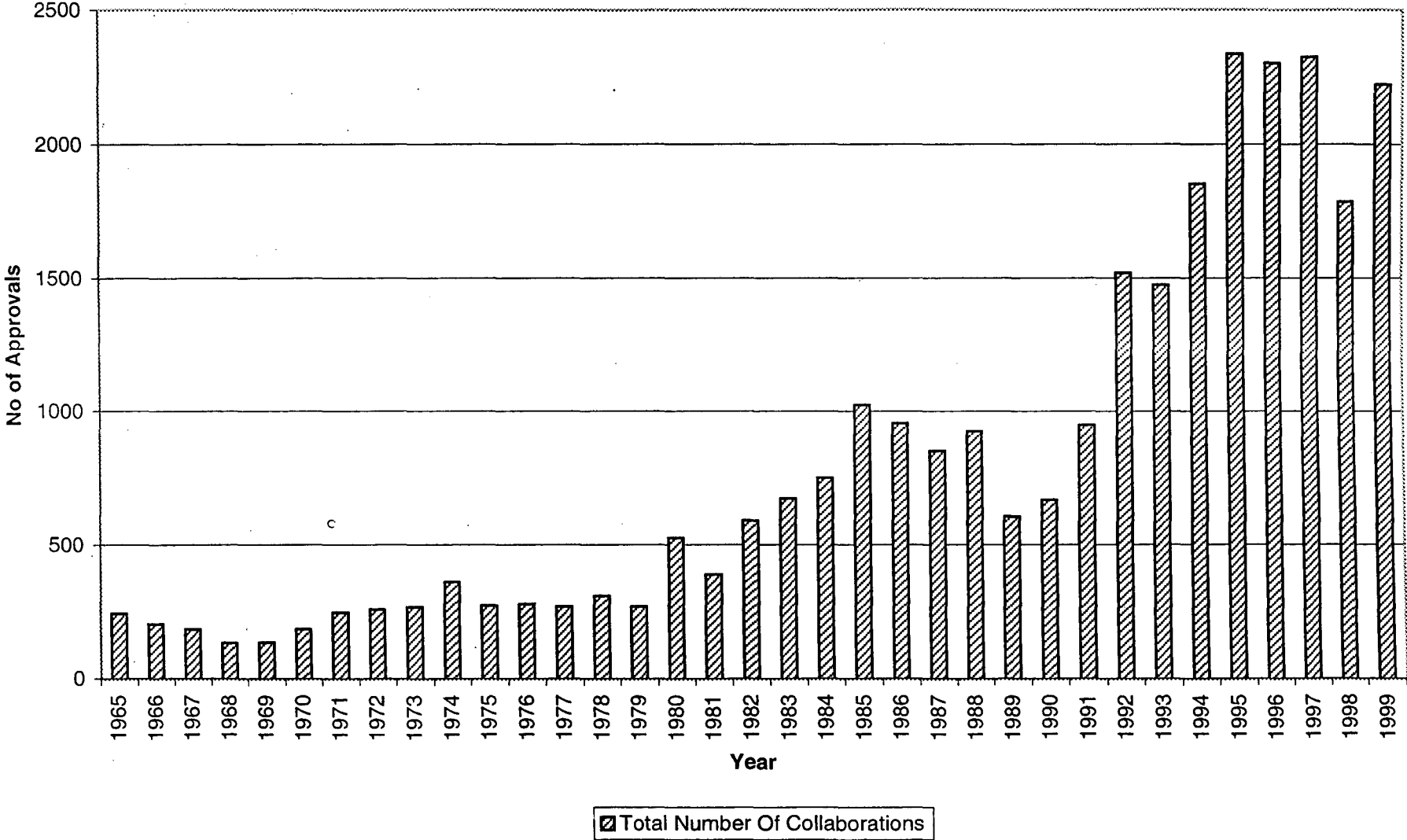
In the context of the liberalisation of industrial policy, it is thus significant that much of the investment approved went through a formal procedure of approval unlike the automatic approval procedure, where the investors might not have been so serious. During the initial period, equity hikes undertaken by many of the companies already under foreign control were approved automatically. Goyal has observed that after a sharp public criticism of the manner in which the hikes in the extent of foreign held equity were affected at ridiculously low prices as compared to the prevailing market prices as compared to the prevailing market prices, the terms of issue were tightened (cited in Rao, Murthy, Ranganathan, 1999, p.424).

2.4 Foreign Collaborations in India:

In India a foreign collaboration was expected mainly to serve the function of bringing in foreign technology not available domestically. This was clearly specified in the policy on foreign collaborations as defined in the 1950's. However there was pressure from domestic interests to alter this. In particular, this requirement was usually violated so that often the same technology was available under different brand names. More importantly, after 1969 policy on foreign collaborations was made more specific and integrated into the overall policy on foreign investment. However, subsequently the phrase '*indigenous*' was replaced by '*sophisticated and high technology*'. The specific purpose of a separate treatment of collaborations was unpacking of a technology so that only the essential elements remain (Pant, 1995, p. 56).

The Main Thrust to encourage foreign collaboration came in 1980's in the Technology Policy Statement of 1983. Essentially a collaboration can take the form of either *financial collaboration* or *technical collaboration* or both. A financial collaboration can take the form of equity inflows or loans where as a technical collaboration is one where the foreign collaborator undertakes to sell technical design and drawings on the basis of a lump sum fee or royalty which is specified in the

Figure 2.1 Trend of Foreign Collaboration Approvals in India (1965 - 1999)



agreement. In actual practice collaborations tend to have elements of both financial and technical agreements. There are some restrictions to collaboration agreements:

- after 1968, the limit of the collaboration agreement is 5 years as opposed to 10 years stipulated earlier, and extensions are rarely given,
- fresh agreements with the same foreign partner are frowned upon,
- the foreign partner is not allowed to place any export restrictions on the domestic partner (except 10 countries where foreign collaborator already has an affiliate) or tie the agreement to purchase of inputs from a pre-specified source,
- in continuation of the general policy on patents, the domestic collaborator cannot be constrained in passing the technology to other domestic producers,
- while royalty payments are restricted to 5 percent of the value of production, royalties and lump sum payments must together not exceed 8 percent of the value of production (Pant, 1995,p.57)

The jump in the number of foreign collaborations between 1965 to 1999 is remarkable (see Table 2.3 and Figure.2.1).It is evident that the over all value of investment proposals and their approval by the Government increased substantially since the adoption of the new economic policy. The size of the foreign investments approved in 1981 was Rs.10.9 crores. The rise was noticed from 1985 (see Table 2.4), where the investment was 126.1 crores which was 9.90 percent of the total investment from 1981-1990. The total approval was 238 with 23.4 percent financial and 76.76 percent technical collaborations. The peak year during the 1980's was 1989, when the approvals aggregated to Rs.316.7 crores (24.86 percent of the total of 1981-90), where the number of approvals was 194, which was much lower than the previous year with 32.07 percent financial and 67.23 percent technical collaborations. During the first year after the adoption of SAP in 1991, size of approved foreign investment shot up to Rs.530 crores (0.25 percent of the total of 1991-99,see Table 2.5), from the low of Rs.128.3 crores in 1990. It started to rise from 1992 onwards. The largest number of approvals were made

in 1995 which were 2337 , i.e., 13.93 percent of the total with 57.98 percent financial and 42.02 percent technical collaborations and an investment of Rs.32070 crores (15.29 percent of the total). The peak year during the 1990's was 1997 when the total investment was 54890 crores (26.17 percent of the total). The number of approvals were 2325 where 71.61 percent was financial and 28.39 percent were technical collaborations. Since the adoption of SAP in 1991, the total amount of approval is Rs. 209760 crore, i.e an average of Rs 26220 per annum. Out of this Rs. 182290 crore i.e 86.90 percent were approved between 1995 to December 1999. Approvals since 1994 include Global Depository Receipts (GDR) and Foreign Currency Convertible Bond's (FCCB). GDR issues are portfolio investments and lack the essential criteria of control over the enterprise (Rao,Murthy, Ranganathan,1999,p.425).

Strictly speaking GDR's should not be treated as direct investment except for the purpose of reporting (UNCTAD 1997). There is a possibility of some other approvals also being included as FDI though these would not strictly qualify as direct investments since they lack the essential characteristic of control. The approvals have grown significantly over the last eight years. Yet India's share in the total global inflows continues to remain small. Even within South, East and S.E Asia, India's share was only 2.27 percent which though was better than the earlier level of 1.37 percent during 1985-90 (UNCTAD 1997,*cited* in Rao, Murthy, Ranganathan, 1999, Pp 425-427). But there is a wide gap between the amount of approval and the actual inflow of FDI (see Table 2.6). In 1991 it was 47.5 percent of the total amount invested which was fairly good as a beginning but gradually it started to decline and in 1998 the percentage of total actual inflow was only 21.78 percent (Economic Survey 1999-2000) .

A comparison between the foreign collaboration and investment in the 1980's and 1990's shows a wide gap between the number of approvals as well as the amount invested (see Table 2.4 and Table 2.5 and Fig 2.2, Fig 2.2a). In the 1980's, the total collaboration was 1842 where as in the 1990's it increased to 10324, which is more than 5 times and the amount also increased from Rs. 1274.1 in the 1980's to Rs. 209760 crores in the 1990's. The striking difference between the two period is that in the 1980's technical collaboration was dominant (75.23 percent) and financial collaboration was only 24.7 percent.

Figure 2.2 Foreign Collaboration Approvals in India (1981 - 1999)

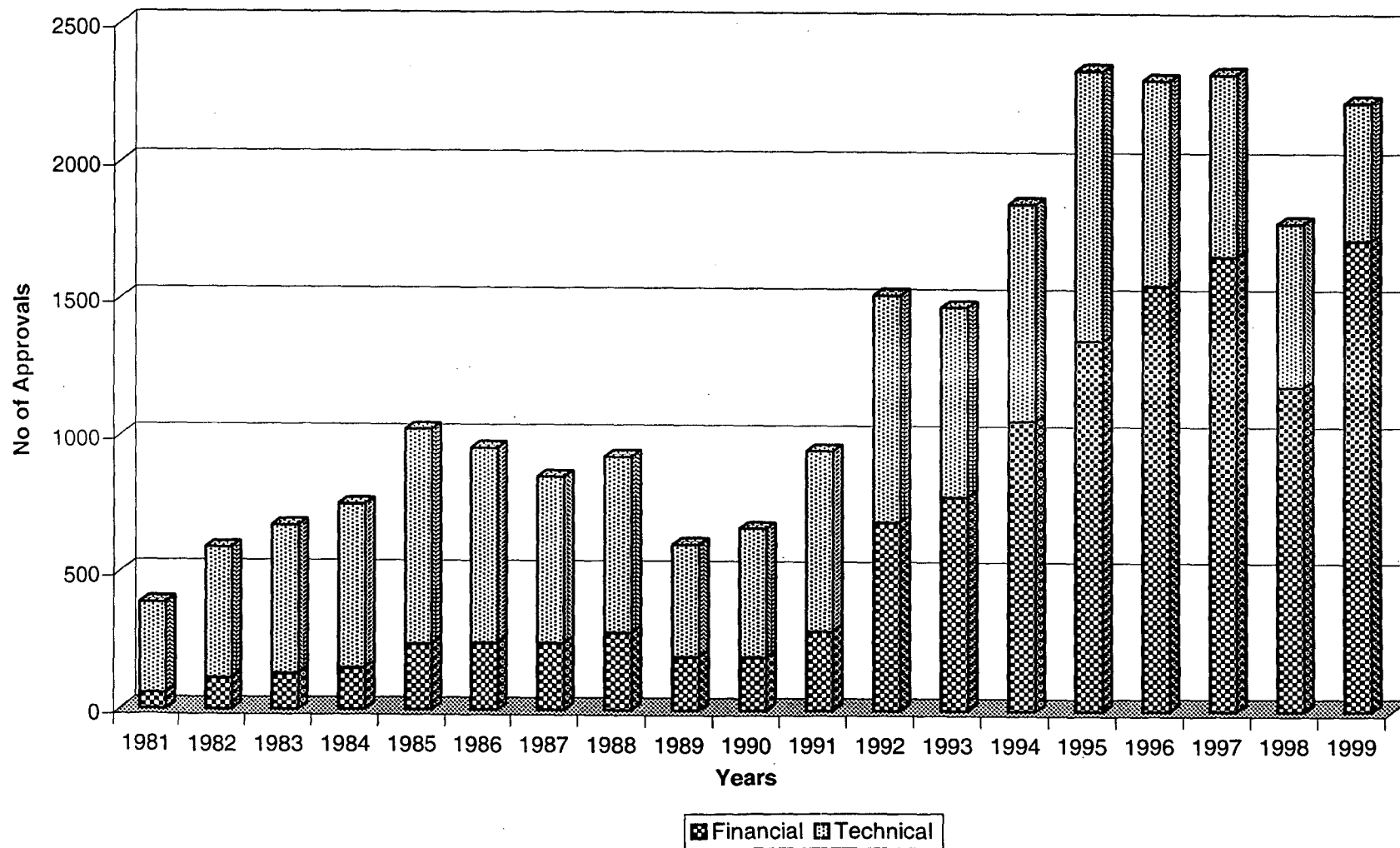


Figure 2.2(a) Foreign Investment in India (1981 -1999)

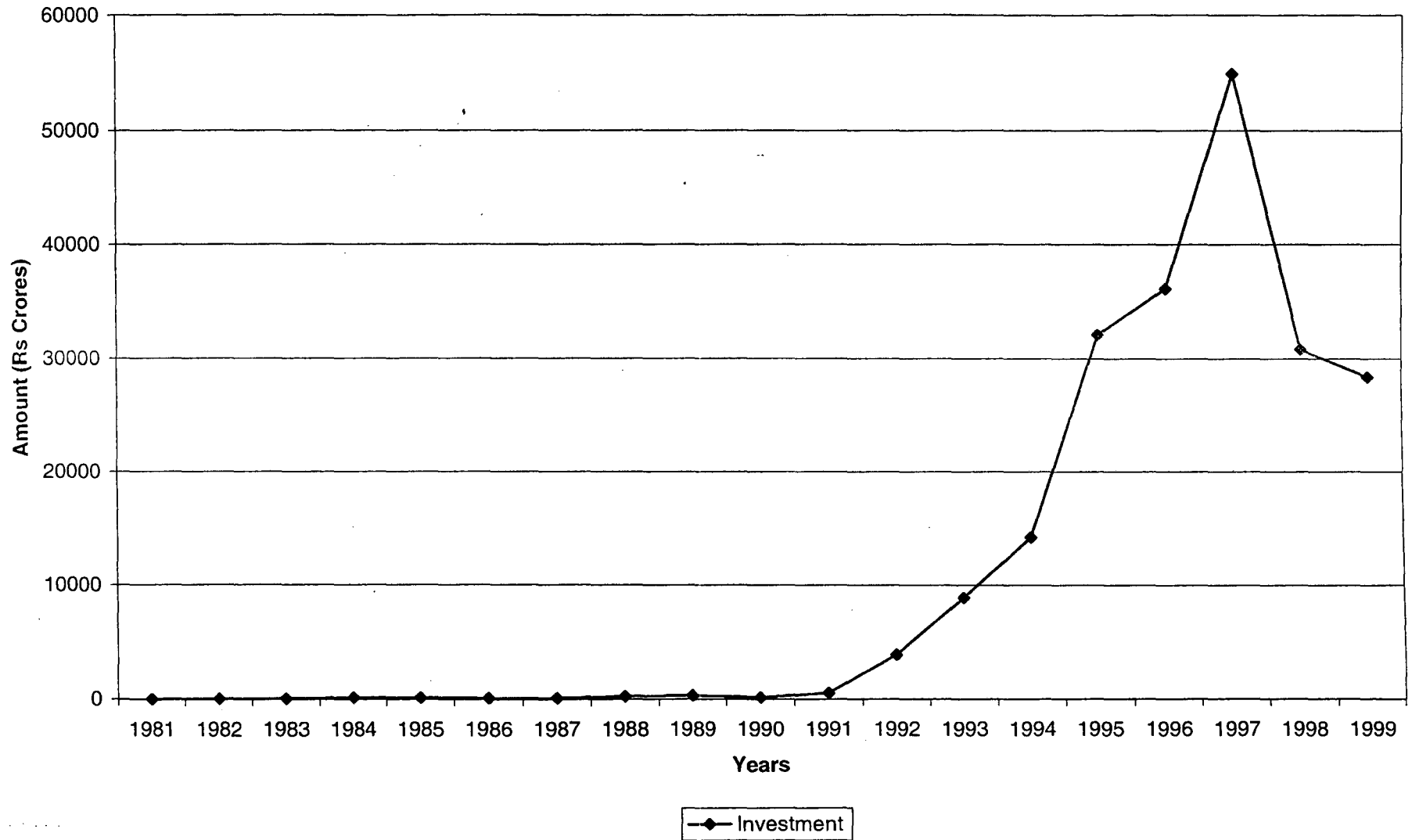


Table 2.3 Trend of Foreign Collaboration Approvals in India : 1965 -1999

Year	Total Number Of Collaborations	Share of Each year
1965	241	0.85
1966	202	0.71
1967	182	0.64
1968	131	0.46
1969	134	0.47
1970	183	0.65
1971	245	0.86
1972	257	0.91
1973	265	0.94
1974	359	1.27
1975	271	0.96
1976	277	0.98
1977	267	0.94
1978	307	1.08
1979	267	0.94
1980	526	1.86
1981	389	1.37
1982	590	2.08
1983	673	2.38
1984	752	2.65
1985	1024	3.62
1986	957	3.38
1987	853	3.01
1988	926	3.27
1989	605	2.14
1990	666	2.35
1991	950	3.35
1992	1520	5.37
1993	1476	5.21
1994	1854	6.55
1995	2337	8.25
1996	2303	8.13
1997	2325	8.21
1998	1786	6.31
1999	2224	7.85
Total	28324	

Source: Pant 1995, SIA News Letter January, 2000.

Table 2.4 Foreign Collaboration Approvals in India (1981 - 1990).

Year	No. Of Approved Collaborations			% of Financial	% of Technical	Tot Amt of Foreign Inv	% of Foreign
	Financial	Technical	Total	Collaboration	Collaboration	Involved(Rs.Crores)	Investment
1981	57	332	389	14.65	85.35	10.9	0.86
1982	113	477	590	19.15	80.85	62.8	4.93
1983	129	544	673	19.17	80.83	61.9	4.86
1984	151	601	752	20.08	79.92	113	8.87
1985	238	786	1024	23.24	76.76	126.1	9.90
1986	242	715	957	25.29	74.71	106.9	8.39
1987	242	611	853	28.37	71.63	107.7	8.45
1988	282	644	926	30.45	69.55	239.8	18.82
1989	194	411	605	32.07	67.93	316.7	24.86
1990	194	472	666	29.13	70.87	128.3	10.07
TOTAL	1842	5593	7435	24.77	75.23	1274.1	100

Source: SIA News letter, January 2000.

Table 2.5 Foreign Collaboration Approvals in India (1991 - 1999).

Year	No. Of Approved Collaborations			% of Financial	% of Technical	Tot Amt of Foreign Inv	% of Foreign
	Financial	Technical	Total	Approvals	Approvals	Involved(Rs.Crore)	Investment
1991	289	661	950	30.42	69.58	530	0.25
1992	692	828	1520	45.53	54.47	3890	1.85
1993	785	691	1476	53.18	46.82	8860	4.22
1994	1062	792	1854	57.28	42.72	14190	6.76
1995	1355	982	2337	57.98	42.02	32070	15.29
1996	1559	744	2303	67.69	32.31	36150	17.23
1997	1665	660	2325	71.61	28.39	54890	26.17
1998	1191	595	1786	66.69	33.31	30810	14.69
1999	1726	498	2224	77.61	22.39	28370	13.52
TOTAL	10324	6451	16775	61.54	38.46	209760	100.00

Source: SIA News letter, January 2000.

Table 2.6 Actual Inflow of FDI in India (1991-1998)

	1991	1992	1993	1994	1995	1996	1997	1998	Total 91-98
Approvals									
Rs crore	739	5256	11189	13590	37489	39453	57149	28783	193648
US \$ million	325	1781	3559	4332	11245	11142	15752	6975	55111
Actual Inflows									
Rs crore	351	675	1786	3009	6720	8431	12085	9116	42173
US \$ million	155	233	574	958	2100	2383	3330	2230	11963
Actual Inflows as % of Approvals in US \$ Terms	47.69	13.08	16.13	22.11	18.67	21.39	21.14	31.97	21.71
Actual Inflows as % of Approvals in Rs Terms	47.50	12.84	15.96	22.14	17.93	21.37	21.15	31.67	21.78

Source: Economic Survey, 1999-2000.

The scenario has, however totally changed after the adoption of the New Economic Policy in 1991. There is a rise in the financial collaborations (61.54 percent) and the technical collaborations have been reduced to 38.46 percent in 1999. The reason behind this is that the technical collaboration agreements are an underestimate because, a number of financial collaboration agreements are accompanied by payments for technology in the form of lump sum and/or royalty payments. Such approvals can be classified as financial cum technical. On the other hand, filing of a formal financial collaboration agreement becomes necessary only when payments have to be made abroad. Some of the foreign companies which, initially entered into only technology licensing agreements have later on acquired equity shares in such collaborations. Thus, a purely technology transfer agreement was later converted into a financial collaboration. If

these factors are taken into account, the actual number of independent technical collaboration agreements in the new policy regime may turn out to be fewer than the 1980's. These observations tend to indicate the decreasing importance of arms-length transfer of technology, which is giving way to technology transfer among other affiliates. Technology may then remain closely held by foreign companies with little chance of further local development. Some of the technical collaborations approved in case of large MNC's shed doubt about the real purpose of the agreement as also the possible behaviour of the MNC subsidiaries. Thus, technology and brand names are so closely controlled by the foreign parent companies that the local subsidiaries inspite of producing the items for years cannot pass on the technology horizontally.

In case of technical collaboration agreements automatic approval procedure is much more effective. Out of 6451 (38.46 percent) technical collaboration agreements (see Table 2.7) from 1991-99, the RBI granted 57.22 percent followed by SIA (39.54 percent) and FIPB (3.24 percent). The relative significance of financial collaborations in the total approvals has increased rapidly during the 1990's. Out of 10324 financial collaboration from 1991-99 (see Table 2.8), the FIPB granted 7324 approvals (70.94 percent), RBI 1933 approvals (18.72 percent) and SIA 1067 approvals (10.34 percent) .

Table 2.7 Foreign Technical Collaboration Approvals in India by SIA,RBI,FIPB (1991-1999).

Year	Total Number of Foreign Collaboration (Technical) Approvals						Total
	By						
	SIA	% of Tot	RBI	% of Tot	FIPB	% of Tot	
1991	514	77.76	147	22.24	0	0.00	661
1992	342	41.30	485	58.57	1	0.12	828
1993	248	35.89	441	63.82	2	0.29	691
1994	290	36.62	501	63.26	1	0.13	792
1995	428	43.58	552	56.21	2	0.20	982
1996	311	41.80	424	56.99	9	1.21	744
1997	119	18.03	416	63.03	125	18.94	660
1998	129	21.68	401	67.39	65	10.92	595
1999	170	34.14	324	65.06	4	0.80	498
TOTAL '91-'99	2551	39.54	3691	57.22	209	3.24	6451

Source: SIA News Letter, January, 2000.

Table 2.8 Foreign Financial Collabotrations in India by SIA,RBI,FIPB (1991- 1999)

Year	Total Number of Foreign Collaboration (Financial) Approvals						Total
	By						
	SIA	% of Tot	RBI	% of Tot	FIPB	% of Tot	
1991	246	85.12	41	14.19	2	0.69	289
1992	243	35.12	251	36.27	198	28.61	692
1993	59	7.52	235	29.94	491	62.55	785
1994	92	8.66	201	18.93	769	72.41	1062
1995	165	12.18	247	18.23	943	69.59	1355
1996	99	6.35	295	18.92	1165	74.73	1559
1997	48	2.88	385	23.12	1232	73.99	1665
1998	64	5.37	31	2.60	1096	92.02	1191
1999	51	2.95	247	14.31	1428	82.73	1726
TOTAL '91-'99	1067	10.34	1933	18.72	7324	70.94	10324

Source: SIA News Letter, January 2000

2.6 Industry wise Approvals:

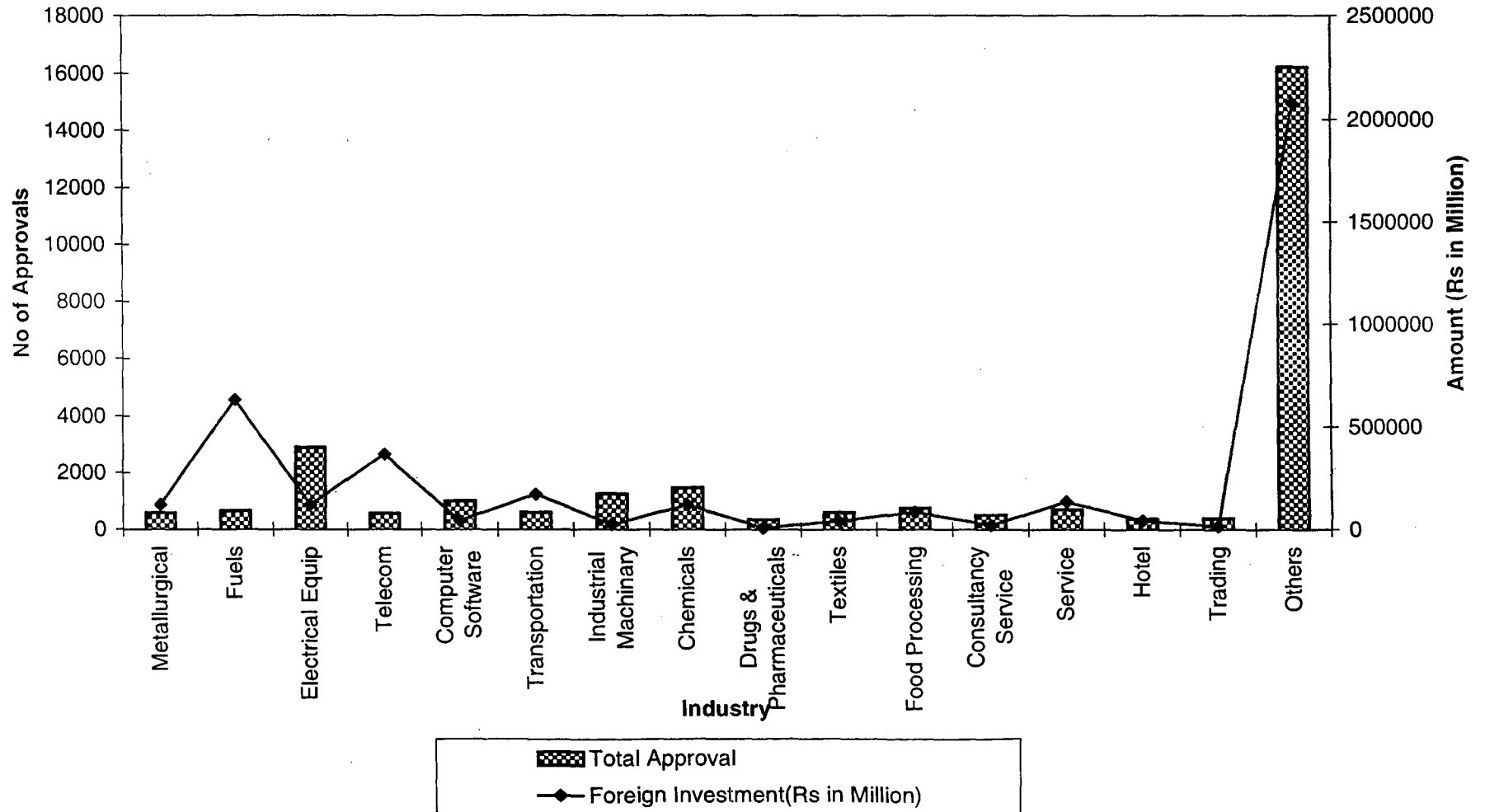
FERA was enacted with multiple objectives in mind. In the scheme to permit higher equity share in high technology and export oriented enterprises it was implied that FERA would channelise foreign investment into priority areas. Even while retaining the basic concept of selectiveness, the post July 1991 phase enlarged the scope of foreign investment. At the end of 1989-90, the manufacturing sector accounted for 85 percent of the FDI stock (RBI, 1993 a, Pp 1031-51). Within this sector chemical and allied products stood at the top. Liberalisation of industrial licensing in the form of freeing public sector reserved areas has been the single policy decision that influenced the sectoral pattern of FDI (Rao, Murthy, Ranganathan, 1999, p.429). With the emphasis on non-traditional exports and those treated as low technology based industries, the change in industry composition of foreign investment was bound to take place.

A major policy change in the new regime has been with regard to drastic contraction in Public Sector Reserved areas, i.e. power and telecommunication. Between 1991 to November 1999 the total amount of foreign investment in different sectors was

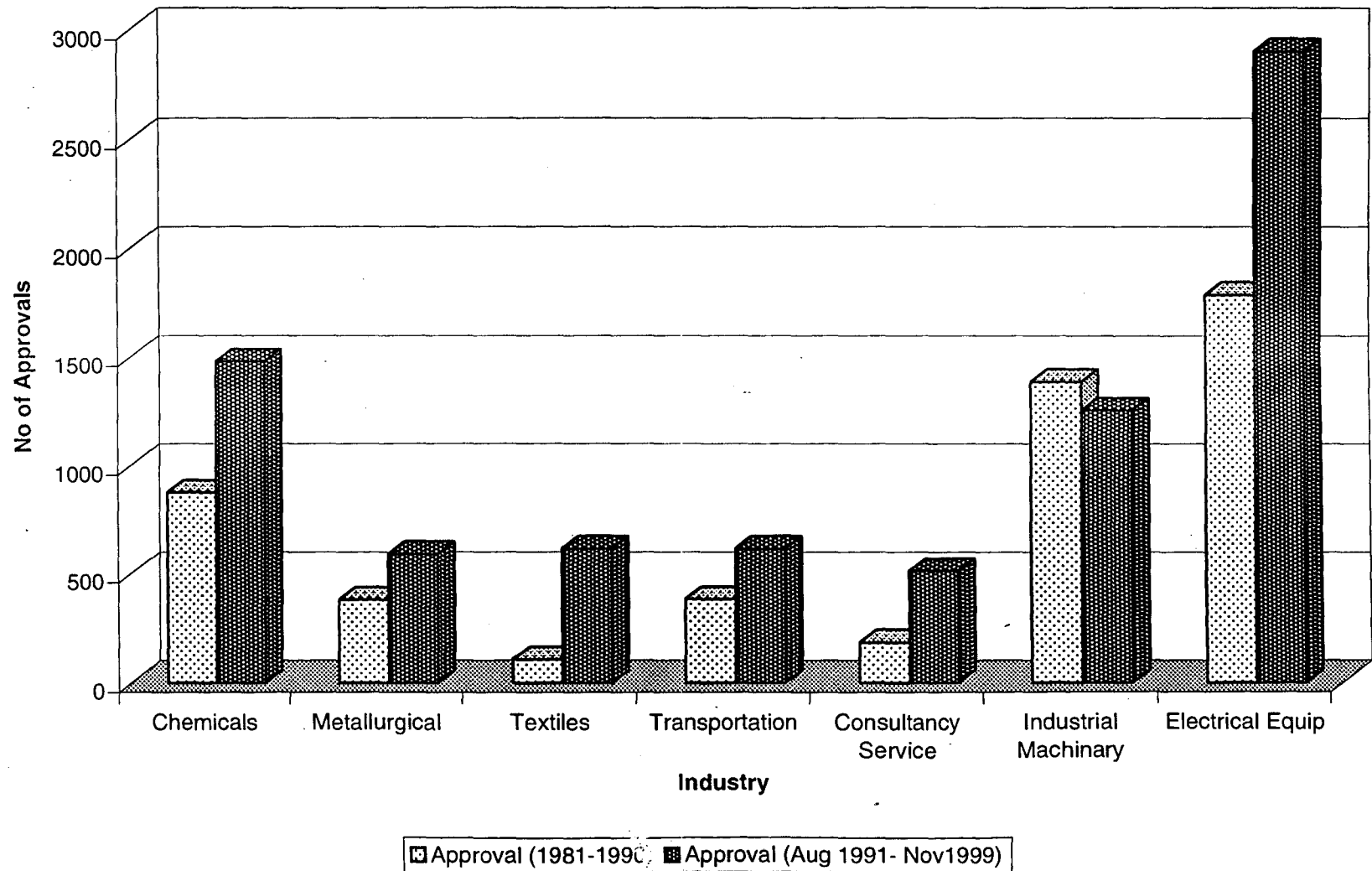
Rs. 2079487.39 million, and the number of total approval were 16237 out of which 37.99 percent was technical and 62.01 percent were financial. Industrial Policy changes, especially with regard to Public sector led to a dramatic upsurge in the approvals for new projects in fuel and telecommunications. Nearly half of the total foreign capital was proposed in these sectors (see Appendix II). If iron and steel and air transport are also taken into consideration, nearly half of the foreign investment proposals approved happen to be in areas formally reserved for development in the Public sector.

The sector wise breakup of FDI and foreign collaborations from August 1991 to November 1999 is given in Appendix II. This period has been divided into two phases , i.e., August 1991 - November 1995 and December 1995 - November 1999. This temporal delineation of the post liberalisation decade will help us to understand the ramification of the liberalisation process both in the immediate period after liberalisation and for the period when the process had get the momentum. From the table it is evident that the fuel sector accounts for 30.51 percent of the approved investment between August 1991 to November 1999. In the first period the number of approval in this section was 165 with a investment of Rs. 11423.18 million, and in period two the number of approvals increased to 496 along with the investment to Rs. 523102.98 million. This is followed by the telecommunication sector (17.61 percent), where most of the investment is directed towards cellular mobile and basic phone services. The number of approval in this section increased from 228 during period one to 343 during period two and the amount increased from Rs. 159728.93 million to Rs. 20464.12 million. This is followed by the transportation sector (8.28 percent). The number of approval in this section had almost doubled from first to second period, i.e, 351 to 743 and the amount increased from Rs 29485.81million to Rs. 142789.79 million. Next comes the Metallurgical sector accounting for 5.83 percent of the total investment. In this section number of approvals have decreased from 306 to 285 from period one to period two but the investment had almost doubled during period two than the previous period. Chemical comes next with 5.73 percent of the total investment. In this sector also the number of approvals have decreased from the first to the second period but the amount of investment had increased more than double. This reflects the capital intensive approvals in these sectors. Electrical

Figure 2.3 Sectorwise Breakup of Foreign Collaboration and Foreign Investment Approved in India (August 1991- November 1999)



**Figure 2.4 Foreign Collaboration Sectorwise Distribution in India
(1981-1990 and Aug 1991-Nov 1999)**



equipment accounts for 5.76 percent of the total approval. The number of approvals in this group has increased a little from period one to period two, i.e, from 1340 to 1565 but the amount invested increased almost four times from Rs. 27449.3 million to Rs.92261.34 million. The food processing sector dominated by big MNC's like Coca - Cola, Kellogg's etc accounts for 4.08 percent of the total investment. The computer software sector accounts for 2.05 percent. The change in this sector before 1995 and after 1995 is remarkable. During period one the number of approval was only 306 which increased to 713 during period two and the amount invested increased from Rs.9734.33 million to Rs 32952.94 million. The hotel and tourism accounts for 2.04 percent and the textile industry 1.98 percent of the total investment. In both the sectors the number along with investment has increased from period one to period two. The industrial machinery accounted for 1.06 percent of the approved investment. In this category the number of approvals and amount invested between period one and period two had decreased considerably. Table 2.9 and Figure 2.3 shows the sector wise break up of some important industries and Table 2.10 and Figure 2. 4 show the comparison between some selected industries during 1980's and 1990's. The sectoral investment also includes increase due to enhanced foreign equity stake in the existing foreign controlled companies. In this context, new foreign investment leading to expansion of production capability in the machinery sector could be even lower. It has also been observed that the sector is not receiving much attention in technical collaborations compared to the 1986-90 period.

Discussions on foreign investment in India generally reflect the concern about their role in consumer goods industries. The *Economic survey* of 1999-2000 placed the share of consumer goods sector at 12.9 percent, capital goods and machinery at 10.81 percent and that of core and infrastructure sector at 57.7 percent in the total FDI approved between August 1991 to August 1999 (see Table 2.11).

Table 2.9 Sector Wise Breakup of Foreign Collaboration in India (August 1991 -November1999)

Industry	Total Approval	Foreign Investment(Rs in Million)
Metallurgical	591	121137.72
Fuels	661	634526.16
Electrical Equip	2905	119710.64
Telecom	571	366213.05
Computer Software	1013	42687.27
Transportation	616	172275.6
Industrial Machinery	1257	22026.44
Chemicals	1481	120223.05
Drugs & Pharmaceuticals	343	8672.05
Textiles	616	41199.55
Food Processing	749	84820.18
Consultancy Service	513	19575.2
Service	716	135453.49
Hotel	388	42504.73
Trading	404	14527.08
Others	16237	2079487.39

Source :SIA News Letter, December 1996 to December 1999.

Table 2.10 Sector wise Breakup Foreign Collaboration in India

From 1981- 1990 and August 1991- November 1999.

Industry	Approval (1981-1990)	Approval (Aug 1991- Nov1999)
Chemicals	876	1481
Metallurgical	380	591
Textiles	106	616
Transportation	383	616
Consultancy Service	184	513
Industrial Machinery	1389	1257
Electrical Equip	1789	2905

Source: Pant, 1995 and SIA News Letter December 1996 to December 1999

Table 2.11 Sectorwise Approvals of FDI (August 1991 -August 1999)

Sector	No. of Foreign Technology Approvals	No. of Foreign Investment Approvals	Amount of FDI Approved (Rs. Crore)	Sectoral Shars in total Approvals (percent)
Core & Infrastructure	743	1353	116384	57.66
Capital Goods & Machinery	2857	3221	21848	10.82
Consumer Goods	672	1786	25961	12.86
Miscellaneous Industries	1499	1532	17879	8.86
Services	271	1665	19761	9.79
Strategic goods	4	1	3	0.00
TOTAL	6046	9558	201836	100.00

Source: Economic Survey 1999-2000

If the stated purpose of inviting FDI is to develop the core industries and infrastructure with foreign investment it is necessary to relax the FDI policy with regard to consumer goods industry. The character of infrastructure and service sectors is such that the foreign investors have to physically set up their regime in the country if they wish to extend their operation. In case of the manufacturing sector, be they consumer goods or others, the investors have the option of exporting to India instead of taking up local manufacture. Due to rapidly falling trade barriers, this possibility has become more real. Thus it is necessary to treat the two broad spheres, namely manufacturing sector and 'others' independently for policy process is obvious (Rao, Murthy, Ranganathan,1997,p 430).

2.7 Country wise Distribution of FDI Approvals:

Given the relative freedom now offered to foreign investors, one should expect that the sources of foreign investment would get further diversified. Developed countries account for nearly the entire stock of FDI in India. Over the years, however, the relative share of individual countries has undergone changes. At the same time, since many large

MNC's are based in USA, the country gained a better foothold in India. At the end of 1989-90 (see Table 2.12, Fig2.5) USA occupied the highest position followed by Germany, U.K and Japan. The four countries had a combined share of 83 percent (RBI, 1993a). As better technology does not appear to be a special consideration for permitting new investments, one might witness a diversification of sources of investment.

Table 2.12 Country Wise Break up of FDI in India (1981-1990 in Rs. Million)

Country	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Total
U.S.A	22.5	23.6	138.9	132	589.8	390	454.9	983.1	625	511.5	3871.3
Germany	54.2	35.3	48.4	46.6	439.9	228.9	165.9	378.4	197	181.1	1775.7
U.K	7.1	25.1	98	42.1	40.9	81.4	503	11.1	397.1	94.1	1299.9
Japan	6.5	1011.1	160.8	72.7	171	56.2	77.1	243.8	398.4	42.4	2240
France	0.8	25.8	8	16.6	59.8	19	53.6	181.6	96.3	89.4	550.9
Sweden	0	15.3	8	15.8	18.7	47.5	22.4	4.4	56.5	64.8	253.4
Netherland	0.8	0	26.9	0	7	70.8	10.4	13.6	36.5	6.4	172.4

Source: Pant, 1995 p.61

After the New Economic Policy of 1991, it can be seen that (see Table 2.13, Fig 2.6), USA still occupies the first position as the major investor in India. But the share of the former top four countries (USA, Germany, U.K, Japan) has come down substantially. The second place has been occupied by Mauritius, which is known as a heaven or tax shelters along with Singapore and Hong Kong. Many of the investments routed through Mauritius can be traced to US companies. Similarly, some of the investments through Mauritius as well as Switzerland were found to have NRI associations. A notable feature of country-wise distributions is that South Korea took the lead over Japan which played an important role in the 1980's. It is also important to note that countries from South, East and South East Asia are also investing substantially in India along with countries of Europe, North and South America. The substantial share of the NRI's in the total investment approved resembles the Chinese experience. A significant portion of huge investment in China is reported to have been contributed, over the years, by the people of Chinese origin. It is expected that the same scenario will prevail in India as the Government is attracting NRI investments through various lucrative schemes (Rao, Murthy, Ranganathan, 1999, p.433).

Figure 2.5 Country wise Breakup of FDI in India (1981 - 1990)

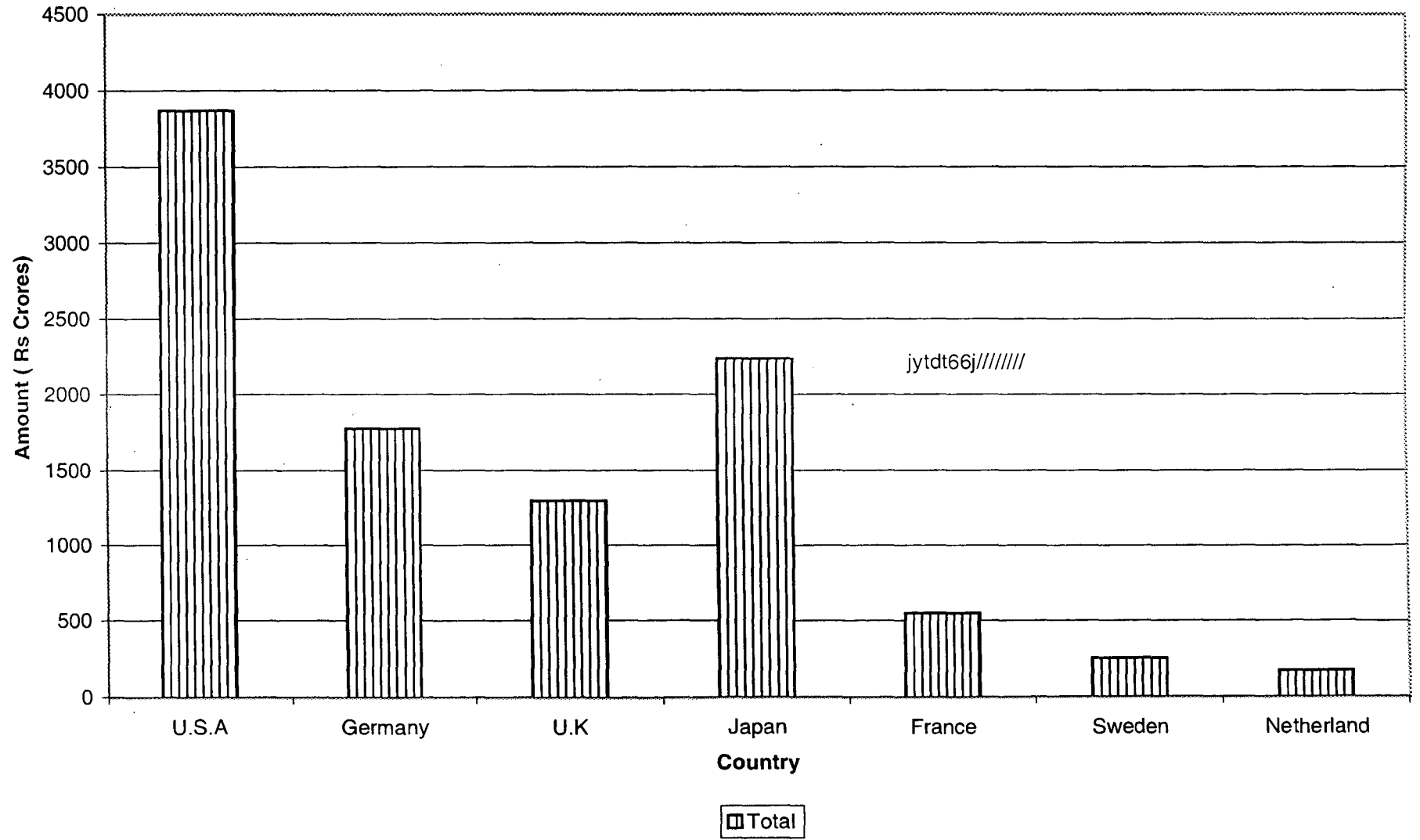


Figure 2.6 Countrywise Breakup of FDI in India (1991 - 1999)

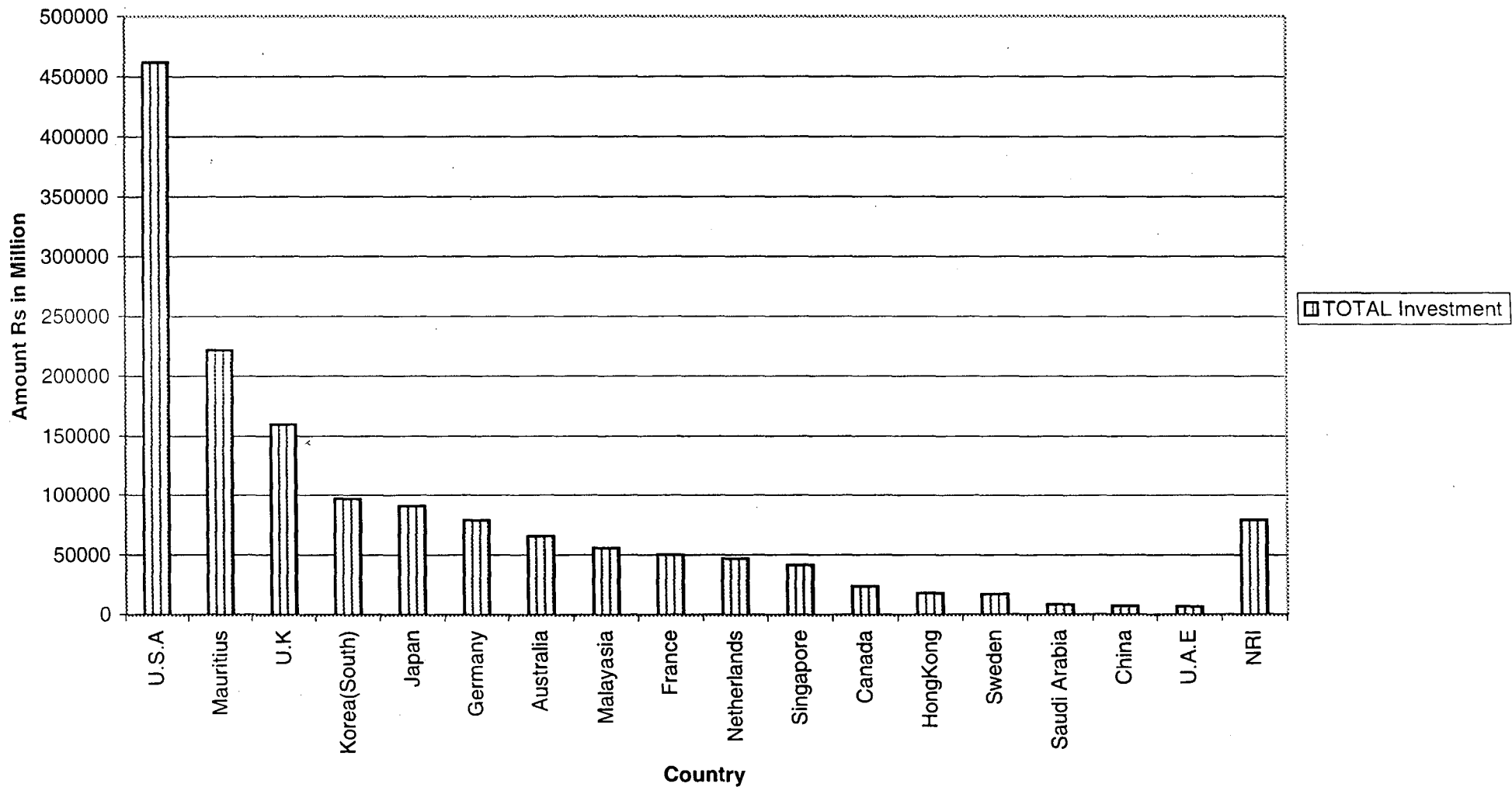


Table 2.13 Country wise Break up of FDI (1991-1999 in Rs. Million)

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	TOTAL Investment
U.S.A	1858.5	12315	34618.5	34880.9	70543.7	100558.7	135698.23	35619.6	35751.7	461844.83
Mauritius	0	0	1242.4	5347.4	18084.9	23340.2	104278.9	31659.07	38030.48	221983.34
U.K	321	1176.7	6227.3	12991.5	17258.6	15245.99	44907.19	32008.44	29630.47	159767.18
Korea(South)	61.5	394	293.3	1068.5	3141.9	32209.21	19559.76	3683.54	36489.3	96901.01
Japan	527.1	6102.3	2574.3	4009	15142.6	14882.49	19063.5	12828.24	15947.28	91076.81
Germany	418	862.7	1759.3	5693.6	13394.9	15378.91	21558.14	8537.58	11429.46	79032.59
Australia	26.1	776.2	295.6	3884.5	15042.2	8344.32	4316.72	26377.2	6489.62	65552.46
Malayasia	1.8	744.3	84.8	252.2	13860.9	423.31	21046.41	18031.02	1161.46	55606.2
France	193.3	296.4	1290.9	897.3	4203.6	16716.93	7134.12	5135.57	14486.17	50354.3
Netherlands	559.2	967.9	3216.5	2069.6	9664.6	10487.14	8705.43	4962.56	6322.14	46955.07
Singapore	13.7	602.1	667.4	2655	9910.4	3197.72	8619.01	7673.39	8258.94	41597.66
Canada	48.6	7.8	272.8	420.8	13735.6	1965.42	3842.64	3156.79	368.42	23818.87
HongKong	211.5	570.8	879.5	1647.8	4071.7	5078.81	2585.7	2380.25	441.36	17867.42
Sweden	69.8	484.1	6.2	116.4	5022.5	5330.19	1089.99	2154.25	2739.34	17012.77
Saudi Arabia	0	3.1	108.7	0	1.2	6094	61.79	584.68	1265.3	8118.77
China	7.5	0	616.6	272.5	5810.6	139.73	3.6	68	210.85	7129.38
U.A.E	2.2	64.5	4044.9	512.3	143.6	526.14	935.56	162.92	101.2	6493.33
NRI	197	4391.3	10433.2	4908.8	7097.1	21906.97	18171.79	7503.39	4548.08	79157.63

Source: SIA News Letter, January 2000.

Chapter III

SPATIAL DISTRIBUTION OF FDI

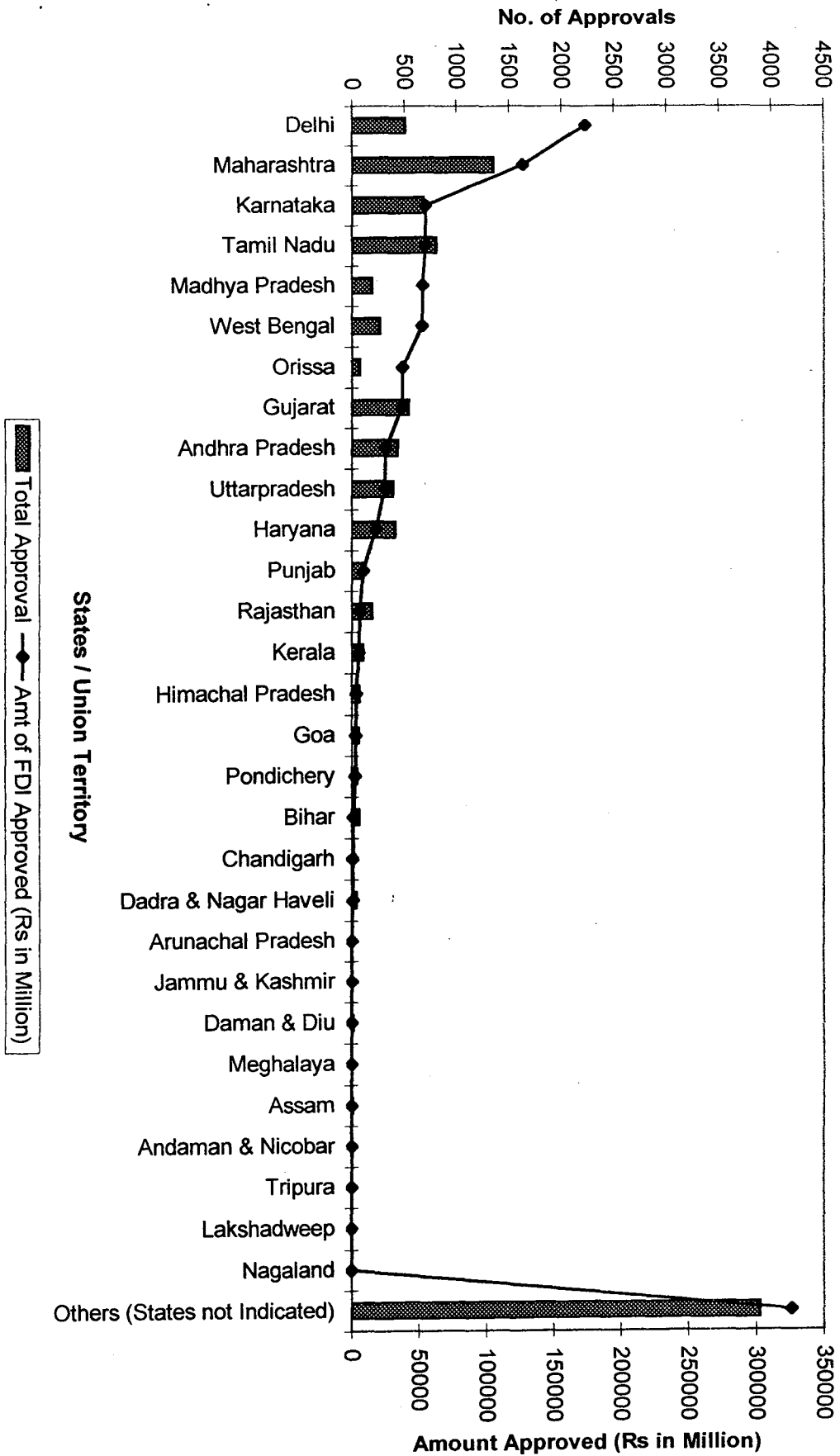
3.1 State wise Distribution of FDI

The NEP is a macro-economic policy and has been formulated without reference to a particular State, or group of States in general, India's development strategy has been aspatial through balanced regional development has been the avowed goal of the national development strategy. The actual thrust of most of the policy have been the achievement of economic growth. If the NEP follows the same route, the regional disparities in economic development are likely to increase, at least in the foreseeable future.

Although the pattern of (approved) FDI has, in recent years, changed in spatial terms and diversified in sectoral terms, it has significant bias for the States having big metropolitan centres, well developed physical and social infrastructure, political stability and a high return potential (Suryakant, 1999, p.88).

Location of projects with FDI becomes significant in the context of wide inter-state disparities in industrialization. States have been showing considerable interest in attracting foreign investments. Given the nature of approvals, however, the available information has serious limitations in reflecting actual amounts that are likely to flow in different States. If one goes by the official statistics between August 1991 to January 1997, Delhi received the maximum amount of approved foreign investment (17.08 percent) followed by Maharashtra with 12.49 percent of the total amount approved between August 1991 - January 1997 (see Table 3.1, Fig.3.1). But in terms of number of approvals Maharashtra stood at the top with 13.08 percent of the total approvals during the above mentioned period. The next important State was Karnataka with 5.41 percent of the foreign investment and 6.65 percent of the total approvals. Tamil Nadu came after Karnataka with 5.39 percent of the total foreign investment approved during that period. The other important states are Madhya Pradesh (5.19 percent), West Bengal (5.17

3.1 State wise Breakup of and FDI Approved in India (August 1991 - January 1997)



percent), Orissa (3.73 percent), Gujarat (3.71 percent), Andhra Pradesh (2.47 percent) Uttar Pradesh (2.41 percent), Haryana (1.75 percent), Punjab (0.81 percent).

In contrast, FDI proposals for the troubled states of Jammu and Kashmir, Manipur, Nagaland, Mizoram, Sikkim and Meghalaya are almost negligible. Among the mineral rich backward states Orissa benefited the most while Bihar the least. It is stated that transparent investment policies, quick approval procedures and attractive incentive packages helped Orissa in this regard (ASSOCHAM, 1996 cited in Suryakant 1999 p.88). The state wise distribution of the number of foreign approvals and investment is shown in Fig.3.2.

3.2 Spatial Organisation and Levels of Activities of MNCs

The pattern of location of MNC's exhibits a relentless drive to expand, to develop forces of production and to rearrange the social structure of accumulation (Banerjee-Guha, 1997, p.119). Regardless of the initial distribution of factor supplies, the MNC's attempt to alter the basis of industrial space economy in various directions. Each crisis is overcome by producing a new breed of corporation in terms of scale of organisation or range and degree of diversification of products. Old products, obsolete processes or uncompetitive plants disappear with their entire lot of labour and regional liabilities.

Massey and Megan (1978), stated that production organisation and distributional pattern of industries and their reorganisation can be seen as structuring of industrial space. It varies by industry, depending on the respective conditions of individual types, but simultaneously also reflects an aggregate dynamics. According to Estall and Buchanan (1961), firms do not locate simply due to factor-supply conditions, they require both cause and capability for orienting a spatial organisation and producing a new set of factor supply conditions (Banerjee-Guha, 1997, p.120.).

Table 3.1 State wise FDI Approvals between August 1991- January 1997
(States are ranked on the basis of Approved amount of FDI)

State	Number of Approvals						Amt of FDI Approved (Rs in Million)	Share in Total Investment
	Total	%	Tech	%	Fin	%		
Delhi	512	4.94	54	1.19	458	7.88	173303.59	17.08
Maharashtra	1355	13.08	523	11.51	832	14.31	126763.87	12.49
Karnataka	689	6.65	255	5.61	434	7.46	54938.89	5.41
Tamil Nadu	812	7.84	269	5.92	543	9.34	54687.54	5.39
Madhya Pradesh	192	1.85	82	1.80	110	1.89	52683.29	5.19
West Bengal	271	2.62	92	2.02	179	3.08	52495.48	5.17
Orissa	77	0.74	28	0.62	49	0.84	37907.9	3.73
Gujarat	548	5.29	297	6.53	251	4.32	37625.42	3.71
Andhra Pradesh	439	4.24	144	3.17	295	5.07	25112.73	2.47
Uttarpradesh	395	3.81	176	3.87	219	3.77	24445.19	2.41
Haryana	414	4.00	146	3.21	268	4.61	17884.02	1.76
Punjab	105	1.01	39	0.86	66	1.14	8212.04	0.81
Rajasthan	193	1.86	65	1.43	128	2.20	6054.69	0.60
Kerala	104	1.00	38	0.84	66	1.14	5209.17	0.51
Himachal Pradesh	70	0.68	48	1.06	22	0.38	3296.82	0.32
Goa	68	0.66	33	0.73	35	0.60	2823.86	0.28
Pondichery	52	0.50	22	0.48	30	0.52	2529.05	0.25
Bihar	69	0.67	42	0.92	27	0.46	1307.46	0.13
Chandigarh	14	0.14	2	0.04	12	0.21	724.62	0.07
Dadra & Nagar Haveli	48	0.46	32	0.70	16	0.28	698.33	0.07
Arunachal Pradesh	2	0.02	0	0.00	2	0.03	110.6	0.01
Jammu & Kashmir	1	0.01	0	0.00	1	0.02	80.10	0.01
Daman & Diu	16	0.15	9	0.20	7	0.12	57.18	0.01
Meghalaya	1	0.01	0	0.00	1	0.02	25.00	0.00
Assam	10	0.10	6	0.13	4	0.07	14.95	0.00
Andaman & Nicobar	5	0.05	0	0.00	5	0.09	9.84	0.00
Tripura	1	0.01	0	0.00	1	0.02	6.8	0.00
Lakshadweep	1	0.01	0	0.00	1	0.02	5	0.00
Nagaland	1	0.01	1	0.02	0	0.00	0.00	0.00
Others (States not Indicated)	3894	37.59	2142	47.13	1752	30.13	325926.73	32.11
GRAND TOTAL	10359	100.00	4545	100.00	5814	100.00	1014940.16	100.00

Source : SIA News Letter, February 1997.

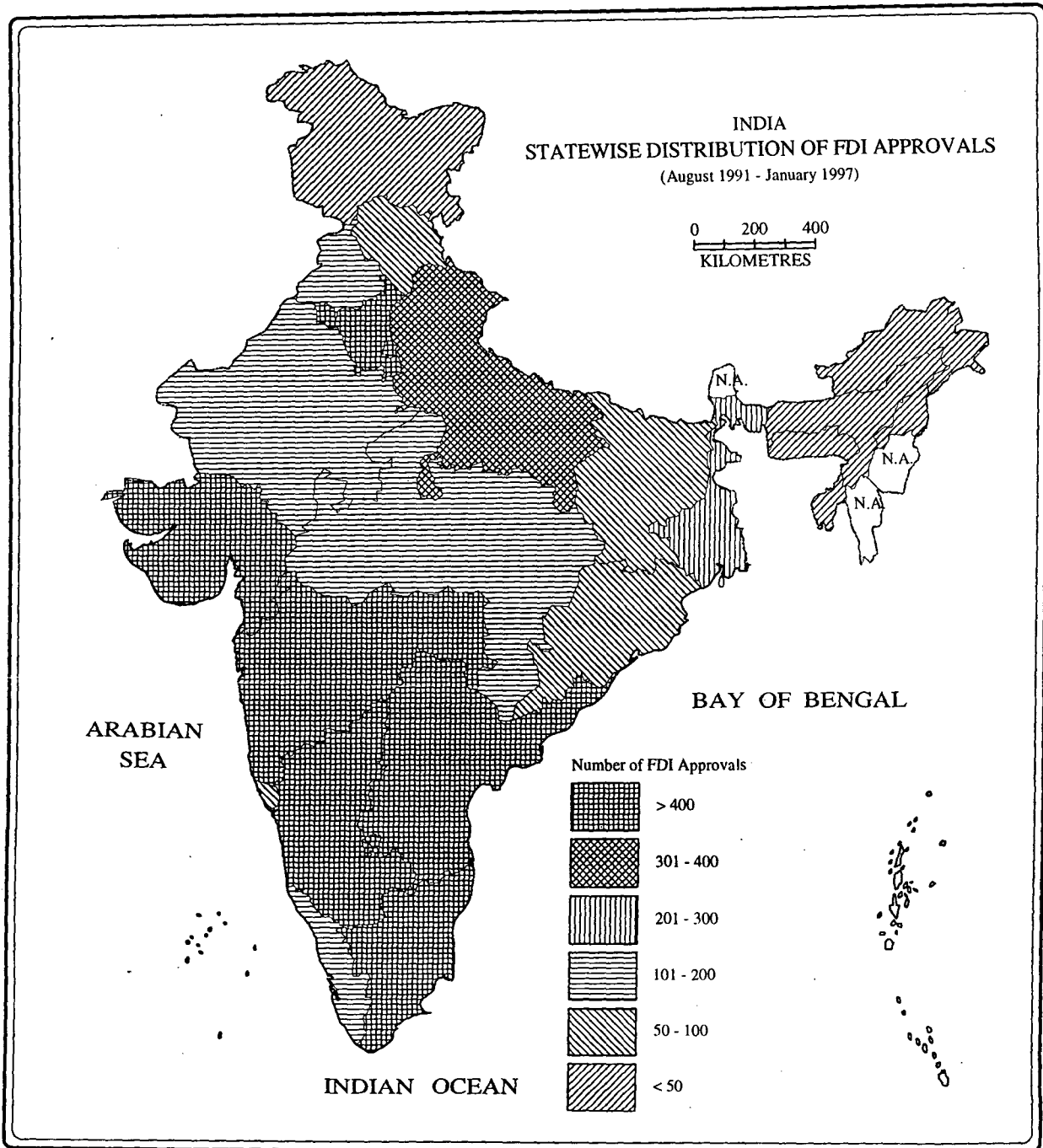


Fig 3.2

Traditional studies of distribution and geographical concentration of industries have been many. Wheat (1973) stresses on the pull of markets and climate. Fuchs (1962) stresses on labour differentials and natural resources, whereas North (1955) brings out the importance of only natural resources. Pertoff et.al. (1960) argue on behalf of economies of scale and agglomeration effects while Hammer (1973) emphasizes towards the advantages of reduced land cost enjoyed in small urban centres (Banerjee Guha, 1997, p.120). Regarding these factors, it has been repeatedly argued that corporate locations do not follow rules of traditional practices. As for example, natural resources are no longer major factors, due to efficient processing, availability of substitutes, expansion of assembly type production system. Similarly, the market loses its importance owing to intra-industry and inter-industry, interplant linkages and transactions. Nonetheless, agglomeration theory and economies of scale make a case for industrial concentration in large urban centres. Shared use of infrastructure, immigration of labour, access to innovation and information add strength to this argument. However, with the improvement of transportation, the case of agglomeration does not hold its former position at least for large corporation. Walker and Storper (1981) strongly argue that in case of MNC locations, rules of profits, dynamics of accumulation and availability of cheap labour play crucial roles (Banerjee-Guha 1997, p.120).

Locational theories of FDI primarily highlight three basic types of situations:

- i) ownership specific advantages;
- ii) locational advantages;
- iii) the eclectic hypothesis.

In the first case, the MNCs establish a subsidiary in a foreign country due to combined advantages of technology, product differentiation and entrepreneurial and managerial capacity (Hymer, 1976; Kindleberger, 1969 cited in Banerjee-Guha 1997, pp.120-121).

Locational advantages highlight the differences existing between the parent and the host country in terms of economic and political environments, price structure, productivity of inputs and large market. Relief in tariff and tax regulation offered by host government act as investment incentives.

The eclectic hypothesis formulated mainly by Dunning, attempts a synthesis of the above two and argues that MNC's can internalise both ownership and location specific advantages through investing abroad. Knickerbocker's (1973), theory of oligopolistic reaction argues that larger firms in the process of competing with each other would tend to create a cluster of similar production items, while Vernon's (1966) product cycle theory highlights the decision of a firm to relocate its production plant in a foreign country as a specific sequence of product development (Banerjee Guha 1997, p.121).

Thus locational decisions and the pattern of regional concentration of MNC offices and plants in the host country do not ^{only} reflect a search for cheap labour, but ^{also} a complex set of factors such as market, resources, institutions etc. The distinct spatial scales that are thence created differentiate and divide regions within these countries tailored to the need of an exogenous design. Aggravation of regional disparity, globalisation of selected cities, acute primacy in urban systems, increasing rural-urban or town-country divide, then become coherent products of the diverse and interesting operation of international capital.

The spatial organisation of MNC's can be seen as a process of centralising and perfecting the process of capital accumulation following the national specificity and regional specialisations. To analyse the given spatial pattern a useful starting point is Chandler and Redlich's (1961) scheme of corporate structure (Banerjee Guha, 1997, p.39):

- Level III is the lowest level, which is concerned with the day to day operations of the plants.

- Level II, is the corporate head quarters in the host country that is responsible for entire operation in the host country. In many corporations, Level II operations are considerably autonomous and are allowed to enjoy sufficient decision making power. MNC's depend on Level II managers to a large extent in their attempt to integrate with host countries.
- Level I is the top management, the area of goal determination and planning. This level sets the framework according to which the lower levels operate. Geographically it is completely separate from the other three levels and invariably located in the parent country from where it plans strategy rather than tactics (Hymer, 1971, cited in Banerjee Guha, 1997, p.121)

It can be seen that the highest offices of the MNC with Level I activity would be found located in large cities of the parent countries. The largest cities in the host countries would be entrusted with level II activities. Level III activities would be seen to be geographically more mobile, at times, located at interior centres or small towns or big urban or village settlements of the host country.

With facilities of spatial expansion and cheap labour, locational decision about Level III would still vary with differentials in infrastructure offered by respective regional Governments of host countries. Since business will be concentrated in core cities, geographic specialization would come to reflect the hierarchy of corporate decision making and the occupational distribution of labour would depend on its functional placement in the international hierarchical economic system (Banerjee Guha, 1990, cited in Banerjee Guha, 1997,p.122).

The diversion of operations of the MNCs is thus not merely functional or occupational but geographical. The occupational aspect gets expressed in the decentralization of divisions, each concerned with one product line and tied up with single Level III and Level II offices. The entire network of operation is held together by a highly efficient location dynamics. By centralizing control on the already distorted and

hierarchically organized economic space of the Third world host countries, the MNCs effectively strengthen the core-periphery hiatus, disparity in spatial development and add to the primacy of urban systems. In this context it must be mentioned that the spatial distribution of MNCs in the organized sector is not even. To understand the actual degree of unevenness, a disaggregation of the national space into regional space is necessary. The western region and the southern region together has 67 percent of the total industries in the country as in 1986. Next comes the Northern region (19.12 percent) followed by the Eastern region (14.28 percent). The Union Territories account for 0.07 percent of the total industries during the above mentioned period (Banerjee Guha, 1997,pp.122-123).

3.3 Analysis of Spatial Pattern of Level II and Level III activities of MNCs in India:

To analyse the spatial pattern of Level II and Level III activities of MNCs in India, monthly data from June 1996 to June 1998 has been clubbed together in the present study. This data has been obtained from the monthly bulletin of India Investment Centre.

While analysing the enormous data of 4616 approvals given between June 1996 to June 1998 several methodological problems were faced:

- the locations of the plants i.e. Level III activities are in some cases mentioned by the name of the districts and in some cases by the name of the state. Since the analysis in this chapter is at the district level this created a lot of confusions. We have hence analysed the locations both in terms of districts and States.
- Data for Level II for 1402 approvals are not indicated, where as for 943 approvals made between June 1996 to June 1998 the location of the

Corporate Head Offices ,i.e Level II activities is not indicated. The cause for these may be attributed : the decisions regarding setting up a plant or office was not taken during the proposals and since these are approvals only, we do not have the information whether these have been implemented or not. The firms some times choose the location of a plant or an office after getting the approval as these approvals take a long time to get implemented. Some firms may change their decision regarding the already proposed locations. Thus the analysis does not give the complete scenario but a glimpse of what is happening at the micro level.

3.3.1 Location of Level III Activities:

Location decisions at the plant level or Level III activities involve a variety of factors like access to markets and supplies, labour, quality of life, taxes and financing, transportation and the site itself, which ensures accumulation of capital (Schmenner, 1982 cited in Banerjee Guha, 1997, p.133). In the third world, MNCs contributed in a large measure towards industrial concentration and regional disparity. Locational dynamics of MNCs thus unfold a process of accumulation rather than a static allocation of activities to their best locations.

The total number of approvals between June 1996 to June 1998 was 4616 out of which 70.06 percent was financial and 29.94 percent was technical (see Appendix III). From the given data and its distribution (see Fig 3.3) it can be observed that 50 percent of the FDI approved during the above mentioned period is in the western region followed by the southern, northern and eastern region. This is almost same as found by Banerjee Guha in her analysis of 435 MNCs during operating in India in 1990. But within the western region inter- and intra -State differences is remarkable. In this region Maharashtra has the largest number of approvals and within Maharashtra the concentration is found in the western part which is one of the most developed industrial belts in India. Greater Mumbai accounted for 6.06 percent of the total approvals between June 1996 to June 1998 (70.59

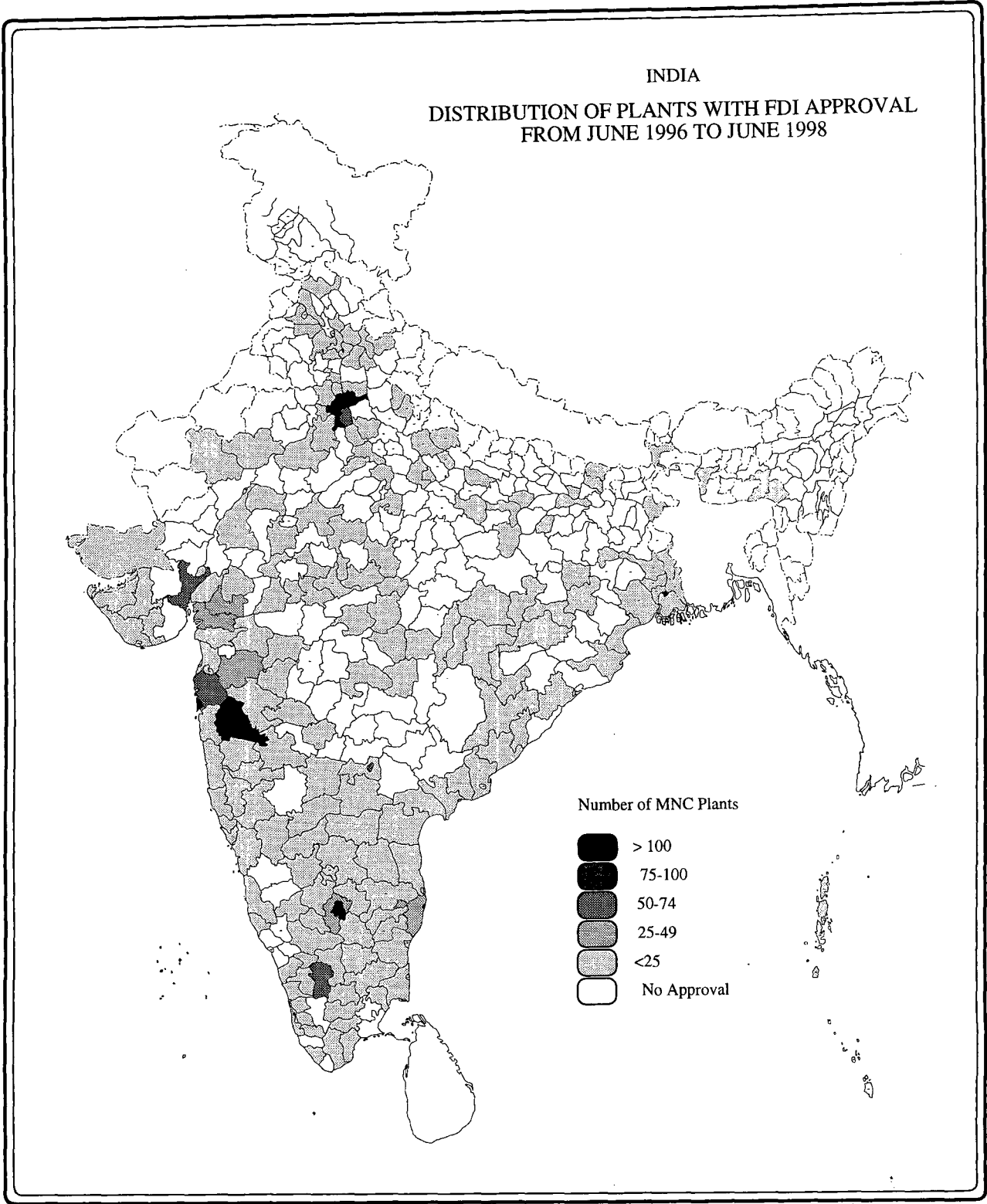


Fig 3.3

percent financial and 24.83 percent technical collaboration), followed by Pune (3.73 percent of the total approvals, with 63.37 percent financial and 36.63 percent technical collaboration), Thane (1.21 percent of the total approval with 50 percent technical collaboration).

In the Northern region Delhi is the center of activity with 6.09 percent of the total approvals between June 1996 to June 1998 (79.72 percent financial and 20.28 percent technical collaboration). This is followed by neighbouring Ghaziabad (1.93 percent of the total approval with 68.54 percent financial and 31.46 percent technical collaborations), Gurgaon (1.93 percent of the total with 60.63 percent financial and 39.3 percent technical collaboration) and Faridabad (1.10 percent of the total collaboration with 50.98 financial and 49.02 technical collaboration).

In the Southern region the importance of Karnataka is increasing enormously compared to the neighbouring States in the recent years. Within Karnataka, Bangalore Urban District has the highest share in approvals (5.39 percent of the total, with 81.93 percent financial and 18.07 technical collaborations) followed by Bangalore rural district (0.69 percent of the total approval, with 65.63 percent financial and 34.38 percent technical collaborations). The next important location is Chennai in Tamil Nadu. The share of Chennai was (3.08 percent of the total, with 83.10 percent financial and 16.90 percent technical collaboration). This is followed by Chengai MGR (0.80 percent of the total, with 67.57 percent financial and 32.43 percent technical collaboration) and Chengelpattu (.50 percent of the total, with 73.91 percent financial and 26.09 percent technical collaboration). In Andhra Pradesh, Hyderabad was the main node with 1.26 percent of the total approvals, with 82.76 percent financial and 17.24 percent technical collaboration.

In the Eastern region West Bengal is significant although Orissa is emerging at a very fast rate. In West Bengal, Calcutta attracted the largest amount of the approvals (1.6 percent of the total with 72.73 percent financial and 27.27 percent technical collaboration). The other important districts in order of importance are Midnapore (0.32

percent of the total, with 46.47 percent financial and 53.33 percent technical collaborations), South Twenty Four Parganas (0.19 percent of the total with 66.67 percent financial collaboration and 33.33 percent technical collaborations), Hoogly (0.11 percent of the total, with 100 percent technical collaborations), Howrah (0.04 percent of the total, with 100 percent financial collaborations). Bihar still lags behind inspite of its immense natural resource base, There were almost no proposals for the N.E region.

It can be concluded that the location of plants clearly shows a metropolitan bias. Locational arrangement of the various levels of activities of the MNCs is a dynamic phenomenon. Both ownership specific advantages and locational advantages are constantly changing (Dunning, 1977; Dunning and Norman, 1979, cited in Banerjee Guha, 1997, p.135). Given the continental scale of the country and overriding prevalence of economies of scale, industrial firms in general have an uneven distribution in India. It functions as premise of the MNCs for their benefits and contribute towards further industrial concentration. According to Banerjee Guha concentration of Level III activities in the western region reflects its valorized status viz a viz capital and labour factors. This phenomenal geographical concentration also suggests the significance of labour factor heterogeneity in location decision.

Foreign firms essentially rank potentials of communication and information diffusion as important additive factors of location, their metropolitan bias is distinct. Also the political situation of the respective states, tariff and non-tariff barriers, tax rates and special investment incentives have worked their way to help MNCs to locate in western Maharashtra, Southern Gujarat, Southern Karnataka and different areas of Tamilnadu as well as in and around the National Capital Region.

The western region in the 1990s was the most favoured region. During the 1980's relative positional changes occurred, with Bangalore in the southern region evolving as a strong contender, but the primacy of the western region with Mumbai as the concentration point still continues. Until 1990 the Mumbai-Ahmedabad and Mumbai-Pune regions making an elongated belt in the western coast of Maharashtra and Gujarat

area were identified by Banerjee Guha as the most preferred investment location for foreign capital for almost all the parent countries, with which a parallel can be drawn with the New York Metropolitan area (Banerjee Guha, 1997, pp.137-138).

In the 1980's a few locations of the southern regions proved to be more attractive for foreign collaborations than even Mumbai due to tariff and investment benefits from respective state governments. But the value of investment in foreign controlled sector in terms of rupee remained much higher in the west in and around Mumbai. However, dispersal to the south and also to the north became a dominant locational characteristic of this period (Banerjee Guha 1997, p.138).

Corporate hierarchy and urban hierarchy, go hand in hand and make location an active moment in the overall circulation and accumulation process of capital restructuring space economies and creating 'spatial fix'. (Goddard, 1977; Harvey, 1982 cited in Banerjee Guha 1997, p.138). The acute concentration of MNCs in Mumbai region, independent of any specific industry type can be explained by the capital accumulation process in more developed regions and its consequent backwash (Myrdal 1957: Brown & Burrows 1977, cited in Banerjee Guha, 1997, p.138). The capital-intensive technology through reduces demand for labour in the developed area, but at the same time labour immigration from less developed areas offsets the increasing wage rate and unionisation of labour and thereby rising labour cost (Banerjee and Ghosh, 1988 cited in Banerjee Guha, 1997, p.138).

Competitive policy of some State Governments especially of Maharashtra, to attract foreign capital and promote industrial development has acted as an additive factor. In June, 1993, Maharashtra Industrial Development Corporation (MIDC) got exempted from the control and permission of Maharashtra Regional and Town Planning act for buying less than 10 hectares of land for industrial development. Also within a broadly designated industrial zone no permission from local authority would be henceforth required to change landuse from agricultural to industrial (Swamy, 1993, cited in Banerjee Guha p.139).

Penetration of foreign capital into the core sectors of Indian industry and their acute concentration primarily in the western region followed by South and North reveal the basics of the spatial policy of MNCs. By concentrating organised investment in a small part of the country which is comparatively developed than the interior and backward areas, it essentially reiterates the general spatial trend of capital towards accumulation and centralisation. The geographical heartland of the country in this process has become poorer and economically peripheral while the economic heartland (Banerjee Guha, 1997, p.139) got shifted to the geographical periphery in coastal regions - a trend set during the colonial times. The above pattern also brings out the metropolitan bias in the spatial policy of MNCs with subsequent distortions in the settlement system aggravating primacy.

3.3.2 Location of Level II Activities:

The division of MNC functions between their unit and settlements is influenced by a large range of factors both external and internal to the corporations. Head office locations of MNCs are determined by factors of communication and infrastructure. Headquarters require access to an information rich environment and tend to be located in major metropolitan centres, while production activities will be widely dispersed in smaller places, especially in the periphery of the national territory (Goddard, 1975, cited in Banerjee Guha, 1997, p.141).

But the complexity of the problem suggests that the organisational strategy decision influenced by such factors do also alter the arrangement of geographical centralisation or decentralisation of economic industrial activities and growth of settlement system in a specific manner (Chandler, 1962, cited in Banerjee Guha 1997, p.141). Chapman (1979) notices that even in the present age of electronic communications, role of cities as 'the switching points' for the exchange of information

has increased in importance. He associates this with the sharp rise of quaternary workers in all large urban areas of the world.

Banerjee Guha in her study of the locational pattern of headquarters (Level II activities) of the 435 MNCs in 1990, stated that nearly 90 percent of the total offices were located in metropolitan cities. Even the share of cities with population less than 1 million is small. In other words, 98 percent of the MNC head offices are located in Class I and above cities. According to her study 76 percent of the Level II activities were located in the four largest cities of the country, i.e., Delhi, Mumbai, Chennai and Calcutta. Mumbai had the maximum share (39 percent of the total) Calcutta had 20.23 percent, Delhi 9.89 percent and Chennai 6.67 percent. About 14 percent of level II activities were located in other cities such as Bangalore, Pune, Hyderabad etc. (Banerjee Guha, 1997, p.144).

In this analysis of 4616 approvals between June 1996 to June 1998, more than 90 percent of the total offices are located in metropolitan cities (see Appendix IV). Among this 57.48 percent (see Table 3.3) are located in the five megacities. Mumbai has the largest number of offices (36.07 percent, among the megacities and 20.75 percent out of the total). New Delhi has the second largest number (19.95 percent among the megacities, and 11.48 percent out of the total), followed by Chennai (16.30 percent of the megacities and 9.38 percent of the total), Bangalore (12.80 percent of the megacities and 7.37 percent out of the total) Calcutta (8.21 percent among the megacities and 4.72 percent out of the total) and Hyderabad (6.66 percent among the megacities and 3.83 percent of the total). In this context the contribution of Pune (3.51 percent of the total) and Ahmedabad (1.80 percent of the total) should be mentioned since the importance of these towns is gradually increasing.

The implications of the locational preferences of the MNCs in India are significant for regional and economic development. At the aggregate regional level, MNCs have already contributed to industrial concentration in the metropolitan areas to a great extent. The geographical heartland of the country constituting Madhya Pradesh,

Bihar, Eastern Maharashtra, Western Andhra Pradesh, Northern Karnataka, Rajasthan, which has remained the economic periphery during and after colonial regime does not attract MNCs.

Table: 3.2 Corporate offices of the MNCs with approved FDI (June 1996 till June 1998).

Cities	No.	% out of the Mega Cities	% out of the Grand Total
Mumbai	958	36.07	20.75
New Delhi	530	19.95	11.48
Chennai	433	16.30	9.38
Bangalore	340	12.80	7.37
Calcutta	218	8.21	4.72
Hyderabad	177	6.66	3.83
Sum of the Mega Cities	2656	100.00	57.54
Others	1960		42.46
GRAND TOTAL	4616		100.00

Source: India Investment Centre Monthly Bulletin from August 1996 to August 1998.

Apart from the immediate income and employment implications, the above concentration pattern has also created multiplier effects in and around metropolitan areas leaving the other parts almost untouched but with no much addition to long term organised employment and hence to rise in per capita income and regional development. Sub contracting of labour neither associated with integration of skill nor does the spatial growth

Banerjee Guha's and the present study has shown that the locational preference of the MNCs for setting up their plants or offices has not changed in the pre and post liberalisation period. The trend remains the same in both the periods. The only differences which can be observed from the data is the number of approval and the amount of investment, which has increased manifold after the liberalisation period. They are setting up their plants and their offices at the places where the infrastructure is already available. The developed areas are becoming more developed and the backward areas

remain backward and regional. This leads to an increase in regional imbalances. Though some of the plants and the offices are located outside these developed areas, but their numbers are very few and their impact on regional economy is yet to be assessed.

Chapter IV

ILLUSTRATIVE CASE STUDIES - KARNATAKA AND BANGALORE

Karnataka is the eighth largest state in India and embraces an area of 1,91,791 square kilometers. Endowed with a wealth of natural resources and a pragmatic and progressive industrial policy, the state has emerged as a major industrial region in the country.

4.1 The Demographic Profile of the State:

The population in Karnataka as per 1991 census is 44,977,201, which constitutes 5.33 percent of the population of the country. The urban population of the state as per 1991 census is 13,907,788 which is 30.92 percent of states total population which is spread over 254 Urban Agglomerations (U.A)/ Towns. The level of urbanization in the state (30.92 percent) is more than the National Average of 25.72 percent. In 1991, the state ranked eighth by contributing 6.38 percent to India's urban population where as in 1981 it ranked sixth by contributing 6.73 percent. In 1991 the state ranked eleventh in the country amongst the states and union territories, in terms of its contribution of urban population to total population, i.e. 30.92 percent. Its rank in 1981 had been tenth.

It is observed that the share of urban population to the total population in the state had increased nearly 2.5 times between 1901 to 1991 i.e. from 12.56 percent to 30.92 percent. The first four decades of this century saw an increase of only 4.38 percent, where as in the subsequent decades i.e. from 1941 to 1991 the increase was nearly 14 percent. The percent decadal variation of urban population in the state has been steadily increasing from 1941 to 1981, i.e., from 18.26 percent to 50.65 percent where as it was only 29.09 percent between 1981-91 (BDA, 1995, p.13).

According to the 1991 census a major portion (64.60 percent) of the urban population of Karnataka lives in class I cities. Only 10.37 of urban population is living in towns with population less than 20,000 (see Table 4.1).

Table 4.1 Distribution of Urban Population by Size Class of Towns In Karnataka (1901-1991)

Class of Towns	No. of Towns						Percentage Share of Urban Population					
	1901	1921	1941	1961	1981	1991	1901	1921	1941	1961	1981	1991
Class I	1	2	4	6	17	21	9.7	18.39	30.13	39.13	51.01	64.6
Class II	3	4	5	9	11	17	12.65	15.33	11.5	11.33	9.85	7.35
Class III	7	5	8	30	64	82	14.04	9.54	8.58	7.74	19.69	17.68
Class IV	19	25	39	76	100	70	14.6	17.51	20.26	20.61	15.36	7.23
Class V	73	62	83	57	42	40	30.77	22.82	20.97	8.74	3.49	2.09
Class VI	110	93	66	35	16	24	18.24	16.14	8.3	2.45	0.6	0.55
All Classes	213	191	205	213	250	254	100	100	100	100	100	100

Source: Bangalore Development Authority (BDA), 1995

The number of U.A./Towns in Karnataka has steadily increased between 1961 and 1991, i.e., from 211 to 254 as a result of rapid industrialization. The number of class I and class III towns has increased significantly from 6 to 21 and 30 to 82 respectively in the same period where as there has not been any remarkable increase in the number of class II towns. In 1991 there were 22 Urban Agglomerations and 232 towns in the state. Bangalore (Urban) district has 29.98 percent of the states urban population and 1.14 percent of the states total area, with 10.76 percent of the states total population. The Bangalore (Rural) district on the other hand covers 3.03 percent of the states total area with a population of 3.72 percent to the states total population. 20.50 percent of the states urban population is in Bangalore (U.A.)

Bangalore (urban) district is the most urbanised district in the state, with 85.82 percent of its total population being urban. Next come, Dharwad, Bellary, Mysore

districts with 34.95 percent, 29.93 percent, and 29.76 percent of the total urban population respectively. Kodugu district is the least urbanised, with 16.01 percent of its population being urban. Bangalore and Dharwad districts together have the maximum number U.As, i.e, 20.

The urban population of Karnataka is concentrated mainly in Bangalore and adjoining districts because of the concentration of industrial establishments, agglomeration of economic activities and advanced infrastructural facilities in the metropolis.

4.2 Bangalore City:

Bangalore is the capital city of Karnataka and is one of the fastest developing metropolitan cities in India. Topographically it is located in South Deccan and physically, it has grown on a ridge top running through the middle of the Mysore plateau from west to east which serves as the main water parting of the state at an average elevation of 900 mts from sea level. On account of its elevation, Bangalore is bestowed with a salubrious and equable climate comparable to those of temperate regions (BDA, 1995, p.1).

The origin of the city can be traced back to 1537 when it was founded by Late Shri Magadi Kempegowda to house a population of 2 to 3 Lakh. The eastern portion of the city was however developed by the British early in the nineteenth century. This history of Bangalore is a tale of two cities. Up to 1949 there were two independent cities viz. City and the civil and military stations. These two cities coalesced to form the present city when the British rule came to an end. The growth of the city received an impetus with the reorganisation of states in 1956 when the overall size of Mysore state of which Bangalore was the capital, was more than doubled by the inclusion of large chunks of area from neighbouring states. The size of Bangalore city has extended during the period 1901-1991 from 74.72 sq km. To 200 sq km. In the same period population

increased from 0.16 million to 4.08 million. This unabated spectacular sprawl of the city is due to lack of natural barriers as well as low density with single store residential development (BDA, 1995, p.1, 73).

4.3 Demographic Structure of Bangalore:

The population of Bangalore, which was 16.64 lakhs in 1971 increased to 29.13 lakhs in 1981 and registered the highest rate of population growth of 76 percent between 1971-81. Bangalore was the fifth largest city in the country during 1981 and predicted to over take Chennai and to occupy the fourth place in 1991. It however stopped at the sixth place in 1991. Comparison of 1981-91 figures indicate that Bangalore has registered the steepest fall in growth rate as compared to the four metropolitan cities viz., Calcutta, Mumbai, Delhi and Chennai. Also, Bangalore which was the fortieth largest metropolis in the world, in the 1981 census has come down to forty-third rank in 1991. Though the area of metropolitan Bangalore is less than 0.5 percent of the area of the state, it has 9.27 percent of the total population and 29.50 percent of the urban population. (BDA, 1995, pp.1, 14).

The decadal growth in the population of Bangalore city is alarming. From a mere 0.22 million in the beginning of the century, the population reached 4.08 million in 1991. Until 1941, the growth was steady and less than 30 percent. The decade 1941-51 witnessed an abnormal growth of nearly 95 percent. This was caused mainly by the location of industries such as Hindustan Aeronautics Ltd. (HAL), Hindustan Machine Tools Ltd. (HMT), Bharat Heavy Electricals Ltd. (BHEL) etc., and immigration during the World War II period. During the following decades, however the growth declined to 21.4 percent (1951-61) and 37 percent (1961-71). The period 1971-81, once again witnessed a high growth rate of 76.7 percent, the highest for any metropolitan city in India. But in 1981-91, the growth rate declined to 39.9 percent (BDA, 1995, p.14).

Bangalore is a multifunctional metropolitan city, as it is the state's capital. With the concentration of Research Institutions and high tech electronic and other centres,

Bangalore has also become India's premier science city. The primacy of Bangalore has been increasing from decade to decade. As a consequence of which, there is an enormous pressure on the already inadequate infrastructure. It has resulted in squeezing of population in the congested area, emergence of high-rise buildings, indiscriminate invasion on greenery, haphazard and accelerated urban sprawl disorderly development etc. Due to insufficient housing facilities a large number of unorganized residential colonies have come up in addition to slums. The density of population is very high in the core area. (BDA, 1995, pp.1, 73).

According to a survey of the Bangalore local planning Area (284.00 sq. kms) 34.78 percent of the cities area is used for residential purposes followed by Transportation (31.49 percent), public and semi-public (9.21 percent), park and open space (7.51 percent), unclassified (7.45 percent), Industrial (7.18 percent) and commercial (2.38percent) purposes (BDA, 1995, p.74).

Bangalore is bestowed with a radial network of roads and its major industries are located along these roads. As a result, both residential and commercial developments have taken place in a haphazard manner all along the roads. To have a check on this unplanned growth of the city an outline development plan was prepared and approved by the Government in 1972. This outline development plan was replaced by Comprehensive Development Plan (CDP) approved by the Government in 1984 (BDA, 1995, p.74).

4.4 Industrial Development in Karnataka and Bangalore:

Karnataka has an enviable natural climate and is home of many industries – large, medium and small covering cement, steel, pharmaceuticals, biotech, automotive components, machine tools, aerospace and precision engineering, etc. Bangalore has also provided a congenial atmosphere for entrepreneurship since independence. It has been a host to many high-tech Industries such as electronics, computers, telecommunications and informatics, apart from having one of the largest industrial estates in the whole of South East Asia (KSIIDC, Information Booklet, 1999).

In the late 1980s the electrical and electronics industries in Bangalore experienced profound shifts in the ground rules of competition under the impact of the 'Liberalisation' policy and a greater opportunity for interaction with MNCs. There has been an explosive growth of the software industry, which has given Bangalore the title of '*silicon valley*' of India. But software companies comprise only a facet of a diversified high technology research and industrial base. Analysis of business environment and corporate strategies within a variety of technological niches is necessary in order to understand the dynamics underlying Bangalore's recent growth and possibilities for continued expansion of the city economy.

The Industrial Sector plays a pivotal role in the state's economy and accounts for about 15-20 percent of state income in Karnataka. (Directorate of Economics and Statistics, Bangalore, 1996-97, p.1). The growth rate of Net State Domestic Product (NSDP) during 1997-98 was 6.8 percent and growth rate of the industrial sector in 1995-96 was 9.5 percent. The contribution of the Secondary Sector to NSDP has been 21.3 percent and Tertiary Sector 41.1 percent (www.bangaloreit.com, dated 7/6/2000). Factors responsible for the Industrial Development in Karnataka are:

- Excellent location
- Salubrious climate and a congenial industrial climate
- Cosmopolitan culture
- Excellent-Social, educational and Health facilities.
- World class technical manpower
- Home of International standard R&D institution. (103 R&D centres are spread all over the state).
- Abundant Natural Resources
- Positive attitude of the State towards MNCs
- Pro-active industrial fiscal and infrastructural policy
- Investment friendly and transparent administration
- 70 industrial areas spread all over the state

- Dedicated 'Escort Service' by: Karnataka Udyog Mitra, Karnataka State Industrial Investment and Development Corporation Limited (KSIIDC), Karnataka Industrial Area Development Board (KIADB), Karnataka Small Scale Industries Association (KASSIA) etc.
- Approvals and clearances through Single Window Approach.

At present there are 998 of Large and Medium industrial units in the state, with the total investment of US\$ 5100 million which provide employment to 449,497 persons. The Small Scale Industries (SSI) sector has 233, 787 units with an investment of US \$ 390 million and employs 1,398,103 persons. This is followed by 5,200,000 cottage and artisan units with an investment of US \$ 7 million and an employment of 5,200,000 persons (www.bangaloreit.com,dated 7/6/2000).

4.5 Industrial Structure in Bangalore:

The development of industries in Bangalore can be divided into two phases:

(a) **Pre Independence Period:** Bangalore city was originally referred to as the 'pete' which mean a market in Kannada. It was a manufacturing and trading centre. Known for its textile production done originally through a variety of non-mechanized and decentralised putting out arrangements and later in the early twentieth century through the introduction of large mills. Occupations related to textiles like dyeing, printing etc., were also present. Towards the end of the eighteenth century with the arrival of the British, , the manufacturing industry suffered a decline, although trade was promoted. No major industrial base was developed during the nineteenth century although the first mill on modern lines was set-up in 1884 and was followed by Bangalore Woolen, Cotton, Silk Mill in 1887. The foundations for modern industrial and economic growth were laid with two major developments, namely, the construction of Bangalore – Madras broad gauge Railway line in 1882, and the generation of Hydroelectric power in the early part of this century.

Sir M. Visvesvaraya who gave the slogan “Industrialize or Perish” and who served as the Dewan of Mysore launched the planned economic development of the state. He organised the Mysore economic conference (1911) which initiated a survey of the industrial scene, identified a number of industrial possibilities and recommended the establishment of a Department of Industries and Commerce in the Government.

Industrial Development in Bangalore gathered momentum from 1930. A number of industrial establishments came into being during the thirties, namely, the Mysore Industrial and Testing Laboratory (1931) which produced pharmaceuticals and chemicals, the Government Porcelain factory (1932) which make insulators and crockery and the Government Electric factory (1934) which manufacture electric transformers, motors, pumpsets etc. The Mysore Lamp works (1936) was set-up to make in condense electric lamps and the Mysore vegetable oil products (1938) to manufacture hydrogenated oil.

The second world war which increased the demand for locally produced goods provided an impetus to industrial growth. A number of public sector enterprises such as Hindustan Aircraft Limited (1940) which created employment for as many as 16,000 persons, the Rail Coach division started in 1947, and was subsequently transferred to Bharat Earth Movers limited, the Radio. Electric Manufacturing Company (REMC, 1946) caused the greatest spur in population growth the city has ever seen within a decade. The industrial base of Bangalore thus rested, on the two limbs of textiles (home made factory made) and public sector enterprises. These two limbs remain even today the most important parts of the formal economy in Bangalore.

(b) Post Independence Period :

This period can be divided into four phases:

The *first phase*, during the 1950's and 1960's was dominated by the Government of India initiatives in locating public sector research and production facilities in Bangalore. These establishments are as follows; Indian Telephone Industries (ITI, 1948),

the Hindustan Machine Tools (HMT, 1955), Bharat Heavy Electronics Limited (BHEL, 1956). These undertaking manufacturing sophisticated products changed the industrial scene in Bangalore. They created demand for concilliaris and also set-up a township on the outskirts of the city. These institutions still have an impact on the city, the five largest public sector companies, in 1991 officially employing over 81,000 people in their Bangalore plants. Their direct impact, including management of their own township, housing schemes, transport systems, was supplemented by numerous; subcontracting opportunities they provided for small and medium enterprises.

The *second phase*; beginning in the late 1960's and running through the 1970s, witnessed the rapid growth of state government bureaucracy, employment and eventually state run businesses, helping to fuel the second largest spurt in the city's population growth.

The *third phase* began during the 1980s when Bangalore began to experience the effects of preliminary 'Liberalisation', private enterprises became growth engines, especially in microelectronics based companies.

The *fourth phase*, beginning in the late 1980's, brought an increasing and a more varied relationship with the MNCs (Heitzman,1999, p.PE-2-3 and BDA,1995,pp.33-34).

The impact of each of these phases still exist, inscribed in the physical space of the city and in overall industrial structure of the metropolitan region. It is probable the formal sector with the largest impact on employment is still textiles. Next in importance are the public sector giants and the institutions of central and state governments. Although it is clear that business opportunities will remain in all these areas in the foreseeable future, it is doubtful if they will generate growth, employment or subcontracting arrangements that will keep up with the rate of population increase in Bangalore Metropolitan region (BMR). The growth of the economy will depend on the dynamism of private sector enterprise and high value outputs, minimal environmental impact and the ability to generate direct employment as well as indirect growth of

services. The most likely candidates are micro-electronics based companies in hardware and software production with a variety of connections with foreign firms (Heitzman, 1999, p.PE3).

4.6 Occupational Structure in Bangalore Urban Agglomeration (U.A) and Bangalore District:

According to 1991 census the total population of Bangalore U.A. and Bangalore district (Urban and Rural) is composed of three categories viz; main workers, marginal workers and non workers as shown in Table 4.2. It can be seen that in 1991 the percentage of main workers out of the total population of Bangalore U.A was 32.97 percent (29.76 percent in 1981). The percentage of marginal workers was 0.23 (0.50 percent in 1981). The non workers made of 66.80 percent of the total population in 1991 (69.74 percent in 1981).

Table 4.2 Percentage of Main, Marginal and Non Workers in Bangalore U.A and Bangalore District in 1991

Categories	Bangalore U.A.	Bangalore District.
Main Workers	32.97	33.80
Marginal Workers	0.23	0.46
Non-Workers	66.80	65.73

Source: Census of India, Karnataka, 1991

It is believed that urbanisation led to an initial lowering of the proportion of main workers. This is evident from the decline of this proportion from 32.44 percent in 1961 to 29.76 percent in 1981 in Bangalore (U.A.) It again increased to 32.97 percent in 1991, whereas in case of Bangalore district it declined from 39.65 percent in 1961 to 31.39 percent in 1981, although it increased to 33.8 percent in 1991 which is much lower than the figure for 1961 (See Table 4.3).

The Bangalore U.A. has witnessed some change in its occupational structure. The share of primary sector has declined from 7.81 percent in 1961 to 2.64 percent in 1991 and that of the secondary sector has declined from 34.56 percent to 34.07 percent in 1961 and 1991 respectively. The tertiary sector has witnessed a marginal increase, from 57.63 percent in 1961 to 59.91 percent where the proportion of persons engaged in Trade and commerce rose from 12.60 percent to 22.36 percent, in 1961 and 1991 respectively. Transport storage and communication rose from 4.94 per cent in 1961 to 8.42 per cent in 1991.

Table 4.3 Occupational Structure in Bangalore U.A and Bangalore District (1961-1991)

Years	Bangalore U.A Area				Bangalore District			
	1961	1971	1981	1991	1961	1971	1981	1991*
Percentage of Main Worker to-:								
Total Population	32.44	29.9	29.76	32.97	39.65	31.58	31.39	33.8
Cultivators	5.23	0.67	0.93	0.83	44.11	29.44	23.18	17.97
Agricultural Labourers	1.31	0.64	0.9	0.84	3.37	11.38	9.37	9.21
Livestock, Forestry, Plantations, Fishing, Hunting, Orchard & Mining & Quarrying & Allied Activities	1.27	0.73	0.83	0.97	1.27	2.02	1.86	2.31
Household Industry	4.42	2.68	2.76	1.37	5.75	2.95	2.96	1.75
Other than Household Industry	30.14	33.3	34.68	32.7	13.29	18.8	23.53	24
Construction	5.53	4.63	6.06	9.06	2.59	2.8	4.05	6.22
Trade & Commerce	12.6	18.38	18.56	22.36	6.49	10.48	12.25	15.72
Transport, Storage & Communication	4.94	12.23	9.49	8.42	2.21	6.5	6.03	5.5
Other Services	34.56	26.73	25.8	23.4	17.9	15.62	16.78	16.88

Source: Census of India, Karnataka, 1961-1991

* the 1991 figure of Bangalore District consist of Bangalore Urban and Rural District. The Bangalore Rural district came in existence in 1986.

4.7 Institutions for Industrial Development in Karnataka :

In the 1960s the state Government has set up a number of institutions to promote and assist growth of industries. *Karnataka State Industrial Investment and Development Corporation Limited (KSIIDC)* was established in 1964, with the main objective of promoting industrial growth in the state, especially in the medium and large sector. To achieve this KSIIDC identifies industrial opportunities, provides guidance and advice to prospective entrepreneurs and extends necessary financial assistance to realise these opportunities. It also provides assistance in securing single window clearance for land, power, water etc. *The Karnataka Industrial Areas Development Board (KIADB)*, has since its inception in 1966, been entrusted with the task of developing infrastructure to support industry and it has been actively engaged in the development of Industrial areas with all possible facilities. Besides land, it provides infrastructural support to industry such as power, water, communication, and facilities such as Bank, Post Offices, hospitals, forestations etc., at the industrial sites it develops. This enables industries to use a ready-made base upon which they can build their plants and commence production in the possible time frame. The other state corporations include

- *Karnataka State Electronics Development (KEONICS)* which was set-up to promote the growth of electronic industries in a planned way in Karnataka.
- *Karnataka State Finance Corporation (KSFC)*,
- *Handloom Development Corporation*,
- *Leather Industry Development Corporation, Karnataka Udyog Mitra* etc.

Among the non-governmental institutions *Karnataka Small Scale Industries Association (KASSIA)* is important. It was formed in 1949 by a group of industrialists. KASSIA has brought together two and half lakh SSIs that have become an integral part of the nations economy. Apart from financial assistance KASSIA provides a Help line Service, an assistance programme Suggesting Solutions to problems faced by Small Scale

industries with Governmental, Quasi Governmentals, Private institutions. Experts from different disciplines are enlisted for advising and guiding the members. But the traditional activity of KASSIA is to represent to the Government and other official levels of policy making and place memoranda before the central and state ministries to enhance the demands and facilities for the SSI. It has recently launched a website Kassia.com, empowering commerce locally and globally for Small Scale Industries in Karnataka (BDA, 1995, p.35, KIADB information Booklet, 1999, KASSIA information Booklet, 1999, KAIGARIKA VARTE, Jan. 2000, p.9).

4.8 New Industrial Policy (1996) of Karnataka and Package of Concessions 1996 - 2000:

The Government of Karnataka has announced a New Industrial Policy in 1996 and a Package of Concessions (1996-2001) vide G.O. No. CI/30/SPC/96; Bangalore, Dated. 15.3.1996, to accelerate industrial development in Karnataka and take the state to a prominent position on the industrial map of the country. This policy is a review of the 1993 industrial policy which was formulated in terms of economic liberalization initiated by the Government of India in July 1991. The New Industrial Policy and Package (1996) came into force with effect from 1st April 1996 and will be valid up to 31st March 2001.

4.8.1 Industrial Policy Resolution 1996 :- The main objectives of the 1996 Industrial Policy of the Karnataka Government are as follows:

- **Active participation of Industry in development of infrastructure:** Infrastructure projects are capital intensive, have large gestation period and low return on capital investment. Due to resource constraints the pace of development has not been enough to develop infrastructure to meet the growing needs. Shortage of power, inadequate development in sectors like housing, transport and communication have hindered

economic development. After liberalisation the private sector has shown interest in investing in infrastructure areas. In airport with International standard near Bangalore, Information Technology (IT) park, Bangalore – Mysore Express Highway and several power projects under implementation in the state have shown the potential in this area. In order to further the investment flows for infrastructural development, the Government has taken appropriate steps, by designating KSIIDC as the agency of the Government to plan, formulate proposals for infrastructure development projects after assessing the need in different sector/areas for the consideration of the Government.

- **Emphasis on Infrastructure Development:** Lack of infrastructural facilities, even in the existing industrial areas/estates has been one of the serious bottlenecks faced by industrialists/entrepreneurs. To remove these bottlenecks, the Government has designated KIADB/KSSIDC/KEONICS/KSIIDC to set up:

- (a) captive power generation stations with suitable distribution networks in all major industrial areas in association with the private sector.
- (b) Suitable water supply scheme
- (c) Improved transport facilities to major industrial areas/estates
- (d) Pollution control and effluent treatment and disposal.
- (e) Creation and maintenance of police station, forestation, childcare units, postal and telecom source, educational facilities including ITIs, hospitals, Industrial housing etc.
- (f) KSSIDC is the Nodal agency for all Industrial estates in SSIs.

As a result of this an Export Promotion Industrial Park (EPIP) was completed within approximately 18 months at White Fields, Bangalore. It covers an 300 acres land. Along with other infrastructural developments a US\$ 600 million state of the art International Technology Park (ITP) by TATA-Singapore consortium, and specialised Electronic City at Bangalore and Mysore were also constructed. The proposed Industrial Infrastructure plans include:

- Software Technology Park (STP) at Mangalore, Manipal, Dharwad
- Expansion of Electronic City at Bangalore
- Electronic City at Dharwad
- EPIP at Mangalore covering an area of 125 acres
- Expansion of EPIP at Bangalore – 500 Avenue
- Auto complex at Shimoga, Belgaum, Dharwad and Malur.

In this context it can be mentioned that help from the MNCs is taken to a great extent either in the form of technological or financial assistance.

- **Development of Potential Growth Centres:** Government has already approved establishment of three major Growth Centres at Dharwad, Raichur, and Hassan with a total capacity out lay of approximately Rs. 120 crores. Dharwad and Hassan Growth centres are being implemented by KIADB and Raichur growth centre by KSIIDC. To expedite completion of works and provision of full fledged infrastructural facilities, active participation from private sector in water supply schemes, captive power generation stations etc is being encouraged.

In addition to the three major growth centre KIADB will take up mini growth centres at Bijapur, Bellary, Gadag, Chikmangalur, Malur, Nippani and Torangal and other potential locations.

- **Thrust for growth in the export of value added goods:** All Export oriented industries (EOU) with a minimum export turnover of 25 percent of the total turnover, will be classified as *Thrust Sector Industries* eligible for special scale of Incentives (However, additional subsidy would be available only for 100 percent EOUs).
- **Measures for conservation/optimum utilisation of scarce precious resources such as land water and Energy.**

- **Encouragement of utilisation of non-conventional energy sources and co-generation.**
- **Human resources and entrepreneurship development**
- **Encouragement for improvement in productivity, R&D and quality up-gradation.**
- **Maintenance and regeneration rejuvenation of environment and ecology.**
- **Improve the performance of state public sector undertakings**
- **Simplification/Streamlining of rules and regulations and administration.**
- **Marketing Assistance:** Marketing of products has been recognised as the weakest link for the tiny/SSI sector, particularly in rural areas. Adequate measures have been taken to provide assistance in this field.

4.8.2 Packages of Incentives and Concessions 1996-2001:

In accordance with the New Industrial policy resolution 1996 and to achieve the objectives detailed therein, the package of incentives and concessions as per, G.O. No. CI 140 SPC 93, dated 12, July 1993 is modified as under:-

- **Reclassification of Developed and Developing areas and other Allied Matters:-**
 - Areas which are industrially developed and have concentrated industrial activities have been classified as **Developed areas or Zone-I**. This includes; Bangalore South and North Talukas and Bangalore U.A. areas as per 1991 census.

- All other remaining part of the state-173 Talukas will be treated as **Developing Areas or Zone-II**.
 - All the major and mini growth centres as mentioned in the New Industrial policy of 1996 have been classified as **Zone III**. New growth centres would be notified on the basis of their merits.
 - The incentives and concessions are available to industrial units to be established in the state subject to government of India locational and licensing policies.
 - Incentives and concessions are not available to industries listed in Appendix III of the New Industrial Policy (1996).
 - Definition of fixed assets would be the total investment made on land, building plant and machinery and such other assets directly related to production purposes.
- **Investment Subsidy** : Investment subsidy to Tiny (Tiny scale industry is one in which the investment in plant and machinery is less than Rs. 5 lakhs irrespective of the location of the city) and SSI (An Industrial undertaking in which the investment in fixed assets in plants and machinery whether held on ownership terms or an lease or by hire purchase doesnot exceed Rs. 60 lakhs. The investment shall be Rs. 75 lakhs provided the unit undertakes export atleast 25 percent of the annual production by the end of the third year from the date of its commencing production) unit (including Ancillary and Export Oriented Units with an investment of Rs. 75 lakhs each in plant and Equipment) will be offered as under:

Zone-I : Tiny and small industries developed in specified nonpolluting high technology industrial units shall be eligible for an investment subsidy of 25 percent of value of fixed assets, subject to ceiling of Rs. 25 lakhs.

Zone-II : 25 percent of value of fixed assets (ceiling Rs. 25 lakhs).

Zone-III : 30 percent of value of fixed assets (ceiling Rs. 30 lakhs).

- Projects falling under the Thrust Sector as indicated in the Appendix-I of New Industrial Policy (1996) shall be eligible for enhanced scale of investment subsidy of additional 5 percent investment subsidy to a ceiling of Rs. 5 lakhs for Tiny and SSI's in Zone II and Zone III.
 - Industrial units making new industrial investments under expansion/diversification modernisation are eligible for investment subsidy.
 - Additional subsidy to special categories and entrepreneurs.
 - Industrial estates promoted in private/co-operative sector (in Zone II & Zone III) shall be offered an investment subsidy towards development of infrastructure at the rate of 20 percent of such investment not exceeding Rs. 20 lakhs. This is applicable to projects with cost upto Rs. 5 crores each.
- **Incentives for installation of equipment for utilization of renewable sources of Energy/Captive Generation:** All Industrial units (new and existing) located anywhere in the state which will install equipment for utilisation of renewable sources of energy shall be eligible for an subsidy at 10 percent on such investment, subject to a maximum of Rs. 5 lakhs per unit. This will be over and above the normal subsidy as mentioned as mentioned above.
 - **Industries encouraged to be located in development Areas:** Hi-Tech and non-polluting industries in Tiny, small, medium and large scale sectors specified in Appendix II of the New Industrial Policy of 1996 (see Appendix V) would be permitted to be located even within the Developed areas – Zone I.
 - **Sales Tax concession for new units:** Industrial investments in the Tiny/SSI/Medium and large scale sectors would be provided with the option of either sales tax exemption or sales Tax deferral (KST/CST). The option is allowed on time only at the initial stage of availing the concession.

- In case of Tiny Industries the number of years for Zone I, II and III are 4,6,7, respectively and the ceiling (Rs) is 150 percent of the value of fixed assets in all the three zone.
- In case of SSI the number of years are 4,6,7 in zone I, II and III respectively and the ceiling (Rs.) is 100 percent of value of fixed assets in all the zones.
- In case of medium and large industries the number of years are 4,5,6 in zone I, II and III respectively and the ceiling (Rs.) is 100 percent of value of fixed assets.
- Sales Tax Concession for Thrust Sector Industries.for existing units making New Investments under expansion/diversification, Encouragement of modernisation.
- **Khadi and village Industries Sector (KVIS):** All the KVI units will be exempted from payment of central sales tax (CST) and Karnataka Sales Tax (KST) on sale of finished good. Living cum work sheds constructed by Government Sponsored agencies will be made available for rural artisans with suitable subsidy.
- **Mega Projects:** The projects which have investment in fixed assets in excess of Rs. 100 crores shall be considered for a special incentive package.
- **Special ncentives for automobile manufacturing industry**
- **Incentives for industrial infrastructure projects.**
- **Special concession for export in case of 100 percent Export Oriented Units (EOUs).** In the case of Units other than 100 percent EOU's with an export effort of a minimum of 25 percent of the value of total turnover, entry tax, fund sales tax on purchase would be payable on raw materials, components, packing materials intermediates, semi-finished goods ad sub-assemblies used for production for sole within the candy.

- **Exemption from stamp duty and concessional registration charges.**
- **Waiver of conversion fee for converting agricultural lands to industrial use:** This applies to tiny and SSI units set up in all area other than zone-I, limited to a maximum extent of two acres of land only and deemed conversion of agricultural lands in specified Industrial cases.
- **Relaxation from power cut:** All the new tiny and SSI units would be exempted from power cuts for a period of five years from the date of commencement of commercial production in zone II and zone III and also for specified categories mentioned in Appendix II of the New Industrial Policy (1996), in zone-I, (Dept of Industries and Commerce, Govt. of Karnataka, 1999, pp.3-22; www.bangaloreit.com,dated 7/6/2000).

4.9 Details of Projects cleared by Single Window Committee (May 1988 to January 1999):

According to the data prepared by Karnataka Udyog Mitra (1999), the Karnataka state Single Window Committee has cleared 1145 projects between May 1988 to January 1999 out of which 41.66 percent were implemented till January 1999 (see Table 4.4).

Table 4.4 Percentage of Implemented Industries in Karnataka , Cleared by The Single Window Committee (May 1988- January 1999)

	Proposed	Implemented	Percentage
Number of Industries	1145	477	41.66
Total Power (KW)	497031	196685	39.57
Tot Investment(Rs, Lakhs)	984234.5	324242.4	32.94
Financial Assistancet(Rs,Lakhs)	87086.11	42214.58	48.47
Land Acquired(Acres)	9705.15	1362.36	14.04
Employment	193883	71594	36.93

Source: Karnataka Udyog Mitra, 1999

These implemented industries account for 39.57 percent of the power requirement, 32.94 percent of the investment, 48.47 percent of total proposed financial assistance, 14.03 percent of the total proposed fund acquired and 36.93 percent of the total proposed employment.

The concentration of these implemented projects are mainly in Bangalore district (urban and rural). The other nodes are Manglore, Hassan, Belgaum and the other 70 well developed industrial areas spread all over the state.

Bangalore district (Rural & Urban) alone accounts for 46.12 percent of the total industries set up in Karnataka and cleared by single window committee since January, 1999 (see Table 4.5) The District consumes 41.25 percent of power, 47.49 percent of investment 41.86 percent of financial assistance, 35.14 percent of land acquired and gives 51.23 percent of the employment provided by the total implemented industries in Karnataka. It becomes clear that Bangalore is the most industrially developed area with better infrastructural facilities compared to the other parts of the state.

Table 4.5 Percentage of Industries Implemented in Bangalore, Cleared by the Single window Committee (May1988 – January 1999)

	In Karnataka	In Bangalore	Percentage
No of Industries Implemented	477	220	46.12
Tot Pow (Kilo Watt)	196685	81142	41.25
Total Invest (Rs.lakhs)	324242.4	153996	47.49
Tot Financial Asst (Rs.lakhs)	42214.58	17672.76	41.86
Tot Land Acq (acre)	1362.36	478.7	35.14
Employment	71594	36596	51.12

Source: Karnataka Udyog Mitra, 1999

To analyse the data provided by the Karanataka Udyog Mitra., the implemented industries in Karanataka have been divided into six categories on the basis of investment (see Table 4.6). It can be seen that the category where investment is less than Rs.200 Lakh has the largest number of industries (29.35 percent). This group accounts for 3.98 percent (lowest among the categories) of total investment and 20.39 percent (second

highest) of land acquired. It provides employment to 17.45 percent persons out of the total. The second largest number of industries (24.95 percent) are found in the category where investment is between Rs.200-400 Lakh. This category accounts for 10.95 percent (third highest) of total investment and 14.95 percent of land acquired and provides employment to 19.76 percent (second highest) out of the total.

The third largest number of industries (19.29 percent) are found in the category where investment is highest, i.e., more than Rs.100lakhs and above. This category provides highest employment (33.11 percent) and, investment (59.17 percent) and has acquired the maximum land (40.49 percent) out of the total. All the medium and large scale industries are in this category.

Table 4.6 Distribution of Implemented Industries Cleared by Single Window Committee on the Basis of Investment in Karnataka (May 1988- January 1999)

Class	No of Ind	% To Total	Tot Pow (KWA)	% To Total	Total Invest (RsLakh)	% To Total	Tot Fin Asst (RsLakh)	% To Total	Tot Land Acq (Acre)	% To Total	Employment	% To Total
less than Rs200 lakh	140	29.35	32627	16.59	12909.29	3.98	4039.56	9.57	277.76	20.39	12492	17.45
Rs200-400 lakh	119	24.95	37492	19.06	35496.07	10.95	9596.58	22.73	203.65	14.95	14144	19.76
Rs401-600 lakh	58	12.16	16714	8.50	28144.41	8.68	3234.99	7.66	109.47	8.04	6681	9.33
Rs 601-800 lakh	36	7.55	18507	9.41	25689.46	7.92	5831.95	13.82	103.6	7.60	10524	14.70
Rs 801-1000 lakh	32	6.71	21563	10.96	30148.8	9.30	3803	9.01	116.3	8.54	4049	5.66
Rs 1001 lakh above	92	19.29	69782	35.48	191854.3	59.17	15708.5	37.21	551.58	40.49	23704	33.11
Total	477	100.0	196685	100.0	324242.4	100.0	42214.58	100.0	1362.36	100.0	71594	100.0

Source: Karnataka Udyog Mitra, 1999.

Similarly, the implemented industries in Bangalore district have been divided into six categories on the basis of investment (see Table 4.7) and almost the same picture emerges as in the case of Karnataka. On the basis of land acquired (see Table 4.8), the implemented industries in Bangalore district have been again divided into six categories

It is surprising to note that 65 percent of the industries out of the total implemented in Bangalore district have not acquired any land.

There may be two reasons for this:

- There are some problem with the data, i.e., all the industries have not given proper information regarding the land acquired by them in Bangalore district.
- The industries have been set up in the lands, which they already own.

A detailed study is required to explain this.

Table 4.7 Distribution of Implemented Industries Cleared by Single Window Committee on the Basis of Investment in Bangalore (May 1988 - January 1999)

Class	No of Ind	% To Total	Tot Pow (KWA)	% To Total	Total Invest (RsLakh)	% To Total	Tot Fin Asst (RsLakh)	% To Total	Tot Land Acq (Acre)	% To Total	Employment	% To Total
less than Rs200 lakh	59	26.82	12081	14.87	5082.65	3.30	1913.61	10.83	60.58	12.66	6189	16.91
Rs 200-400 lakh	55	25.00	18137	22.33	13842.21	8.99	4424.35	25.03	76.04	15.88	8285	22.64
Rs 401-600 lakh	28	12.73	9069	11.16	10687.1	6.94	1110.3	6.28	24.85	5.19	2332	6.37
Rs 601-800 lakh	16	7.27	10322	12.71	11153.27	7.24	2636	14.92	43	8.98	6228	17.02
Rs 801-1000 lakh	14	6.36	10300	12.68	11981.99	7.78	1352	7.65	32.5	6.79	2689	7.35
Rs 1001 lakh above	48	21.82	21328	26.25	101249.6	65.75	6236.5	35.29	241.73	50.50	10873	29.71
Total	220	100.0	81237	100.0	153996.9	100.0	17672.76	100.0	478.7	100.0	36596	100.0

Source: Karnataka Udyog Mitra, 1999.

Table 4.8 Distribution of Implemented Industries Cleared by Single Window Committee on the Basis of Land Acquired on the Basis of Land Acquired in Bangalore (1998-January 1999)

CLASS	No of Ind	% To Total	Tot Pow (KWA)	% To Total	Total Invest (RsLakhs)	% To Total	Tot Fin Asst (RsLakhs)	% To Total	Tot Land Acq (Acre)	% To Total	Employment	% To Total
No land acquired	143	65.00	52468	64.59	97818.54	63.52	8728.51	49.39	0	0.00	25596	69.94
0.1-2 hect	36	16.36	6162	7.59	12812.61	8.32	2160.9	12.23	44.96	9.39	2655	7.25
2.1-4 hect	19	8.64	9856	12.13	14477.85	9.40	2235.85	12.65	63.2	13.20	3388	9.26
4.1-6 hect	7	3.18	3065	3.77	5439.5	3.53	2019.5	11.43	37	7.73	948	2.59
6.1-8 hect	3	1.36	1650	2.03	1371.35	0.89	561	3.17	23	4.80	567	1.55
More than 8.1 hect	12	5.45	8036	9.89	22077	14.34	1967	11.13	310.54	64.87	3442	9.41
Total	220	100.0	81237	100.0	153996.9	100.0	17672.76	100.0	478.7	100.0	36596	100.0

Source: Karnataka Udyog Mitra, 1999.

The industries (65 percent) which have not acquired any land provide the maximum employment (69.94 percent) and have the highest investment (63.52 percent) out of the total. There are only 5.45 percent industries which acquire land more than 8.1 acre of the land. The percent share of industries, which acquire 0.1-2 acres of land is 16.36.

The Karnataka Udyog Mitra has categorized all industries cleared by the Single Window Committee in 20 categories. Out of which 16 have been so far implemented till January 1999 (see Table 4.9) The industries in the different categories are as follows:

Category 1: Electronic Push Button Telephone, Subscriber Carrier Telephone Carrier, Electronic Saplings, Pair & Modular Connectors, Transformers, Digital Radio System, Electronic test & Measuring Instrument, Electronic Connections, Halogen lamps & energy effective lamps, Printed circuit boards, Audio & Video Cassettes, CTV, FAX, Computer monitor, etc.

Category 2: Software lead frames for software & Computer, Lead frames for ICS, Design & Development of Computer system etc.

Category 3: Self Loading mobile concrete mixers, Loaders, Electroplated Sanitary fitting Alloy Iron casting, Automatic Gears, Component tools, Pollution control equipment's, Alloy steels, Various press tools, Tin coating of tools and decorative articles, Seater Fiber, Glass Glider, Gold Rolled steel strips, Flux cored welding wires, Micanite products, Steel tubes, Cigarette filter rods, Pressed Metal parts etc.

Category 4: Metallics, Springs & Spring formations etc.

Category 5: Cut Roses, Floriculture Project etc.

Category 6: Spice, Oils, Oleoresins & Medicinal Extracts, Energy Food Drinks, Freeze dried food products, Fungal enzymes, Water soluble Neem extracts & oil etc.

Category 7: Polished granite Slabs, Cut and polished granites etc.

Category 8: Cotton & man made fibre yarn, Textile based wall coverings, Spun silk yarn etc.

Category 9: Pneumatic tubes for automotive tyres, Pet Containers, Injection Module plastic components etc.

Category 10: Bulk drugs, Hospital Projects, Mycro Crystalline cellulose powder etc.

Category 13: Alcohol.

Category 14: Petroleum Products, reviving storage & distribution.

Category 16: Coir Products.

Category 17: Shoe uppers, Leather wallets etc.

Category 18: R & D Centre etc.

Category 20: Security press etc.

Table 4.9 Different Categories of Industries Implemented in Bangalore, Cleared by the Single Window Committee (May 1988 – January 1999)

Industrial category	No of Ind	% To Total	Tot Pow (KWA)	% To Total	Total Invest (RsLakhs)	% To Total	Tot Fin Asst	% To Total	Tot Land Acq	% To Total	Employ-ment	% To Total
1	36	16.36	15216	18.75	30123.3	19.56	6372.88	36.06	61.68	12.88	4372	11.95
2	30	13.64	12939	15.95	34913.44	22.67	2102.08	11.89	196.31	41.01	7857	21.47
3	56	25.45	21406	26.38	33384.97	21.68	3850.08	21.79	69.5	14.52	10790	29.48
4	7	3.18	1621	2.00	5796.32	3.76	66	0.37	1.52	0.32	2348	6.42
5	9	4.09	2375	2.93	5431	3.53	620	3.51	7	1.46	837	2.29
6	14	6.36	4330	5.34	5384.14	3.50	625	3.54	45	9.40	1248	3.41
7	9	4.09	4366	5.38	4702.69	3.05	1408.03	7.97	20.5	4.28	653	1.78
8	20	9.09	4726	5.82	13390.6	8.70	480.84	2.72	21.36	4.46	4224	11.54
9	8	3.64	3218	3.97	6462	4.20	1280	7.24	28	5.85	807	2.21
10	10	4.55	1990	2.45	4466.09	2.90	157.55	0.89	8	1.67	851	2.33
13	4	1.82	2700	3.33	2019.95	1.31	0	0.00	4	0.84	1298	3.55
14	3	1.36	750	0.92	661	0.43	0	0.00	1	0.21	46	0.13
16	1	0.45	310	0.38	525	0.34	0	0.00	0	0.00	50	0.14
17	6	2.73	1735	2.14	1985.35	1.29	710.3	4.02	12.5	2.61	821	2.24
18	3	1.36	2225	2.74	3351.5	2.18	0	0.00	0.33	0.07	304	0.83
20	4	1.82	1235	1.52	1399.5	0.91	0	0.00	2	0.42	90	0.25
Total	220	100	81142	100	153996.9	100	17672.76	100	478.7	100	36596	100

Source: Karnataka Udyog Mitra, 1999.

According to Table 4.9 category 3 (engineering and allied), occupies the first place in terms of the number of industries (25.45 percent). This category provides largest employment (29.48 percent) and occupies 14.52 percent of the land. The total investment in this category is 21.68 percent, which is second among all the categories.

The software sector that is category 2 has acquired the maximum land (41.01 percent) as ranks first in investment (22.67 percent). This sector provides employment to 21.47 percent of the workers and ranks second among all the categories. The software and IT section is developing at an alarming rate and very soon it may top the list.

The electronics goods industries i.e., category 1, holds the second place in terms of number of industries implemented in Bangalore (16.36 percent). This category provides employment to 11.95 percent of the workers, and has acquired 12.88 percent of the land and has 19.56 percent of the total investment.

Thus it can be mentioned that categories 1 (electronics), 2 (software) and 3 (engineering) are the major industries in Bangalore district. The textile industry (category 8) which was once dominant, has only 9.09 percent of the total implemented industries, provides employment to 11.54 percent of the workers and has acquired 4.46 percent of the land with an investment of 4.20 percent of the total.

The other promising categories which may mature in the near future are category 6 (food products), 10 (medical facilities) and 18 (R & D center).

4.10 The Phases of Industrialization in Bangalore are as follows:

Three phases may be identified in the process of recent industrialization in Bangalore:

- (I) The early 1990's. This decade witnessed the dominance of leather and garment industry. The garment industry did very well in the late 1980's until 1993.
- (II) 1995-96: The plastic industries dominated the industrial scene in the city during these years.

- (III) 1996 to date: The software and the MNC dominated electronics industries emerged in this period.. This has lead to the near death of the local electronics industries. The new products launched by the MNCs are capturing the market at a fast rate. (TV companies like Solitaire, EC have almost closed down).

According to the data provided by KASSIA office, until 1995-1996 Bangalore (Urban) district had 46.31 percent of the Textile industries, 46.68 percent of the Chemical industries 63.91 percent of the Engineering industries in the State (see Table 4.10) .In the adjoining district i.e., Bangalore (Rural) had on the other hand 1.78 percent of textile, 3.98 percent of the chemical and 2.55 percent of the engineering industries out of the state total .

Table 4.10 Important Industries in Bangalore Urban and Rural District until 1995-96

District	Textile	%	Chemical	%	Engineering	%	Others	%
Bangalore (Urban)	678	46.31	211	46.68	1254	63.91	2059	43.48
Bangalore (Rural)	26	1.78	18	3.98	50	2.55	94	1.98
State	1464		452		1962		4736	

Source: KASSIA Office, Bangalore.

At the aggregate level, in 1995-96, 47.99 percent of textile, 50.66 percent of chemical, 66.46 of the engineering industry of the state are located in Bangalore (urban and Rural) districts.

The Bangalore district (Urban and Rural) has 19 industrial estates out of Karnataka's total of 125. Bangalore (Urban) accounts for 11.20 percent (14) and Bangalore (Rural) 46 percent (5) of the total industrial estates in the state. In Bangalore (Urban) 35.24 percent and in Bangalore (Rural) 3.52 percent of the total industrial sheds of the State were located (see Table 4.11), and out of the 8614 factories in the state 48.78 percent were located in Bangalore (Urban) and 2.18 percent in Bangalore (Rural). In terms of the total employment in 1995-96 Bangalore (Rural) provided 51.02 percent from out of the State's total.

Table 4.11 Number of factories, Industrial Sheds, Industrial Estates and Employment Provided in Bangalore(Urban)and Bangalore (Rural) District as in (1995-96).

District	No. of Fact.	%	Employment	%	Ind. Estate	%	Ind Sheds	%
Bangalore (Urban)	4202	48.78	443302	51.02	14	11.20	1824	35.24
Bangalore (Rural)	188	2.18	20493	2.36	5	4.00	182	3.52
State	8614		868932		125		5176	

Source: KASSIA Office, Bangalore.

Bangalore urban and rural districts in 1995 - 96 collectively had a whole 50.96 percent of the total factories, 53.38 percent of the employment, 15.20 percent of the industrial estates and 38.76 percent of the industrial sheds.

If we compare the SSIs in Bangalore urban with rural in 1995 - 96 we can see that the number of small scale industries in 1996-97 in Bangalore urban district was 3082 (22.78 percent) which provided employment to 30.53 percent and in Bangalore Rural district the number was 666 (4.92 percent) which provided employment to 5.37 percent out of the state total of 67631 persons during that period (see Table 4.12).

Table 4.12 Small Scale Industries in Bangalore (Urban) and Bangalore (Rural) District in 1996-1997.

District	Units	%	Employment	%	Cumulative			
					Units	%	Employment	
Bangalore (Urban)	3082	22.78	20650	30.53	37720	19.97	334404	27.52
Bangalore (Rural)	666	4.92	3634	5.37	7850	4.16	41092	3.38
State	13529		67631		188909		1214996	

Source: KASSIA Office, Bangalore, 2000.

The Karnataka state had 1,88,909 small scale units in 1997, where 19.97 percent were registered in Bangalore (urban) providing employment to 27.52 percent of the total,

workers in SSI where as in Bangalore (rural) 4.16 percent of the units were registered which provided employment to 3.98 workers. So nearly 30 percent of the states employment in small scale industries was in Bangalore urban and rural districts in 1996-1997.

From the above facts it is clear that the Bangalore rural district, which came in existence in 1986 lagged behind considerably in industrial development until 1996-97, compared to Bangalore urban district. In order to industrialize the various taluks of the district, the Government proposed a plan of action, because SSI have played a significant role in the industrial development of the district . The Bangalore rural district has immense potential to develop in ancillary and subcontracting industries as the mother industries are located in Bangalore urban district. The major thrust of the plan were as follows: -

- Entrepreneur Development Programme in all the Taluk headquarters to promote entrepreneurship among the people.
- Intensive Industrial Campaign.
- Organising seminars to discuss the problems of the existing industries and scope for setting up new industries.
- Study of important industrial centres in and outside the state for new entrepreneurs.
- Contravention of Industrial estates.
- Development of Industrial areas.
- Development of a road network.
- Setting up new large scale units.
- Provision of proper financial assistance.

The data provided by KASSIA office, Bangalore, shows that during 1998-99, 13597 SSIs registered in the different Taluks of Bangalore Rural district (see Table 4.13) The maximum number was registered in Dodaballapuram taluk (23.88 percent) The SSIs had an investment of Rs. 17922 lakh and provided employment to 52231 persons. The

highest investment was in Dodaballapuram taluk (20.88 percent) and the highest employment with in Ramanagaram taluk (20.07 percent). As in March 1996, there were 30 medium and large scale industries in the district. These units had a total investment of Rs.337-30 crores and provided employment to 2000 persons.

Table 4.13 Small large and Medium Scale Industries in Taluks of Bangalore (Rural) (1998-1999).

Taluks	Small Scale Industries						Medium and Large Scale Industries					
	Registered	%	Investment (RsLakh)	%	Employment	%	Registered	%	Investment (RsLakh)	%	Employment	%
Dodaballapuram	3247	23.88	3743	20.88	6963	13.33	27	36.49	22692	37.34	4097	42.61
Devanahalli	1698	12.49	1343	7.49	4132	7.91	3	4.05	1740	2.86	145	1.51
Nalamangala	1549	11.39	2260	12.61	6782	12.98	6	8.11	12071	19.86	996	10.36
Hoskote	1628	11.97	3138	17.51	4642	8.89	25	33.78	20242	33.31	1802	18.74
Ramanagaram	1603	11.79	2668	14.89	10484	20.07	9	12.16	2243	3.69	1551	16.13
Channapatta	1441	10.60	1170	6.53	7895	15.12	1	1.35	1150	1.89	867	9.02
Kanakapura	1372	10.09	1959	10.93	6210	11.89	3	4.05	635	1.04	157	1.63
Magedi	1059	7.79	1635	9.12	5123	9.81	0	0	0	0	0	0
Total	13597	100	17922	100	52231	100	74	100	60773	100	9615	100

Source: KASSIA office, Bangalore, 2000.

As is shown in Table 4.13, during 1998-99, there were 74 medium and large scale industries in this district which had an investment of Rs.60773 lakhs and which provided employment to 9615 workers. The highest investment (37.34 percent) was in Dobaballapuram Taluk.

Table 4.14 shows the number of units for which loans have been sanctioned along with the amount of Rupees in the different taluks in 1998-99. The number of units for which loans has been sanctioned is highest in Channapatta taluk (515) where as the maximum amount of loan has been sanctioned to Hoskote taluk (Rs.747.73 lakhs) followed by Ramanagaram (Rs.710.77 lakhs) The maximum number of industrial sheds, 78 out of the total of 162 were developed in Dodaballapuram.

Table 4.15 shows the beneficiaries of Prime Minister Rojgar Yojna (PMRY) and Vishva Training Programme (VTP) in all the taluks during 1998-99. From the figure it

can be seen that Dodaballapuram has the largest amount of beneficiaries (18.78 percent) of Prime Ministers Rojgar Yojna of the total 2620, where as Ramanagaram leads in the number of beneficiaries of Vishwa Training Programme (VTP), i.e,15.74 percent out of 4103 persons.

Table 4.14 Loans Sanctioned to Units in Taluks of Bangalore Rural (1998 –1999)

Taluks	Uncultivable Barron Land (Hect)	Industrial Estates	Industrial Sheds	Loans Sanctioned to Units	Loans Sanctioned (Rs. Lakhs)
Channapatta	1482			515	372.67
Devanahalli	1477		Land to be acquired	218	432.57
Dodaballapuram	5063	Exists	78	222	460.57
Hoskote	1049	Exists	40	368	747.73
Kanakapura	14422	Exists	12	307	517.06
Magedi	5345	Exists	8	239	390.59
Nalamangala	3535		Land to be acquired	243	423.97
Ramanagaram	5883		24	322	710.77
Total	38256		162	2434	4055.93

Source: KASSIA office Bangalore, 2000

Table 4.15 Beneficiaries of PMRY and VTP in Taluks of Bangalore Rural (1998-1999).

Taluks	PMRY	%	VTP	%
Dodaballapuram	492	18.78	581	14.16
Devanahalli	278	10.61	395	9.63
Nalamangala	281	10.73	388	9.46
Hoskote	337	12.86	631	15.38
Ramanagaram	276	10.53	646	15.74
Channapatta	347	13.24	503	12.26
Kanakapura	376	14.35	552	13.45
Magedi	233	8.89	409	9.97
Total	2620	100	4103	100.00

Source: KASSIA Office, Bangalore, 2000

The following Table shows the loans given by the two main industrial development organization KSFC and KSSIDC. It can be seen that the number of small scale units to which loans have been sanctioned was greater (24.34 percent) than the

number of units of medium and large scale (518). Where as the amount of loans sanctioned for medium and large scale industries (Rs.37845.16 lakh) was larger than the amount sanctioned for small scale industries (Rs.37845.16 lakh).

Table 4.16 Loans Sanctioned by KSFC and KSSIDC (1998-1999)

Agency	Size of The Unit	Loans Sanctioned		Loans Disbursed	Amount Withstanding
		Units	Amount (Rs. in Lakhs)	Amount (Rs. in Lakhs)	Amount (Rs. in Lakhs)
KSFC	Small Scale	2434	4055.93	2926.77	2430.84
KSSIDC	Medium & Large	518	37845.16	26850.93	10038.71

Source: KASSIA Office, Bangalore.

New Industrial projects in Karnataka:

The new Industrial Projects in Karnataka are as follows:

Steel: JVSL, MVIS, Kalyani Steel and Nagarjuna Steels, Total Capacity MMTPA (Including other small projects)

Automotive: VOLVO, TELCO, TVS-SUZUKI, KIRLOSKAR-TOYTA.

Cement: 13 Cement Projects with a total capacity of 20 MMTPA.

Sugar: 31 Sugar projects with a total capacity of 71,500 TCD, (www.bangaloreit.com, dated 7/6/2000)

New Mega Projects: The New Mega Projects which are on the cards are as follows;

Upper Krishna Project: With investment of US\$ 1750 million.

Sea-Bird: One of the biggest Naval base in Asia with a investment of US\$ 4000 million.

- Petrochemical Complex:*** With investment of US\$ 2000 million.
- Express way Corridor:*** With investment of US\$500 million.
- International Airport:*** With investment of US\$750 million (www.bangaloreit.com dated 7/6/2000).

4.11 FDI in Karnataka:

Karnataka attracted FDI even during the pre independence era when the Britishers invested in the cotton textile mills. In the post Independence period it gained a momentum in the mid 1980s under the impact of the Rajiv Gandhi's policy of economic liberalization in several high technology fields, including electronics. Thus foreign investment started to pour in high technology areas especially in the field of software and information technology (IT) sector which is still a predominant and promising sector in the city. However the real impetus came after the introduction of liberalization policy of 1991, by the government of India. FDI started to pour in all possible sectors of the economy. The several incentives provided by the government of Karnataka such a infrastructure, tax benefits to 100 percent EOUs and a favourable labour policy etc. attracted in MNCs in the state. The announcement of new industrial policy of 1996 and package of incentives and concessions from 1996 to 2001 has further paved the way for the MNCs to invest in Karnataka. Table 4.17, Fig.4.1, Fig.4.2 show the share of Karnatakas's FDI approvals and investment out of the National aggregate from 1991 to1999. It can be seen that during the initial years the share of Karnataka in FDI approvals in India's FDI approvals was quite low. It got momentum from 1995 onwards (5.39 percent) but until 1997 (6.32 percent) it increased gradually. From 1998 it has started to fall again (4.09 percent). The share of investment from the FDI proposals in Karnataka has been highest in1994 (4.46 percent).

Table 4.17 Share of Karnataka in FDI Approvals and Investment (1991 – 1999)

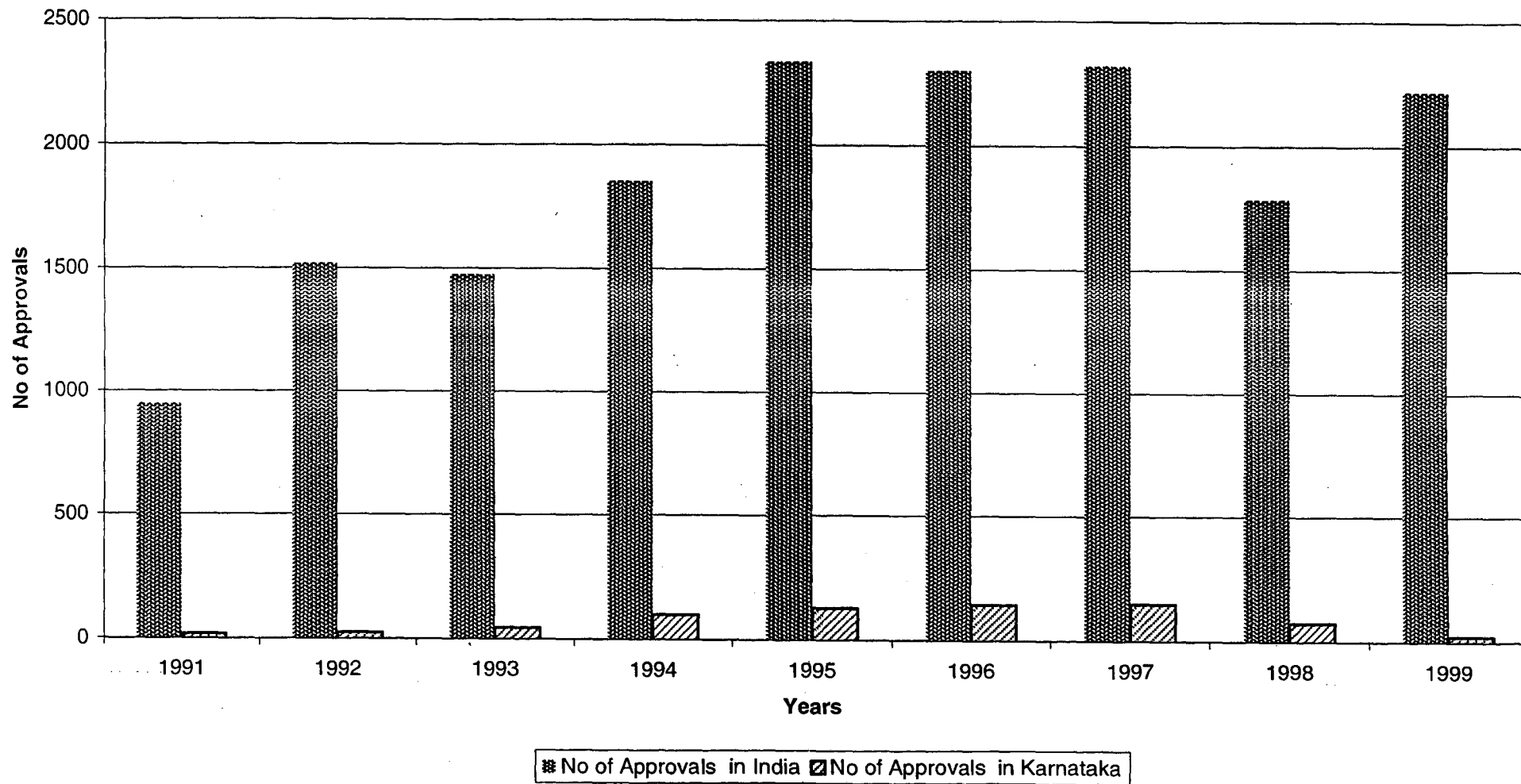
Year	No of Approvals In India	No of Approvals in Karnataka	% in Karnataka	Investment Approved in India (RsCrore)	Investment Approved in Karnataka (RsCrore)	% in Karnataka
1991	950	19	2	530	3.12	0.59
1992	1520	25	1.64	3890	32.99	0.85
1993	1476	46	3.12	8860	103.93	1.17
1994	1854	98	5.29	14190	632.90	4.46
1995	2337	126	5.39	32070	915.38	2.85
1996	2303	144	6.25	36150	994.69	2.75
1997	2325	147	6.32	54890	2096.45	3.82
1998	1786	73	4.09	30810	123.50	0.40
1999	2224	23 (May)	1.03	28370	10.39 (May)	0.04
Total	16775	701(May)	4.18	209760	4313.35(May)	2.06

Source: Karnataka Udyog Mitra, 2000.

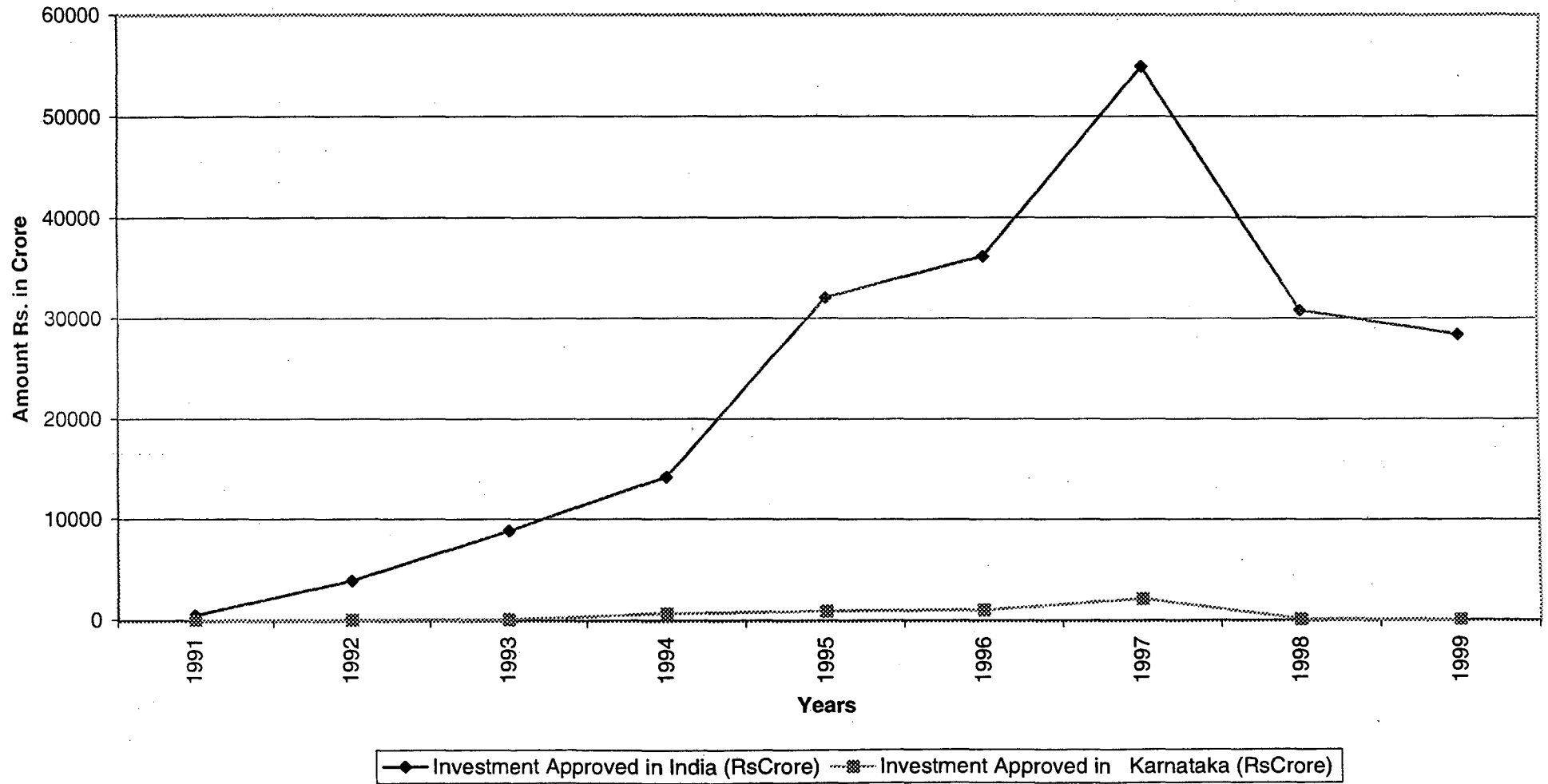
The present chief ministers Shri. S.M. Krishna is also declaring lucrative schemes to attract the foreign investors. He announced at the World Economic Forum's (WEF) Annual Summit January 2000, at Davos, that global investors could reap high returns if they invest in the State. He rolled out a red carpet and invited investors to participate in the state's investors meet which was held at Bangalore in April 1999. He also announced that *"my government will given top priority to infrastructure, so that when investors came in and have discussion with the state industries department they must so back with a letter of intent"*. The World Bank has in principle agreed to provide Rs.12,000 crore assistance for various infrastructural projects, primary education, poverty alleviation schemes over period of five years from 1999 onwards (Kaigarika Varte, February, 2000,pp.5-9) . The details of the MNC business houses with whom discussions were held at Davos are:

- (a) Nestle SA, Switzerland (b) General motor Corporation (GMC), USA. (c) Sun Micro System Inc. USA (d) United Technologies Corporation, USA, (e) International federation of Pharmaceutical manufactures association (f) Daimaru Chrysler, harmony

**Figure 4.1 Karnataka's Share in India's FDI Approvals
(1991 - 1999)**



**Figure 4.2 Share of Karnataka in India's FDI
(1991 - 1999)**



(g) Toyota motor Corp, Japan, (h) Royal Phillips Holland (I) Enron, USA (j) Volvo, AB, Sweden, (Kaigarika Varte, Feb. 2000, p.5).

The State is currently undergoing a battle with Andhra Pradesh regarding declaring Bangalore or Hyderabad as the Cyber City and Silicon Valley of the millennium. Bangalore no doubt has developed substantially as the core of the IT sector in the country but Hyderabad is also developing at a fast rate. Which one among the two will lead in the future is a matter for time to tell

4.11.1 FDI Approvals in Karnataka :

The data on FDI, provided by the Karnataka Udyog Mitra, shows that out of the 701 approaches in Karnataka from 1991 until May 1999, 47.36 percent have been implemented (see Table, 4.18, Fig. 4.3).

Table 4.18 FDI Approvals Implemented in Karnataka (1991 – May 1999).

Year	No. of Approval	Approvals Implemented	% Implemented	Implemented Yearly (%)
1991	19	5	26.32	1.51
1992	25	13	52.00	3.92
1993	46	16	34.78	4.82
1994	98	42*	42.86	12.65
1995	126	73**	57.94	21.99
1996	144	83***	57.64	25.00
1997	147	75****	51.02	22.59
1998	73	22	30.14	6.63
1999(May)	23	3	13.04	0.90
TOTAL	701	332	47.36	100.00

Source: Karnataka Udyog Mitra.

Note: Under implementation*2,**4,***12,****15

In the initial period i.e. in 1991 26.32 percent of the approvals only were implemented. The figure almost became twofold in the next year (52 percent), the highest number of approvals were implemented in 1995 (57.94 percent). In 1996, the

**Figure 4.3 FDI Approvals Implemented in Karnataka
(1991 - May 1999)**

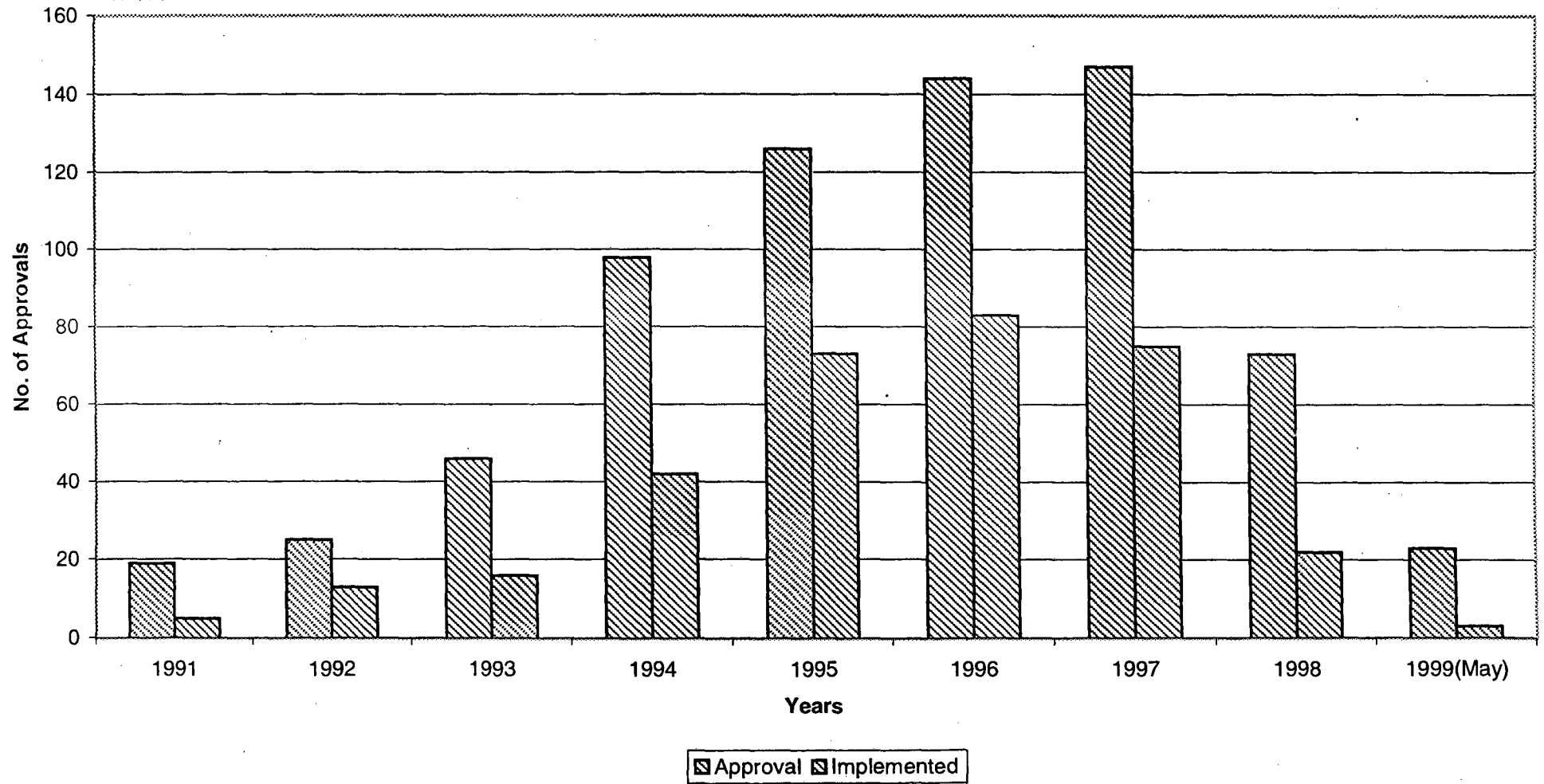


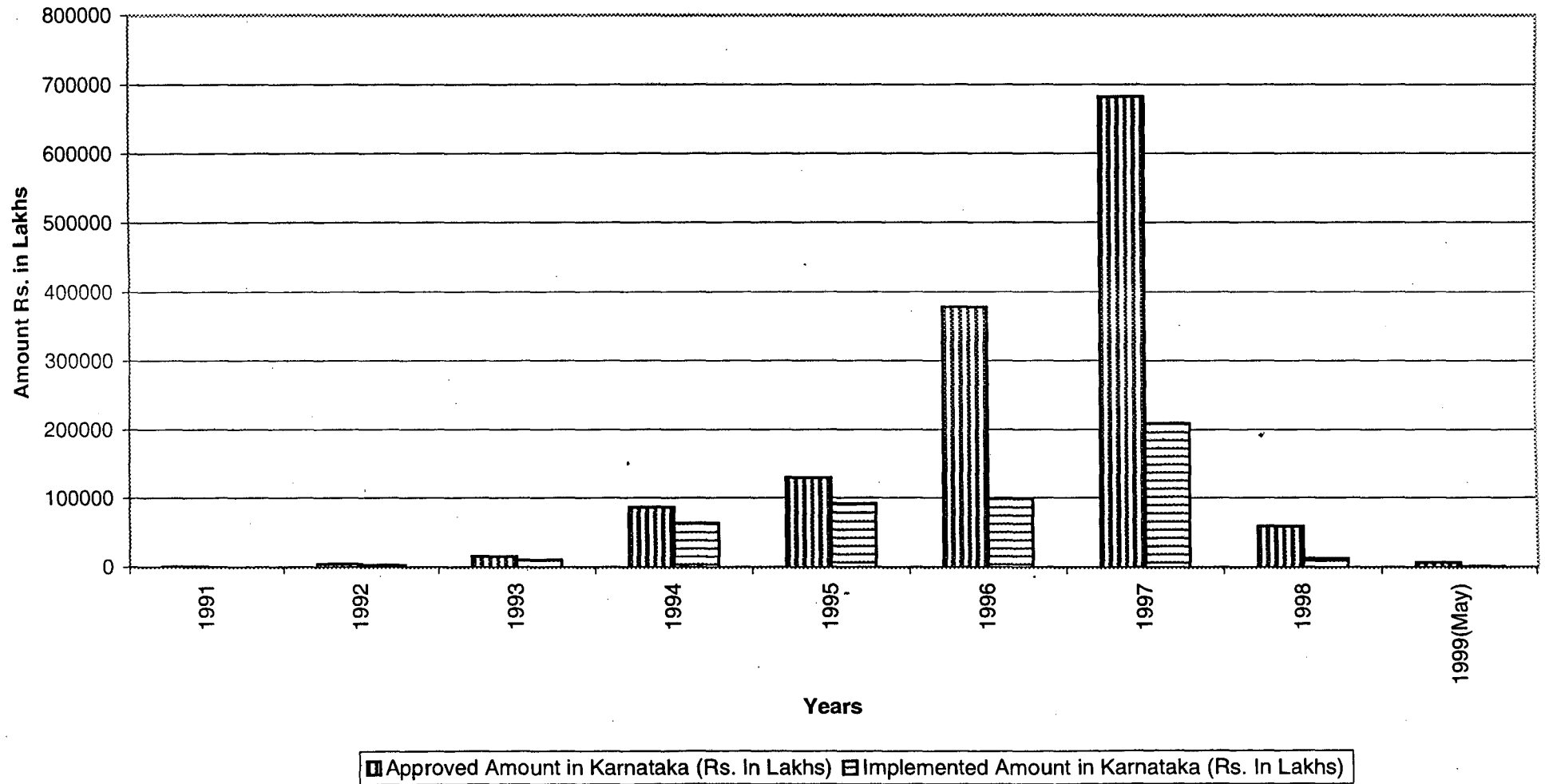
figure was almost the same (57.64 percent). A decline started to set in 1997 when the implemented approvals were 51.02 percent. This was followed by a steep fall to 30.14 percent in 1998. If we look at the approvals implemented yearly, 1996 registered the highest (25.0 percent) figure. In 1995 it was 21.99 percent and in 1997 it was 22.59 percent. Then in 1998 it fell steeply to 6.63 percent.

The total approved amount of FDI in Karnataka from 1991 to 1999 was Rs. 1363601.7 lakhs out of which Rs.491334.77 lakhs (36.03 percent) had been implemented (see Table 4.19, Fig.4.4). Out of this implemented amount Rs.221199.41 lakhs (45.02 percent) were invested in Bangalore urban and rural district collectively. At the beginning 30.20 percent of the approved amount had been implemented in Karnataka out of which 89.53 percent was in Bangalore urban and rural districts. From 1992 to 1995 the percent of implemented amount in Karnataka was almost the same. In 1996 it decreased by almost 47 percent (26.28 percent), followed by first a rise and then a fall by almost 10 percent in 1996 and 1997 respectively. Till May 1999 15.74 percent of the approved amount was implemented in Karnataka.

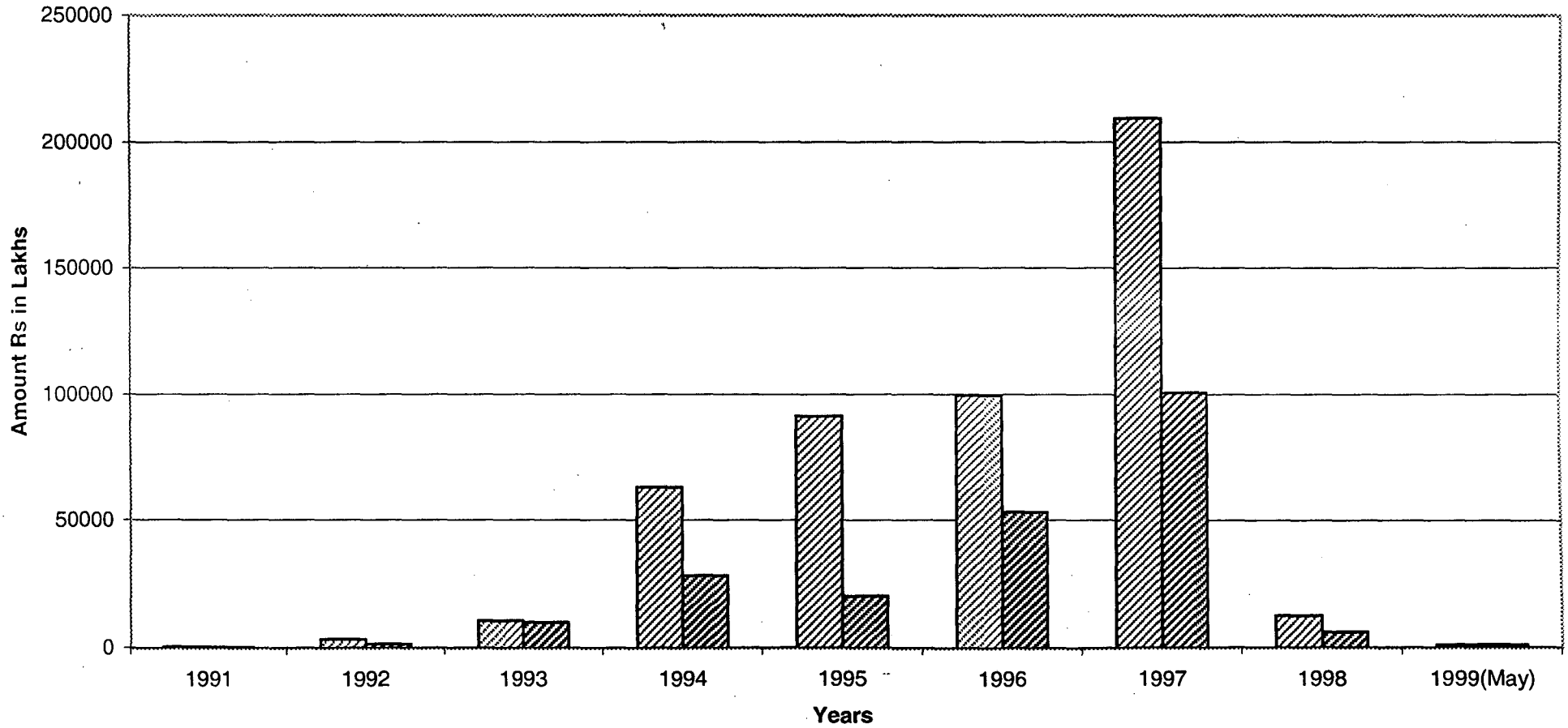
The percentage of implemented FDI in Bangalore urban and rural district was highest in 1993, i.e. 95.50 percent of the total in Karnataka (see Table 4.19, Fig 4.5). The percentage was lowest (22.07 percent) in 1995. In 1996 it increased almost by about 30 percent (53.70 percent) and declined almost at a constant rate until 1998 (47.90 percent).

Out of the 332 implemented approvals in Karnataka, 72.59 percent was in Bangalore urban and Bangalore rural district. Among it 54.82 percent is in Bangalore urban district followed by 10.84 percent and 6.93 percent in Bangalore rural and Industrial Area respectively (see Table 4.20). This again shows the concentration of investment in and around Bangalore because of the agglomeration of economic activities, infrastructural development economies of production etc. In these implemented approvals 72.59 percent have fluctuated between 1991 and May 1999. In 1991, 60 percent of the implemented proposals in Karnataka were in Bangalore (urban and rural) districts. Their share rose steadily to 84.62 percent in 1992, followed by a fall in 1993 (68.75 percent)

**Figure 4.4 Amount of FDI Implemented in Karnataka
(1991 - May 1999)**



**Figure 4.5 Implemented FDI in Bangalore Urban (U) and Rural (R) District
(1991 - May 1999)**



Implemented Amount in Karnataka (Rs. In Lakhs)
 Implemented Amount in Bangalore (U&R) (Rs. In Lakhs)

and a rise in 1994 (78.57 in percent). After that the share dropped down in 1995 (65.75 percent) and again rose in 1996 (68.67 percent). This was followed by an increase in 1997 (78.67 percent) and a marginal fall to 72.73 percent in 1998.

Table 4.19 Implemented amount of FDI in Karnataka and Bangalore Urban (U) and Rural (R) District (1991 – May 1999).

Year	Approved Amount in Karnataka (Rs. In Lakhs)	Implemented Amount in Karnataka (Rs. In Lakhs)	% of Implemented Amount	Implemented in Bangalore(U&R) out of Implemented Amt. in Karnataka (Rs. In Lakhs)	% of Implemented Amount
1991	1032.51	311.84	30.20	279.2	89.53
1992	4327.25	3298.81	76.23	1527.6	46.31
1993	15295.8	10392.9	67.95	9925.1	95.50
1994	86285.65	63289.99	73.35	28082.4	44.37
1995	129268.86	91538.05	70.81	20199.8	22.07
1996	378428.9	99469.07	26.28	53419.4	53.70
1997	682871.82	209644.9	30.70	100811.2	48.09
1998	59490.03	12350.07	20.76	5915.7	47.90
1999(May)	6600.88	1039.14	15.74	1039.1	100.00
TOTAL	1363601.7	491334.77	36.03	221199.41	45.02

Source: Karnataka Udyog Mitra, 2000.

The data on proposals in Bangalore urban district show that in 1991 only 20 percent of the proposals were implemented. This share rose in 1992 (69.23 percent) and from then onwards steady growth rate was maintained until 1994 (71.43 percent). In 1995 there was abrupt fall to 28.77 percent. Since then a steady growth rate was maintained till 1994 (71.43 percent). In 1995 again there was an abrupt fall to 28.77 percent. It increased by almost 42 percent in 1996 (71.93 percent) and gradual fell in 1997 (69.33 percent). All the three implemented industries until May 1999 were in Bangalore urban district. The figures of Bangalore rural district show that out of the proposal implemented in 1991 40 percent were in this district. Then there was a fall until 1994 (7.14 percent). In 1995 its share again rose to 19.81 percent followed by a continuous fall until 1999. This can be attributed to the attraction for Bangalore urban district among the MNCs because of various advantages. Thirteen proposals have been implemented for

the first time in the industrial area in 1995, which was 17.81 percent of the total proposals implemented in that year.

Table 4.20 Distribution of Approved and Implemented Proposals with FDI Component in Bangalore Urban, Rural District and its Industrial Areas (1991 – May 1999).

Year	Appr. Imple. in Karnataka	Appr. Imple. in Bangalore (U, R)	%	Bangalore Urban	% of imple in Karnt.	Bangalore Rural	% of imple in Karnt.	Ind Area	% of imple in Karnt.
1991	5	3	60	1	20.00	2	40.00	0	0.00
1992	13	11	84.62	9	69.23	2	15.38	0	0.00
1993	16	11	68.75	11	68.75	0	0.00	0	0.00
1994	42*	33	78.57	30	71.43	3	7.14	0	0.00
1995	73**	48	65.75	21	28.77	14	19.18	13	17.81
1996	83***	57	68.67	41	71.93	10	17.54	6	10.53
1997	75****	59	78.67	52	69.33	3	4.00	4	5.33
1998	22	16	72.73	14	63.64	2	9.09	0	0.00
1999(May)	3	3	100.0	3	100.0	0	0.00	0	0.00
Total	332	241	72.59	182	54.82	36	10.84	23	6.93

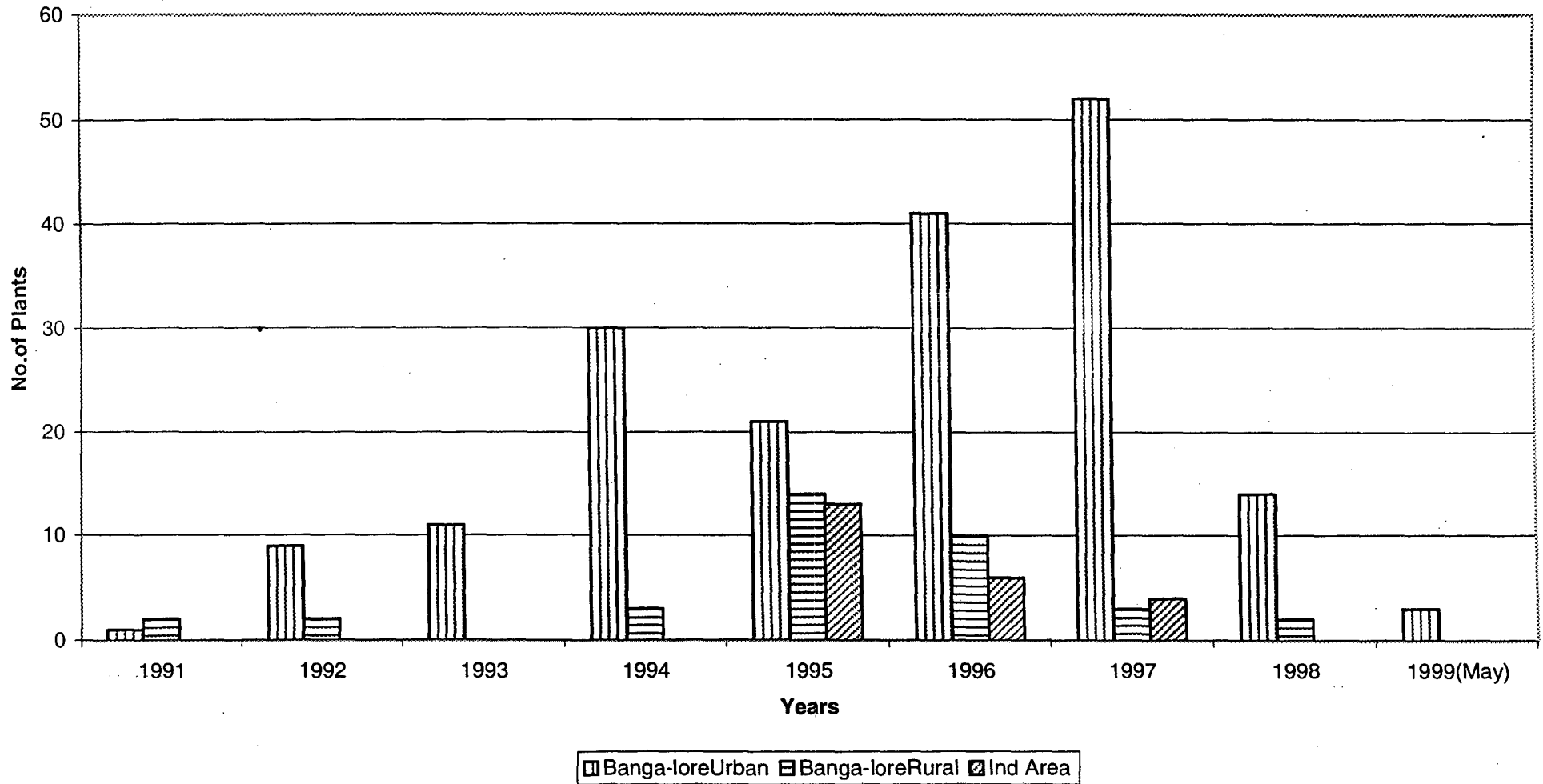
Source: Karnataka Udyog Mitra, 2000.

Note: Underimplementation*2,**4,***12,****15

4.11.2 Plants and Corporate Offices of the MNCs in Karnataka:

The plants (Level III activity) and the corporate offices (Level II activity) of the MNCs are also unevenly distributed all over the state. The major concentration is in and around Bangalore. And within this region also disparities can be seen, with major concentration being in the Bangalore urban district. Table 4.21 and Figure 4.6 show the distribution of plants with FDI component in Bangalore urban and rural districts including the industrial areas between 1991 and May 1999. Out of the 241 implemented approvals in Bangalore (urban and rural) districts, 182 plants (75.52 percent) are located in Bangalore urban district followed by 36 (14.94 percent) in Bangalore rural and 23 (9.54 percent) in its Industrial areas. In 1993 all the plants were located in Bangalore urban district. In 1992 the figure was 81.42 percent, and in 1994, 90.91 percent. In 1995

Figure 4.6 Implemented Plants with FDI component in Bangalore Urban and Rural Districts and its Industrial Areas (1991 - May 1999)



there was a sudden fall (43.75 percent) followed by a rise in 1996, the rise continued till 1996 onwards with a minor fall in 1998.

Table 4.21 Distribution of Plants with FDI in Bangalore Urban and Rural District Including its Industrial Areas (1991 – May 1999).

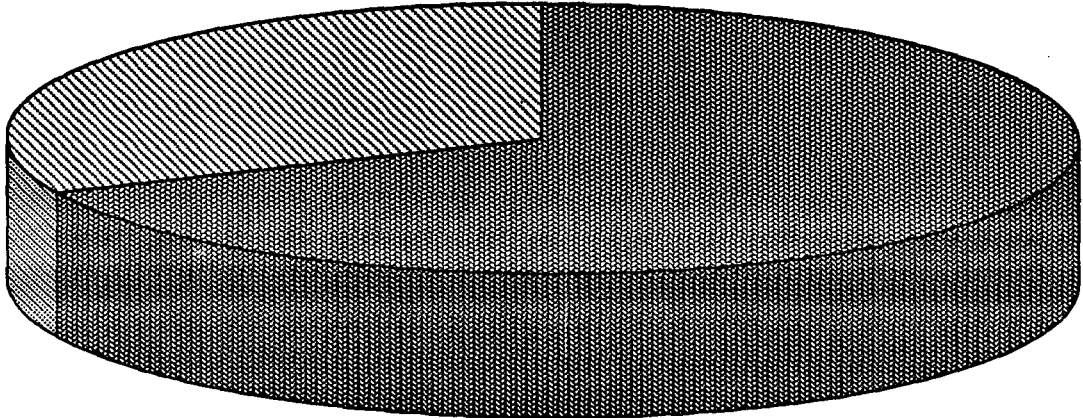
Year	Implemented in Bangalore U & R (Inc. Ind area)	Bangalore Urban	%	Bangalore Rural	%	Ind Area	%
1991	3	1	33.33	2	66.67	0	0
1992	11	9	81.82	2	18.18	0	0
1993	11	11	100.00	0	0.00	0	0
1994	33	30	90.91	3	9.09	0	0
1995	48	21	43.75	14	29.17	13	27.08
1996	57	41	71.93	10	17.54	6	10.53
1997	59	52	88.14	3	5.08	4	6.78
1998	16	14	87.50	2	12.50	0	0.00
1999(May)	3	3	100.00	0	0.00	0	0.00
Total	241	182	75.52	36	14.94	23	9.54

Source: Karnataka Udyog Mitra, 2000.

The percentage share of plants located in Bangalore rural district was highest in 1991 (66.67 percent). It fell steeply until 1994 and again rose in 1995 (29.17 percent). From 1995 onwards it witnessed a fall until 1997, followed by a rise in 1998 (12.50 percent). In the industrial areas the highest percent share (27.08 percent) out of the total implemented was in 1995.

Table 4.22 shows the distribution of corporate offices of the implemented FDI in Karnataka from 1991 to May 1999. Among the 332 implemented approvals in Karnataka 226 units (68.07 percent) had their corporate offices in Bangalore city and 106 *(31.93 percent) in other parts of Karnataka (Fig 4.7). This share increased to 69.23 percent in 1992 followed by minor ups and downs till 1997. In 1998 it again increased substantially to 81.82 percent. The high concentration of MNCs in Bangalore city and Bangalore urban district is noticed in terms of number of establishments, amount of money invested, location of plants and their corporate offices.

**Figure 4.7 Location of Corporate Office of Plants with implemented FDI in Karnataka
(1991 - May 1999)**



■ Bangalore City ■ Others (including cities within and outside Karnataka)

Table . 4.22 Number of Corporate Offices in Bangalore City with Implemented FDI in Karnataka (1991 – May 1999).

Year	Approvals Implemented in Karnataka	Corporate Office			
		Bangalore City	%	Others *	%
1991	5	3	60	2	40
1992	13	9	69.23	2	15.38
1993	16	11	68.75	5	31.25
1994	42	28	66.67	14	33.33
1995	73	48	65.75	25	34.25
1996	83	56	67.47	27	32.53
1997	75	50	66.67	27	36.00
1998	22	18	81.82	4	18.18
1999(May)	3	3	100.00	0	0.00
Total	332	226	68.07	106	31.93

Source: Karnataka Udyog Mitra, Bangalore.

*Note: *Others include cities within and outside Karnataka.*

Data provided by the Ministry of Industries(MOI), Government of India (cited in www.bangaloreit.com, dated 7/6/2000) gives the comparative figures FDI proposals approved between (April 1998 to September 1998) in Karnataka and its neighbouring southern states see (Table 4.23). It is observed that Tamil Nadu has the largest number of approvals (61) during that period, followed by Karnataka (51), Andhra Pradesh (33) and Kerala. But in terms of investment it is well above the others and occupies the first rank in India accounting for 28 percent of the total foreign investment of the country during that period. Tamil Nadu occupies the second position where as Andhra Pradesh occupies the sixth and Kerala trails far behind occupying the eighteenth position in the country. This again reflects that industrialists still consider Karnataka a suitable location from where high returns can be reaped.

Table. 4.23 FDI Proposals Approved between April 1998 to September 1998.

State	No. of Approvals	Us\$ in Million	All India Rating
Karnataka	51	1090	1(28%)
Tamil Nadu	61	575	2
Andhra Pradesh	33	120	6
Kerala	6	1	18

Source: *www.bangaloreit.com*, dated 16/6/2000.

4.11.3 MNCs Operating in Karnataka:

A large number of well known MNCs are operating in Karnataka, the most prominent among them being those with corporate head offices in USA, UK and Japan as can be seen from the Table 4.24.

Table 4.24 The major MNCs operating in Karnataka are as follows:

Country	USA	Japan	U.K	Germany	France	Others
MNC'S	IBM, AT&T, Texas Instruments, HP, Intel, ELXS, Tectronics, SK Beecham, Lucent Tech, Digital Equipments, Motorola, Novell, 3M, AMP, City Corp, Sun Mic Syst, Amphetronics, Verifone, Kodak, GE, Spicer, Moog Control, Megatromech	Yokogawa, Citizen, Fanuc, Mitshubishi, Komatsu, Sanyo, Sony, Nissan, Toyota	British Aerospace, Unilever, In-dex Computing for ANZ, British Telecom, Moog Cont. Rolce Royace, Alfred Herbert, Forbes, British Petroleum, Wilkinson Sword, Rover.	Bosch, Siemens, SAP, Stump Schule, Widia, Lapp cables, AFG, Fritz Werner, D. Benz.	Bull, Alsthom, Citel, Alcatel.	Britannia, L&T, Pieco (Phillips Holland), Ericsson, Brooke Bond, Rotary Mec Eng.

Source: *www.bangaloreit.com*, dated 16/6/2000.

4.12 IT industries in Karnataka and Bangalore:

In Karnataka and Bangalore in particular MNCs are investing in a diversified field ranging from electrical goods, food products, power sector, infrastructure development, financial services, textiles, health care tourism, consultancy and management services, etc, but still IT industries have surpassed the others. The major factor for this are the certain incentives given to investors in the state. These are as follows:-

- IT industries irrespective of level of investment and location of the unit will be offered sales tax exemption for a period of 10 years or deferment for a period of 12 years. Subject to a ceiling of 200 percent of the value of fixed assets. Such exemption /deferment will also cover turnover tax payable by the unit.
- IT industries will be exempt from payment of entry tax and purchase tax on computer hardware, computer peripherals and other capital goods including captive power generation sets, during implementation stage which can be extend up to five years from the date of commencement of the implementation.
- Software industries, which need electrical power up to 5 KVA, will be permitted to be established without any local restriction and will be made eligible for all incentives and concessions.
- Software industries will be treated as industrial (and not commercial) consumers and electricity tariff applicable to the industrial consumers will be levied on such industries.
- Continuous uninterrupted and quality power supply is one of the prime requirements for the sustenance and growth of IT industries. These industries would be given priority in sanction and servicing of power and would also be exempt from power cuts without any time limit.

- Captive power generation sets installed by the IT industry will be eligible for total exemption from payment of electricity tax without any time limit and total exemption from payment of sales tax on fuel used for captive power generation without any time limit.
- Software industries will be totally exempt from the purview of the Karnataka State Pollution Act, both in respect of air and water pollution.

4.13 Bangalore Software Industry:

The concept of Bangalore as a 'Silcan Valley' took off in the mid 1980s under the import of Rajiv Gandhi's policy of economic liberalization in several high technology fields, including electronics. Prior to that during the early 1980s few on site consulting companies were operating in the state. The first and most influential MNC attracted at that time (1984) was Texas Instruments, USA, which chose Bangalore because of the ability of technical personnel to work with English and tap a potential labour pool emerging from Indian Institute of Science and other educational institutions; the already installed base of electronic industries and subcontractors and relatively cheap real estate. In a successful case of technology transfer the Texas Instruments, set up a 64 KBPs data link and later turned it over to the Department Telecommunications. This allowed the Bangalore team to develop and support software and transmit code online to the US and other locations gradually.

In 1985, there was an announcement of STP (Software Technology Park) scheme, with special rules and concession for 100 percent EOU. In 1986 the software policy was announced. In 1991 the setting up the STP Industries started. In 1992, a exclusive satellite international gateway for export industry was installed. Karnataka became the first state to announce IT policy in the year 1997. This policy has acted as an important catalyst for the growth of IT industry in the state. The industry however is growing in

leaps and bounds. The nature and type of business is rapidly expanding. Karnataka is becoming a center for more and more sophisticated IT products and services. The value addition from IT professionals of Bangalore is getting at the higher end of the spectrum.

In 1998, there were 253 IT companies in Bangalore with a investment of US\$840 million. A large number of the companies are involved in high technology software development. At present the figure are as follows:-

Integrated circuit design (IC)	:	17
Communication Software	:	43
System Software	:	51
General Software	:	119

In Karnataka the advantages for the growth of software industries are a follows:-

- Low cost High Quality
- Second Largest English Speaking manpower resource in the world
- Mathematical and Ligature Expertise
- Adaptability to new Technologies
- Virtual Software Organization.
- Tough Intellectual property rights law
- A growing train bank of technical professionals
- Extremely competitive development costs
- Investment friendly and free market oriented business advantages. At present there are 110 companies with IS09000 certification among which MNC's occupy a considerable number. The growth of STP units are shown in Table 4.25 and Figure 4.8.

Table 4.25 Growth of STP Units in Karnataka (1991 – Till Date)

Year	No of Units
1991-92	13
1992-93	29
1993-94	53
1994-95	79
1995-96	125
1996-97	163
1997-98	207
Till Date	271

Source: www.bangaloreit.com ,dated 7/6/2000

The government of Karnataka is also helping the IT industries from time to time by issuing notifications. Some of the notifications as given in www.bangaloreit.com, dated 16/6/2000 are given in Appendix IV.

The IT usage is becoming more and more widespread and relevant. The government of Karnataka found it necessary to refocus on the IT policy and define one most suited for the present. Thus, the government of Karnataka announced the Mahithi the Millennium IT Policy in January 2000: The objectives of the Millennium IT policy are:

- To utilise the power of IT in the overall goal of the government of Karnataka in eradicating poverty and empowering women;
- To effectively reduce unemployment by absorbing a major share of educated youth in the IT industry.
- To promote the usage of Kannada in IT.
- To use e-governance as a tool and deliver a government that is more pro-active and responsive to its citizens.
- To unleash the Karnataka incubation engine.
- To encourage business with non-English speaking countries.
- To maintain the pre-eminent position of Bangalore and Karnataka in the field of IT.

To ensure the future of IT Development the following steps have been suggested:

- Establishment of IT backbone
- Development of secondary cities viz, Mysore, Mangalore, Huble and Manipal with high speed data communication
- Cyber part incubation centres at STPI-Bangalore.
- Promotion of Private IT parts
- Software exports US\$2500 million to US\$3000 million by 2002-2003 (www.bangaloreit.com,dated 15/6/2000).

4.14 Impact of Liberalization and MNCs on the Small Scale Industries (SSI):

According to Mr. Krishna Kumar, Deputy Secretary KASSIA, liberalization is a curse on the industrial sector for Karnataka. The MNCs are entering in every possible area, even in the low technology area (e.g., Bakeries etc.). The MNCs are offering a much lower price for the same product, which are produced by local units. People have the prejudice that these MNC products are of superior quality as these are produced in a modern, scientific and mechanised way.

The MNCs are using modern mechanism so they can produce at much faster rates in large amounts. Thus the MNC's pose a tough competition for the local industries, specially the SSIs many of which are closing down. The MNC's use a simple policy. At first they keep the price of their product quite low compared to the local products. This leads to the increase in their sale and the local industry begins to loose its clients and is gradually declared sick. Then the MNCs purchase these existing local units at a low price and start production, as they do not have to invest to set-up a unit, and they can produce at low cost and earn high profits. Some times they also give proposals to the

local units to merge with them by paying 10 to 20 times of the existing price. The MNCs thus control power over the local units and produce goods under the popular local brand names at a much cheaper cost. The local industries also have no option apart from merging with by MNC's who have economic and political power in their hands. Many large and medium industries have already closed in Bangalore. This is clear in the case of the electronics industry. The fear is that once the local industries will die the MNCs will increase the price of their products. Another striking feature is that the MNCs are investing for their own benefits and not for the industrial development of the state. They are investing in the fields where adequate infrastructure is already available. The main aim of liberalization was to develop infrastructure and to bring about technological advancement of the country. The MNCs are not investing in the infrastructural development of the State. As for example, they are setting up power plants only where high industrial demand exists.

The worst hit by the MNCs have been the SSI's which already were facing several problems. The SSI's are manned by one or two people, who have to do all the jobs starting from administration to production to marketing. Each unit is governed by about ten Acts such as Pollution Control Act, Sales Tax Act, Labour Welfare Act, Minimum Wage Act, Electricity Act etc. They get loans at a very high rate. The government does not give the entire loan required by the SSI at the initial stage. Hence it becomes difficult for the entrepreneurs to raise money which the industry requires. Sometimes if they get a big order and the loans do not come in time they lose the order which leads to massive losses. Environmental pollution rules are being imposed quite mindlessly on these industries and they have become a source of corruption. Pennaya the oldest industrial estate in Bangalore city still does not have proper infrastructure. There are no streetlights after 7:30 P.M, roads are bad and water and power supply is totally erratic. The SSI units consist of more outsiders (especially Tamils) than the local people. Outsiders have the notion that Bangalore has great employment opportunity, and the influx is very high in Bangalore which fails to cope with the increasing population.

All these factors make it easier for the MNCs to capture the already problem ridden SSI units. The SSI's are already in recession and sometimes 10 years of earnings are washed away in a few months of recession and the units are declared sick. Many ancillary units are also closing down which earlier had an assured market because now they have to compete globally.

The MNCs are trying to buy the popular local brand names in Bangalore. For example, Nilgiri Pizza, a very popular pizza outlet in Bangalore sells a pizza at Rs. 20. Recently an Italian Pizza Company has come up which sells its products at a much higher rate at Rs.175. This company could not capture the market created by the local company as it is cheaper and the local brand much more popular among the people. Now the Italian Pizza company is gradually trying to buy out the local company. The MNCs are gradually encroaching towards the food sector, where the major cost components are in raw materials and labour, both of which are cheap in India.

The job opportunities created by the MNCs are not so high. They have created a demand for specialized jobs like technicians, consultants, doctors, managers, engineers etc. The concept of mass employment opportunity has been completely ignored. Bangalore's case shows that the MNCs must be allowed to operate in the country but their encroachment in all the sectors of the economy must be checked to safeguard the interest of the local industries.

Chapter V

CONCLUSIONS

The conclusions of the present study are as follows:

- 1) The real boost to foreign direct investment in India came after the adoption of the New Economic Policy (NEP) in July 1991 when the policy regime was altered in terms of restrictions on and regulation of foreign investment in the country. Since 1991 the emphasis has been on attracting large foreign investment for infrastructural development and hence approvals for FDI have increased significantly compared to the immediate preceding phase. Between 1981 and 1990 the number of approvals had been only 7435, with 24.77 percent financial and 75.23 percent technical collaborations, and the total money invested had been Rs. 1274.1 crores. However, between 1991 and 1999 the number of collaborations increased to 16775, with 61.54 percent financial and 38.46 percent technical collaborations, and the amount of investment increased manifold to Rs. 2,09,760 crores. During the 1980s technical collaborations were dominant but after the adoption of the NEP the share of financial collaborations went up. In terms of collaboration and amount approved, FIPB occupies a very important position. Out of the total approvals from 1991 to 1999, FIPB accounted for 44.91 percent involving 91.35 percent of the total amount invested. RBI came next. It accounted for 33.53 percent of the total approvals involving 6.84 percent of the total amount invested. SIA occupied the last position and sanctioned 21.57 percent of the total approvals involving 1.81 percent of the total investment. The technical collaborations are mainly cleared by the 'automatic procedure' whereas technical approvals are given by the RBI. Between 1991 and 1999, 57.22 percent of the technical approvals were granted by the RBI, whereas in the case of the financial collaborations FIPB played the major role. It accounted for 70.94 percent of the financial collaborations approved between 1991 and 1999.

- 2) The inflows have risen with each successive year but the actual inflow works out to be less than one fifth of the approvals. Until 1998 the actual inflow was only 21.38 percent out of the total approved amount. The share of inflow was quite high in 1991, when the actual inflow was 47.69 percent of the total amount approved. However, it declined thereafter only to increase in 1998 when the share increased (31.97 percent) in comparison to the previous years. This is due to the fact that investment proposals require some time to mature. Larger the size of the investment longer indeed could be the gestation period.
- 3) After the initiation of NEP, FDI has started to pour in all possible sectors of our economy. Studies show that prior to independence foreign investment in India was primarily meant to exploit natural resources without any consideration to the development of the country. Even during the 1950s the major share of the foreign business was concentrated in plantation and oil fields. However, a fundamental change in terms of sectoral distribution of FDI took place between the 1960s and 1980s when importance of the manufacturing sector increased.

The analysis in this study shows that in the 1990s there has been a diversification in the areas where FDI is present. Between 1991 and November 1999 foreign investment in different sectors was Rs. 20,7,9487 million and the total number of approvals were 16237, out of which 62.01 percent were financial collaborations. The data on approvals reveal that while infrastructure sector attracted the maximum investment (57.66 percent) consumer goods also had a significant share (12.86 percent) in the approvals. This was followed by Capital goods and machinery (10.82 percent). The service sector accounted for 9.79 percent of the investment. From 1991 until November 1999, fuel industry attracted a major portion (30.51 percent) of the approved investment followed by telecommunication (17.61 percent), where most of the investment is directed towards cellular mobile and basic telephone services. Next came transportation (8.28 percent), metallurgical industries (5.83 percent), chemicals (5.78 percent), food processing (4.08 percent), computer software (2.05 percent), hotel and

tourism (2.04 percent), textiles (1.98 percent), industrial machinery (1.06 percent). The increase in the sectoral investment may be attributed to enhanced foreign equity stake in the existing foreign controlled companies.

4) Developed countries of the world account for nearly the entire stock of FDI in India. The largest number of MNCs which have gained a foothold in India during the 1980s were based in USA. This was followed by Germany, U.K and Japan. These four countries had a combined a share of 83 percent in the total FDI during the 1980s. As better technology does not appear to be a special consideration for permitting new investments a diversification of sources of investment was expected after the declaration of the NEP. However USA still continues to occupy the leading position and was a major investor in India (Rs. 35619.6 million) between 1991 and 1999 . But the share of the former four countries i.e USA, Germany, UK and Japan has considerably declined compared to that in the 1980s. A considerable amount of the investment is also coming from many small countries of Asia, Europe and South America and from Non Resident Indians. At present Mauritius, with an investment of Rs. 31659.07 million, occupies the second place after USA. South Korea has taken a lead over Japan which had been an important investor in the 1980s.

5) The spatial distribution of FDI in India is uneven both at the meso and micro levels. Many states have been showing considerable interest in attracting foreign investments. In this context and in the context of wider inter-state disparities in industrialisation, location of projects with foreign investments has assumed significance. Given the nature of approvals, however, the available information has serious limitations in reflecting actual amounts that are likely to flow into different States. In terms of approvals between 1991 and January 1997, Delhi received the maximum, i.e, 17.08 percent of the total approved amount. It is followed by Maharashtra (12.49 percent), Karnataka (5.41 percent) and Tamil Nadu (5.39 percent). But in terms of the number of approvals Maharashtra stood at the top with 13.08 percent of the total approvals. The next important State was

Tamil Nadu (7.84 percent) followed by Karnataka (6.65 percent). The eastern states still lag far behind compared to the western and southern states.

6) At the intra state level too there are regional disparities in terms of the location of the plants as well as corporate offices. The study of the FDI approvals from June 1996 to June 1998 shows that in Maharashtra majority of the MNC plants were located in the Greater Mumbai region (6.06 percent of the total approval with 70.59 percent financial and 24.83 percent technical collaborations). This was followed by the neighbouring districts of Pune and Thane. Pune accounted for 3.73 percent (63.57 percent financial and 36.63 percent technical collaborations) and the Thane region accounted for 1.21 percent of the total approvals (50 percent financial and 50 percent technical collaborations). The Ahmedabad region of Gujarat comes next in terms of the location of plants (0.90 percent of the total approvals involving 61.22 percent financial and 38.78 percent technical collaborations). In the south also there is a concentration around the Bangalore, Chennai, Hyderabad metropolitan regions. The Bangalore urban district accounted for 5.39 percent of the total FDI approvals (81.93 financial and 18.07 percent technical approvals) between June 1996 to June 1998 followed by the Bangalore rural district (0.69 percent, where 65.63 percent of the approval was financial and 34.38 percent was technical. Chennai had 3.08 percent of the approvals out of which 83.10 percent were financial and 16.90 percent were technical. Hyderabad only accounted for 1.26 percent of the approvals (82.76 percent financial and 17.24 percent technical approvals) but in recent years, with strong State support, it is emerging as a competitor to Bangalore. In north India, the maximum concentration was in Delhi and the neighbouring districts of Gurgaon, Ghaziabad and Faridabad. Delhi alone accounts for 6.09 percent of the total plants out of which 79.72 percent are financial and 20.28 percent technical approvals. In eastern India Calcutta and its neighbouring areas attracted 1.67 percent (72.73 percent financial and 27.27 percent technical collaborations) of the total approvals. It is clear that the MNCs prefer to invest in the western part of the

country. However, in recent years southern locations in and around Bangalore are emerging as strong contenders.

7) The data analysed from June 1996 until June 1998 shows that the Corporate offices of the MNCs are concentrated in the metropolitan cities. Among these the five Mega cities, i.e, Delhi, Mumbai, Calcutta, Chennai, Bangalore and Hyderabad accounted for 57.54 percent of the total offices, the share of Mumbai alone being 20.75 percent. This is followed by New Delhi (11.48 percent), Chennai (9.30 percent), Bangalore (7.37 percent), Calcutta (4.72 percent) and Hyderabad (3.83 percent) .

8) Karnataka is one of the fastest growing states in India. The rapid urbanisation is closely associated with rapid industrialisation. The urban component in the State's population is 30.92 percent spread over 254 Urban agglomerations. The State Government has identified three major and seven mini growth centres to promote balanced industrial development, but the major concentration is seen in and around the Bangalore region. The state Government has also set up various organizations such as KSIIDC, KIADB, KSFC, KASSIA to promote industrial growth. The Government had announced the New Industrial Policy of 1996 and a Package of Incentives valid up to 2001 which have attracted foreign investors to the State. The MNCs are investing mainly in the electrical industry and the IT sector. The number of FDI approvals in Karnataka started to increase rapidly from 1991 onwards but the real boost came between 1995 and 1997 when more than 6 percent of the FDI approvals in India came to Karnataka. Between 1991 and May 1999, Karnataka attracted 4.18 percent of the India's FDI approvals with 2.06 percent of the total foreign investment.

9) Out of the total FDI approvals in Karnataka from 1991 until May 1999, 47.36 percent were implemented with 36.02 percent of the total investment approved during that period. Between 1991 to May 1999, Bangalore urban and rural districts had 45.02 percent of the implemented amount and 72.53 percent of the

implemented approvals. The plants and the head offices of the MNCs are concentrated in and around the Bangalore metropolitan region. The Bangalore urban district accounts for 75.52 percent of the plants out of the implemented approvals in Karnataka. The Bangalore rural district accounts for 14.97 percent of the plants. Among the implemented approvals in Karnataka 68.07 percent have their offices in Bangalore city. Bangalore is developing fast in the field of IT and has been termed as the 'silicon valley' of India. The MNCs have however not contributed to the multifaceted industrial development of the state. The small scale industries are closing down because they cannot compete with these big firms and many local big industries have been taken over by the MNCs.

This study indicates that the MNCs prefer to operate in those sectors where they enjoy a competitive edge over existing or potential local competitors. In India they are entering in almost all the sectors of the economy. Apart from designing plants and producing bulk materials they are also opening establishments to market, export, distribute these products which can be easily done by an Indian firm. They are also encroaching into the ancillary sector which had earlier been the domain of local entrepreneurs. This has led to the closure of a large number of Indian firms resulting in massive unemployment. The MNCs are also not creating enough jobs as most of their operations are capital intensive.

The MNCs clearly show a metropolitan bias while locating their plants and offices. They prefer to go where infrastructure is already available. This increases the already existing regional disparities. The developed regions in western and southern India are becoming more developed and the eastern and central region continues to be neglected.

All these developments raise a number of policy issues related to regional development, regional disparities and resulting regional tensions. In the existing politico - economic situation in the country such issues are especially crucial and call for an in-depth multi faceted analysis.

Appendix I

List of Industries Reserved for the Public Sector as given in the Annexure I of the New Industrial Policy of 1991.

1. Arms and ammunition and allied items of defence equipment, defence aircraft and warships.
2. Atomic Energy.
3. Railway Transport.

List of Industries for which Industrial licensing is compulsory as given in the Annexure II of the New Industrial Policy of 1991.

1. Distillation and brewing of alcoholic drinks.
2. Cigars and cigarettes of tobacco and manufactured tobacco substitutes.
3. Electronic Aerospace and defence equipment: all types.
4. Industrial explosives including detonating fuses, safety fuses, gun powder, nitrocellulose and matches.
5. Hazardous chemicals.
6. Drugs and Pharmaceuticals (According to modified draft policy issued in September 1994).

Note: The compulsory licensing provisions would not apply in respect of the small scale units taking up the manufacture of any of the above items reserved for exclusive manufacture in small scale sector.

List of 22 specified industries in the consumer goods sector in which divided balance is applicable as given in the Annexure VI of the New Industrial Policy of 1991.

1. Manufacture of food and food products.
2. Manufacture of dairy products.
3. Grain mill products.

4. Manufacture of bakery products.
5. Manufacture and refining of sugar (vacuum pan sugar factories).
6. Production of Common salt.
7. Manufacture of Hydrogenated oil(vanaspati).
8. tea processing.
9. Coffee.
10. Manufacture of beverages, tobacco and tobacco products.
11. Distilling, rectifying and blending of spirits, wine industries, malt liquors and malt, production of country liquors and toddy.
12. Soft drink and carbonated water industry.
13. Manufacture of cigars, cigarettes, cheroot and cigarette tobacco.
14. Manufacture of wood and wood products, furniture and fixtures.
15. Manufacture of leather and fur/leather products.
16. Training, curing, finishing, embossing and japanning of leather
17. Manufacture of footwear (excluding repair) except vulcanized for moulded rubber or plastic footwear.
18. Manufacture of footwear made primarily of vulcanized or moulded products.
19. Prophylactics(rubber contraceptive).
20. Motor cars.
21. Entertainment Electronics (VCRs, Colour TVs, CD Players, Tape Recorders).
22. White Goods (Domestic Refrigerators, Domestic Dishwashing Machines, Programmable Domestic washing machines, Microwave Ovens,Airconditioners).

Appendix II

Sectorwise Breakup of FDI and Technical Collaboration Approved in India (August 1991 - November 1999)

	Aug '91 to Nov '95	Dec '95 to Nov '96	Dec '96 to Nov '97	Dec '97 to Nov '98	Dec '98 to Nov '99	Total Aug '91 - Nov '99	Share to GrandTotal
Metallurgical							
Total	306	91	73	67	54	591	3.64
Technical	190	43	32	29	25	319	5.17
Financial	116	48	41	38	29	272	2.70
Amount(Rs in million)	40967.02	22378.22	25456.3	22610.94	9725.24	121137.72	5.83
Fuels							
Total	165	103	141	107	145	661	4.07
Technical	67	42	25	26	48	208	3.37
Financial	98	61	116	81	97	453	4.50
Amount(Rs in million)	111423.18	64668.93	247812.6	153728.47	56892.98	634526.16	30.51
Boilers							
Total	46	14	4	5	5	74	0.46
Technical	29	5	2	4	2	42	0.68
Financial	17	9	2	1	3	32	0.32
Amount(Rs in million)	927.13	172.77	66.47	13.84	286.4	1466.61	0.07
Prime Movers							
Total	25	14	13	8	1	61	0.38
Technical	16	7	9	6	0	38	0.62
Financial	9	7	4	2	1	23	0.23
Amount(Rs in million)	174.94	303.34	181.71	252.25	4	916.24	0.04
Electrical Equip							
Total	1340	391	373	342	459	2905	17.89
Technical	652	131	97	97	72	1049	17.00
Financial	688	260	276	245	387	1856	18.43
Amount(Rs in million)	27449.3	27228.66	25024.53	13366.71	26641.44	119710.64	5.76
Telecom							
Total	228	75	93	75	100	571	3.52
Technical	70	6	24	8	4	112	1.82
Financial	158	69	69	67	96	459	4.56
Amount(Rs in million)	159728.93	57977.6	78564.89	29460.08	40481.55	366213.05	17.61
Computer Software							
Total	300	116	142	167	288	1013	6.24
Technical	39	11	8	8	6	72	1.17
Financial	261	105	134	159	282	941	9.35
Amount(Rs in million)	9734.33	7612.03	7299.64	6034.04	12007.23	42687.27	2.05
Transportation							
Total	351	150	189	192	212	1094	6.74
Technical	213	64	64	90	64	495	8.02
Financial	138	86	125	102	148	599	5.95
Amount(Rs in million)	29485.81	28179.56	33373.23	20518.3	60718.7	172275.6	8.28
Industrial Machinery							
Total	729	187	144	97	100	1257	7.74
Technical	511	102	66	54	40	773	12.53
Financial	218	85	78	43	60	484	4.81

Amount(Rs in million)	13434.16	2397.35	2370.19	1357.28	2467.46	22026.44	1.06
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Machine Tools							
Total	90	30	25	13	25	183	1.13
Technical	50	13	9	2	11	85	1.38
Financial	40	17	16	11	14	98	0.97
Amount(Rs in million)	610.92	713.42	1187.6	273.44	941.41	3726.79	0.18
Agricultural Machinery							
Total	25	2	3	6	4	40	0.25
Technical	20	0	3	4	3	30	0.49
Financial	5	2	0	2	1	10	0.10
Amount(Rs in million)	1613.97	563.77	0	2163.35	1.8	4342.89	0.21
Earth Moving Machinery							
Total	35	2	10	3	6	56	0.34
Technical	24	2	3	2	3	34	0.55
Financial	11	0	7	1	3	22	0.22
Amount(Rs in million)	129.69	0	699.81	3.88	11.28	844.66	0.04
Misc. Mechanical Engi							
Total	252	102	110	106	117	687	4.23
Technical	125	26	40	51	46	288	4.67
Financial	127	76	70	55	71	399	3.96
Amount(Rs in million)	2167.56	3015.94	3918.31	2050.78	2726.8	13879.39	0.67
Commercial Office							
Total	46	9	5	10	5	75	0.46
Technical	24	2	1	0	2	29	0.47
Financial	22	7	4	10	3	46	0.46
Amount(Rs in million)	2911.79	1574.95	2523.14	2807.98	853.26	10671.12	0.51
Medical & Surgical Instru							
Total	31	10	11	14	7	73	0.45
Technical	10	5	3	6	0	24	0.39
Financial	21	5	8	8	7	49	0.49
Amount(Rs in million)	1646.39	88.65	315.97	367.19	38.44	2456.64	0.12
Industrial Instruments							
Total	97	32	19	8	10	166	1.02
Technical	57	18	10	4	6	95	1.54
Financial	40	14	9	4	4	71	0.71
Amount(Rs in million)	612.96	425.74	85.51	41.64	46.5	1212.35	0.06
Scientific Instruments							
Total	32	4	3	1	1	41	0.25
Technical	10	3	1	0	0	14	0.23
Financial	22	1	2	1	1	27	0.27
Amount(Rs in million)	467.44	17.85	117.65	11.38	2.99	617.31	0.03
Mathematical etc.							
Total	1	4	3	1	1	10	0.06
Technical	0	3	1	0	0	4	0.06
Financial	1	1	2	1	1	6	0.06
Amount(Rs in million)	1.2	17.85	117.65	11.38	2.99	151.07	0.01
Fertilizers							
Total	35	8	5	9	7	64	0.39
Technical	32	5	5	9	6	57	0.92
Financial	3	3	0	0	1	7	0.07
Amount(Rs in million)	36.45	2475.68	43.28	0	0	2555.41	0.12
Chemicals							

Total	837	194	177	151	122	1481	9.12
<i>Technical</i>	507	76	58	55	40	736	11.93
<i>Financial</i>	330	118	119	96	82	745	7.40
Amount(Rs in million)	33943.7	23818.99	31044.71	23075.78	8339.87	120223.05	5.78
Photographic Raw Film, Paper							
Total	9	2	5	2	5	23	0.14
<i>Technical</i>	4	1	2	2	1	10	0.16
<i>Financial</i>	5	1	3	0	4	13	0.13
Amount(Rs in million)	248.82	3.03	1962.7	0	83.32	2297.87	0.11
Dyestuffs							
Total	10	1	0	7	1	19	0.12
<i>Technical</i>	2	0	0	1	0	3	0.05
<i>Financial</i>	8	1	0	6	1	16	0.16
Amount(Rs in million)	257.3	45.08	0	764.8	45	1112.18	0.05
Drugs & Pharmaceuticals							
Total	157	46	53	46	41	343	2.11
<i>Technical</i>	90	19	30	29	22	190	3.08
<i>Financial</i>	67	27	23	17	19	153	1.52
Amount(Rs in million)	4071.44	1199.15	1695.38	996.12	709.96	8672.05	0.42
Textiles							
Total	284	79	98	83	72	616	3.79
<i>Technical</i>	71	11	14	18	9	123	1.99
<i>Financial</i>	213	68	84	65	63	493	4.90
Amount(Rs in million)	25083.6	4530.28	4086.1	4063.02	3436.55	41199.55	1.98
Paper Product							
Total	82	24	27	18	16	167	1.03
<i>Technical</i>	48	6	6	2	1	63	1.02
<i>Financial</i>	34	18	21	16	15	104	1.03
Amount(Rs in million)	4530.98	10100.92	6496.84	1958.89	2791.77	25879.4	1.24
Sugar							
Total	2	2	3	0	0	7	0.04
<i>Technical</i>	0	1	0	0	0	1	0.02
<i>Financial</i>	2	1	3	0	0	6	0.06
Amount(Rs in million)	535	132.5	9430	0	0	10097.5	0.49
Fermentation							
Total	39	8	7	4	3	61	0.38
<i>Technical</i>	13	0	2	2	2	19	0.31
<i>Financial</i>	26	8	5	2	1	42	0.42
Amount(Rs in million)	7016.67	1607.7	2625.63	5.13	22.2	11277.33	0.54
Food Processing							
Total	449	98	88	60	54	749	4.61
<i>Technical</i>	102	17	11	7	1	138	2.24
<i>Financial</i>	347	81	77	53	53	611	6.07
Amount(Rs in million)	22987.85	33914.01	18845.8	7648.21	1424.31	84820.18	4.08
Vegetable Oils							
Total	25	2	5	2	6	40	0.25
<i>Technical</i>	3	0	0	0	0	3	0.05
<i>Financial</i>	22	2	5	2	6	37	0.37
Amount(Rs in million)	419.94	57.98	1435.9	16.99	491.5	2422.31	0.12

Soaps & Cosmetics							
Total	20	9	7	12	3	51	0.31
<i>Technical</i>	6	2	3	4	1	16	0.26
<i>Financial</i>	14	7	4	8	2	35	0.35

Amount(Rs in million)	830.7	242.96	435.1	1853.07	12.4	3374.23	0.16
Rubber Goods							
Total	95	34	21	19	24	193	1.19
Technical	58	16	10	5	8	97	1.57
Financial	37	18	11	14	16	96	0.95
Amount(Rs in million)	1146.18	3457.93	460.32	5060.5	1687.09	11812.02	0.57
Leather Goods							
Total	106	17	14	26	10	173	1.07
Technical	23	2	4	4	1	34	0.55
Financial	83	15	10	22	9	139	1.38
Amount(Rs in million)	1371.97	267.31	405.84	697.21	262.04	3004.37	0.14
Glue & Gum							
Total	0	0	0	0	2	2	0.01
Technical	0	0	0	0	0	0	0.00
Financial	0	0	0	0	2	2	0.02
Amount(Rs in million)	0	0	0	0	12	12	0.00
Glass							
Total	35	17	10	16	10	88	0.54
Technical	17	7	3	1	3	31	0.50
Financial	18	10	7	15	7	57	0.57
Amount(Rs in million)	3618.51	3205.57	3485.65	3107.03	3896.02	17312.78	0.83
Ceramics							
Total	125	30	11	14	20	200	1.23
Technical	43	6	1	2	5	57	0.92
Financial	82	24	10	12	15	143	1.42
Amount(Rs in million)	3733.52	1988.45	338.73	1843.03	680.88	8584.61	0.41
Cement & Gypsum							
Total	39	19	15	6	10	89	0.55
Technical	20	8	3	2	4	37	0.60
Financial	19	11	12	4	6	52	0.52
Amount(Rs in million)	3977.61	1454.64	698.18	895.85	6234.61	13260.89	0.64
Timber Products							
Total	4	1	3	2	1	11	0.07
Technical	1	0	1	0	0	2	0.03
Financial	3	1	2	2	1	9	0.09
Amount(Rs in million)	21.71	42	92.2	7.3	0	163.21	0.01
Defence							
Total	3	0	1	1	0	5	0.03
Technical	3	0	1	0	0	4	0.06
Financial	0	0	0	1	0	1	0.01
Amount(Rs in million)	0	0	0	34.7	0	34.7	0.00
Consultancy Service							
Total	170	86	66	99	92	513	3.16
Technical	45	10	6	19	9	89	1.44
Financial	125	76	60	80	83	424	4.21
Amount(Rs in million)	1263.42	5629.98	3174.73	6944.2	2562.87	19575.2	0.94
Service							
Total	267	100	106	109	134	716	4.41
Technical	9	2	7	17	7	42	0.68
Financial	258	98	99	92	127	674	6.69
Amount(Rs in million)	31044.38	47203.82	19784.17	13784.85	23636.27	135453.49	6.51
Hotel							
Total	139	56	70	60	63	388	2.39
Technical	47	22	13	27	22	131	2.12

<i>Financial</i>	92	34	57	33	41	257	2.55
Amount(Rs in million)	18962.73	4491.55	6265.4	5186.61	7598.44	42504.73	2.04
Trading							
Total	157	53	70	65	59	404	2.49
<i>Technical</i>	0	0	5	11	2	18	0.29
<i>Financial</i>	157	53	65	54	57	386	3.83
Amount(Rs in million)	1127.97	1338.85	2607.45	7066.63	2386.18	14527.08	0.70
Miscellaneous							
Total	721	214	119	102	147	1303	8.02
<i>Technical</i>	420	116	45	32	28	641	10.39
<i>Financial</i>	301	98	74	68	119	660	6.56
Amount(Rs in million)	10944.27	6742.32	4687.26	2338.62	8367.46	33079.93	1.59

GRAND TOTAL

Source : SIA News Letter Dec 1995, Dec 1996,
Dec 1997, Dec 1998, Dec 1999.

Tot Approval	16237	100.00
Technical	6169	37.99
Financial	10068	62.01
Amount	2079487.39	
(Rs in Million)		

Appendix III

Location of Plants with FDI Approval from June 1996 to June 1998.

Location of Plants	Total	%	Fina	%	Tech	%	Amt Rs Million	%
Agra	4	0.09	1	25	3	75	0.03	0
Ahmed Nagar	5	0.11	2	40	3	60	52.65	0.01
Ahmedabad	49	1.06	30	61.22	19	38.78	8855.14	0.92
Allappuzha	6	0.13	2	33.33	4	66.67	30.16	0.00
Aligarh	1	0.02	1	100.00	0	0.00	898.8	0.09
Allahabad	1	0.02	1	100.00	0	0.00	58.7	0.01
Alwar	20	0.43	14	70.00	6	30.00	1025.21	0.11
Ambala	2	0.04	0	0.00	1	50.00	0	0.00
Amreli	2	0.04	1	50.00	1	50.00	798	0.08
Anantapur	1	0.02	1	100.00	0	0.00	380	0.04
Anna	7	0.15	4	57.14	3	42.86	424.8	0.04
Aurangabad (Maha)	17	0.37	10	58.82	7	41.18	4510	0.47
Aurangabad (Bihar)	3	0.06	3	100.00	0	0.00	34.39	0.00
Balasore	1	0.02	0	0.00	1	100.00	0	0.00
Bangalore (Urban)	249	5.39	204	81.93	45	18.07	37605.68	3.91
Bangalore (Rural)	32	0.69	21	65.63	11	34.38	9017.88	0.94
Bareilly	4	0.09	2	50.00	2	50.00	126.5	0.01
Belgaum	6	0.13	4	66.67	2	33.33	1286.9	0.13
Bellary	11	0.24	6	54.55	5	45.45	4470	0.46
Berhampore	1	0.02	1	100.00	0	0.00	23.5	0.00
Betul	1	0.02	1	100.00	0	0.00	26	0.00
Bhadohi	1	0.02	1	100.00	0	0.00	4.53	0.00
Bhandara	2	0.04	1	50.00	1	50.00	0.75	0.00
Bharuch	26	0.56	11	42.31	15	57.69	18306.78	1.90
Bhatinda	1	0.02	1	100.00	0	0.00	3499.99	0.36
Bhilwara	2	0.04	1	50.00	1	50.00	5.88	0.00
Bhind	3	0.06	2	66.67	1	33.33	5.1	0.00
Bhopal	7	0.15	5	71.43	2	28.57	207.6	0.02
Bhubaneshwar	8	0.17	8	100.00	0	0.00	171.63	0.02
Bilaspur	1	0.02	1	100.00		0.00	35	0.00
Bokaro	1	0.02	0	0.00	1	100.00	0	0.00
Burdwan	4	0.09	4	100.00	0	0.00	214.66	0.02
Calcutta	77	1.67	56	72.73	21	27.27	10780.74	1.12
Chandigarh	3	0.06	3	100.00	0	0.00	0.91	0.00
Chandrapur	5	0.11	4	80.00	1	20.00	7913.53	0.82

Chengai MGR	37	0.80	25	67.57	12	32.43	10924.13	1.14
Changelpattu	23	0.50	17	73.91	6	26.09	2460.21	0.26
Chennai	142	3.08	118	83.10	24	16.90	28289.39	2.94
Chindwara	1	0.02	1	100.00	0	0.00	30.58	0.00
Chidambaranar	2	0.04	0	0.00	2	100.00	0	0.00
Chitradurga	1	0.02	1	100.00	0	0.00	87.1	0.01
Chittoor	3	0.06	3	100.00	0	0.00	253.85	0.03
Coimbatore	58	1.26	41	70.69	17	29.31	771.02	0.08
Coochbihar	2	0.04	1	50.00	1	50.00	1.27	0.00
Corlin Ilhas	2	0.04	1	50.00	1	50.00	140	0.01
Cuttack	1	0.02	1	100.00	0	0.00	18.5	0.00
Dakshina Kannada	7	0.15	5	71.43	2	28.57	7841	0.82
Daman	10	0.22	6	60.00	4	40.00	142.94	0.01
Darbhangha	1	0.02	1	100.00	0	0.00	50	0.01
Darjeeling	1	0.02	1	100.00	0	0.00	5	0.00
Dehradun	3	0.06	2	66.67	1	33.33	13.29	0.00
Dewas	2	0.04	2	100.00	0	0.00	1769.48	0.18
Dhanbad	4	0.09	0	0.00	4	100.00	0	0.00
Dhar	10	0.22	9	90.00	1	10.00	1341.18	0.14
Dharampuri	10	0.22	4	40.00	6	60.00	65.84	0.01
Dharwad	4	0.09	2	50.00	2	50.00	53.86	0.01
Dholpur	1	0.02	1	100.00	0	0.00	3.85	0.00
Dhule	2	0.04	2	100.00	0	0.00	88.96	0.01
Dindugul Anna	1	0.02	1	100.00	0	0.00	3.2	0.00
Doda	1	0.02	0	0.00	1	100.00	0	0.00
Durg	4	0.09	2	50.00	2	50.00	4350	0.45
East Godavari	8	0.17	6	75.00	2	25.00	8194.1	0.85
East Khasi Hills	1	0.02	1	100.00	0	0.00	25	0.00
Ernakulam	14	0.30	7	50.00	7	50.00	161.19	0.02
Faridabad	51	1.10	26	50.98	25	49.02	1324.29	0.14
Fatehgarh Sahib	2	0.04	2	100.00	0	0.00	6.5	0.00
Gandhi Nagar	10	0.22	5	50.00	5	50.00	2255.62	0.23
Ganjam	2	0.04	2	100.00	0	0.00	374	0.04
Ghaziabad	89	1.93	61	68.54	28	31.46	8001.9	0.83
Ghaziipur	1	0.02	1	100.00	0	0.00	82.81	0.01
Greater Mumbai	286	6.20	215	75.17	71	24.83	31829.97	3.31
Gulbarga	3	0.06	1	33.33	2	66.67	4.59	0.00
Guna	1	0.02	1	100.00	0	0.00	3434.36	0.36
Guntur	6	0.13	5	83.33	1	16.67	275.16	0.03
Gurgaon	89	1.93	54	60.67	35	39.33	4377.15	0.46
Hardoi	1	0.02	1	100.00	0	0.00	19.12	0.00
Hardwar	1	0.02	1	100.00	0	0.00	10	0.00
Hassan	1	0.02	1	100.00	0	0.00	10.74	0.00
Hoogly	5	0.11	0	0.00	5	100.00	0	0.00

Hoshiarpur	3	0.06	3	100.00	0	0.00	1500.05	0.16
Howrah	2	0.04	2	100.00	0	0.00	23	0.00
Hyderabad	58	1.26	48	82.76	10	17.24	2301.81	0.24
Indore	10	0.22	9	90.00	1	10.00	295.85	0.03
Jaintia Hill	1	0.02	1	100.00	0	0.00	60	0.01
Jaipur	12	0.26	9	75.00	3	25.00	1282.45	0.13
Jaintia Hills	1	0.02	1	100.00	0	0.00	60	0.01
Jajpur	1	0.02	1	100.00	0	0.00	7440	0.77
Jalgaon	3	0.06	2	66.67	1	33.33	175	0.02
Jalandhar	1	0.02	1	100.00	0	0.00	1	0.00
Jamnagar	6	0.13	2	33.33	4	66.67	12765.9	1.33
Jammu	2	0.04	1	50.00	1	50.00	80.1	0.01
Jamshedpur	7	0.15	4	57.14	3	42.86	226.75	0.02
Jhansi	1	0.02	1	100.00	0	0.00	17.88	0.00
Jharsuguda	1	0.02	0	0.00	1	100.00	0	0.00
Jodhpur	6	0.13	5	83.33	1	16.67	8441.6	0.88
Jullandhar	2	0.04	2	100.00	0	0.00	23.85	0.00
Junagad	1	0.02	0	0.00	1	100.00	0	0.00
Kalahandi	1	0.02	1	100.00	0	0.00	500	0.05
KamrajNagar	2	0.04	2	100.00	0	0.00	9.75	0.00
Kancheepuram	10	0.22	9	90.00	1	10.00	690.23	0.07
Kangra	1	0.02	1	100.00	0	0.00	0.66	0.00
Kanpur Nagar	7	0.15	4	57.14	3	42.86	167.4	0.02
Kanpur Dehat	1	0.02	0	0.00	1	100.00	0	0.00
Karaikal	2	0.04	2	100.00	0	0.00	1033.66	0.11
Kasaragod	1	0.02	1	100.00	0	0.00	3520	0.37
Khagone	2	0.04	2	100.00	0	0.00	4124.2	0.43
Khammam	1	0.02	1	100.00	0	0.00	34.7	0.00
Khandwa	1	0.02	1	100.00	0	0.00	1643.4	0.17
Kheda	3	0.06	2	66.67	1	33.33	31	0.00
Khurda	1	0.02	1	100.00	0	0.00	20	0.00
Kolar	4	0.09	3	75.00	1	25.00	34.19	0.00
Kolhapur	5	0.11	2	40.00	3	60.00	78.52	0.01
Koraput	1	0.02	0	0.00	1	100.00	0	0.00
Kota	4	0.09	1	25.00	3	75.00	1330	0.14
Kottayam	1	0.02	0	0.00	1	100.00	0	0.00
Krishna	3	0.06	3	100.00	0	0.00	65.38	0.01
Kurnool	2	0.04	1	50.00	1	50.00	524.9	0.05
Kurukshetra	1	0.02	1	100.00	0	0.00	7	0.00
Kutch	6	0.13	4	66.67	2	33.33	1786.84	0.19
Latur	1	0.02	1	100.00	0	0.00	60	0.01
Lucknow	4	0.09	3	75.00	1	25.00	44	0.00
Ludhiana	6	0.13	3	50.00	3	50.00	20.91	0.00
Madhubani	1	0.02	1	100.00	0	0.00	418	0.04

Madurai	9	0.19	6	66.67	3	33.33	398.68	0.04
Mahaboobnagar	1	0.02	1	100.00	0	0.00	48.8	0.01
Malappuram	3	0.06	2	66.67	1	33.33	17.79	0.00
Malda	1	0.02	0	0.00	1	100.00	0	0.00
Mandsaur	2	0.04	2	100.00	0	0.00	138.75	0.01
Mandya	3	0.06	2	66.67	0	0.00	207.4	0.02
Mangalore	2	0.04	2	100.00	0	0.00	3642.2	0.38
Mathura	4	0.09	0	0.00	4	100.00	0	0.00
Medak	24	0.52	19	79.17	5	20.83	805.28	0.08
Meerut	4	0.09	3	75.00	1	25.00	28.66	0.00
Mehaboobnagar	1	0.02	0	0.00	1	100.00	0	0.00
Mehsana	12	0.26	9	75.00	3	25.00	1317.77	0.14
Midnapore	15	0.32	7	46.67	8	53.33	16449.23	1.71
Miqndi	1	0.02	0	0.00	1	100.00	0	0.00
Mysore	14	0.30	9	64.29	5	35.71	1828.46	0.19
Nadia	3	0.06	3	100.00	0	0.00	394	0.04
Nagaur	4	0.09	3	75.00	1	25.00	27.84	0.00
Nagpur	12	0.26	7	58.33	5	41.67	533.2	0.06
Nalgonda	7	0.15	6	85.71	1	14.29	368.83	0.04
Narsinghpur	1	0.02	1	100.00	0	0.00	390	0.04
Nashik	28	0.61	13	46.43	15	53.57	1627.94	0.17
Navi Mumbai	7	0.15	7	100.00	0	0.00	1205.39	0.13
Nellore	5	0.11	5	100.00	0	0.00	1001.3	0.10
Nilgiris	1	0.02	0	0.00	1	100.00	0	0.00
NOIDA	31	0.67	25	80.65	6	19.35	1019.68	0.11
North 24 Pargana	4	0.09	4	100.00	0	0.00	125.2	0.01
North Arcot	1	0.02	0	0.00	1	100.00	0	0.00
North Goa	1	0.02	1	100.00	0	0.00	149	0.02
Palakkad	2	0.04	1	50.00	1	50.00	157.5	0.02
PanchMahal	2	0.04	1	50.00	1	50.00	1	0.00
Panipat	6	0.13	4	66.67	2	33.33	157.07	0.02
Pathanamthitta	2	0.04	2	100.00	0	0.00	194.5	0.02
Patiala	16	0.35	11	68.75	5	31.25	244.74	0.03
Patna	2	0.04	2	100.00	0	0.00	72.7	0.01
Periyar	3	0.06	1	33.33	2	66.67	0.75	0.00
Prakasam	3	0.06	2	66.67	1	33.33	18.2	0.00
Pudukottai	3	0.06	2	66.67	1	33.33	57.5	0.01
Pune	172	3.73	109	63.37	63	36.63	19832.88	2.06
Raichur	1	0.02	0	0.00	1	100.00	10.5	0.00
Raigad	17	0.37	10	58.82	7	41.18	7510.43	0.78
Raigarh	19	0.41	12	63.16	7	36.84	7682.69	0.80
Raipur	3	0.06	3	100.00	0	0.00	197.5	0.02
Raisen	1	0.02	1	100.00	0	0.00	9	0.00
Rajkot	4	0.09	4	100.00	0	0.00	119.6	0.01

Rajnanadgaon	2	0.04	1	50.00	1	50.00	14.73	0.00
Rampur	2	0.04	2	100.00	0	0.00	62.5	0.01
Ranchi	2	0.04	2	100.00	0	0.00	195.14	0.02
Rangareddy	21	0.45	15	71.43	6	28.57	1136.41	0.12
Ratlam	3	0.06	3	100.00	0	0.00	1711.43	0.18
Ratnagiri	5	0.11	5	100.00	0	0.00	346.91	0.04
Raurkela	1	0.02	1	100.00	0	0.00	0.87	0.00
Rewari	10	0.22	6	60.00	4	40.00	130.95	0.01
Rohtak	2	0.04	2	100.00	0	0.00	11.31	0.00
Ropar	5	0.11	4	80.00	1	20.00	370.83	0.04
Sagar	6	0.13	0	0.00	6	100.00	0	0.00
Saharanpur	1	0.02	0	0.00	1	100.00	0	0.00
Salem	2	0.04	1	50.00	1	50.00	45.5	0.00
Sambalpur	1	0.02	1	100.00	0	0.00	7000	0.73
Sangli	3	0.06	1	33.33	2	66.67	8	0.00
Satara	4	0.09	2	50.00	2	50.00	48.47	0.01
Sehore	1	0.02	1	100.00	0	0.00	218.56	0.02
Shajapur	1	0.02	1	100.00	0	0.00	127.5	0.01
Sholapur	3	0.06	3	100.00	0	0.00	103.35	0.01
Silvasa	10	0.22	6	60.00	4	40.00	152.33	0.02
Simla	3	0.06	2	66.67	1	33.33	41.49	0.00
Sindhudurg	3	0.06	2	66.67	1	33.33	79.63	0.01
Singhbhum	14	0.30	3	21.43	11	78.57	114.6	0.01
Sirpur	1	0.02	1	100.00	0	0.00	110	0.01
Sitapur	1	0.02	0	0.00	1	100.00	0	0.00
Solan	5	0.11	1	20.00	4	80.00	65	0.01
Sonbhadra	2	0.04	0	0.00	2	100.00	0	0.00
Sonipat	7	0.15	5	71.43	2	28.57	28.58	0.00
South 24 Parganas	9	0.19	6	66.67	3	33.33	17.36	0.00
South Arcot	6	0.13	4	66.67	2	33.33	734.34	0.08
South Goa	3	0.06	3	100.00	0	0.00	93.52	0.01
Sri Ganganagar	1	0.02	1	100.00	0	0.00	1484.6	0.15
Sultanpur	1	0.02	0	0.00	1	100.00	0	0.00
Sundergarh	5	0.11	4	80.00	1	20.00	666.68	0.07
Surat	11	0.24	4	36.36	7	63.64	5878.21	0.61
Tehri Garhwal	2	0.04	2	100.00	0	0.00	214.1	0.02
Thane	56	1.21	28	50.00	28	50.00	1660.62	0.17
Thanjavur	4	0.09	4	100.00	0	0.00	146.01	0.02
Thiruvallur	1	0.02	1	100.00	0	0.00	1200	0.12
Thirunvananthapuram	5	0.11	5	100.00	0	0.00	71.08	0.01
Thricssur	2	0.04	1	50.00	1	50.00	7.6	0.00
Tiruchirapalli	4	0.09	4	100.00	0	0.00	1054	0.11
Tirunelveli Kottabomman	1	0.02	1	100.00	0	0.00	20.64	0.00
Tripur	5	0.11	5	100.00	0	0.00	32.37	0.00

Tumkur	2	0.04	1	50.00	1	50.00	42.5	0.00
Tuticorin	1	0.02	1	100.00	0	0.00	8.82	0.00
Udaipur	3	0.06	3	100.00	0	0.00	28.24	0.00
Udham Singh Nagar	1	0.02	1	100.00	0	0.00	48.75	0.01
Uttara Kannada	2	0.04	1	50.00	1	50.00	40	0.00
Vadodara	35	0.76	27	77.14	14	40.00	2391.25	0.25
Vaishali	2	0.04	1	50.00	1	50.00	5	0.00
Valsad (Gujarat)	11	0.24	6	54.55	5	45.45	90.62	0.01
Varanasi	3	0.06	2	66.67	1	33.33	64.1	0.01
Vijayanagaram(AP)	2	0.04	2	100.00	0	0.00	474.56	0.05
Villupuram (T.Nadu)	1	0.02	0	0.00	1	100.00	0	0.00
Visakhapatnam	16	0.35	8	50.00	8	50.00	1060.35	0.11
West Godavri (AP)	1	0.02	0	0.00	1	100.00	0	0.00
Yamuna Nagar (Haryana)	5	0.11	3	60.00	2	40.00	6398	0.67
Yavatmal (Maharashtra)	2	0.04	1	50.00	1	50.00	30.58	0.00
ANDAMAN NICOBAR	1	0.02	1	100.00	0	0.00	121.43	0.01
ANDHRA PRADESH	29	0.63	25	86.21	4	13.79	26095.19	2.71
BIHAR	1	0.02	1	100.00	0	0.00	150	0.02
DADRA & NAGARHAVELI	8	0.17	2	25.00	6	75.00	96.5	0.01
DELHI	281	6.09	224	79.72	57	20.28	60852.94	6.33
GOA	34	0.74	24	70.59	10	29.41	1794.45	0.19
GUJARAT	57	1.23	26	45.61	31	54.39	32022.82	3.33
HARYANA	17	0.37	9	52.94	8	47.06	2243.85	0.23
HIMACHAL PRADESH	4	0.09	2	50.00	2	50.00	99.27	0.01
KARNATAKA	23	0.50	18	78.26	5	21.74	3348.68	0.35
KERALA	16	0.35	12	75.00	4	25.00	268.63	0.03
MADHYAPRADESH	11	0.24	8	72.73	3	27.27	46161.83	4.80
MAHARASHTRA	67	1.45	37	55.22	30	44.78	23340.22	2.43
MANIPUR	1	0.02	1	100.00	0	0.00	31.85	0.00
NAGALAND	1	0.02	0	0.00	1	100.00	0	0.00
ORISSA	8	0.17	7	87.50	1	12.50	5408.5	0.56
PONDICHERY	20	0.43	11	55.00	9	45.00	469.04	0.05
PUNJAB	4	0.09	3	75.00	1	25.00	671.63	0.07
RAJASTHAN	9	0.19	7	77.78	2	22.22	937.97	0.10
TAMIL NADU	130	2.82	87	66.92	43	33.08	35267.66	3.67
UTTAR PRADESH	22	0.48	14	63.64	11	50.00	1741.74	0.18
WEST BENGAL	24	0.52	13	54.17	11	45.83	2383.82	0.25
NOT AVAILABLE	1402	30.37	1013	72.25	389	27.75	333056.7	34.64
TOTAL	4616	100	3234	70.06	1382	29.94	961617.2	100.00

Source: India Investment Centre Monthly Bulletin from August 1996 to August 1998.

Appendix IV

Location of Head Quarters of the MNCs out of the FDI approved During June 1996 to June 1998.

Location of Head Quarters	No.	%
Agra	4	0.09
Ahmedabad	83	1.80
Ahmednagar	1	0.02
Ajmer	1	0.02
Allahabad	2	0.04
Alleppy	2	0.04
Alwar	1	0.02
Ambala Cantt	1	0.02
Anand	3	0.06
Ankelshwar	1	0.02
Aurangabad	14	0.30
Bangalore	340	7.37
Bardez	2	0.04
Bareilly	3	0.06
Bellary	6	0.13
Belpahar	1	0.02
Bhadohi	2	0.04
Bhadreshwar(WB)	1	0.02
Bharuch	5	0.11
Bhatkal	1	0.02
Bhillai	1	0.02
Bhilwara	1	0.02
Bhiwandi	1	0.02
Bhopal	10	0.22
Bhubaneshwar	18	0.39
Binani Puram	1	0.02
Binani Puram	1	0.02
Bokaro	1	0.02
Bokaro	1	0.02
Calcutta	218	4.72
Canacona (Goa)	1	0.02
Chandigarh	29	0.63
Chennai	433	9.38
Chittor	1	0.02
Cidade De Goa	1	0.02
Cochin	15	0.32
Coimbatore	60	1.30

Cuddalore	1	0.02
Cuttack	1	0.02
Daman	1	0.02
Dehradun	2	0.04
Derabassi	1	0.02
Dewas	2	0.04
Dhar	1	0.02
Dharwar	1	0.02
Dhule	1	0.02
Dombivili(east)	1	0.02
Durgapur	1	0.02
Ernakulam	4	0.09
Erode	1	0.02
Faridabad	20	0.43
Fertilizer Nagar	1	0.02
Gandhi Nagar	3	0.06
Gaya	1	0.02
Ghaziabad	8	0.17
Gobindgarh	1	0.02
Gummidipundi	1	0.02
Guntur	5	0.11
Gurgaon	21	0.45
Gwalior	2	0.04
Habsiguda	1	0.02
Harihar	1	0.02
Hoshiarpur	1	0.02
Hoskote	1	0.02
Hosur (TNadu)	3	0.06
Hubli	2	0.04
Hyderabad	177	3.83
Indore	18	0.39
Jagadhri	2	0.04
Jaipur	14	0.30
Jaisalmer	1	0.02
Jalandhar	1	0.02
Jalgaon	3	0.06
Jammu Tawi	1	0.02
Jamsedhpur	6	0.13
Jodhpur	4	0.09
Jullandhar	1	0.02
Junagarh	1	0.02
Kakinada	1	0.02
Kalol	1	0.02
Kanchipuram	1	0.02

Kangra	1	0.02
Kanpur	19	0.41
Khajuraho	1	0.02
Kheda	1	0.02
Kochi	4	0.09
Kolhapur	4	0.09
Kottayam	2	0.04
Kuddalore	1	0.02
Kullakamby	1	0.02
Kutch	1	0.02
Lucknow	8	0.17
Ludhiana	11	0.24
Madurai	9	0.19
Mangalore	1	0.02
Manipal	1	0.02
Margao	3	0.06
Medak	1	0.02
Meerut	3	0.06
Meghalaya	1	0.02
Mehsana	5	0.11
MIDC Taloja	1	0.02
Mirzapur	1	0.02
Mohali	3	0.06
Mumbai	958	20.75
Mysore	3	0.06
Nagpur	7	0.15
Nani Daman	1	0.02
Narendrapur	1	0.02
NarnmadaNagar	1	0.02
Nashik	12	0.26
Navi Mumbai	9	0.19
New Delhi	530	11.48
Noida	21	0.45
Nurani Palakkad	1	0.02
Odhar	1	0.02
Ogalewadi	1	0.02
Padri	1	0.02
Palakkad	4	0.09
Palarivattom	1	0.02
Panchkula	1	0.02
Panipat	1	0.02
Panjim	18	0.39
Parwanoo	4	0.09
Pathanamthitta	1	0.02

Patiala	4	0.09
Patna	5	0.11
Pondichary	9	0.19
Port Blair	1	0.02
Pune	162	3.51
Raigad	1	0.02
Raigarh	1	0.02
Rajkot	3	0.06
Rajpura	2	0.04
Ranavav	1	0.02
Ranchi	1	0.02
Ranipet	1	0.02
Rasayani (Raigad)	1	0.02
Ratnagiri	1	0.02
Renukoot	1	0.02
Rewari(Haryana)	1	0.02
Rohtak	1	0.02
Rosh	1	0.02
Rourkela	1	0.02
Saharanpur	1	0.02
Salcate	1	0.02
Salem	6	0.13
Satara	1	0.02
Secundrabad	32	0.69
Shahjahanpur	1	0.02
Shivajinagar	1	0.02
Solan	1	0.02
Solapur	2	0.04
Sonbhadra	1	0.02
Sultanpur	1	0.02
Sundergarh	1	0.02
Surat	7	0.15
Taloja	1	0.02
Thane	25	0.54
Thiruvananthapuram	15	0.32
Thrissur	1	0.02
Tiruchirapalli	4	0.09
Tirupati	1	0.02
Trichi	1	0.02
Tripur	11	0.24
Tumsar	1	0.02
Tuticorin	1	0.02
Udaipur	4	0.09
Udyog Nagar	1	0.02

Uppugunduru (AP)	1	0.02
Vadodara	49	1.06
Vallabh Vidya Nagar	1	0.02
Valsad	2	0.04
Vapi	1	0.02
Varanasi	1	0.02
Vihroli	1	0.02
Vijayawada	4	0.09
Vishakhapatnam	7	0.15
Yamuna Nagar (Hary)	2	0.04
Foreign Countries	35	0.76
Not Available	943	20.43
TOTAL	4616	100.00

Source: India Investment Centre Monthly Bulletin from August 1996 to August 1998

Appendix -V

List of High-Tech and Non Polluting Industries in Tiny and Small Scale Industries Sectors Eligible for Incentive in Developed Areas(Zone -I) as given in Appendix II of the New Industrial Policy of 1996 and Package of Incentive & Concessions 1996-2001:

1. Electronics
2. Telecommunication
3. Informatics
4. Precision Tooling/ Tool Room Industries
5. Readymade Garments including Leather Garments (excluding leather tanning units)
6. Units manufacturing pollution control and affluent treatment plant, equipment and appliances
7. Bio-technology industries.

APPENDIX VI

GOVERNMENT OF KARNATAKA
NO. Kae/29/kabani/2000

Karnataka Government Secretariat
M.S.Building
Bangalore, Dt. 9/3/2000

NOTIFICATION

In exercise of the powers conferred by sub-clause (vi) of clause (n) of section 2 of the Industrial Disputes Act, 1947 (Central Act 14 of 1947) the Government of Karnataka being satisfied that public interest so requires hereby declares the Information and Technology / Software Establishments and Export Promotion Industrial Park (EPIP) and Hundred Percent Export Oriented Units to be public utility services for the purpose of the said Act for a period of six months from the date of publication of this Notification in the Official Gazette.

By Order and in the
name of Government of Karnataka,

sd/-
(B.H.Umapathy)
Under Secretary to Government,
Labour Department

GOVERNMENT OF KARNATAKA
NO. Kae/31/kabani/2000

Karnataka Government Secretariat
M.S.Building
Bangalore, Dt. 9/3/2000

NOTIFICATION

In exercise of the powers conferred by sub-section (1) of section 40 of the Industrial Disputes Act, 1947 (Central Act 14 of 1947) the Government of Karnataka being of the opinion that it is excellent and necessary in the public interest so to do, hereby, amends the First Schedule by adding the following industries there of, namely :

In the First Schedule, after Serial Number 32 and the entries related thereto, the following shall be inserted, namely :

33. Information Technology / Software Establishments.

34. Export Promotion Industrial Park (EPIP) and hundred percent Export Oriented Units.

**By Order and in the
name of Government of Karnataka,**

sd/-
(B.H.Umapathy)
Under Secretary to
Government,
Labour Department

GOVERNMENT OF KARNATAKA
NO. Kae/30/kabani/2000

Karnataka Government Secretariat
M.S.Building
Bangalore, Dt. 9/3/2000

NOTIFICATION

In exercise of the powers conferred by Section 14 of the Industrial Employment (Standing Orders) Act, 1946 (Central Act 20 of 1946) the Government of Karnataka hereby exempt the Information and Technology / Software Establishments from all the provisions of the said Act for a period of one year from the date of publication of this notification in the Official Gazette.

**By Order and in the
name of Government of Karnataka,**

sd/-
(B.H.Umapathy)
Under Secretary to Government,
Labour Department

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