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An Introduction To The Study Of Indian Economy

by

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To,

Japanese Students

of

Indian Economy

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Preface

This text has grown out of the lectures I delivered at the Faculty of Economics, University of Tokyo during the Summer Semester of 1989. While I was asked to give a course on Indian Economy, I was not given any specific syllabus to teach. Neither I had one ready in hand. Under the circumstances the syllabus arose out of the interests and queries of the students, who joined my course. This text, therefore, is in response to the demands of the students, rather than being a preconceived book on Indian economy. It is this which has propelled me to dedicate it to Japanese students, who, I hope and believe, will study India in an spirit of critical and sympathetic inquiry. At this point I feel like recalling that all my students were familiar with Hinduism, cow-worship and caste-system of India. But there were also those who had heard, read, or watched on the visual medium that most children in India do not go to school. India, for all her history and diversity, is not perhaps capable of performing an economic miracle as Japan has done. But she has been steadily changing. She deserves a closer study, rather than knowledge on hearsay or motivated supply of information. I hope that the present text will help the Japanese students in that direction.

Professor Akira Takahashi and the Dean of the Faculty, Professor Akio Okochi encouraged me to write out the lectures, for which I feel extremely grateful to them. Professor Haruka Yanagisawa of the Institute of Oriental Culture helped me with material for writing the first chapter on Indian economy under the colonial rule, and was kind enough to read it. Before publishing this text, I will very much welcome comments and suggestions from

the colleagues in the Faculty as well as from other Japanese scholars interested in the study of India.

The Faculty of Economics did me an incomparable honour by unanimously voting to invite me to give these lectures and to be a full member of the Faculty for the academic year, 1989-90. Being at the Faculty also gave me an opportunity to give and participate in seminars and deliver lectures on Indian development at various institutions such as the Meiji-Gakuin University, the Aoyama Gakuin University, the Institute of Economic Research, Hitotsubashi University, the International Development Centre of Japan and the Business Economists' Group of the Indo-Japan Association. Another opportunity given was to get a first hand idea of Hokkaido's dairy economy in the company of Professor Takahashi and Professor Masamitsu Yasaka. Apart from these opportunities, the personal care and attention the Faculty members bestowed on me was incredible. I am really at a loss in expressing my gratitude to them for all of this favour.

The members of the Faculty Administration and the Secretariat were all helpful, kind and nice to me; even those with whom I could not communicate in English but could easily communicate through unspoken language. It is indeed difficult to mention names. I will, however, like to thank specially Mr. Kunihiko Yasuoka, Mr. Junichi Matsui and Mr. Kuniichi Kanke for their help and cooperation. Similarly, I am thankful to the young ladies of the Secretariat under the leadership of Miss Atsuko Fujisawa, who were ever ready to help me out of any difficulty. Specially, I am very grateful to Miss Toshiko Futatsuishi who, as my secretary, took special care to put me at ease initially. She and Miss Yoriko Takahashi shared the typing of the manuscript for which I am indebted to both of them. Finally I will like to express my gratitude to my parent institution, the Institute of Economic

Growth, Delhi University for permitting me to join the Faculty of Economics of the University of Tokyo and to enjoy all these privileges.

Shri Niwas Mishra

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I

Indian Economy Under The Colonial Rule, Circa 1757-1947

1. Introduction

The impact of the British Colonial rule on the economy, society and culture of India has been a controversial subject since the beginning. Before the Indians joined the debate late in the 19th century, the Englishmen themselves had carried on the debate. One of the earliest to comment was the founder of the classical political economy, Adam Smith. Referring to the East India Company, he wrote in his Wealth of Nations (1776) that, 'The government of an exclusive company of merchants is perhaps the worst of all governments for any country whatever'. The defenders of the empire justified the colonial rule, ironically even on moral grounds, as the 'white man's burden' to civilize the natives. James Mill, father of the famous classical economist, John Stuart Mill, wrote a monumental history of India with the avowed purpose of debunking those who saw some good -- the Indologists and Orientalists -- in the Indian society, history and culture. He concluded from his work that there was none other than a 'hideous state of society' in India lying at the bottom of the civilizational scale. And for this very condition, the colonial rule could be none other than a civilizing force. Elder Mill's labours were rewarded. Father and son in their time held high positions in the East India Company, the latter until the Company itself was disbanded in 1858.

Whether one was on this or that side of the debate, the legitimacy of colonialism itself never came to be questioned. Euro-Centric view of the world was all pervasive. Even a revolutionary socialist like Karl Marx visualized a missionary role for England in India. In an article in New

York Herald Tribune (August 1853) he wrote: 'England has to fulfill a double mission in India: one destructive, the other regenerative -- the annihilation of the old Asiatic society, and the laying of the material foundations of the Western society in Asia'. The issue of the moral and political legitimacy of the colonial rule and it's economic burdens had to wait for the Indian nationalists to raise it, and them to carry it forward into a national movement for freedom.

The post independence period has been marked by a great deal of painstaking, micro-level research in the economic history of the colonial period. In this Indians as well as foreign historians, specially the English and American, have made their contribution. As a result of this effort a better understanding of the Indian economy during the colonial rule has been made possible. This does not mean, however, that the controversy relating to the impact of the colonial rule on the economy has been settled to every body's satisfaction. For instance, there are those who on the basis of specific research, deny 'de-industrialization' effect of the colonial rule specially in the first half of the 19th century. But there are those who confirm it further. Indeed, it is impossible for the controversy ever to settle. There are two potent reasons for this. Firstly, a conquered nation's perception of history can never be the same as that of a conquering nation. Secondly, as in all social sciences, historical research is never free from the historian's own personal views, beliefs and ideology. Historical facts do not speak for themselves. Even when a set of facts are indisputable, their interpretation, the inferences, lessons and morals drawn from those facts can be very different depending upon the investigators' point of view. It is for this reason that you have schools of conservative, liberal, Marxist, nationalist and such other historians.

Apart from the controversial nature of the subject, there are two more difficulties in the way of an adequate and concise understanding of the colonial effects on the Indian economy. The first is the non-availability or inadequacy of available data. Nor until 1870s the colonial government put in some effort in collection and compilation of statistics. The first countrywide population census, for instance, was taken in 1881. Agricultural statistics -- area, yield and production of crops -- began to be collected on regular and comprehensive basis only from 1891-92 onward. Never did the colonial government made attempt to prepare an official estimate of India's national income. Prior to independence it had fallen to individual scholars like William Digby, F.T.Atkinson, Dadabhai Naoroji and V.K.R.V.Rao to make national income estimates for a few scattered years. In the post independence period research attempts have been made towards building national income and population series down to mid-19th-century. Commendable though the efforts are, the work involves very many assumptions including heroic assumptions.

The second difficulty arises from the long period of the colonial conquest. By the middle of the 18th century the Mughal empire had been ruined. The empire had broken apart into independent kingdoms and governorships. In such political conditions, although Robert Clive's victory at the battle of Plassey against the Navab of Bengal in 1757 set the fate of India to become a British colony, it took full one country (1757-1857) before the process of colonial conquest and annexation of the country came to end. During this period the English were constantly engaged in wars with one or the other native ruler, in one or the other part of the country. As their territorial possessions increased, their power increased, and made sure their success in every successive engagement.

The last year of this century-long process, 1857 is a landmark in the history of colonial India. A mutiny in the British Indian army quickly culminated into armed rebellion and general uprising against the British in this year. Being spontaneous, unorganized, amorphous and leaderless, the uprising was effectively suppressed by the colonial government.

Nonetheless, it brought home several lessions to the imperial rulers. Firstly, since the uprising was an expression of accumulated discontent among all sections of the Indian population, the East India Company's rule was no more tenable. Accordingly, the company was disbanded and India was put under direct British Crown rule in 1858. Secondly, the mutiny made it clear that an army made up of Indian soldiers, manned by a few thousand British officers could not be trusted any more for waging internal wars and territorial annexation. Nor was further annexation necessary for controlling India. Thus, about a quarter of India's population and about 30 percent of the territory were hereafter left to remain with the Princely states until they were merged with the Indian Union at the time of independence in 1947. These states were free to manage their internal affairs while the colonial government exercised paramount power over them. Finally, 1857 brought about a change in the government's attitude and policy towards India. In the economic field, although laissez-faire and free trade remained as the corner stone of the British policy since the beginning of the 19th century, some reform measures began to be undertaken for redressing the adverse effects of the rule during the preceding century. In addition, the government partly directly and partly by promoting private investment undertook to develop some infrastructural facilities, the most important being the railways and irrigation. It is not that the colonial government became benevolent and welfare oriented. These investments for instance were

made on commercial profitability considerations. Yet the policy change was for the better. From the government's point of view it helped improve the governability of a far flung country like India, with minimum recourse to the coercive powers of the state. It is also important to bear in mind that the demand for reform began to be voiced by Indians themselves. Peasant movements, at times turning into peasant revolts were a part of this. It was in these conditions that the Indian National Congress was founded in 1884 as a reformist organization until it developed into a radical political party under the leadership of Gandhi and began demanding freedom from colonial rule after the First World War.

To sum up, a century long process of colonial conquest of a large-size country like India, two century long colonial rule, change in policy during the last one century of the rule, lack of data availability, vast scope and controversial nature of the subject, all these make it difficult to present a concise account of the colonial rule's impact on the Indian economy, In the present lecture I will, therefore, confine myself to major effects of the rule, the high lights, with which a student of Indian economy should be familiar.

2. Agriculture: The Land-Revenue Systems

Upon taking over political power in Bengal the first act of the East India Company's government was to raise the land-revenue demand and to realize it in cash at punctual time. Failure to meet the the demand by a Zamindar would result into an auction-sale of his Zamindari by the government to the highest bidder. The word Zamindar simply means a land-holder. But in the revenue-system of the Mughal empire it was defined as 'a person possessing hereditarily on the conditions of obedience to the ordinances of

the government a tract of land -- subject to the payment of revenue'. Thus, a Zamindar was not a proprietor of land in the modern sense of property right. His tract of land possessed could be as small as to cover a few villages and as large as to cover a whole district or region. He could have his personal cultivation within the tract; or could be an absentee, non-cultivating, revenue-paying Zamindar of the tract. As reward for his services he could be assigned a part of the revenue and/or his own personal holding could be revenue-free. The official Mughal revenue rate varied from 1/3 to 1/2 of the gross produce from the area under cultivation. The Zamindar collected this share from the cultivators in his tract and after the deductions due for his services passed on the balance to the government in cash or kind.

In the declining days of the Mughal empire this system of land-revenue could easily be abused. A Zamindar could extract more than the officially fixed share. He could as well farm out his revenue-collection right to others over the whole or part of the tract under his hereditary possession. A revenue-farmer would naturally raise the level of extraction further more. A weak Mughal state, dependent upon the Zamindars for revenue, overlooked the development of the revenue-farming system and the burdens it put on the cultivators.

It was in such conditions that the colonial government pitched it's cash revenue demand still higher. In Bengal their revenue demand nearly doubled between 1765-66 and 1793. The traditional system virtually broke down under this pressure. The Zamindars anxious to meet the new revenue demand took further recourse to revenue farmers. Yet many more lost their Zamindaris when failure to meet the demand resulted into auction sale of the

latter. Figures are not available but the larger proportion of the auction-purchasers, the new Zamindars were urban merchants and traders who have had money but whose opportunity has been increasingly circumscribed with the East India Company pushing its monopoly rights in the internal trade as well. Apparently, this new group of Zamindars never have had an interest in land and in land cultivation; nor have had an opportunity of this kind of investment in pre-colonial times. Finally, the cumulative revenue demand pressure on the cultivators crossed the limit of their paying capacity in many areas. The cultivators in such circumstances would move away to Zamindari areas with tolerable conditions. Not only in Bengal but in Madras too a similar situation developed. The revenue farmers were found using physical force to compel the peasants to cultivate the lands. The overall result was one of disrupting land cultivation and thereby agricultural production on which finally depended the realization of the land revenue demand. Realization in fact became variable and uncertain. On the other hand, the East India company's trade expansion not only depended on a regular and stable revenue realization but also on a prospering agriculture, able to supply merchandise for export. And, of course, such flow of revenue was also necessary for maintaining peace in the conquered territories and for carrying out wars in unconquered parts of the country.

These considerations led the colonial government to introduce an altogether new land-system in Eastern India in 1793 covering Bengal, Bihar, Orissa and eastern Uttar Pradesh. This is known as 'Permanent Settlement' or the Zamindari-System of land tenure. According to this settlement the Zamindars, in contrast to their pre-colonial status, were made 'proprietors' of their tracts of land. Secondly, revenue payable by a Zamindar was fixed permanently for ever, but at the highest ever rate, the argument being that

the government was giving up it's right to raise the rate in future. Finally, actual cultivators of the soil were turned into tenants-at-will of the Zamindar.

Creation of private property in land led to the development of a private land-market. Zamindaris in part or whole changed hands, particularly in the first few decades after the Permanent Settlement. In course of time a new class of Zamindars emerged. It was comprised partly of the new purchasers -- city merchants, money lenders and some company officials -- and partly of the old Zamindars who had survived the pressures of the land revenue and the rigours of the new regulations. The anticipated agricultural prosperity did not occur. This happened because the balance of rental income available (estimated to be 10 percent of the gross rental, 90 percent being revenue claim at the time of the Permanent Settlement) with the Zamindars was not invested in agriculture but used for consumption, often in high-style aristocratic living.

The Zaminadari system was criticised in England particularly for it's freezing of the government's revenue claim. In the rest of the British territories, as these were annexed during the first half the 19th century, the colonial government introduced another system of land settlement known as the Raiyatwari System. It covered much of the south, Central, Western and North-Western India. In some parts of North-Western India specially Punjab and Western Uttar Pradesh, where village lands were jointly held by Kin or clan groups, a variant of this system called Mahalwari System was introduced.

In the raiyatwari system the government settled it's revenue claim directly with the raiyats, namely the peasant or the cultivating landholders and made it subject to revision at periodic resettlement at intervals of 20

to 30 years. The raiyats also were made proprietors of their land-holdings and paid land-revenue directly to the government. In the Mahalwari joint-village case, the settlement was done with the headman who in turn allocated the total revenue claim among the members of the brotherhood. It should be noted that a raiyat could be a small self-cultivating peasant at one end of the scale of holdings. At the other end, he could be a landlord getting much of his land cultivated by tenants like a Zamindar.

Except for the fact that the Zamindars functioned as intermediaries between the government and the cultivators and exercised great powers in their respective domains, both of the land-settlement systems produced similar results. Agricultural land having become private property in law, it became a free item of sale, purchase, hypothetication, mortgage and lease. This gave rise to the development of a land-market, a rural credit market and a lease-cultivation market. Parallel to this, agricultural production became more commercialized. Three major factors pushed for commercialization. Firstly and more importantly, obligation to pay land-revenue in cash made it necessary to grow cash-crops like jute, oil-seeds, cotton, sugarcane and poppy; and even the poorest of the peasant had to sell a part of his produce for cash. Secondly, several of these crops had export demand in which the European traders had their interest. Finally, development of railways in the later half of the 19th century made the transport of goods from one to the other part of the country cheaper and easier.

There was no significant change in the age-old technology of agriculture. Although the colonial government made some attempt to develop new or rennovate the ancient irrigation systems in the North-West and in the South, agricultural production continued to depend on the monsoon rains largely. In the pre-colonial days governments customarily gave remission on

revenue payment and advanced relief loans (Taquabi) to the peasants in the event of crop-failure. Since the colonial government did not believe in such a policy, and instead threatened to attach property and take penal action if any one failed to pay revenue in time, a vast mass of the peasantry was pushed into the arms of the merchants and moneylenders under such conditions. Credit needs led to hypothetication of crops and land, land-mortgage and eventual sale of land out of indebtedness. Frequent famines in one or the other part of the country and failure of the government to provide any famine-relief added fuel to the fire. The Indian Famine Commission of 1901 reported, 'At least 1/4 of the cultivators in the Bombay Presidency have last possession of their land -- and less than 1/5 are free from debt'. Similar conditions prevailed all over the country.

The land alienation process encouraged tenancy cultivation. In the Zamindari areas, cultivators had already been converted into tenants by law. In the Raiyatwari areas peasants who lost their land were left with no option but to do lease cultivation or become agricultural labourers. In several parts of the country 60 to 70 percent of the land came to be farmed under tenancy, including sub-tenancy of various types. Large scale indebtedness and tenancy conditions -- particularly evictions and raising of rents -- gave rise to peasant discontent and became a rallying point of peasant movement early in the present century. The colonial government under these pressures passed some legislation providing for debt-relief and protection of tenants.

There is evidence that from around the middle of the 19th century agricultural production marginally grew largely due to additional lands that were brought under cultivation. There was, nonetheless, general upward movement of agricultural prices. From these and the development of the

markets just described, the land owners, specially the landlords who had the marketable surplus to sell benefited. But the vast mass of the cultivates barely managed to live at subsistence level. Government's own land revenue, although it increased in absolute amount due to increase in area under cultivation, as a share of agricultural output it declined due to rising agricultural prices.

3. Industry And Foreign Trade

It is beyond doubt that the first one century of colonial rule led to 'de-industrialization' of India and the country was converted from an exporter of manufactured items to an exporter of raw materials. The word 'de-industrialization' does not mean that at the time colonial rule was established India was an industrial country in the modern sense of the word. In fact there was no industrial country in world until England acquired this status early in the 19th century following the Industrial Revolution there and specially with the introduction of steam engine. What it means is that India had a fairly developed manufacturing sector sufficient to supply domestic necessities of the common people and the luxury need of the Mughal nobility and the aristocratic classes. In addition it supplied for the export demand. Technology of course was one of handicrafts, but with a fairly high and regid division of labour among caste-groups. Indian manufactures were found cheaper in Europe. There was no worthwhile competitor of India in cotton and silk textiles. In England itself Indian textiles were in demand even when England had imposed an import duty of 60 to 70 percent. Much of the Indian exports were paid for in bullion-silver and gold. This is because India was 'self-sufficient' in her other commodity requirements; and imported goods probably being more expensive could

not sell in the Indian market. Was the market protected by high tariff wall? Not at all. Since the Mughal times Indian custom's duty had been as low as 2 to 4 percent of the value of goods. For about 170 years of the colonial rule the duties were kept at this level. For the first time in 1925 the government raised the import duty to 14 percent from the pre-war level of 5 percent under pressure of nationalist demand for protection. Thus, throughout the colonial rule Indian economy was truly an open, free trade, market economy.

The decline and fall of Indian industries -- the process of de-industrialization -- occurred through changes in the internal and external demand for their products. To this must be added their technological backwardness. Based on handicraft technology the Indian industries could not stand up to free competition from English manufacture based on machine run on steam-power.

The first blow to the industries came from the political and social changes. The British occupation of India did away with the pre-colonial nobility, and with the nobility a vast body of aristocracy also fell down. As a result, a whole lot of luxury producing industries, which had served this class, were left with no demand for their products such as fine muslins, jewellery, luxury clothing, weapons etc. The new English educated bureaucracy, which replaced the former ruling class, instead of putting up a demand for such products, copied the taste of their English masters and preferred imported luxury goods. So also did the new class of Zamindars and the rulers of the Princely states. How much was this demand loss is not known precisely. According to one guess the home market demand lost was about 5 percent and foreign demand about 1.5 percent of Mughal time national income of India (Maddison, 1971).

In the pre-colonial times, cotton and silk manufacture of India, apart from meeting the domestic demand, was one of the major items of export. In the list of exports it had reached the top position during the mid-18th century. By the end of the century, under the colonial rule fortunes began to change in favour of England. Between 1798 and 1813 textile exports fell very sharply and suddenly. At the same time machine made cheap cotton textiles began flooding the captive Indian market. By 1840 half of India's total imports was made up of cotton textile from Manchester. Throughout 19th century 60 to 70 percent of India's total cloth consumption was supplied by imported piece goods. It was only after the First World War that modern large scale textile factories, which had begun to be set up by Indian Capitalists during the later half of the 19th century, began replacing imports. The handloom industry barely survived in the interior areas of the country.

The destruction of Indian industries achieved two goals at the same time: India became the market for English manufacture and an exporter of raw materials and other agricultural products. The East India Company itself acknowledged this fact and took pride in it. In a petition to British Parliament in 1840 for some tariff reform favouring raw material imports from India the company stated that 'this company has in various ways, encouraged and assisted by our great manufacturing ingenuity and skill, succeeded in converting India from a manufacturing country into a country exporting raw produce --- '. Between 1814 to 1850 indigo, opium, raw silk and cotton accounted for 56 to 64 percent of India's total value of exports. In the second half of the 19th century foodgrains, sugar, jute, oilseeds, tea, hides and skins and such other raw materials were added to the export list, while indigo and opium disappeared from the list by the end

of the century. Remember that India's foreign trade was in the hands of the English and other European merchants. They not only encouraged but were directly involved in the cultivation and export of opium to China. Between 1814 and India's independence in 1947 manufactured items accounted for 80 percent of India's imports and bulk of it consisted of consumption items like cotton and woolen textiles, cotton yarn, wines, Persian carpets and horses, metal goods, paper, glassware etc. In the last half of the 19th century railway materials and machinery appeared on the import list but their share was no more than 4-5 percent and 2-4 percent respectively of the total value of imports. To conclude, colonial rule caused 'de-industrialization' of India; India was turned into a market for sale of British manufacture and an exporter of raw materials and other agricultural products.

4. Drain of Wealth And Income

The plunder and loot in which the East India Company and it's servants revelled in the early years of their rule in Bengal is kept out of account in the professional economic history fashionable today. But the fact is that no one with money and wealth was safe from their rapacious hands. The chief, Robert Clive himself made a great personal fortune, apart from a quarter million pound he took in annual salary. Similarly, the war booty the British collected at successive fall of the native princes and kings does not figure in the professional economic history. It is said that English pillage of India was not at all exceptional, as India had been pillaged several times before, and perhaps on larger scale. So, let us forget it.

What is exceptional, however, is that for the first time in her history India was subjected to annual sums of payment as a price for being ruled by England. For 190 years, each year a sum was unilaterally transferred or drained out to England out of the revenue collected in India. It was called 'tribute' in the early phase and later, 'home-charges'. This in fact is the central characteristic of colonial rule compared to any other type of rule. The sum increased over time, from £ 3.5 million in the early years to about £ 40 to 50 million a year during 1930s. It's share in the government's current revenues ranged between a quarter and one-third. Major items included in the home charges were government-debt service payments in England, pensions and furlough of retired servicemen and expenses of India office in U.K.

In addition to official transfers, there were two sources of private account transfers. One was the transfer by British officials in India as savings or family expenses in U.K. including their wards' education. This amounted to about £ 10 million a year since 1880s. The other was the monopoly profit element in the earnings of British business in India transferred to U.K. Major business interests were in shipping, banking, insurance, managing agencies and plantations. It is also important to note that capital invested in these business interests had not all come from U.K. In many cases savings out of income earned in India had been the source of building the assets.

The total annual drain from all the three sources has been estimated to lie between 1.5 to 2 percent of undivided India's national income in the inter-war years. At the end of the British rule, net investment in India was 5 percent of the national income. Thus, about a quarter of India's savings were annually drained away as the price of colonial rule.

The drain was effected through foreign-trade and foreign exchange mechanisms. Before 1833, the year in which the East India Company was debarred from trading activities, the company purchased merchandise in India out of the government's revenue equal to the rupee sum required to be transferred and exported the merchandise to England. After 1833 the colonial government operated a bills of exchange market on Indian treasury-selling rupee-bills in London and buying sterling bills in India. There was demand for such bills from exporters, importers and also private individuals interested in transferring funds. In 1878 the Indian rupee was put on gold standard and an exchange rate with pound sterling was fixed. Rupee became freely convertible at the fixed exchange rate. The government maintained the fixed exchange rate by selling bills of exchange on Indian treasury.

As a consequence of the drain, India's balance of trade, including merchandise and bullion, was always positive during the colonial rule. This balance or foreign exchange reserve was not credited to India's capital account but was lost. Not only that, the colonial government contracted several unproductive loans in England, in effect making India a debtor nation. By 1939 government's foreign debt amounted $ 1.5 billion. Thanks to Second World War and U.K.'s enormous expenditures on it's own troops in India and also on allied forces, India's financial position changed and the country emerged as a net creditor at the end of the war. The pre-war debt was liquidated and at the end of the colonial rule India had acquired a foreign exchange reserve of $ 5.1 billion.

5. Developments in Modern Industry And Infrastructure, 1857-1947

The last 90 years of colonial rule has been marked by some developments in modern large scale industries and infrastructure.

The two most important industries that came up during the second half of the 19th century were the cotton textiles and jute manufacturing. The cotton textile mills were started in Bombay and Ahamdabad by Indian capitalists who had made money in trading and had acquired some education in English. Jute manufacturing was started in Calcutta and was largely in the hands of the foreigners, mainly British. The first steel mill was set up in Jamshedpur in Bihar by Tata Company in 1911. Coal mining developed mainly to feed the railways' demand. The other large scale manufacturing that were started before the Second World War, which are worth mentioning, are sugar, cement, woolens and paper. These were in Indian hands.

During the inter-war period the government imposed higher revenue duties on many imports and gave some preference to Indian-made products for it's own store-purchases. Besides stimulating some small and medium size workshop activity, branches of foreign firms came to be set up for producing cigarettes, soap, paints, tyres, certain chemicals etc. All the required machinery, tools and equipments came from abroad. During the inter-war period the industrial output grew at 4 to 5 percent annually. And share of manufacturing in national income rose from about 4 percent in 1913-14 to 7.5 percent in 1938-39. The Second World War did give a boost to industrial production and during the six war years manufacturing output rose by about 29 percent.

In spite of these developments it should be noted that at the end of the colonial rule the modern industrial sector was just a patch in the national economy. In 1946-47 it employed a little over 2.6 million workers which amounted to less than 2 percent of India's labour force. Apart from some protection afforded by the rise of import duty during the inter-war

years much of this small size industrial development was due to the enterprise of Indian capitalists in an open, free market economy.

The colonial government in general followed a laissez-faire policy. However, beginning with 1850s either it directly undertook or promoted private investment in infrastructural development. Two very important developments were the railways and irrigation systems. Beginning in 1853 India's railway system expanded rapidly. In 1860 there were over 1000 kms. of tracks. At the end of colonial rule the total track length was over 65000 kms, connecting different parts of the whole Indian subcontinent. Initially the investment came from private British companies, who were guaranteed a 5 percent rate of return by the colonial government. This proved too expensive and the government itself started building and running railway lines after 1869. The subsidies, paid to the private companies became a major source of drain from India. After 1925 the government started acquiring the private railways as the contracts with the private foreign investors started expiring.

The railways development was certainly beneficial to India. It reduced the transport cost within the country in a great measure. From the angle of colonial interests it helped promote primary goods exports by reducing transport cost between the ports and the country side. At the same time it helped the colonial government to administer India more efficiently as it provided for quick movement of troops and materials.

The colonial government also took to rennovate a few ancient irrigation systems and construct some new ones. Major new constructions were undertaken during the second half of the 19th century. In 1900 out of 226 million acres of cultivated land in British India 44 million acres had some form of irrigation. In this public irrigation's share was 18 million acres.

At the end of the British rule just over half of the total irrigated area, 32 million acres out of about 59 million acres, was under public irrigation works. The sizeable part of the irrigation works was in Punjab and sind (now in Pakistan). Irrigation investment had been profitable yielding 5 to 7 percent average rate of return on capital invested. Accordingly government during 1860s invited private British companies to make investment under guarantee of a 5 percent rate of return. But like in the railways this too proved expensive. Subsequently, the public works department of the government carried out the construction works.

Apart from irrigation and railways, the colonial government also invested in roads, public buildings, post and telegraph lines, health services and educational facilities. Total public investment ranged between 15 to 20 percent of all government expenditure during the present century, a share lower than the share of the drain on public account. Railways, irrigation, roads and buildings covered 95 percent of the public investment. Thus very little was spent on public health, education and other social services.

6. Concluding Observations

Census based estimates of India's population are available from 1871. A complete census was first time taken in 1901 and thereafter continued at successive ten years' interval. Some estimates for the period 1750 to 1850 are also available, but their reliability is doubtful. It appears that in 1800 India's population was around 200 million. In 1871 it was 255 million, rose to 285 million in 1901 and further to 306 million in 1921. During the 12 decades between 1806 and 1921, the annual average growth of the population was less than one percent. Between 1921 and 1941, the last census of

the colonial period the growth rate crossed over to 1.2 percent a year when the 19th census gave a figure of 389 million.

Howsoever small, growth in population could not have taken place without growth in food production in a situation when India was exporting cereals like wheat and rice. With population, area under cultivation grew. Availability of statistics from 1860s specially relating to agriculture in which 3/4th of the labour force was engaged, though not very reliable, has been utilized to estimate India's national income during the colonial period. There are several estimates made under different assumptions required for filling the gaps in statistics. From 1860 to 1920 the per capita income according to most estimates seems to have grown at 0.5 percent a year. But for the period 1920 to 1947, the estimates of per capita income show either a decline or no change. Thus, if we take per capita income as a summary indicator of development, the Indian economy broadly remained in a state of stagnation during the colonial rule.

Far more deeper effect of the colonial rule was the division of India at the time of independence. As the political movement for freedom gained momentum early in the present century, the British resorted to the well tried imperial policy of divide and rule, playing Muslims against Hindus, one community against another; one caste against another and the Princely states against the freedom movement itself. It is true that caste, community, language and religious divisions of Indian society were not of colonial origin. But it were these that were exploited by the British empirialist rulers which led to the break-up of India between two states -- present Republic of India and Pakistan. Since religion alone has never been the basis of a national state, Pakistan again got divided with the liberation of Bangladesh in 1971.

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II

India's Institutional Structure

1. Relation Between Institutional Structure And Development

In every country economic development takes place in the framework or structure of it's social, political and economic institutions. Whether development is consciously planned or is left to be directed by the 'invisible hands' of the market forces, it's pace and outcome is undoubtedly conditioned by the institutional set-up of the country concerned. You have seen how a colonial form of government reduced the pace of India's development by draining away a part of India's savings. In contrast to this, the representative government of India in the post-independence period has encouraged people to save more so as to increase the pace of development. Take another example, the familiar caste-system of India. This ancient social institution affects development in very many ways. Within a caste it provides for economic cooperation and solidarity, while between castes it gives rise to social and economic conflict, specially between the high and the low castes. It had made occupational division of the society rigid and hereditary. This feature, in the present context of development, inhibits labour mobility and restrains a free choice of occupation, particularly among members of the higher and the lower castes.

An institution, be it social, political or economic, incorporates or stand for a set of relationships, which is acknowledged or accepted in the society either by custom or tradition or by law and constitution. Private property, for instance, is an economic institution established by law. It expresses ownership relation of the individual with his material possessions. Institutions are generally stable and long living. Those set

up by law or constitution may be changed. But it is very hard to change customary and traditional institutions like the caste-system.

In course of time economic development itself leads to or calls for a change in the institutional structure of a country. Notice the dramatic institutional change, economic and political, taking place in the East European countries and the Soviet Union. Abolition of Zamindari System of land-tenure in India was required for development of agriculture, apart from making the cultivators owners of land. The private money lending, so important in rural India prior to independence, has gone on diminishing with the development of public credit institutions and banks in the post independence period.

In the present lecture I will present a brief sketch of the social, political and economic institutions of India relevant for study of her economic development in the past-independence period. An awareness of India's institutional environment will enable you to get a better understanding of the development process and performance.

2. Plural Society

Indian society is very heterogeneous and full of diversity. Political scientists call this a highly 'plural' society. Probably there is no society in the world more plural than that of India. From the pre-historic times Indian subcontinent has been the melting pot of all the racial groups found in the world -- Caucasian, Mongoloid, Austric and Negrito. The Indian society is multi-ethnic, multi-lingual and multi-religious. Followers of Hinduism form the predominant majority of India's population (83 percent) followed by Muslisms, who account for over 10 percent of the population. The remaining population is distributed among Christians, Zoroastrians,

Jews, Budhists and a number of tribal communities which have their own religious practices and beliefs, woven around nature and spirit worship. These communities are found in middle India and the North-Eastern border region. There are hundreds of spoken languages and dialects in India. English apart, there are 17 major officially recognised languages. Each state of the Indian Union has it's own official language. Hindi is the common language of many states in the north. At the union level the official languages are Hindi and English. Major languages have their roots in Sanskrit. There are two scripts in which the languages are written. Southern languages, Tamil, Telgu and Malayalam are written in the Dravidian script and the rest in Devanagari script. Urdu is another language spoken in the north and written in the Arabic script. It is a mixture of Hindi with Persian, which arose during the Muslim rule (C. 12th-18th century), when the court language was Persian. You can sec how very difficult it is for Indians to communicate with each other. With the development of the national market, Hindi, however has been slowly emerging as the language of commerce and trade all over the country, as merchants and trade-agents move from are part of the country to the other, promoting sale of their goods. On the other hand, Hindi has not been able to replace English as the official language of the central government, because it is politically opposed by some non-Hindi speakers, specially Tamils in the South, who interpret it as one of Hindi domination. It is true that Hindi is the mother-tounge of about 45 percent Indians, and the official language of six states in the centre and north India. States are organised on language basis. Languages broadly represent cultural and ethnic differences among the people. And these differences are often on used in mobilizing people to demand separate state. Over time many more states have, thus, come to be formed in India.

The largest segment of the Indians, the Hindus are not a homogeneous group; neither Hinduism is an organised religion in the sense Islam, christianity or even Budhism are. The words Hindu and Hinduism are of foreign origin, derived from the name of the river Indus (sanskrit name Sindhu) by the Greeks, Romans and the Persians; so is the word India. The indigenous or the native name of the country is Bharat, the land of the mythical, first King Bharat or of the tribe of Bharatas. Living in different parts of the country, Hindus speak different languages and show wide cultural and ethnic diversity. One common feature is the caste-system which cuts across all these differences. Historically, the number of castes went on increasing from the original four Varnas, as more and more of non-Hindu tribal groups were 'assimilated' or incorporated into the broader Hindu fold. Another common feature is the Brahmanic rituals and beliefs connected with the life cycle -- birth, life, death and rebirth. A third binding chord among Hindus is their belief in the same mythology, religious scriptures (originally in sanskrit), sacred places of pilgrimage, temples and rivers found all over the country from south to north and from east to west. Finally cow is sacred to Hindus and in their individual self-consciousness they all believe to be the offsprings of the Great-Mother (land), the Bharat-Mata. Thus, it is that 'unity in diversity' is typical of the Hindus.

Hinduism has no church, no religious discipline, no Prophet, nor the Holy Book. Hindus are, therefore, free to follow their own path of worldly well-being and other-worldly, spiritual salvation. There are thousands of gods and goddesses, natural objects and ancestors whom the Hindus generally worship. But there are those who are monists or simple agnostics. The great Buddha was one such agnostic. Many western scholars have argued that Hinduism is a religion which inculcates in the individual an spirit of

resignation, a concern for other-worldliness as against concern for material well-being in this world. It is interesting for you is know that during 1950s and early 1960s some western economists, following this line of argument proposed a theory of the 'backward sloping supply curve of labour' for Hindus. In simple language it meant that beyond a point at which basic needs are satisfied, a Hindu does not put in additional labour for increasing his income and output and starts looking up to his non-material, spiritual concerns. This theory has been proved wrong by the fact that millions of Hindu peasants, when an opportunity arose, carried out the famous Green Revolution late in the 1960s and early 1970s, making India eventually self-sufficient in food. In point of fact ethical precepts of Hinduism are more often contradictory than consistent, leaving the individual free to make his choice. As an example, Hindu scriptures place high value on Mitavyaya (no spendthrift behavior, saving) and on Asamchaya (non-accumulation of wealth or possession) in different contexts at the same time. What do the Hindus do in actual practice? It depends upon the context, the particular situation. In the last 40 years of their history they have shown that on the whole they prefer saving and accumulation of wealth.

Caste, as you know, has been the organizing principle of the Hindu social order and the age-old traditional economy of India. Neither the social order nor the economy have stayed where they were a thousand or two thousand years ago. But the fact that the caste-system survives and plays an important role in the social, political and economic life to-day, it is important for you to be aware of it's main features. Originally as an occupational division of the society, caste in course of time became occupationally hereditary and endogamous. The other factor was the hierarchical ordering of the castes in social ranking, with Brahmins at the top and the

Sudras at the bottom. Property, particularly land came to be controlled and managed by the higher castes, initially by Kshatriyas (royal, warriar castes) and later also by Brahmins. The Sudras were supposed to possess no land and function as the servants of the higher castes. Apparently the caste system has been inequitous, socially and economically. It froze labour mobility from one occupation to the other and made occupation hereditary. These are certainly features of the caste system not conducive to modern development. However, caste-system has been loosing it's edge. The higher castes lost much of their control on land following the land-reforms in the post-independence period. Caste barriers to development are also melting down due to urbanization and industrial growth. Caste plays an important role in electoral politics. But no one can hope to win election by exclusive appeal to his own caste members. At the bottom of the rural caste hierarchy are the 'scheduled castes', scheduled because they are listed for special economic and educational support and protection against social discrimination by the government. In the present context of development caste-conflicts, which at times take violent turns in states like Bihar, are at the same time expressions of class-conflict between the exploiters and the exploited.

In brief, the Indian society is highly plural, heterogeneous and loosely structured. This loose structure give rise to: (a) conflict between groups-religious, linguistic, ethnic, regional and caste-based, and (b) cohesion and solidarity within groups. The conflicts certainly pull down the potential rate of economic growth. For a contrast look at the Japanese society which does not suffer from any such conflicts. But if you consider development in a wider sense of growth with social justice then

some of these conflicts, which aim at removal of injustice, have a positive element in them.

3. Democratic Political System

India, as you know, is the largest democracy in the world; an exceptional Third World country where nine national elections have been held in the last 40 years and thrice there have been smooth transfers of power to different party-governments. At the state level many regional parties have come to rule. Communists have come to and gone out of power (in West Bengal and Kerala) through elections. The national Parliament, the State Assemblies and the Political Parties are institution which play important role in the design of development plans and in sharing and distributing the development gains and the resources. It is natural to the system that political parties make election time promises and, if successful in forming government, engage in building up constituencies for their own political goal of staying in power and retaining it at the next election. Thus, there is conflict between the short-term political goal of the party government and the long term needs of development. Available public financial resources get divided, therefore, between soft populist measures and hard investments for development. Also for political reasons, few of the state governments make effort to raise additional resources through taxation and levies.

The state in India is federal, an union of 33 states and a few centrally governed Union Territories like Delhi and Andman-Nicobar Islands. According to the constitution adopted in 1950, development planning falls in the concurrent jurisdiction of the Union and the state governments. But much of the powers to raise resources -- direct and indirect taxation and

custom's duty -- are with the central government. The constitution, however, provides for sharing of the central revenues with the states. In addition the central government's resources for the 5 year development plan are distributed between the central and state sectors, states receiving their share according to an agreed formula which takes into account several factors such as population, area, level of development, incidence of poverty etc. Although this procedure achieves a fair degree of regional equity in the distribution of resources, there is continuous conflict between the centre and the states over the sharing of resources. Nonetheless, the federal state structure and the distribution of public resources between the centre and the state have introduced regional decentralization in Indian planning. Each state has it's own five-year plan. The national plan weaves together the central sector plan and the state plans. Since late 1960s attempts have been to introduce a third tier in the planning system, namely the District Level as a further measure of decentralization. But as yet no worthwhile progress has been made. the required devolution of necessary power is resisted by the state level politicians and the bureaucracy.

The Indian Administrative Service (IAS), (formed during the colonial rule) and the corresponding state civil services play a major role in the planning process. Implementation of the development plans and projects is their exclusive responsibility. Besides, they are there, of course, to execute the government's regulatory policies and measures relating to the private sector market economy. Though these tasks are carried out, the way the bureaucracy is constituted and functions, is not particularly conducive to accelerated development. Firstly, the Bureaucracy is not a professional service. The cadres in the civil services are generalists-jack of all

trades. Secondly, by its elaborate rules and procedures of functioning and red-tapism, it is given to making undue delays in decision making.

4. The Mixed Economy

Indian economy is neither a free-market capitalist economy, nor it is a socialist economy in which all means of production are supposed to be under public or social ownership. It is a mixed economy, with both private and public property in the means of production, there being thus two segments, the private and the public sectors. This form of the economy was chosen by the political leadership at the time of independence. Not only state intervention but active state participation in the industrial sector was thought necessary for speedy development of the Indian economy. From a modest beginning in the early 1950s the public sector has grown faster, as about 50 percent of national investment on average has since been made in the public sector. In mining, manufacturing and construction the public sector today employs about 4 million workers (about 2 million in manufacturing) while the private sector employs about 4.6 million workers of which 4.4 million are in manufacturing.

The private sector is extremely varied in its institutional forms or modes of production. In agriculture which is wholly in the private sector, at one end there is still a fringe of tribal peasants who cultivate land, which is common property of the village community. And at the other end there is a fringe of modern capitalist farmers engaged in maximizing profit. In between lie the vast mass of agricultural producers who maximize production rather than profit. About half of the cultivated area is owned by households, in the range of 1 to 5 hectares, who are self-employed on their land and do not need to hire labour. In the private industrial sector too

the nature of enterprise varies from the household, cottage type to modern industrial corporations. The village and small scale industries account for about 50 percent of India's industrial output. Most of the household industrial units carry on their enterprise not for profit but for earning a living through self-employment.

Public sector requires planning, while private sector requires market-mechanism for coordination and direction of investment and production decisions. The mixed economy of India therefore has both these institutions, and there is a sort of interdependence between the two. Plan depends upon the market-mechanism since market-price signals are used for plan calculations and macro-level demand estimation. Market system in turn does not operate free from plan influences, and takes into account the public sector demand on and supplies to the private sector. However, an important difference is that whereas plan is geared to social development goals, market-mechanism drives the economy along the line of private profit and gain. Hence, typically in the mixed economy of India, the plan and the market pull the economy in different directions. Development outcome, therefore, is not necessarily what the plan evisages or what the market-mechanism would achieve in the absence of the plan. Apart from this interaction between the two institution inherent in the nature of the mixed economy, state intervenes in the market in order that the private sector conforms to the plan priorities and goals. The range of intervention is quite wide, from price to quantity controls in the commodity market, and investment and capacity regulation in various lines of industrial sector. Apart from physical controls the government uses fiscal and monetary measures -- taxes, subsidies, differential interest rate structure -- as instruments of regulation. Elaborate regulation combined with procedural

inertia of the bureaucracy makes the effectivity of regulation poor. Additionally, it helps promote non-competitive, sheltered market for the industrial sector.

Banking and financial institutions are in the public sector. The government has a commanding position on the credit market and Bank advances. The central bank, the Reserve Bank of India overseas the Banks' functioning and regulates short and long term bank advances in line with the government policies and plan priorities. The central and state governments are naturally the biggest borrowers from the Banking system and the financial institutions like the Life Insurance Corporation and Unit Trust of India. About 70 percent of India's savings pass through the financial sector. Household savings account for 70 percent of total savings. The Banks and the financial institutions operate under the double pull of the market forces and the plan. In order to be worthy to their depositors, they look to those lines of advances where the return is maximum. On the other hand, they are required, specially the Banks, to advance a certain portion of credit where the returns are not promising and risky and at lower rates of interest, such as under the plan scheme of Integrated Rural Development, in which the government offers some amount of investment subsidy to potential beneficiaries. Finally, from the financial asset ownership angle the line between the public and the private industrial sector has become thin as the state-controlled lending and equity holding institutions have come to hold sufficient equity in the private sector firms so as to acquire the power of management and control of these firms. However, they are prevented to exercise such power in normal circumstances.

Besides in the public services, the workers in the organised or factory-sector of the economy are organised into trade-unions. At the

national level there are a few federating unions. Correspondingly, the capitalists have their associations in specific industrial lines as well as federating associations like the Indian Federation of Commerce and Industries. These organizations are used for defending the class-interests of the organised sections of the workers and capitalists. In the public sector the adversaries are the state and the workers, who may be a group of electricity engineers running an electricity-system or airline's pilots. State as a third factor plays a mediating role between the workers and the capitalists.

5. Conclusion

To sum up, the social, political and economic institutions of India present a complex structure. Society is diverse and divided along several lines. It is a multi-racial, multi-ethnic, multi-lingual, multi-religious and multi-caste society. The democratic political structure and the federal state in a way is based upon and takes into account this diverse social structure. The mixed economy of India, apart from the broad division between the public and private economy has several institutional forms or modes of production ranging from modern capitalist enterprises maximizing profits to households units run for ecking out a living. The economy's production and investment decisions are coordinated by plan as well as the market-mechanism. Indian economy, contrary to the general impression abroad, is not a centrally planned economy on the pattern of the Soviet Union or China. Indeed from the reforms taking place in these countries, these are moving towards a mixed economy of the type India has. In the complex institutional structure of India, development itself becomes a complex process. The pace and outcome of development is greatly influenced

by the institutional structure which is full of opposing pulls and conflicts of interest.

Further Reading

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III

Development Strategy in Operation

1. Background to Adoption of Planning

You have seen that the Indian economy remained in a state of stagnation during the colonial rule. At the end of the colonial rule, 80 percent of India's population was dependent an agriculture. Agriculture was characterized by the age-old traditional technology, low productivity, high population pressure and surplus labour in the form of underemployment. Zamindars and other landlords owned much of the land and the vast mass of cultivators subsisted by cultivating their lands on tenancy basis. In short, it was a feudal system of agriculture. There was no large scale modern industrial sector worth the name, except in cotton textile and jute manufacturing. Neither there were basic and capital goods industries, except the one Tata Iron Steel Mill set up in 1911. India had been turned into an exporter of agricultural commodities, and for any of her requirement of machinery and equipment, she was dependent on imports. On the whole the Indian economy had fallen into a 'vicious circle' of: low income → low savings → low investment → low income. At the end of the colonial rule national (gross) saving was just 7 percent of national income and net investment was no more than 5 percent of national income.

As the national struggle for independence gathered momentum, economic problems came to occupy the political agenda more and more. Gandhi, very early campaigned for 'swadeshi' (use of Indian goods), for handloom and spinning-wheel as a means for rural self-employment; and preached self-reliance at every level, from the individual to the nation. Zamindari abolition and 'land to the tiller' came on the agenda of the Indian National

Congress during 1920s and had become a major means of mobilizing the rural masses against the colonial rule. In the 1930s itself the political leadership had begun to think about and to envision the future of Indian society and economy after independence. In 1938 the Indian National Congress set up the National Planning Committee under the Chairmanship of Jawaharlal Nehru, who became the first Prime Minister of independent India. This Committee, the members of which were eminent personalities including economists and scientists, produced several reports on the economic problems of India and approaches to solving those problems, once India became independent. The recommendations of this committee worked as the guide-lines of India's First Five Year Plan (1951-56). The political leadership and the intelligentia had thus accepted planning as the desirable and necessary means of transforming the Indian economy from its traditional, backward state into a modern one. Conviction in planning was reinforced from the failure of the economic regime of the colonial period in bringing about any significant growth and transformation of the Indian economy. Remember that during the colonial period Indian economy was an open, free-enterprise, market economy and the government followed a laissez-faire policy. Nehru, the master architect of planning in India, had been influenced in his conviction about planning from several sources -- Marx's critique of capitalism, ideas of Fabian socialists in England, rise of the welfare state in the capitalist countries of the West and the remarkable success of planning in the Soviet Union in transforming an agrarian into a modern industrial economy in the shortest possible time. As envisaged during the freedom struggle India came to adopt a democratic political constitution in 1950. This constitution has a chapter on the 'Directive Principles of State Policy'. According to these

Directives the state is required to undertake social and economic development, to provide equal opportunities to all citizens, to remove inequalities and to prevent concentration of economic power and wealth into private hands. The Indian Constitution, in short, sanctions state planning of development for a fair and just society. At the same time, however, the constitution protects private property as a fundamental right and the associated freedom of enterprise and occupation. This in fact is the constitutional basis of India's mixed economy.

2. Essential Features of the Development Strategy

It was in the above background of economic and political situation that India opted for a planned development strategy and put it in operation through successive Five Year Plans. The First Plan (1951-56) was not a plan in the proper sense, but a preparatory exercise. Much of the public investment in the First Plan was made in agriculture and infrastructure. The basic strategy, primarily a strategy of industrialization, was put in operation in the second Five Year Plan (1956-61). On Nehru's initiative Professor P.C. Mahalanobis, an eminent and internationally famous statistician provided the logic or the theory (Planning Model) of this strategy. The essential features of this strategy are as follows:

a) Think of the economy as comprised of two sectors: (1) capital goods or Investment goods sector and (2) consumption goods sector. The first sector produces 'machines for making machines' (the so called basic and heavy machine goods industries) which are used in the second sector for changing the technology of production and for increasing productivity.

b) Then, the strategy calls for laying the basis of a capital goods

sector and expanding it at a fast rate by investing relatively more in this sector than in the consumption goods sector.

c) This pattern of investment is expected to have the following effects:

1) it will ensure a fast growth of national economy;

2) the fast growing capital goods sector will create, broaden and diversify the industrial and infrastructural base of the economy quickly;

3) fast rate of industrialization will draw in surplus labour from agriculture in course of time;

4) Indian economy will become self-reliant as the domestically produced capital goods will substitute for imports (import substitution) and export of manufactured goods will replace agricultural exports.

5) Since, being capital-intensive the capital goods sector will not generate much employment, the employment problem specially in the short run, will be handled by choosing labour-intensive techniques for the consumption goods sector, specially for the small scale and cottage industries.

6) The capital goods sector, specially the basic and heavy industries will be developed in the public sector and the consumption goods sector will remain in private hands. The public sector will generate higher rate of savings and it's saving will be available to the state for re-investment. In addition, through the capital goods sector the state will acquire the 'commanding hights of the economy' in order to direct it along the desired growth path.

d) The planned pattern of investment will require a set of support

policies. Besides fiscal and monetary measures favourable to overall savings and investment, the strategy requires regulation and control of private sector industrial investment through licensing of production capacity and reservation as between small and large scale industries.

3. Constraints In the Operation of the Strategy

The development strategy outlined above broadly remained in operation until 1980 but not without changes and modifications. Up to the Third Five Year Plan (1961-66) the strategy worked rather well. Thereafter, it met with several constraints. The major constraints are listed below:

1) From a comfortable position in the Second Five Year Plan, foreign exchange reserves ran out causing disruption of necessary capital goods imports and forcing the planners to seek larger amount of foreign aid. Promised aid, however, did not materialize in spite of the fact that India devalued rupee by more than 57 percent in 1966 and took some liberalization measures in foreign trade and industry, a pre-condition that was set by the World Bank and Western doner countries. The U.S. aid in fact fell down from $ 1.3 billion in 1965-66 to $ 1.0 billion in 1967-68. Neither did devaluation help increase export earnings. Export earnings actually declined by 8 percent in 1967 and two years later were no more than 4 percent above the pre-devaluation level of 1964-65.

2) Two years successive monsoon failure caused an agricultural crisis in 1965-66 and 1966-67. Food production fell down by 24 million tonnes form 89 million tonnes in 1964-65 to 65 million tonnes in 1965-66 and failed to rise in the following year. This created an unprecedented

price inflation and food imports to the extent of 10 to 12 million tonnes largely under PL. 480 U.S. aid became a necessity.

3) War with China in 1962 and again with Pakistan in 1965 caused a sharp increase in defence expenditure and a cut back in public investment. Combined with agricultural crisis and failure on foreign-aid and export fronts, this led to a three year period of 'Plan Holidays' from 1966 to 1969.

4) Soon after India recovered from the above crisis situation following the success of 'green revolution', she was faced with the World Oil-Crisis of 1973-74 and again the second oil-price hike of 1979. The sudden and sharp increase in the oil-import bill created again a balance of payments crisis in 1973-74. In the meanwhile effort at exploration and production of petroleum within the country bore fruit so that the pressure on balance of payments created by the second oil crisis of 1979 was not that severe as by the first one. But soon came the World Recession of early 1980s. Measures to liberalize imports of capital goods and raw material for increasing exports were not enough to improve the payment's position. Accordingly India contracted a credit of $ 5 billion SDR from the IMF in 1980, out of which she utilized, however, $ 4 billion SDRs.

4. Major Modifications in the Development Strategy

In order to overcome the above constraints the development strategy was modified from time to time. Furthermore, the planners had originally assumed that as a result of fast economic growth due to the strategy there would be widespread 'Trickle-Down' income effect. This combined with taxation of high incomes in the urban areas and land-reforms in the rural areas,

it was hoped, will bring about equity in distribution. This hope did not materialize. Measurement of poverty in the late 1960s revealed that between 50 to 60 percent of the population remained poor and did not benefit from development. In the light of this experience and the constraints noted in the preceding section, the following modifications were made in the development strategy:

1) A relative shift in investment in favour of agricultural sector was made during the crisis years of the mid 1960s. A 'New Agricultural Strategy' focused on increasing production by provision of high-yielding varieties of hybrid seeds, irrigation and chemical fertilizers was put into operation. In the first phase the strategy relied on the resourceful, large-size farmers and in the regions endowed with public system of canal irrigation. Subsequently, a widespread defusion of the new technology occurred with state support in the form of credit and subsidies for developing private tube-well irrigation and availability of subsidized fertilizers.

2) Beginning with the Fifth Five Year Plan (1974-79) distributional goals of poverty elimination and provision of public facilities for satisfying Basic Minimum Needs were explicitly introduced in the development plans. Starting with a target-group approach with focus of support on small, marginal farmers and landless labourers, an Integrated Rural Development Programme (IRDP) was put in operation in 1977-78. With state subsidies and cheap bank credit, the IRDP aims at private asset creation for income generation through self-employment of the rural poor. Alongside there is a National Rural Employment Programme (NREP) which offers wage-employment on public works. The Basic Minimum Needs Programme (MNP) is focused on provision of social consumption

facilities for elementary education, health, drinking water, rural-roads, electrification of villages, improvement of urban slums etc.

3) A relative shift has been made in public sector investment away from industries and minerals and in favour of energy and power since the Sixth Plan (1980-85). In the current Seventh Plan (1985-90) for instance whereas industry and mining accounts for about 13 percent of public sector outlays, power sector accounts for about 31 percent.

4) Persistent balance of payments difficulties have led to foreign-trade liberalization and domestic de-regulation of private sector industries since late 1970s. In the 1980s this trend towards economic liberalization and greater role for market-mechanism has been increasing.

5. Appraisal of the Development Strategy

Since it's inception the Indian development strategy has been widely commented upon the world over. In it's early phase it received applause from many eminent economists, some of whome became nobel-laureates later. It became a model to follow for many, newly independent Third World countries. It inspired professional economists, who set out to develop the new branch of 'Development Economics'. But, when the strategy got into difficulties during 1960s, it began to receive brick-bats. The brick-bats have come both from the political left and the right. The radical left argument, in brief, is that the state in India is controlled by the capitalists and the landlords; that it's development planning effort is limited to creating conditions for the growth of capitalism rather than to transform the economy into a socialist one through fast expansion of the public sector; and, finally, that the Indian economy is dependent on the

developed world capitalist system from which India seeks foreign aid and maintains trading relations. The argument of the right, rather of the liberals is that the Indian state is highly interventionist; that it practices a soviet-type centralized, 'totalitarian' planning system; that it relies on a bureaucratic regime of controls, 'permits and licenses', killing the spirit of private enterprise and free-market functioning; that the 'inward-looking' strategy has the Indian economy 'closed' to world-trade with loss of potential benefits. Along this line some orthodox, neo-classical economists have further argued, if India had followed a free-market, capitalist development, she would have performed better. By way of proof they cite the examples of Hongkong, Singapore, Taiwan and South Korea. Their claim is not verifiable because it is based on hypothetical history not real history. Nor is the comparison of India with these countries valid for all the differences in the size and nature of the Indian economy, in the political system, in the society, history and culture. Neither line of criticism, left or right, is either wholly wrong or wholly right, as you will see from an objective and proper evaluation of the strategy.

What is that proper approach to evaluation? There are two aspects of any development strategy. The first is it's logical consistency and the second is it's performance in terms of the goals it set out to achieve; in other words, whether the goals were achieved, and, if not, what were the reasons for the failure?

To take up the first aspect first, the logic of Indian development strategy, you have seen, is simple but very tight. It is difficult for any one to dig hole in it's logic. It was also consistent with the facts of the economic situation at the time of India's independence from the colonial rule. Given India's relative resource position at the time in terms of

labour, land and capital, can you think of a better strategy which could transform a labour surplus agrarian economy into an industrial one in the shortest possible time? In my view it is difficult to find one.

Let us now discuss the second aspect of the strategy, namely it's performance in terms of the goals it set out to achieve. Besides the desired structural transformation noted above, the goals of the strategy have been growth, distributive justice, employment generation and self-reliance of the national economy. The performance in terms of these goals at the macro-economy level have been as follows.

(1) Income Growth

The trend growth rate of national income (GDP) covering the period, 1951-85 has been estimated to be in the range of 3.5 to 3.7 percent annually. This should be compared with the target growth rates which ranged between 5 to 5.5 percent in different five year plans. In the 1980s the growth rate, however, picked up to over 5 percent. The Sixth Plan (1980-85) achieved 5.2 percent annual growth of GDP and the indications are the Seventh Plan (1985-90) will be able to maintain over 5 percent growth rate. In the 1980s India's growth performance has been commendable at a time of Great Recession when few countries exceeded 4 percent growth rate and the fast growing Third World countries like Mexico and Brazil recorded negative growth rates. Growth in India has been accompanied by stability. Except during 1965-67, 1972-74 and 1979-80 when there were heavy fall in agricultural production due to drought, price-inflation has stayed below 10 percent a year, a feature which puts India in better light in world comparison.

The above order of GDP growth has been far too low compared to what India needs for raising the living standards of a growing population.

India's population has been growing at 2.2 percent a year. The income per capita has, thus, been growing at less than 2 percent a year. In the 1980s it is expected to turn out to 3 percent a year. Compared to NICs and many other Third World countries India stands in poor light here. However, compared to India's own colonial past when per capita income at best stagnated, this acceleration is not unimpressive.

(2) Employment Generation

The Indian plans have had no employment targets, but indicated additional employment a particular plan would likely generate. Furthermore, you get the estimate of the backlog of the unemployed at the start of the plan and additions to labour force during the plan. These two together give the number of employment that ought to be generated during the plan. Now look at the following figures to get an idea of what the plans have done:

(in million)

	Unemployed at the Start of the Plan	Addition to Labour Force	Total (1)+(2)	Employment Generated
	(1)	(2)	(3)	(4)
Second Plan (1956-61)	5.3	12.0	17.3	9.5(55.0)
Third Plan (1961-66)	9.0	17.0	26.0	14.0(54.0)
Sixth Plan (1980-85)	12.0	34.0	46.0	36.0(78.0)

*Source: S.P.Gupta, Planning And Development in India, p.227.
**Figures in parantheses are percentages of employment generated to total requirement.

Thus, while employment generated has been increasing, total requirement has been increasing much more. The Sixth Plan which achieved over 5 percent

growth rate of GDP also has highest ratio of employment generated to employment required. This indicates that given the labour force growth rate, India needs 6 to 7 percent annual GDP growth to reach full employment.

Another way to look at the employment issue is from the angle of unemployment rate, that is the ratio of unemployed to labour force. Unlike the developed industrial countries which are marked by wage-employment and labour-force is clearly defined as persons between the age-group, 15-59 years, in India self-employment is more in proportion than wage-employment and even children in age-group, 5-15 years are found to be working. On the basis of National Sample Surveys, the rate of unemployment over the period we are concerned with has been estimated to lie between 4 to 5 percent of the labour force (persons in age-group 5 years and over and estimated to be in the work force according to the observed participation rates, sex and age-group). This rate is of open unemployed and excludes the underemployed, specially in agriculture. In 1985, the labour force (5 years and over) was 305 million, open unemployed were 13 million according to unemployment rate of 1977-78 survey, which was a little over 4 percent. Thus, in comparison to other countries while rate of unemployment in India has be quite low, the numbers involved are very large and underemployment persists in agriculture. You should also note that majority of the open unemployed are educated youth with high school and higher levels of education.

(3) Distributive Justice

Equity in income distribution has always been reiterated as an important goal in Indian development plans. You have also seen that poverty elimination and provision for basic minimum needs came to be adopted as specific goals since the Fifth Plan (1974-79). But no targets were ever set

for equity in income distribution. Probably in a mixed economy no such targets could possibly be set. Early planners had hoped that with fast expansion of the public sector, progressive taxation of higher incomes and 'trickle down' effect of fast GDP growth, equity in distribution will automatically follow.

To see what has in fact happened, it is necessary to note that equity has several dimensions: Equity in income distribution at all India level, within rural and urban population, between rural and urban population and finally, for a large size country like India equity between various regions as the plans have repeatedly emphasized. Poverty is another dimension of income distribution. One may also consider sectorial income distribution, as for instance between agriculture and non-agriculture. But this sectoral distribution is of income <u>generated</u> not of income <u>received</u>. True, that in India agriculture is the major source of income for rural people, but non-agricultural, specially service-sector activities have been increasing in the rural areas with development. Furthermore, income transfers take place from urban to rural areas by the rural migrant workers. The best, therefore, is to consider equity issue in terms of <u>received</u> income distribution.

Data on income (received) distribution are not collected in India. But since early 1950s the National Sample Survey Organization has regularly been collecting data on consumer expenditure. Earlier it was collected on annual basis, but since 1968-69 it is collected at 5-year interval. It is this consumer expenditure data which is used as a proxy for indicating income distribution. Since it leaves savings out of account, it underestimates inequality in distribution of income. Secondly, the data also suffer from bias due to under-reporting by the households belonging to richer sections.

Income Inequality

With these precautions in mind, let us look at the conclusions arrived at by Professors Mizoguchi and Matsuda of Hitotsubashi University who recently (1989) measured Gini Coefficient, using India's consumer expenditure data, which is a measure of income concentration, in other words, of inequality. For the period, 1951 to 1973-74, their conclusion is as follows:

(1) Income inequality declined both within rural and urban areas and so also at the all India level. The Gini coefficient, rural, urban and all India had declined to about 0.32, 0.34 and 0.34 respectively by 1973-74. In the developed countries this coefficient is also around 0.33. This picture has also been confirmed by an Indian study (Tendulkar, 1987).

(2) Average Rural household consumer expenditure as a proportion of average urban consumer expenditure increased from 52 percent in 1954-55 to 76 percent in 1973-74. This means inequality between rural and urban populations also declined. But rural household size is larger. So when we consider the proportion on per capita consumer expenditure basis, we find no particular trend, either of decline or of rise up to 1973-74.

What about the period after 1973-74? A clear picture has to await until the survey data for 1977-78, 1983-84 and 1988-89 have been analysed. As yet only provisional data are available from 1983-84 survey and none from 1988-89 survey. But there is some evidence to indicate that inequality may have been rising in this period:

(1) In the early 1980s the gross domestic saving rate had risen to all

time high of 23 per of national income. This could be partly due to larger proportion of income having gone into the hands of the richer sections.

(2) Following liberalization policy in the 1980s, there has been rapid growth in the production of consumer durables -- automobiles, television, refrigerator, electrical appliances and luxury textiles -- which flow into the consumption basket of the richer sections, specially the urban rich.

(3) The ratio of rural per capita to urban per capita consumer expenditure shows a consistently falling trend since 1973-74. From 75 percent in 1973-74, it came down to 67 percent in 1983-84, showing an increase in rural-urban inequality.

Poverty

The percentage of people living below 'poverty line income', an income level which, inter alia, ensures an average Indian to have amount of food giving 2300 calories a day, has been falling. From around 50 to 60 percent in the 1960s, the poverty ratio came down to 37 percent of the total population in 1983-84 -- 40 percent of rural and 28 percent of urban population. The absolute number of the poor, however, is still very large and most of the poor are rural, about 222 million out of 271 million in 1983-84. The nutritional norm of 2300 calories per capita per day has been seriously questioned as being excessive, because a person's calory requirement is not the same every day. No one needs the same amount of food on all days of the week. So, when such day to day variation in a person's calory requirement is taken into account, the norm gets reduced to 1900 calories per day per

capita. At this norm poverty ratio gets significantly reduced to 15-20 percent of the total population.

Regional Inequality

The consumer expenditure data, rural and urban, are also available over time for 16 major states of India. Using these data Professors Mizoguchi and Matsuda have shown that differences of urban per capita expenditures among states as measured by coefficient of variation, show very marginal fall up to 1973-74. On the other hand, differences of rural per capita expenditures among states have increased significantly from mid-1960s to mid-1970s. In other word, rural regional inequality has increased. This is also supported by the fact that states with lower per capita state domestic product (SDP) have been growing at slower pace than the states with higher per capita SDP. The ratio between the top and the bottom per capita SDP, between Punjab and Bihar, increased from 2.6 in 1970-71 to 3.0 in 1980-81. As a result of this uneven growth, poverty has become a regional rather than an all India phenomenon. About 2/3rd of the rural poor are found in the Eastern and central regions' states, where growth has been slow.

(4) Self-Reliance

India's development has been truly self-reliant. It has been predominantly financed out of domestic savings. Gross savings as a proportion of national income rose from 9.5 percent in 1951-52 to 23 percent in 1984-85. And gross investment to national income rose from 10.0 percent in 1951-52 to 24.5 percent in 1984-85. Thus, the inflow of foreign savings throughout the period has stayed between 1.0 to 1.5 percent of the GDP, and less than 10 percent of all public investment. Much of this has come in the

form of official development aid (ODA) and from the World Bank, with negligible direct private foreign investment or commercial borrowing. India has been a recipient of large amounts of foreign aid but in per capita terms it has been comparatively very small.

It has been argued by many that achievement of self-reliance has been at the cost of growth. Had India followed not the import substitution but export promotion strategy of development, she could have achieved a higher growth rate of national income. The trade liberalization and export promotion policy adopted since late 1970s has been in response to this line of argument. But success on the export front has been limited due to protectionist measures adopted by the developed countries since the Great Recession of 1980 and India's poor international competitiveness. Yet during 1980s the national income growth rate has accelerated to an average of over 5 percent a year and unlike many Third World countries India has been able to avoid falling into negative growth, hyperinflation and 'debt-trap'. In my view this has happened because of Indian economy's latent strength imparted by the so called import substitution strategy. Just as a result of this strategy India failed to reap the benefits of the world trade boom of 1950s and 1960s, similarly due to this strategy India has succeeded in avoiding the cost of world recession and trade restriction of 1980s. In particular import substitution for food and petroleum oil have stood in good stead during the 1970s and 1980s.

6. Conclusion

What can we say now about India's development strategy? Has it succeeded or has it failed? Clearly, it is a case neither of wholly a success nor of wholly a failure. Growth has been modest, and less than targeted.

Rural and urban inequality in incomes has declined, but between rural and urban and among different regions inequality has increased. Poverty has declined in absolute numbers as well as in percentage terms. Open unemployment has been kept at a low rate, but the problem of employing large numbers has been persisting. Economy has been self-reliant as development has been financed mostly out of domestic savings. There has been an structural transformation of the economy, as sectoral composition of GDP has changed in favour of industry and service sectors. Agriculture's share in GDP declined from over 50 to 31 between 1950 and 1985. But agriculture's share in total labour force only marginally declined from over 70 to 67 percent during this long period. High population growth, inadequate industrial growth and increasing capital-intensity of industrial sector were responsible for this pattern of structural change. Thus, hope of early planners of labour transfer from agriculture to industry has been belied. Nor in the forseeable future there is such a possibility. On the other hand, interdependence between agriculture and industry has considerably increased, arising out of agriculture's increasing demand for fertilizers and commercial energy and industry's increasing demand for food and raw material. What happened to the capital goods sector, which was the king-pin of the development strategy. Although by early 1970s India had reached near total self-sufficiency in her capacity to manufacture most of the modern capital goods required by the industrial sector, the growth of the capital goods sector in value added terms has suffered after the Third Plan. It's value added after having reached an annual growth rate of 19.4 percent during the Third Plan fell down to - 18 percent during the Plan Holidays (1966-69) and to - 10.4 percent during the Fourth Plan (1969-74). The growth rate recovered to about 10 percent in the Fifth Plan but again decreased to 6 percent a year

in the Sixth Plan (1980-85). Besides it's falling share in the industrial sector, it has fallen into technological backwardness. No worth while effort were made to change it's technology of the 1960s and early 1970s either by improving it's design-capacity or innovative R and D research. Then the trade liberalization policy of the 1980s by facilitating capital goods imports has affected the capital goods sector adversely from the demand side. Thus it is that after the Third Plan the capital goods sector no longer functioned as the core sector of India's development strategy.

Further Readings

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Annexure Table

Pattern of Public-Sector Plan Expenditure in India, 1951-1990

(Percentages)

	Agriculture and allied Sectors	Irrigation and Flood Control	Power[a]	Industry/ Mining	Transport/ Communication	Social Services	Total
1.First Plan 1951-56	14.8	22.0	7.7	4.9	26.4	24.1	100.0
2.Second Plan 1956-61	11.8	9.3	9.5	24.1	27.0	18.3	100.0
3.Third Plan 1961-66	12.7	7.8	14.6	22.9	24.6	17.4	100.0
4.Fourth Plan 1969-74	14.7	8.6	18.6	19.7	19.5	18.9	100.0
5.Fifth Plan 1974-79	12.3	9.8	18.8	24.3	17.4	17.3	100.0
6.Sixth Plan* 1980-85	13.7	10.0	28.3	15.8	16.1	16.2	100.0
7.Seventh Plan** 1985-90	12.7	9.4	30.5	12.5	16.4	18.6	100.0

Source: S.Chakravarty, Development Planning: The Indian Experience, Oxford, 1987.

* Estimated Expenditure (actual may be marginally different)

** Outlays Proposed

a From the Sixth Plan Petroleum and coal included in Power. Earlier these were included in 'Industry and Mining'.

IV

The Population Problem

1. Approach to the Population Problem

India's population, as you know, is next only to China. It rose from 361 million in 1951 to 685 million at the time of the last census in 1981, and it is projected to reach around one billion in 2001 AD. In 1960s many people in the developed world had written off India as a doomed case, where Malthusian spectre was looming large, and epidemic, disease, starvation and death alone could control her growing population from outstripping food supply. This perspective lost force after the success of the Green Revolution in India. This is not to say that population growth is not a matter of serious concern in India. Far from that, even before China adopted a population control policy, India had already put one in operation in the 1950s. But the comparative success has been poor. It can not be otherwise in India's democratic political system, where adoption of control measures is voluntary on the part of the citizens. An attemp to force down control measures on the part of the Emergency Regime of 1975-77 led to the fall of the regime.

What is then, or what should then be the right approach to the population problem? Population has two dimensions to it when looked at from development angle. First and foremost it is human resource of a country, the source of what economists call 'human capital', which has been found to be contributing far more to economic development than what the physical capital and quantities of labour-time do. Human capital reflects the qualities of human beings at work, with their skills and education. The second dimension of population is that it is a demand on available resources

and for consumption out of production and income at any given point of time. Per capita availability of natural resources in any country declines with population growth, and the pressure may cause disasterous degradation of the resources. You have also seen that with modest GDP growth, India's per capita income in the past has been growing at less than 2 percent a year, because her population has been growing at more than 2 percent a year. At these rates it will take more than a generation before per capita income in India could be doubled and people's living standard could be substantially raised.

Given these two aspects of the population, a country like India, therefore requires a two-pronged approach to the population problem: (a) Development of the quality of it's human resources, and (b) Control of population growth. The former is done through continuous improvement in health, nutrition, education and skills of the people. The latter is done by measures to reduce birth rate and/or fertility rate. It is also very important to note that the development of human resources affects the population growth at the same time by reducing the birth (fertility) rate as well as the mortality rate. Look at the experience of Japan itself. In India too, the state of Kerala in the south, which has the highest level of literacy rate in the country and high levels of education, including women's education, has lowest rate of population growth.

India's approach to population problem, specially since the Fifth Plan (1974-79) has shifted from merely controling the population to controling it as well as treating it from the human resource angle. Besides education in general there are a number of measures included in the Basic Minimum Needs Programme which have an impact on human resource development. So does the anti-poverty programme via it's nutritional goal implicit in raising the

income levels of the poor. Since these programmes and measures having bearing on human resource development are treated separately from the measures of population control in the Indian development plans, I will take these up when we come to discuss the living standard of the Indian people. In the present lecture I will confine to discussing with you the population growth, measures to control it, changes in the demographic characteristics and features of India's labour force.

Prior to that let us note that major focus of the popultion control policy naturally has been on reducing the birth rate. This has been sought to be achieved through the following measures of birth-control by covering the reproductive age-group population:

(1) IUDs (Intra Utinary Devices);

(2) Conventional Contraceptives(CC); and Oral Pills (OP);

(3) Sterlisation and Vasectomy;

(4) Medical Termination of Pregnancy (Abortion).

While these measures, if accepted by the reproductive age-group couples, do affect the potential number of future births, it is important to keep in mind that births are also governed by the prevailing infant and child mortality rates and the socio-cultural norms about family size, marriagable age of girls, preference for sons etc. Since infant and child mortality rates are still very high in India, parent's expectations about surviving number of children, specially expectations about sons, does influence the number of births.

2. Population Growth And Changes in the Demographic Characteristics

India's population began to grow at over one percent annual rate since 1921. But the real explosion occured in the post-independence period. In a

period of 30 years, 1951 to 1981, the population almost doubled from 361 to 685 millions. The growth rate itself accelarated from 2.16 percent a year during 1951-61 to 2.25 percent during 1971-81. In the table below, the official projections for 1991 and 2001 AD are also given. The projections

India's Population Growth And Projections

Census Year	Population in million (% annual)	Simple Growth Rate
1951	361	--
1961	439	2.16
1971	547	2.22
1981	685	2.25
1991	837	2.22
2001	986	1.78

Source: Figures from 1951 to 81 from Registrar General, Government of India, Census volumes.
Figures for 1991 and 2001 AD from Seventh Five Year Plan (1985-90).

are based upon changes observed in the demographic characteristics of the population and the future expectations about such changes, including the impact of the population control measures. According to the projections, the growth rate of the population is expected to come down to 1.78 percent a year in the decade of 1990s. Yet the population will continue to grow in the next century. On the basis of present calculations it may reach a stable level of around 1200 million in 2050 AD. This calculation is based on the assumption that the Net Reproduction Rate* (NRR) of the population

* Net Reproduction Rate of one in general means that the population has reached a stage when each generation of mothers is replaced by just the same number. In other words, it means that each generation of mothers has as many surviving daughters as is necessary to replace the generation exactly, and no more.

will be brought down to 1.0 before 2006-2011 AD. Since the population has been growing, the number of women in the reproductive age-group, 15 to 44 years and their ratio to total female population has also been growing. The future perspective can be had from the figures in the following table. Not all women in the reproductive age-group, however, can become mothers. Nor every mother will give birth to a daughter or will come to have a surviving daughter, who in turn will necessarily become a mother. Yet this table

Women in Reproductive Age-Group

Year	Total Female Population	Women in Reproductive age-group (15-44 years)	Percentage of (2) to (1)
	(1)	(2)	(3)
1980	324	141	43.4
1990	361	160	45.9
2000	473	228	48.2

Source: Seventh Five Year Plan (1985-90).
Figures are in million.

indicates the growth potential of the population. To bring down the NRR to one by the first decade of the next century would require that most of the total number of couples get covered under various measures of birth control.

A fast growing population, as you know, has an age-structure favourable to younger age-groups. In 1981, 40 percent of India's total population was below 15 years of age; 54 percent was in the age-group 15-59 years; and only 6 percent was 60 years and more. This sort of age-structure has two very serious implications from the angle of development planning. Firstly, it gives rise to high Dependency Ratio, that is the ratio of the population

below 15 years to over 15 years. This is as high as over 66 percent in India's case. Secondly, the labour force, that is the population in the age-group 15-59 years is not only large, it grows faster than the total population. Thus, while India's population has been growing at 2.2 percent annually, labour force has been growing at 2.5 percent annually. The first one requires higher investment in human capital formation, specially in education, health and nutrition. The second one requires higher investment in physical capital formation in order to generate additional employment and income. In the short run this poses a problem of conflict between goals, which development planners have to face.

The changes in the demographic characteristics of the Indian population between 1960 and 1981 have been compiled by the World Bank in their World Tables: Vol.II Social Data (3rd Edition). The picture, according to this source, is the following:

(1) Birth rate declined from about 44 per thousand of population in 1960 to 35 in 1981.

(2) Total Fertility Rate, defined as the number of children born to a child bearing woman during her reproductive age, declined from 6 in 1960 to 4.8 in 1981.

(3) Death Rate declined from 22 per thousand of population in 1960 to 13 in 1981.

(4) Child Dealth Rate (1-4 years age) declined from 26 per thousand of population in 1960 to 17 in 1981.

(5) Infant Mortality Rate (less than one year age) declined from 165 per thousand of population in 1960 to 121 in 1981.

(6) The Expectation of Life at Birth for the total population rose from

43 years in 1960 to 52.2 years in 1981; for males it rose from 44 to 52 years and for females from 42.4 to 52.5 years during this period. According to the Seventh Plan (1985-90) the life expectancy in 1984-85 had gone up to 56 years for males and 57 years for females.

The above changes are all in the desired direction. But the pace of change, as you can see, has been slow. There is no doubt that development in general and specific programmes directed to human resource development have brought about these desirable changes. The population control measures have definitely affected the birth rate, but it is still very high. Why? There are a number of possible causes:

(1) The birth control measures, apart from their acceptance being entirely voluntary, have not reached to all eligible couples. By 1985 the coverage was no more than 32 percent of the eligible couples (The couple Protection Rate, so to say).

(2) Although the death rate has substantially fallen, infant mortality rate is still too high, which induces couples to have larger number of births.

(3) The consciousness about family-size has been changing with increase in education and media-messages (norm propagated being 2 children). However, the poorer families still look at larger number of children specially sons, as source of earning and as a security for old-age.

(4) Female literacy which is so very crucial for acceptance of the birth control measures is still very low in India. In 1981 the female literacy rate was no more than 25 percent as against male literacy rate of 47 percent.

(5) There is no such wide network of organisational support for the

family planning programme as was the case in china. The prospective acceptors of birth control measures have to seek the services from the Family Planning Centres, Health Centres and Hospitals. The services are not taken to family doors.

3. Labour Force Participation Rate

From the perspective of a developing country like India it is important to bear in mind the distingtion between the labour force and work force or the economically active population. Labour force, as you know, is conventionally defined to be the population in the age-group 15 to 59 years. In the developed countries work force is generally a part of the labour force, it's size depending upon the participation rate. But in an aging population like in Japan, people beyond tha age of 59-60 years have begun to participate in work as there is demand for their labour. In a developing country like India people beyond the age-group of labour force, that is less than 15 and more than 59 years, are found to be engaged in some sort of gainful work either in self-employment or on wage employment. Although there is law prohibiting child labour, some children specially of the very poor families do work, either helping their parents in the family enterprise or on wages in cottage and small scale industries. Therefore, labour force measurement in India is different from the conventional measure. For any year, the first step is to estimate the population age-group wise above the age of over 5 years. The second step is to apply the participation rates specific to each age-group for males and females to the estimated populations in the different age-groups. The additions of all this gives the labour force in the year in question. The participation rates for different

age groups are obtained by National Sample Surveys, which are periodically conducted for measuring employment and unemployment.

With this background let us look at the changes in the participation rates in India given in the World Bank's World Tables: Social Data, refered to earlier:

Labour Force Participation Rates(%)

	1960	1980
Males	57	52
Females	27	26
Total	43	39

In these 20 years there was a fall in the participation rates. Why? With increase in income, better and more opportunities for schooling some of the older and younger people withdraw from participation in work. The fall in the female participation rate is less than the fall in the male participation rate. There are two possible explanations for this. First, girls get relatively less opportunity to stay at school than the boys get. Second, with increasing female literacy and education, relatively more women now are taking up salary and wage-paid jobs, specially in the urban areas. A corollary of this feature is that the share of females in the total labour force marginally increased from 31 percent in 1960 to 32 percent in 1980.

4. Magnitude of Labour Force And It's Projections

India's labour force, as I said earlier, has been growing at a rate over 2.5 percent annually. The absolute number is itself very large. On the basis of participation rates obtained from the National Sample Survey

carried out during 1977-78 (32nd Round), the estimate of the labour force in 1980 is given in the following table.

India's Labour Force in 1980

Age Group in years	Male (1)	Female (2)	Total (3)	Rural (4)	Urban (5)	Ratio of (4) to (3)
5+	194	77	271	215	56	0.79
15+	183	70	253	200	53	0.79
15-59	170	67	237	186	51	0.78

Source: Seventh Five Year Plan (1985-90).
Figures are in million.

It is clear form this table that out of the 271 million total labour force in 1980, there were 34 million (271-237) between the age of 5 to 15 years; and out of this 10 million were girls and the rest boys. Another feature worth nothing is that 79 percent of the total labour force is rural, majority of which is engaged in agriculture. Given the projected population growth and the participation rates of 1977-78 survey, the total labour force is projected to be 345 million in 1990 and 428 million in 2000 AD. Notice that at the end of the present century India's labour force will be about the same as India's total population in 1961. Between now and the end of the century, that is in a decade's time, 83 millions will, thus, be added to the labour force. Generation of employment therefore, has to continue as a major goal of Indian development strategy. Fortunately, open unemployment rate in India has been rather low. Still, as about 70 percent of the labour force is absorbed in agriculture, it keeps down the growth in agricultural labour productivity and rural incomes. This factor operates as a demand

constraint on overall growth of the economy. In order to overcome this constraint at the same time, future employment generation has to be sought through fast industrial growth with emphasis on rural industrialisation.

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V

Agricultural Development

1. Resources

India's total geographical area is about 329 million hectares (3.29 million Sq. km.). Her rank in area is seventh in the world, while her rank in population is second. Population density is accordingly high, and it has been increasing with population growth. Out of the total geographical area, 22 percent is classified as forests, 46 percent as net cultivated area, and the remaining 32 percent is accounted by various categories such as under non-agricultural uses (7%), barren lands (7%) cultivable waste, pastures and fallow lands. The net cultivated area increased at a fast rate during 1950s and 1960s at the cost of forests, village commons, pastures, cultivable wastes etc. It increased from about 119 million hectare in 1950-51 to 140 million hectare in 1970-71. Since then it has varied narrowly between 140 and 142 million hectare a year. If no further damage is to be done to ecological balance, for which about 1/3rd of the area is required to be kept under forests, the scope for extensive agriculture in India has completely dried out.

The climate of India's land surface ranges from the Tropical in the South to the Tundra-type, with perennial ice-caps on the High Himalayas. This offers an advantage that the same crop can be cultivated in different seasons of the year in different regions of the country. But much of the rainfall occurs during the summer Monsoon-months, April-May to August-September. Not all areas are served equally either in time or intensity of rainfall during this period. As you move from South-East to North-West rainfall intensity goes down. Apart from the melting of ice-caps brought

down by the perennial rivers from the High Himalayas, monsoon rains are the eventual source of all irrigation in India, whether it is from surface reservoirs or tanks or from underground water. In the years in which monsoon rains fail, drought occurs. In such an year irrigation particularly plays crucial role in saving the crops from the drought. Although normal monsoons bring plenty of water, not all of it can be harnessed or harvested for irrigation. Given India's land topography, specially the mountainous Middle Indian region and the Daccan Plateau in the South, not more than 60 percent of the cultivated area can be potentially provided with irrigation. At present about 30 percent of the net cultivated area is irrigated, which is about 42 million hectares out of 142 million hectares. Thus, there is potential for doubling the area under irrigation. What is equally important to note is that today 70 percent of the area is directly dependent on rain, being cultivated under rain-fed conditions, or what is called dry-farming. And even when full irrigation potential has been realized, 40 percent of the cultivated area will continue to be under dry farming in India.

India has largest stock of animal resources in the world. About 20 percent of the world's bovines, 16 percent of cattle and 56 percent of buffaloes are found in India. According to the Livestock Census of 1982, there were about 420 million heads, out of which 191 million were cattle, 69 million buffaloes, 49 million sheep and 95 million goats. This is a large stock for India's land area, but not so for India's population. It is fed on crop residues and agricultural by-products, like rice-bran, oil -cake, cotton-seed etc. Only 5 percent of cultivated area is devoted to animal fodder production. With increase in arable land, pastures and grazing lands have declined and degraded. Since animal nutrition is poor, their productivity is poor. But their contribution to agricultural production and as a

source of food from animal origin has great significance. Since time immemorial cattle have been reared in India primarily to provide draught power for agriculture. In fact religious taboo against cow-slaughter and cow having become a sacred animal to Hindus arose about 2000 years ago out of this economic necessity. Even today the predominant source of mobile power for Indian agriculture is the cattle bullock used for ploughing of the land, cartage and several other operations. There were in 1982 about 73 million cattle bullocks and about 8 millions working male buffaloes.

In the same year the number of tractors in agricultural uses were a little over half a million. Today the number may be more, but certainly less than a million. Although tractorization of agriculture since early 1970s, specially in the agriculturally advanced and dry regions of North-West and parts of south, has been growing fast, its displacement effect on draught animal population has been rather poor. Studies show that on average a tractor in these areas displaces 3-4 working bullocks. This means even if we suppose a technical substitution rate of one tractor for 10 draught animals, the total stock of India's draught animals is equal to over 8 million tractors. And its use saves India about 26 million tonnes of diesel-oil annually. Thus, the cattle stock is a great renewable source of power for Indian agriculture. In contrast to cattle, buffaloes are the main source of milk production in India. During mid-1980s, India produced over 35 million tonnes of liquid milk, of which about 60 percent came from buffaloes. The sheep and goat are poor man's animal. Environmentalists argue that these are particularly damaging to environment in the drier regions of the country, where they are found in relatively larger number. Since the demand for goat meat and sheep-wool has been growing in the country, the population of these animals has, nonetheless, been growing.

Besides land, water and animal power, Indian agriculture continues to be a sector of the economy employing largest amount of human labour. According to 1981 census out of about 223 million total workers, classified according to their 'main' occupation, 148 million, that is about 67 percent were engaged in agriculture. If you include in it those for whom agriculture was a 'marginal' occupation, the number goes up to over 167 million out of a total of 245 million. Since land under cultivation has virtually remained constant since early 1970s, land to labour ratio has been falling with growth in the labour force. In 1981, considering the main workers only this ratio was less than one hectare per worker, and it must have declined further since then. Agriculture is wholly in the private sector, there being as many as 89 million operational land holdings (1980-81). This number has been increasing with population pressure and sub-division of holdings. Not all those who work in agriculture are land owners. There is a sizeable proportion of rural households who are landless and whose main source of living is agricultural labour. Their proportion is estimated to lie in the range of 25 to 30 percent of all rural households. Neither all land owning households have enough land. On the contrary majority, over 56 percent of the 89 million operational holdings were less than one hectare size in 1980-81. About 3/4th of the total holdings accounting for 26 percent of total area belong to marginal and small size cultivators (< 2 hectare). The point to note is that the pressure of population on land in India has been pushing agriculture towards of a system of marginal and small farms.

2. Agricultural Development Strategy

Agriculture naturally is required to contribute to the national goals of growth, equity, employment and self-reliance. In addition, agriculture's specific task is to produce increasing surpluses of food and raw materials on which depends industrial advance. And this requires to be done in a situation of growing population and dim prospects of any absolute transfer of labour from agriculture to industry in foreseeable future. Since the First Plan (1951-56) the agricultural development strategy has aimed to achieve these goals explicitly or implicitly. There was, however, a change in the strategy when what is known as the 'New Agricultural Strategy' was introduced in the mid-1960s following the agricultural crisis of those years. It is this which led to what is popularly called the 'Green Revolution'. In order to get a clear idea of the difference between the pre and the post green revolution phases it is better to consider the strategy's three broad aspects separately: (1)Technological, (2)Institutional, and (3)Support policies.

The Pre-Green Revolution Phase (1951-1966)

Many economists have criticized India's development strategy as one of neglecting agriculture during this phase. This is in fact not true, whether one considers it in terms of public investment in agriculture or growth performance of agriculture, as I will point out later. Public sector plan expenditure in Agriculture and Allied Sectors including Irrigation and Flood Control was highest in the First Plan, about 38 percent of the total. Since the Second Plan it has stayed between 22 to 23 percent of the total up to the present. The technological focus of this phases was on developing large

irrigation systems, land reclaimation and propogation of new cultural practices like the Japanese method of line sowing.

The major focus of the strategy in this phase was on institutional reform, specially reform of the agrarian relations. Zamindari was abolished and the earstwhile occupancy tenants were made land owners on payment of a certain rental value of the land. In some of the states tenancy was abolished and in others legislations were passed to protect the tenants and regulate rents. Finally, land redistribution was sought by imposition of ceilings on land ownership holdings. Consolidation of fragmented and scattered pieces of land holdings into a few compact blocks was carried out in this period. Another feature of institutional reform of this period was to set up and promote cooperatives, particularly Agricultural Service Cooperatives and Cooperative Credit Societies. Apart from supply of funds to cooperatives for credit purposes at low rates of interwest, there was no price support policy for agriculture during this period. Deficit of food for urban population was met from imports, specially food aid received under U.S. PL 480.

The New Agricultural Strategy: Post Green Revolution Phase

Persistent dependence on food imports, the threat of the U.S. President to suspend and cut-off supplies in the wake of the Indo-Pakistan War in 1965, the agricultural crisis of 1965-67 and the scientific breakthrough having been achieved in the dwarf, high yielding variety of Mexican wheat and the possibility of importing the foundation seed for application in India were the specific historical circumstances in which the New Agricultural Strategy was adopted in the mid-1960s. Its main objective was to maximize production. Initially the strategy was put in operation in

areas of assured irrigation and reliance was placed on large, the so called 'progressive' farmers in these areas. They were supplied the HYV-seeds, fertilizers, pesticides and cheap credit. Soon after a massive public subsidy support for development of private tube-well irrigation was mounted in order to spread the technology to other areas and to other groups of farmers. Alongside subsidies were provided on seeds, fertilizers and pesticides, agricultural machinary and equipments. Research in crop-breeding and extension services for promoting adoption of the new technology were strengthend.

Beside the technology, the government came to adopt an active price-support policy for agriculture during this phase. Apart from the subsidized input prices just mentioned, a programme of minimum support prices for output, specially for wheat and later for rice was adopted. Public procurement of food at the support prices, announced in advanced, became a regular feature. This system of price support and public procurement has now been extended to other crops also, particularly pulses and oil-seeds, which are largely grown under dry-farming conditions.

Diffusion of the new technology all over the country including in the areas under dry-farming conditions can be seen from the following facts:

(1) The percentage of irrigated to net cultivated area increased from 19 percent in 1965-66 to 30 percent in 1984-85. Of the total wheat acreage, which itself increased from about 13 million hectares in 1966-67 to about 24 million hectares in 1984-85, the irrigated proportion went up to 74 percent in 1984-85. In rice this proportion, however, was limited to 43 percent of the total acreage in this year.

(2) There was a phenomenal expansion in the coverage of area cultivated with high yielding varieties (HYV) of wheat and rice. Starting with no where in 1966-67, 81 percent of the total wheat acreage came to be cultivated with HYV seeds in 1984-85. Similarly, 55 percent of the rice acrage had come under HYV coverage by 1984-85. This difference between wheat and rice is due to the fact that the scientific breakthrough in HYV rice has not been as good as in wheat in terms of yield increase. Secondly, there is consumer preference, provided income permits, for the indigenous to crossbred variety of rice.

(3) Total fertilizer consumption (N+P+K) increased from 2 million tonnes in 1966-67 to over 8 million tonnes in 1984-85. During the pre-green revolution phase per hectare fertilizer consumption had increased from a negligible position in 1950-51 to 13kg. in 1966-67, from where it increased to about 46kg. in 1984-85. In the HYV crops it is very much higher. Compared to developed countries this rate of fertilizer use, however, is very much lower. For instance, Japan uses 388kg. of fertilizers per hectare. But the point to note is that there was a fast expansion of fertilizer use in India in this phase. To support this growth and as a measure to promote self-reliance, domestic fertilizer production had come up to 63 percent of the total consumption by 1984-85.

(4) Institutional credit flow to agriculture multiplied several times. From Rs. 885 million in 1970-71, it increased to Rs. 55560 million in 1984-85. In the earlier phase credit flow had occurred through cooperative societies. In this phase nationalized banks also joined in. There was a fast expansion of rural bank branches, which also

helped in mobilizing the rural deposits. In the late 1980s the share of banks in the total credit flow had surpassed the flow through the cooperatives.

What about land reforms in the post green revolution phase? Although plan documents of this period talk about the desirability of land reforms, no attempt was made at further land reforms, primarily because the parties in power found it politically infeasible.

3. Appraisal of Agriculture's Performance

The appropriate way to assess the performance of Indian agriculture is to do it in terms of the goals that the agricultural development strategy in its two phases sought to achieve. As I said, the focus of the first phase was production growth and equity, and that of the second phase was growth with emphasis on national self-reliance in food. In needs to be added, however, since mid-1970s of the second phase an element of equity was added through a supplementary anti-poverty programme, which inter alia covers to benefit small and marginal farmers and the landless labourers. Another element of regional equity has been introduced in the current Seventh Plan (1985-90), which calls for 'dispersed' agricultural growth through a relative shift of public investment towards the backward, traditionally rice growing states of the Eastern and Central region. In this background let us look at the performance.

Agricultural Production Growth: 1950-85

As you know agricultural output does not grow smoothly. It varies from year to year largely due to climatic factors. Then there were drought years in India in which output fell down sharply. It is therefore better to focus

on trend growth rate of agricultural production. The trend growth rates are given in the table below for the pre and post green revolution periods. Alongside are also given trend growth rates of area and yield, the two contributory factors to production growth. All these growth rates are adjusted for rainfall variation such that the effect of such variations on the output has been removed.

Annual Growth Rates: All India

	Area		Yield		Production	
	1950-65	1966-85	1950-65	1966-85	1950-65	1966-85
Crops						
1. Rice	1.30	0.68	2.03	1.92	3.34	2.60
2. Wheat	2.76	2.95	1.26	3.45	4.02	6.40
3. Pulses	1.72	0.29	0.28	0.33	1.16	0.55
4. All Foodgrains	1.39	0.39	1.40	2.20	2.88	2.81
5. Oil Seeds	0.14	0.86	-0.10	1.61	3.04	1.75
6. All Crops	1.60	0.46	1.26	2.00	3.02	2.72

Source: C. H. Hanumantha Rao, S. K. Ray and K. Subbarao, Unstable Agriculture And Droughts, Vikas Publishing House, Delhi, 1988.

It is clear from this table that in both phases of the strategy production grew at the trend rate of 3 percent a year. The difference is that 80 percent of production growth in the second phase occurred through growth in crop-yields, whereas in the first phase yield growth accounted for about 42 percent of production growth. As the new technology spread to rain-fed areas, production instability, that is variation in production increased with variation in rain-fall. The production growth rate in the second phase (2.72%) is marginally lower than in the first phase (3.02%) because the rain induced variability has been eliminated from the production series. The new technology, expectedly, made remarkable contribution to wheat production growth (over 6% a year) and also to its yield growth. The growth rates of dry crops, pulses and oilseeds and also rice, were very much lower in the second compared to first phase. However, there is evidence that in the

second decade of green revolution (1977-78 to 1988-89) the growth rates of these crops have picked up --- rice over 3%, pulses 2.3% and oilseeds about 4% a year --- as a result of special programmes for increasing their production.

Growth rates do not give the idea of output amounts. In the table below you can see the changes in the physical amounts of production:

Agricultural Production: All India

(million tonnes)

	1950-51	1965-66	1984-85
1. Rice	20.58	30.59	58.34
2. Wheat	6.46	10.40	44.07
3. Pulses	8.41	9.94	11.96
4. All Foodgrains	50.82	72.35	145.54
5. Oilseeds	5.16	6.40	12.95

Source: Ministry of Agriculture, Agricultural Statistics At a Glance, 1988.

Total food production increased by about 3 times in course of the 35 years since 1950-51; rice about 3 times and wheat over 7 times. But inter-crop imbalance increased as pulses and oilseeds did not go up as fast.

Since the New Agricultural Strategy initially concentrated on well endowed regions with infrastructure specially irrigation, it caused uneven regional growth in production. States specially in East-Central region lagged behind the states in North-West region. In the 1980s with pick up in the growth rates of rice, pulses and oilseeds, the lagging states have started showing higher growth rates in their agricultural production (C. H. Hanumantha Rao, 1989).

Food Self-sufficiency And Marketed Surplus

A remarkable contribution of the green revolution strategy has been to make India self-sufficient in food. By concentrating initially on well

endowed regions and on large farmers the strategy helped in the growth of marketed surpluses of food. The price support and the procurement policies have also helped in increasing the marketed surpluses. As a result, net food imports ceased, annual procurement of food by public agencies and the stocks with the government has increased. This is just indicative of the growth in marketed surplus because public procurement's share in the total marketed surplus of foodgrains, particularly cereals is not more than 15 percent of their total production. The rest of the marketed surplus, estimated to be about 35 percent of total production, flows through the open market. The picture as it relates to food imports, procurement and food stocks with the government for selected years can be seen from the following table:

Net Imports, Procurement and Stocks of Food with the Government

(in million tonnes)

Year	Net Imports	Procurement	Stocks as on January First
1951-65(average)	4.5	1.58	---
1966	10.31	4.01	2.22
1972	-0.50	7.67	3.44
1978	-0.60	11.10	17.36
1984	+2.37	18.72	15.49
1987	-0.38	15.72	23.63

Sources: Economic Survey, 1988, Government of India, Ministry of Finance and Bulletin on Food Statistics, Ministry of Agriculture, Directorate of Economics and Statistics, various volumes.

Procurement amount varies with harvest, being larger in the years in which harvest is good. With reduced production, procurement goes down because open market prices are higher than the procurement prices. Since 1970s you can see net imports (net of exports) have in general become negative. Not that India has become an exporter of food, but she does not need to import food. In the drought years, government as a measure of

precaution and to keep hold on prices, specially in the urban areas, does import food as it did in 1984 and again in 1988. But accumulation of stocks becomes a problem as it locks in a good deal of government money. Apart from release of the stocks through public distribution system covering largely the urban population, the government has also been using parts of the stocks for rural employment generation in the form of payment of wages. Whereas food self-sufficiency has been achieved, India still depends on imports of edible oil, which currently ranges between 1 to 1.5 million tonnes a year.

Equity

The equity effects of the agricultural development strategy since the First Plan need to be considered not only as to how agricultural production and income were distributed as between different regions, between different classes of farmers, between farmers and agricultural labourers but also in respect of the land reforms, in particular the distribution of land.

During the pre-green revolution phase equity was sought primarily through land reform measures. Zamindari was successfully abolished, peasant-propriatorship was established, and feudal-type of tenancy declined to negligible proportions of the area under cultivation. Imposition of ceiling on land ownership, however, did not bring out surplus land for redistribution among the landless in any significant amount. Large land-owners were able to hold their land by sub-division and fictitious transfers within family groups and relatives. In spite of the failure of the ceiling laws, there did occur a relative shift of land in favour of the marginal, small and middle class owners. According to the National Sample Survey data, leaving aside the landless households, the picture is as follows:

Percentage of Households And Area Operated

Land Size Class (acres)	1953-54 (NSS 8th Round)		1970-71 (NSS 26th Round)	
	Household	Area	Household	Area
1. Small-Marginal (0.01-2.49)	39.10	5.43	45.20	9.25
2. Medium (2.50-9.90)	40.50	28.63	40.40	37.52
3. Large(10.04 and above)	20.20	65.94	14.20	53.23

Source: ICSSR Working Group, Alternatives in Agricultural Development, Allied Publishers, Delhi, 1980.

The shift in land towards the middle and small sizes mainly occurred under the economic and demographic pressures through such mechanisms as sale-purchase, sub-division of families and fictitious transfers to evade ceiling laws. The ceiling law's only positive contribution was that being there it prevented land concentration. Concentration in fact declined.

The above pattern of land shift has continued in the post-green revolution period also. This is confirmed by the Agricultural Censuses of 1976-77 and 1980-81. But the point to note is that in 1980-81 the large farmers'(4 hectares and above) proportion was still 12 percent of the total households, while they operated little less than 53 percent of the area. And at the other end 26 percent of the area had come under marginal and small sizes.

During the pre-green revolution phase growth and equity were complimentary because output per acre was inversely related to size-class of holdings. Small and marginal farmers put in more labour per acre and produced more output per acre compared to large farmers. The green revolution strategy deliberately chose better-off areas and large farmers and the government gave up any more land reform all together. There is no doubt that it led to an increase in agricultural production and income disparity as between different regions and between large and small farmers. Anti-poverty programme and rural employment generation schemes have tried to

soften this. With the diffusion of the new technology the small farmers and backward regions have also benefited from it. But there is no evidence to show that the disparity has come down. The disadvantage of the late comers remains with the late comers as it happens also between the rich and the poor countries of the world.

Employment And Labour Absorption

Agriculture in India, you have seen, continuous to employ about 68 percent of the total labour force. This proportion only marginally came down in 1981 compared to over 72 percent in the decades of 1950s and 1960s. With labour force growth the absolute number of persons employed in agriculture has been increasing. Agricultural development contributes to employment generation through: (1)area expansion, (2)increase in cropping intensity, particularly due to increase in irrigation, (3)change in cropping pattern in favour of labour-intensive crops and (4)shift of land in favour of small and marginal farmers. Mechanical component of the new technology, on the other hand, is labour displacing. The effect of all these factors is reflected in the elasticity of employment to agricultural output. Estimates of employment elasticity for the pre-green revolution period varied between 0.3 to 0.75. If we accept the reasonable figures to lie between 0.5 to 0.6, with output growth of 3 percent a year over the whole period, employment in agriculture has been growing at best 1.8 percent a year. Evidence from the green revolution period shows a significant decline in the elasticity of employment. This appears to have happened due to mechanization of agriculture specially in the advanced regions and by large farmers. (C. H. Hanumantha Rao, 1989). Thus the early hope that the new technology, being land-augmenting and labour absorbing, will generate more employment per unit

of land has largely been belied. With the shift of land towards small and marginal farmers and the diffusion of the new technology, it is possible that this feature of fall in employment elasticity will not become pronounced in future. The green revolution induced migration of labour from poorer to advanced states, for instance labour from Bihar and Orissa to Punjab, Harayana and Western U. P. While migration held the real agricultural wages from rising in the latter regions, the real wages in the backward regions have begun to rise since late 1970s. This process of rising wages rate in the backward regions has also been induced by rural employment programmes in these regions. While this is a desirable feature from the angle of equity, it is likely to induce further mechanization by large farmers, adversely affecting employment in agriculture.

4. Future Perspective

There are a number of factor which indicate that in the forseeable future Indian agriculture will continue to grow at 3 to 4 percent annual trend rate. There is potential for doubling the area under irrigation. At the current knowledge and mix of technologies, the regional differences in the yield rates between the lowest and the the highest for rice, wheat, other food grains, pulses and oilseeds range between 3 to 5 times. This is indicative of potential for increasing yields in all crops. Landholding distribution is expected to move further towards a system of small and marginal farms. And even with new technology this class of farmers is beginning to show that it puts in more labour per unit of land and produces higher yield. But individual farms in this class are becoming unviable, particularly from the angle of capital investment, be it tube-well irrigation, pair of plough bullocks or a thresher. This is bound to necessitate

another bout of land reforms, specially focused on consolidation of the tiny holdings into viable sizes. This may be achieved by imposing a floor beyond which no further sub-division of holding is allowed. The individual owners may own shares in the viable size farms rather than own land and cultivate it individually. This will of course require political will on the part of the government to do it.

Further Readings

1. C. H. Hanumantha Rao, Technological Change And Distribution of Grains in Indian Agriculture, Mac Millan, Delhi, 1975.
2. C. H. Hanumantha Rao, S. K. Ray and K. Subbarao, Unstable Agriculture And Droughts, Vikas Publishing House, Delhi, 1988.
3. C. H. Hanumantha Rao, Technological Change in Indian Agriculture: Emerging Trends and Perspectives, Presidential Address to Indian Society of Agricultural Economics, Department of Economics, Bombay University, Bombay, 1989.
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For Relevant Statistics see the following government publications:

(1) Directorate of Economics and Statistics, Ministry of Agriculture, Indian Agriculture in Brief; Agricultural Statistics at a Glance; and Bulletin on Food Statistics.

(2) Department of Economic Affairs, Ministry of Finance, Annual Economic Survey.

VI

Industry And Its Problems

1. Industrialization Strategy And Policy

Rapid industrialization of the economy, you have seen, was the key-element in the development strategy India adopted during the Second Five Year Plan (1956-61). The strategy to achieve this was to build and expand on the basic and capital goods industries under the public sector. Being at the core of the economy this sector was anticipated to give maximum growth rate to the economy and make it free from dependence on capital goods imports. This aspect of the strategy is widely known in the world as India's "Import Substituting Industrialization* Strategy". What is less well known is that the industrial policy since the beginning pursued multiple goals, not all complementary with each other. Growth and self-reliance were of course upper most on the minds of the strategy planners. But employment generation could not be ignored. A larger potential for this was seen in the labour intensive traditional, cottage and small scale industries, which had survived through the colonial past. Protection and support for this group of industries, therefore, became an integral part of the industrial policy right since the beginning. This also fitted very well with the Gandhian idea of self-reliance at every level and his aversion to modern industrialism. The industrial policy followed two more goals.

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* Index of import substitution is the fall in the ratio of imports to industrial output, while output rises. In the reverse situation, that is when the ratio increases it indicates import liberalization.

Regional dispersal of industries, an indeed laudable goal for a large, diverse country and a federal democracy like India. Secondly, there was the constitutional directive to prevent concentration of economic power in private hands. The expansion of the public sector industries to reach what was called the 'commanding hights' of the economy, was itself in line with this goal. In addition, industrial policy sought to prevent concentration in the private modern industrial sector through market regulation and quantity controls. Multiple goals thus followed have been in conflict with each other. There is trade-off between them, that is a higher achievement on one goal can occur only at the cost of loosing on the other. To illustrate, truely labour-intensive small scale industries do provide more employment per unit of investment. But for this very reason profit is lower; therefore, reinvestment is lower and future growth is lower. Similarly, to prevent concentration when the additional production capacity for producing an industrial product is divided among several private sector companies, none is likely to set up an optimum size plant. This means higher per unit cost, lower efficiency and lower potential for the growth of the industry.

What are the policy instruments the government has applied in pursuance of these goals? The number is very large. Let us take note of the major policy instruments:

(1) Reservation of industrial activities for public sector operations; and within the activities open for private sector operation, further reservation for the exclusive operation of the small scale sector.

(2) For the large scale private sector, licensing of industrial capacity by the government, its original rationale being prevention of wasteful overinvestment in a capital scarce situation and also

prevention of private sector investment from going into those lines which do not fall under the plan priorities.

(3) Monopoly and Restrictive Trade Practices Act (1970), and setting up of a commission to watch on the large industrial houses in respect of their assets and market share and to examine and enlist firms for purposes of this act.

(4) Incentives to private sector firms in the form of various types of tax concessions and subsidized infrastructural facilities, including land and institutional credit for setting up manufacturing plants in the designated list of industrially backward districts and states.

(5) Developmental support of various kind for the village and small scale industries coming from the centre and the state governments in the form of institutional finance; raw material supply including imported raw materials at subsidized rates; marketing support including part purchases for government use in specific cases; technical advice, training etc.

(6) Foreign Trade and Foreign Exchange Regulations, specially import control through tariff and quota and allocation of foreign exchange for import purposes.

To put the above policy instruments in operation requires a vast body of executive rules and procedures and governmental agencies to administer these. For this reason free-market critics called it, a 'Licence and Permit Raj (regime)'. The regime has, however, provided a protective cover, a sheltered, non-competitive market environment to Indian capitalists. Changes in the regime have been taking place since mid-1970s, and at greater pace since mid-1980. Later on I will point out to these. In the meanwhile

let us look at the industrial structure of India today and the growth of the industrial sector since the Second Plan (1956-61).

2. Industrial Structure

At the macro-economy level, the industrial sector accounted for about 25 percent of the GDP in 1984-85, 15 percent in manufacturing, 4 percent in mining and 6 percent in constructional (Seventh Plan Estimates). If electricity (2%) and transport (6%) are added, the share goes up to about one-third of the GDP. But the share of the industrial sector (mining, manufacturing and construction) in the total labour force, according to 1981 census, was a little over 13 percent, 10 percent in manufacturing, 2.5 percent in construction and the rest in mining. Total number employed were 30 million, of which over 23 million were employed in manufacture. Instead of counting the number of workers in an industry as the census does, when employment is estimated in Standard Person Years (SPY) of employment the picture is slightly changed. The Seventh Plan (1985-90) gives such an estimate. Look at the table below. A comparison of the two sets of figures shows that in terms of SPY measure of employment industry's share in the total is about 21 percent, of which 14 percent is in manufacturing.

Number of Workers And Employment By Sector: 1981, 1984-85, All India

	Workers: 1981		Employment(SPY)*: 1984-85	
	Number in million	% to Total	Number in million	% to Total
Sector				
1.Agriculture	153.0	68.76	96.108	51.48
2.Industry	30.0	13.48	38.370	20.55
a.Mining	1.3	0.59	1.153	0.60
b.Manufacturing	23.1	10.38	26.790	14.35
c.Construction	5.6	2.51	10.427	5.60
3. Services	39.5	17.76	52.227	27.97
4. Total	222.5	100.00	186.705	100.00

Source: First two columns, Registrar General, Census of India 1981;

Last two columns Seventh Five Year Plan, 1985-90, Vol.II Chapter 5.

* Standard Person Year (SPY) of employment is defined as 8 hours work a day for 273 days in a year.

In order to get an idea of the structure of industries the best is to consider it in terms of employment in the private and public sectors and within the private sector between organized and unorganized sectors. Structure according to capital employed raises a number of difficulties including lack of data for the unorganized private sector which is very substantial and large. An enterprise or industrial unit is defined as belonging to organized sector if it employs 10 or more persons using power, or employs 20 or more persons without using power. Such an enterprise comes under the Factories Act. All enterprises in the public sector are of course in the organized sector. But a very large number in the private sector are in the unorganized sector.

With this background let us look at the relative position of the public and the private sectors' industrial employment within the organized sector. Remember there were 30 million worker in the industrial sector covering both organized and unorganized industries in 1981. In 1982, the closest year to this, the organized sector employed a little over 8 million workers, that is about 27 percent of the total. Its break-up between public and private sector is given in the following table:

Organized Sector Industrial Employment in 1982: All India

(in Lakh)

	Public Sector	Private Sector	Total
1.Mining and Manufacturing	24 (33)	48 (67)	72 (100)
2.Construction	11	1	12
3.Total	35 (42)	49 (58)	84 (100)

10 Lakh is equal to one million.
Source: Economic Survey, 1988-89.

Thus, public industries are substantial. But private sector's share is major, 58 percent of the organized industrial employment and 67 percent of mining and manufacturing, almost all of which is in manufacturing.

As regards unorganized industries which wholly belong to private sector and account for 73 percent of total industrial employment the picture is given in the following table. It has been drawn from the Economic Census of Non-Agricultural Establishments of 1980. It shows that out of 5.5 million enterprises in this sector over 4 million functioned as self-employed family

Number of Enterprises And Employment in the Unorganized Industries: All India

(in million)

	Own Account Household Enterprises		Establishments*		Total	
	No.	%total	No.	%total	No.	%total
1. Number of Enterprises	4.3	100	1.2	100	5.5	100
a. Rural	3.0	70	0.5	39	3.5	63
b. Urban	1.3	30	0.7	61	2.0	37
2. Number of Persons Employed	7.0	100	11.0	100	18.0	100
a. Rural	5.0	69	3.6	32	8.6	47
b. Urban	2.0	31	7.4	68	9.4	53
3. Employment Per Enterprise	1.74	--	9.24	--	3.37	--
a. Rural	1.73	--	7.71	--	2.53	--
b. Urban	1.76	--	10.21	--	4.79	--

* An Establishment is defined as a unit, which employs at least one hired worker on regular basis.

Source: Central Statistical Organization, Economic Census 1980.

units, and 70 percent of them were rural. The rural family units provided self-employment to 5 million out of 18 million employed in the unorganized sector. Per unit employment was less than two persons. As against this, establishments or units hiring labour were smaller in number (1.2 million), employed larger number (11 million), and over 60 percent of these were

located in urban areas. Per unit employment was more than 9 persons. It is these enterprises which comprise the small scale modern sector of industries.

This unorganized village and small scale industries (VSI) sector is very important not only from the point of view of employment, since it employs 73 percent of the total industrial labour. It is also important because, according to the information gathered by the Planning Commission (Seventh Plan, Vol.II, Chapter 4) it now accounts for about 50 percent of the value added in India's industrial sector. Since mid-1970s it has grown very fast. Between 1973-74 and 1984-85, its output at current prices grew at a rate of 37 percent annually. Within this sector Modern Small Scale Industries (MSSI) account for 77 percent of the total output and are largely urban, either producing ancillaries or final products. These statistics are not very firm, as the Commission itself admits. But their share in the industrial sector's total value added and their output growth since mid-1970s is not in doubt. The traditional industries of this sector, which include Khadi (hand spun), handloom, sericulture, handicrafts etc. have become export oriented. In a decade's time, 1973-74 to 1984-85, the share of their exports in value of output more than doubled, from 14 percent to 29 percent.

Studies (P. N. Dhar and H. F. Lydall, 1961; Bimal N. Jolan, 1978) show that except for the tiny, rural units, the industries in the unorganized, small scale sector are not at all labour-intensive compared to large scale organized sector. This is also supported by the change in their labour-intensity of output, which according to Seventh Plan figures, fell drastically. Between 1973-74 and 1984-85 labour employed per one lakh rupees of output fell from about 47 to 21 in the traditional industries and

from 5 to 2 in the modern small scale industries. This indicates that their technology is improving and so also their fast output growth is real. Their contribution to industrial employment, 73 percent of the total, should be seen not in the static measure of its capital intensity but in the dynamics of it fast growth. Compared to large scale industries the modern small scale sector (MSSI) is certainly more exploitative of labour as it is free from factory regulations and labour laws, while enjoying state support and protection from competition with large scale industries. Finally, it has been the training ground of thousands, if not millions, of entrepreneurs.

To sum up, India's industrial structure is extremely diverse, with a very wide base. At the one end you have very large public sector companies, larger than any in the private sector, largely producing basic and capital goods. At the other end there are millions of family-based self-employing units engaged in producing all sorts of consumption goods. In between there is a wide spectrum of private sector ranging from large scale enterprises run by modern companies and corporations to small scale industries employing less than 10 persons per enterprise. The unorganized private sector produces about half of the industrial value added in the country. To this if we add the value added by the organized private sector, we can see that the private sector has predominant share in India's industrial sector. Within the organized sector itself private sector accounts for 58 percent of total labour employed, and 67 percent of those employed in manufacturing. Although the importance and the core position of the public sector can not be denied, the notion that much of the industries in India are state-owned and that the Indian economy is a socialist economy is indeed a false notion.

3. Industrial Growth

At the base of 1951-52, the Industrial output in India increased over 5 times in the 30 years ending 1981-82. At the base of 1980-81, output further increased by 67 percent in the following 8 years ending 1987-88. Manufacturing which accounts for about four-fifth of the industrial output made a similar progress during this period of about four decades. Growth rate of industrial output has, however, been neither impressive, nor smooth, nor up to the targets set under the plans which varied between 7 to 8 percent a year, except from late 1950s to mid-1960s and again during the second half of 1980s. The pattern of industrial output growth is given in the following table. Notice that period 2 corresponds to India's basic,

Percent Annual Growth Rates

Period	Industrial Output	Manufacturing Output
1. 1951-52 to 1958-59	5.3	5.2
2. 1959-60 to 1965-66	8.5	8.4
3. 1966-67 to 1968-69	1.2	1.2
4. 1969-70 to 1973-74	4.5	4.1
5. 1974-75 to 1981-82	5.0	4.6
6. 1984-85 to 1987-88	8.5	8.8

Source: S. P. Gupta, Planning And Development in India: A Critique, Chapter 5, Allied Publishers, Delhi, 1989. For the last row, Economic Survey, 1989.

import substituting industrialization strategy's high phase. Period 3 corresponds to agricultural crisis and the plan holidays. The last period corresponds to onset of gradual import liberalization and deregulation of the industrial policy regime. If we set aside the short, third period as exceptional, it is clear that growth rate decelarated to half its level in the period from mid-1960s to mid-1970s from over 8 percent a year during the high phase of the strategy. From mid-1970s, growth rate picked up again to

5 percent a year. The latest data show that the industrial output growth rate has further accelarated to an average of 8.5 percent a year during 1984-85 to 1987-88. Thus India's growth rate of industrial production has come a full circle. Starting at 8.5 percent during the high phase of import substitution, it come down to 4 percent from mid-1960s to mid-1970s and then went up 8.5 percent during the second half of 1980s.

Considered in terms of value added or income, the pattern of growth was similar, as the figures in the following table show:

Percent Annual Growth Rates

Period	Value Added in Industry	Value Added in Manufacturing
1. 1955-56 to 1965-66	6.5	6.2
2. 1965-66 to 1975-76	3.3	3.3
3. 1975-76 to 1980-81	4.6	4.5
4. 1980-81 to 1983-84	6.2	5.8

Source: Isher J. Ahluwalia, 'Industrial Policy And Industrial Performance in India's in E. B. Lucas & Gustav F. Papanek, The Indian Economy: Recent Developments And Future Prospects, Westview Press, Boulder, 1988.

4. Explanation of the Growth Pattern

There has been a great deal of discussion and debate among economists in India and abroad about the causes of low industrial growth rate for about 15 years, from mid-1960s to the end of 1970s. A strong and widely held view is that it was due to import substitution strategy and restrictive industrial policy regime. And the accelaration of the growth rate during 1980s is due to liberalization policy. This view has a measure of truth but not the whole truth. Firstly, because the high import substitution did give over 8 percent industrial growth rate in period 2. Secondly, during the liberalization phase (period 5 and 6) contribution of exports to industrial

growth has made no significant progress. While the share of exports in the industrial growth rate prior to 1973-74 was 5 percent, it was no more than 6 percent thereafter. Throughout the period of the 4 decades industrial growth in India has depended on domestic demand and supply conditions. The liberalization measures have only helped in changing these conditions to suit acceleration in industrial growth. Import substitution strategy had achieved its goal by early 1970s. By that time India had acquired the capability to produce almost all of its requirement of modern capital goods. Thereafter, it was neither necessary nor desirable to continue with this strategy. Import-substitution's contribution to industrial growth rate had in fact become negative since early 1970s (S. P. Gupta, 1987).

Let us now take note of the factors behind low industrial growth from mid-1960s to the end of 1970s. These can be grouped into three sets: (1) Due to industrial policy regime, (2) Due to public sector investment and public sector management, (3) Due to technological backwardness. All of these factors, you will notice, have a bearing on supply and production efficiency.

(1) The industrial policy regime created a non-competitive sheltered market condition, which led to private sector inefficiency and high cost production. It gave rise to a peculiar phenomenon of 'sick industrial units', which the government was always ready to take over and put them in the public sector. Industrial licensing, apart from its procedural costs and delays, led to preemptive excess capacity creation in certain lines by private sector capitalists and setting up of less than optimum capacity plants in many lines.

(2) There was a relative neglect of public sector investment in infrastructure, particularly in energy and power and the transport

system like railways. Either the supply fell short of demand or the supply was irregular and unsure, largely due to inefficiency in management. Widespread inefficiency in public sector enterprises (incurring losses than making profit) has been attributed to many factors. Chief among them are: Excessive and day-to-day control by the Central Ministries giving little freedom of operation; Low level of capacity utilization due to poor management; Administered Prices for their products (cost+) with little reference to market demand; And overmanning for the sake of employment. It should also be born in mind that public sector enterprises were not supposed to maximize financial profit, but be governed by social profitability considerations.

(3) Since early 1970s, the industrial sector both public and private, fell into technological backwardness by world comparison. Neither in the public nor in the private sector worthwhile efforts were made to upgrade or change the technology, to acquire designing capacity and to produce and market new products. Private sector R&D effort was negligible. Public sector R&D expenditures yielded good results in areas like agriculture, atomic power and space-technology but not in industry. This happened in spite of the fact that India had built up a sizeable pool of technical and scientific manpower, her rank in the world being third now.

The net effect of all the factors noted above can be seen through the increase in the incremental capital-output ratio (ICOR) of the manufacturing sector:

Incremental Capital-Output Ratios (ICOR)
in the Indian Economy, 1951-84

Period	Agriculture	Manufacturing	All Sectors
1. 1951-52 to 1959-60	2.18	4.47	3.93
2. 1960-61 to 1969-70	3.23	6.49	5.93
3. 1970-71 to 1979-80	4.22	8.20	5.97
4. 1980-81 to 1983-84	3.17	14.36	5.16

Source: S. Chakravarty, Development Planning: The Indian Experience, Oxford, 1987.

The rise in ICOR in the economy can be due partly to high cost of infrastractural investment related to agriculture and other sectors of the economy, but not so in manufacturing. In manufacturing rise in ICOR occurred due to high cost of production.

5. Industrial Policy Reform: Liberalization

Beginning around mid-1970s India has undertaken to reform the industrial policy regime in a gradual manner. Since 1985 reforms have acquired speed. The general direction of the reforms is to move towards a less regulated, freer market functioning internally as well as externally. This is what has been called the liberalization policy or the policy of deregulation. The goals of the reform measures in broad terms are modernization, efficiency and growth of industrial production by increasing domestic competition as well as selective international competition through import liberalization. The liberalization measures are largely directed at the private sector of industries. Reform of the public sector industries is still to be undertaken, although several official committees have in the past examined the issues and made recommendations. In the meanwhile public sector plan investment during the 1980s has shifted relatively in favour of infrastructure like energy, power, transport and communication.

Infrastructure had operated as a bottleneck on industrial growth during 1970s.

The specific liberalization measures that have been undertaken are the following:

(1) Delicensing of a large number of industries.

(2) Dropping of a large number of companies from the list of the Monopolies And Restrictive Trade Practices Act by raising the capital asset limit from the earlier Rs. 200 million to Rs. one billion.

(3) Broad Banding of product groups in order that manufacturing enterprises could change their product-mix depending upon the market demand conditions and thus utilize installed capacity. This facility is available within the licensed capacity of an enterprise in the organized private sector, not in the small scale unorganized sector.

(4) Dereservation, permitting private sector companies to enter in the lines of production earlier reserved for the public sector, and dropping hundreds of items from the list reserved for the small scale industries in the private sector.

(5) The investment limit for small scale enterprises has been raised to Rs. 4 million for ancillaries and to Rs. 3.5 million for others.

(6) In industrial lines where economies of scale are important, minimum economic size or capacity fixation and allowing those enterprises below it to increase their capacity.

(7) Fiscal reforms, particularly introduction of Modified Value Added Tax (MODVAT) in place of earlier excise duty on output and reduction of marginal taxation rate on corporate profit.

On the side of external liberalization, the general move has been to shift from quantity control to tariff regulation. Access to import of raw materials, capital goods and technology have been made easier. Exchange rate policy has shifted from the earlier fixed rate to flexible exchange rate. Rupee, as a result, has been depreciating vis-a-vis the currencies of the industrialized countries. In order to encourage private foreign investment, foreign companies have been permitted to hold up to 40 percent of equity shares, the same as for Indian companies listed on the stock exchange. In the case of export oriented production and Export Processing Zones, a foreign company can hold up to 74 percent and 100 percent of equity shares respectively.

The liberalization policy, no doubt, has yielded result in accelarating the industrial growth rate, as you have seen. No change, however, is costless. The capital goods industries, for instance, have suffered from liberalization of imports. A large number of small scale enterprises may already have wound-up or winding up their business. But there is no turning back from the liberalization policy. Encouraged by the impressive industrial growth rate, specially since mid-1980s, there has developed a strong opinion among a circle of economists in India that planning ought to be abondoned and the public sector enterprises should be privatized. The aid-giving agencies like the World Bank and the International Monetary Fund have also been informally offering such advices. Such a view has further been strengthened from the happenings in the East European Countries, Soviet Union and China. But can India give up planning and privatize the public sector enterprises? If a country as developed and homogenous as Japan requires planning, although it is called 'administrative guidance', a country as diverse as India can not afford to give up planning. State's

role in the economic life will continue to be necessary as long as differences in the levels of development among various regions, castes, communities and income-classes have not narrowed down to politically tolerable limits. No democratically elected government can, for instance afford to leave the rural population (75 percent of total) high and dry, untill poverty has been removed and agrarian transition has been completed in the sense that a net transfer of labour has begun to flow in from agriculture to industry. Such a transition is still very remote, given the population growth perspective. The consumer demand base of the industrial growth of the 1980s is limited largely to urban consumers and the rich few. The industrial growth steam may not last long if the rural incomes do not grow to put up additional demand. Failure on this, on the part of the government policy, would reinforce the dualistic nature of the economy and society, threatening the democratic political system of the country. All this necessitates continuance of planning. With increasing role of the market-mechanism, it would be, however, necessary and desirable to confine planning at the Union level to strategic roles, and to decentralize it further to the state and local levels. Decentralization has been taking place over the years. But more of it is desirable. As for the idea of privatization of public sector enterprises, it appears utopian at the moment. In the mind of the general public it is associated with the Nehru legacy of an equitable and just society. Secondly, the millions of workers, who have enjoyed better working conditions compared to the workers in the private sector, are deadly against it. For these reasons such a course is politically infeasible.

Further Readings

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

2. E. B. Lucas and Gustav Papanek, The Indian Economy: Recent Developments and Future Prospects, Westview Press, Boulder, 1988.

3. S. Chakravarty, Development Planning: The Indian Experience, Oxford, 1987.

4. S. P. Gupta, Planning And Development in India: A Critique, Allied Publishers, Delhi, 1989. This book gives the statistical estimates of contribution of different sources of industrial growth in India.

   For recent statistics and liberalization measures look up to Planning Commission, Seventh Five Year Plan, 1985-90 and Ministry of Finance, Department of Economic Affairs, Economic Survey 1988-89 and for earlier years.

5. Shoji Ito (Ed.), Industrialization of India: High Cost Economy at Crossroad (in Japanese: Indo no Kogyo-Ka; Kiro ni tatu hai Kosuto Keizai), Institute of Developing Economies, Tokyo, 1988.

VII

Foreign Trade And Aid In Indian Development

1. Introduction

India has been in the world-trade since the beginning, but she has not been a trading nation. Even the liberalization policy has made no great difference to this scenario. Compared to 1960s and 1970s when the ratio of exports to GDP ranged between 4 to 5 percent, in the 1980s it has ranged between 5 to 6 percent. Imports to GDP ratio, expectedly, has gone up to 14-16 percent, compared to 9-12 percent prior to 1980s. Similarly, India has since the beginning depended on foreign aid, but the share of aid in India's total development effort has been marginal. The net aid inflow as a percent of GDP was about 4 percent, the highest during the Third Plan (1961-66). Since then it has remained below one percent, ranging between 0.7 to 0.8 percent. As a result public sector investment financed out of foreign aid has continuously been falling since the peak level of 28 percent in the Third Plan. By the end of the Sixth Plan (1980-85) it had come down to 8 percent of public sector investment.

This low level trade and aid profile has been the result of conscious policy choice of pursuing self-reliance goal through the 'inward-looking'import substitution strategy of development. The choice of self-reliance goal had several determinants initially. You have seen that an 'open door', free-trading system of the colonial time, instead of bringing about development in India, had functioned as a channel to drain out India's resources. Secondly, for a large size country like India, it was not at all in doubt that development could be based on her own resources and the domestic market. Thirdly, India's export potential were limited. Being an

exporter of agricultural raw materials, it was clear that, with increase in domestic demand, exportable surpluses could not be pushed very far. Apart from these purely economic considerations, there was the political apprehension that newly owned freedom of the country may not be secure or may have to be compromised if India did not become economically self-reliant. In the writings and speeches of Nehru at that period of time one comes across his constant refrain that political independence of the country is incomplete without economic independence.

Import substitution strategy did not, however, mean a 'chosed-door' policy to foreign trade and aid. No country trying to develop from scratch can afford to do it. To start even import-substitution, you have to have import of technology and machines from the advanced countries. But the strategy certainly meant an strictly regulated foreign-trade regime, specially the import control regime, along with the industrial policy regime, we have already seen. In an earlier lecture I have already told you how during its first, successful phase, India's development strategy had been appreciated among professional economists. The protection provided by the import control regime could as well be justified on 'infant-industry' argument.

When, however, the strategy got into serious difficulties with the food and foreign-exchange crises of the mid-1960s, the situation altogether altered. Drain on public resources in the aftermath of 1965 War, public outcry at unprecedented inflation due to food shortages and political uncertainty of leadership in the ruling party at the Centre had shaken the confidence of the government. It was in the midst of this situation that a close circle of neo-classical economists in India and the aid doners abroad strongly advised devaluation of rupee and a free-market oriented, liberal

foreign-trade regime as the way out of the crisis. Along with the advice was also tagged promise of a substantially increased aid. The government acted on the advice. Over night rupee was devalued by 57.5 percent in June 1966. Alongside trade regime was liberalized. Import controls were relaxed; tariff rates were cut down; subsidies and incentives on exports of a large number of items were removed. What was the immediate result? Export earnings declined, import bill went up further, government revenue from customs duty declined and above all promised quantum of aid did not materialize. The export earnings in 1967-68 (financial year starting April 1) declined by 8 percent and in the following year, 1968-69, could just recover to pre-devaluation level, being 4 percent above the level of 1964-65. The aid from the United States of America in fact declined, from $1.3 billion in 1965-66 to $1 billion in 1967-68. Apart from these adverse economic consequences, the government came under attack from the political left for having fallen into the 'imperialist trap'. Naturally, the government went back and restored the pre-devaluation controlled trade-regime. And it gave up the attempt 'to mobilize aid to do away with aid' after crossing over the hump. The optimism largely came from the remarkable results of the New Agricultural Strategy on the food front.

The upshot of this long story is that the experiment with the liberal trade-regime in the mid-1960s did not help the country. The regulated and restrictive trade-regime was, therefore, restored and maintained in place untill mid-1970s. Since then India has opted for a policy of gradual trade liberalization and flexible exchange rate. In my last lecture I pointed out to the specific reform measures in this direction. As it happens with every major policy change, liberalization has created its own balance of payments

and debt-burden problems, to which I shall come later. In the meanwhile let us look at the structures of imports and exports and the changes there of.

2. Structure of Imports: 1970-71 to 1987-88

The structure of imports is presented in the following table. It is based on 'principal imports', which account for about 90 percent of total imports in value terms. Food imports have become negligible since early 1970s. Raw materials and capital goods continue to dominate the import bill. Share of petroleum had shot up following the World Oil Crisis of 1973 and again the second oil-price hike of 1979. From 42 percent of the total (principal) imports in 1980-81, its share has fallen to 18 percent in 1987-88.

Structure of Imports

(Percentages)

	1970-71	1980-81	1984-85	1985-86	1987-88
Commodity Groups					
1. Food	14.8	3.0	4.0	4.3	NA
2. Raw Materials & Intermediate Manufacture	54.4	77.8	75.3	71.0	NA
a)Petroleum*	8.4	42.0	31.6	25.3	18.2
3. Capital Goods	24.6	15.2	18.5	21.7	28.0
4. Others	6.2	4.0	2.2	3.0	NA
5. Total	100.0	100.0	100.0	100.0	100.0
6. Total Value in Rs. Crores	1634.2	12549.2	17134.2	19657.7	22399.0

Source: Economic Survey 1988-89, Table 6·7, Principal Imports; NA means not available.
*Percent to total.

Capital goods' share in the imports had fallen during the 1970s, from about 25 percent in 1970-71 to 15 percent in 1980-81. Since then its share has almost doubled. The change in the structure of imports has come about due to combined effects of import substitution in food and petroleum oil and

import liberalization in capital goods and raw material. Domestic food production had reached self-sufficiency level by mid-1970s. The ratio of imports to domestic production in petroleum has sharply fallen from 30 percent in 1980-81 to about 9 percent in 1987-88. Domestic production of petroleum increased from 24 million tonnes in 1980-81 to about 45 million tonnes in 1987-88. Accordingly, its share in total petroleum consumption has gone up from about 78 percent in 1980-81 to 96 percent in 1987-88. It is these successes of import substitution in food and oil that have given confidence to the government to move on to import liberalization.

3. Structure of Exports

The structure of exports has been shifting in favour of manufactured goods. The share of manufactured goods had already come up to half of the principal exports by 1970-71. Since then the share has gradually increased further. Parallel to this the share of primary commodities, ores-minerals, agricultural and allied products such as tea, coffee, fish etc., have come down. Within this group, however, items like fish, rice, fruits and vegetables have gained importance. Within the manufactured goods, textiles and handicraft goods, specially gems and jewellery have made great progress during the 1980s. Chemicals too have gained in export share. But machinary and transport equipment's share seems to be falling.

India's exports in dollar terms have shown poor growth, specially during the trade liberalization phase of 1980s (see the table on current account balance). During 1970s, export growth was impressive. From the low base of 1970-71 exports multiplied over 3 times during the decade upto 1980-81. Since then average annual growth rate of exports in dollar values has

stayed between 4 to 5 percent a year. Unfortunately India's trade-liberalization phase has coincided with increasing protectionism and trade-restriction in the developed countries and the emergence of trading blocks

Structure of Exports: 1970-71 to 1986-87

(Percentages)

	1970-71	1980-81	1984-85	1985-86	1986-87
Commodity Groups					
1. Agriculture & Allied Products	37.7	30.6	25.5	27.7	27.5
a. Tea	10.0	6.3	6.5	5.7	4.6
b. Fish	2.0	3.2	3.2	3.8	4.3
2. Ores And Minerals (excluding coal)	10.7	6.2	5.4	7.2	5.8
3. Manufactured Goods	50.2	55.8	52.9	58.5	62.7
a. Textiles	9.5	13.9	14.6	16.5	17.5
b. Handicrafts	4.7	14.2	14.9	17.3	20.5
c. Chemicals	Neg.	3.3	4.1	4.6	4.7
d. Machinary & Transport Equipment	12.9	12.3	15.5	8.8	9.1
4. Others	7.4	7.4	16.2	6.6	4.0
5. Total	100.0	100.0	100.0	100.0	100.0
6. Total Value in Rs. Crores	1532.2	6710.7	11743.7	10894.6	12452.4

Source: Economic Survey 1989, Table 6·8 Principal Exports.
All Percentages are to the total.

in the world. To this also must be added India's poor competitiveness due to high-cost production.

4. Direction of Trade

Throughout, India's major trading partners have been the OECD group of countries, largely Western Europe and the U.S. The figures given in the table below clearly show that there is little change in this since 1970-71. More than 50 percent of India's trade-transactions are with the OECD countries. As single individual countries in this group, United States, Federal Republic of Germany, Japan and United Kingdom are relatively more

important. There does not seem to be any significant change in their relative position, except that during 1980s trade volume with the U.S. has declined in relative terms. Japan's position as India's trade partner appears to be slogging, although there is some improvement in the 1980s compared to the position in 1970-71.

Direction of Trade: 1970-71 to 1986-87

(Percentages)

	1970-71		1980-81		1984-85		1986-87	
	Export	Import	Export	Import	Export	Import	Export	Import
Country Groups								
1. OECD	50.0	63.0	46.6	45.7	45.0	48.7	56.2	64.1
a. U.S.A.	13.5	27.7	11.1	12.9	15.0	9.9	18.7	9.7
b. Japan	13.0	5.0	8.9	16.8	8.8	7.2	10.7	12.7
2. OPEC	6.4	7.7	11.1	27.8	8.0	19.4	6.2	9.7
3. Eastern Europe	21.0	13.5	22.1	10.3	19.0	12.6	19.0	7.7
4. Developing Countries	19.8	14.6	19.2	15.7	12.3	18.9	15.3	18.5
5. Others	2.8	1.2	1.0	0.5	15.7*	0.4	3.3	Neg.
6. Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
7. Total Value in Rs. Crores	1535	1634	6711	12549	11744	17134	12452	20200

Source: Economic Survey 1989, S.76 Table 6·9.
All percentages are to the total.
Figures in the last row are rounded.
* Due to swapping of Bombay High Crude Oil.

The next two equally important group of countries as India's trade partners are the East European Countries and the Developing Countries. East Europe accounts for about 30 percent of the trade volume on average and the Soviet Union's position in this is predominant. A notable feature of this trade is that India has been having regularly a trade surplus with this group, whereas she has regularly been having a trade deficit with the OECD group of countries. This has been partly due to barter trade between India and Eastern Europe, exchanging commodities for commodities. In today's world trading system, this appears primitive. But this has, nonetheless,

been beneficial to India. Moreover, even in multilateral trading system, trade balance has to be eventually settled through payments in commodities, specially for a developing country like India.

An equally important group, as I said, are the Developing Countries as India's trade partners. In fact the share of trade volume with this group including OPEC, which are largely comprised of West Asian, Persian Gulf countries, has marginally increased, while that of East European countries has declined during the 1980s. During the 1980s, India also have had trade deficit with the Developing Countries and also the OPEC. But given the share of OECD in India's trade volume, predominant part of India's trade deficit is accountable to the OECD group.

5. India's Balance of Payments

While discussing India's development strategy, I had pointed out to you that within few years of its start during the Second-Five Year Plan (1956-61) the strategy met with a foreign exchange crisis. Since then balance of payments deficit has been a constant feature of Indian development, as the figures in the following table show. Major cause for this has been the deficit on trade account, earnings from exports having been far too less than the import bill. With trade liberalization both have increased and also the trade deficit in absolute amount. In relative terms there is not much change, however, compared with the import substitution phase. If at all, the situation has worsened compared to early 1970s. This is indicated by the ratio of export earnings to imports in dollar values. This ratio increased from 0.6 in 1960-61 to 0.8 in 1970-71, and then decreased to 0.5 in 1980-81. Since then it has stayed around 0.6.

India's Balance of Payments, 1960-61 to 1986-87

(in million U.S. dollars)

Items	1960-61	1970-71	1980-81	1984-85	1986-87
1. Imports(c.i.f.)	2323	2435	15862	15713	17740
2. Exports(f.o.b.)	1325	1873	8316	10059	10420
3. Trade Balance (2 - 1)	- 998	- 562	- 7546	- 5654	- 7320
4. Net Invisible Earnings	174	- 49	5454	3237	2758
5. Current Account Balance (3+4)	- 824	- 611	- 1092	- 2417	- 4562
6. Total Surplus(+) or Deficit(-) including Capital Transactions	- 633	-1210	- 3338	- 1046	- 2965
Financed By:					
(1) Foreign Aid	539	991	2186	1643	2392
(2) Drawings From IMF	--	--	347*	--	--
(3) SDRS Allocation	--	101	152	--	--
(4) Decline in Reserves (+)/Increase(-)	124	118	653	- 779	573
Total: (1) to (4)	633	1210	3338	1046	2965

Source: Economic Survey 1989, S-66 Table 6·2

Notes: a)All Figures are rounded.

b)Total Surplus(+)/Deficit(-) is equal to Current Account Balance plus net Capital Transactions on government and private accounts. These cover receipts and payments of all sorts including amortization payments on loans (installments + interest).

* This is the disbursement out of a 5 billion SDR loan India contracted with IMF under the Extended Fund Facility. About 4 billion SDR was actually utilized during the Sixth Plan (1980-85).

With regard to invisible earnings, the World Oil Crisis of 1973-74,apart from having escalated the oil import bill, had also a silver lining for India. The construction boom that followed in the oil-producing, West Asian Countries attracted a rush of immigrant workers, skilled and semi-skilled from India and the neighbouring countries. Since mid-1970s remittances from these workers rose very sharply. In the table below net invisible earnings are largely from such remittances. During the 1980s

remittances have been declining, the amount in 1986-87 (2.76 billion dollars) being half of what it was in 1980-81. Import liberalization, slow growth in export earning and fall in invisible earnings have led to an increasing current account deficit. In the six years since 1980-81, current account deficit multiplied by over 4 times. It was in this context that India borrowed a large amount from the IMF, and has been seeking large doses of foreign aid. But foreign aid is not all grant. Since early 1970s, grant element in the foreign aid has been falling, loan element increasing. The grant element in the aid to India during the first half the 1980s was 39 percent only, compared to 69 percent during early 1970s (S. P. Gupta, 1989). All this means an increased debt-burden of the country. The Debt Service Ratio, that is the ratio of debt-repayment (installments + interest charges) to foreign exchange earnings (exports and invisibles) has, according to, preliminary reports, doubled from about 11 percent during the Sixth Plan to over 20 percent during the Seventh Plan (1985-90). And the current account deficit to GDP seems to have increased from 1.4 percent in the Sixth to over 2 percent in the Seventh Plan. Fortunately, unlike many Third World countries, India has so far been able to avoid falling into a debt-trap. But unless her exports increase at a faster rate, the danger signals are there. There are reports that exports in rupee values have grown at 30 percent a year during the period since 1986-87. This is a hopeful sign. Otherwise, the government may be forced to rethink about the import liberalization policy.

6. Pursuit of Self-Reliance

Right since the beginning, as you know, India's development strategy has pursued self-reliance of the national economy. The latest Seventh Five

Year Plan (1985-90), during which liberalization policy got a boost, is equally committed to self-reliance goal. What does self-reliance mean? The Indian plans have clearly spellt it out as reducing dependence on foreign aid untill net aid inflow becomes zero. In terms of foreign-trade it means that the economy develops to a situation, where its export earnings more than pay for its imports; in other words, the trade balance turns into a surplus from a deficit. This does not mean that each year there is a trade-surplus. That would be an ideal situation. In reality it means that the economy has acquired the capability to pay for its imports without recourse to foreign aid.

For any country, self-reliance is a laudable goal. No self-respecting country would like to perpetually depend on foreign-aid, waiting for some other country, no matter how developed and wealthy, to come up and foot its import bill. How has India performed on self-reliance goal? Untill mid-1970s India tried to restrain her import bill through the strategy of import substitution. Since then she has gradually moved on to import liberalization in the hope that it will help build a larger export capability through industrial modernization and efficiency. This of course does not mean that India has altogether given up import substitution. Only the focus of import substitution has shifted from earlier capital goods to food, fertilizers and energy, specially petroleum oil. Indeed, as I said earlier, successes of import substitution alone have given government the confidence to go in for import liberalization. The indicators of self-reliance of the Indian economy are given in the following table. You can see that all indicators of dependence were declining, showing an increasing self-reliance of the Indian economy. The impact of liberalization policy is also visible from the Sixth Plan figures and the projections of the current account deficit to

GDP ratio and the debt-service ratio during the Seventh Plan. The actual ratio of the current account deficit to GDP, and the Debt-Service

Indicators of Self-Reliance

(Percentages)

	Current Account Deficit to GDP	Gross Aid to GDP	Net Aid to GDP	Aid Share in Public Sector Investment	Debt-Service Ratio**
1. Third Plan (1961-66)	- 1.97	4.52	3.66	28.2	--
2. Fourth Plan (1969-74)	- 0.04	1.69	0.72	12.9	15.7
3. Fifth Plan (1974-79)	- 0.75	1.38	0.82	12.5	8.5
4. Sixth Plan (1980-85)	- 1.40	1.24	0.65	7.9	10.8
5. Seventh Plan (1985-90)	- 1.60	--	--	10.0	17.6

Source: Figures up to Sixth Plan form S. P. Gupta, Planning And Development in India: A Critique, Chapter3, Section V, pp. 270-287. Figures for Seventh Plan are projections given in the Seventh Plan Vol. I.

** Debt-Service Ratio is the ratio of service payments to total foreign exchange earnings.

*** Transactions with IMF are excluded from aid figures.

Ratio, as I said earlier, are expected to turn out much larger than the Seventh Plan projections. The upshot is that liberalization has reversed the earlier trend of increasing self-reliance and has led to increased dependence. This may be considered as a short or medium term transitional cost of policy change, provided the new policy establishes India's competitiveness in the world exports and the exports rise fast. It is too early perhaps to make a judgement.

7. Concluding Remarks

India's pursuit of self-reliance through the import substitution strategy has had its large quota of critics from mid-1960s onward. When the

governments accept text-book advices from economists, they do not necessarily become wiser. You have seen the dismal failure of the liberalization experiment government of India tried in mid-1960s on such advices. But the dogma persists, and the critics become more critical. For instance India's quest of self-reliance has been caricatured, rather parodied as a quest for 'self-sufficiency', attempting to do every thing, instead of doing what Indians are good at doing (Michael Lipton & John Firn, 1975). This is of course absurd. Because self-sufficiency is by definition excluded when two parties come to trade. And India has been in world trade throughout her known history. Behind the parody in fact is the well known comparative cost advantage theory. If after the War Japan had followed this theory, she would not be the top economic power in the world today. And in the same vein, many African nations would be hunting animals and gathering food in the forest. Because their people were best at doing it. Comparative cost advantage among nations is like the Hindu caste-structure. Do what your father did, your father's father did and so on. But development occurs by attempting to do new things, by learning and doing. India's import substitution strategy should be seen as an attempt in this direction rather than a quest for self-sufficiency in every thing. The champions of free-trade, however, see it differently. In a recent book on Indian economy, which I am told has been translated to service the Japanese market, you find almost on every page the phrase 'import substitution strategy' as the root cause of India's all problems (Balasubramanyam, 1984). In the concluding chapter the author candidly admits, the 'thesis' of the book is free-trade and free-market mechanism as the only viable solution of India's problems. Everybody is free to hold his opinion. But reality does not conform to everybody's opinion, neither to yours nor to mine. Nations which were

champions of free-trade yesterday have turned protectionist today. And those that were protectionist yesterday are seeking freer trade today. The tide may turn again in future. As one illustration of such a course let me quote Dr. T. Ouchi, Professor Emeritus of Tokyo University. According to him, 'The U.S. was originally a country with a tradition of having adamantly adopted trade protectionism since the later half of the 19th Century, and it was only after she established absolute supremacy in the world trade following the end of the World War II that she began to act as if she were the guardian deity of free trade. It can be said that the U.S. now has reverted completely to her true character' (Ouchi, 1989). This statement is in the context of present trade friction between the U.S. and Japan and the mounting pressure on Japan, including, what Professor Ouchi calls 'academic external pressure', to open her markets, which she is alleged to have kept closed. My concern is not at all as to who is at blame, but to show that protectionism that is import-substitution and import liberalization are not mutually exclusive instruments of trade-policy even among the most developed countries of the world. Their relative importance depends upon the strength of each economy. Through import substitution Indian economy has acquired an strength which has given the government confidence to go on an import liberalization course.

Further Readings And References

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VIII

Living Conditions of the People

1. General Considerations

The per capita income of a country in U.S. dollars is widely used to indicate its level of development in comparison to other countries. But when it comes to comparison of levels of living among different countries, per capita income in U.S. dollars fails to be a good guide. Why? Today, Japan's per capita income in dollars is higher than that of the United States. But I have heard and read opinion polls that an average Japanese citizen does not think he is rich. Prices are so high, he can't buy a house easily; he spends a large share of income on children's education; and so many other reasons. Take another example. In the department store in my neighbourhood I buy Japanese rice for about ¥600 per kg. And there are shops where I can buy the so called 'Indo rice' for ¥1100 per kg., leaving out the consumption tax of 3 percent. For the same amounts, at the current exchange rate between the yen and the rupee, I can buy in Delhi's open market between 6 to 10kg. of rice. In the Indian countryside people can buy still larger quantity of rice. These examples show that dollar income per capita does not indicate the living standards of people in different countries. Apart from the exchange rate fluctuations, the purchasing power of different currencies in their respective countries are different. One way out of it is to work out purchasing power parity among currencies for a common set of commodities, given their prices in respective countries. But the consumption basket differs among countries, not only in commodities but also in services, many of which could be unpriced. For these reasons many

people prefer to use more basic indicators of living standards such as life-expectancy, death rate, infant mortality, literacy rate etc.

Private consumption made available by one's income is only one, though major component of one's living standard. The other component comes from common facilities and services provided by the society or the state, such as facilities for education, health, sanitation etc. These are what is called social consumption (public goods) as distinct from private consumption (private goods). An still wider concept of living conditions of a people may include a pollution-free natural environment.

For a large developing country like India, aggregate per capita income or consumption does not say much about living conditions of the various groups and sections. There are rich and poor; rural and urban people; people living in different regions, which are not at the same level of development. Then there are those who derive their income from the organized sector of the economy including government services. Their income is much better than those who depend upon the unorganized sector, including agriculture. These sections and groups, no doubt, cut across each other to some extent, and there are also income transfers, for instance by the rural migrants working in the urban areas. Nonetheless, income differences among these sections and groups do, by and large, indicate differences in their private consumption levels. Another aspect of this is the issue of income-inequality which I have already discussed (Chapter III).

What about social consumption? Development of social services, such as facilities for health and education, has been a part of public sector programmes since the inception of planning in India. But a target and time-bound 'Minimum Needs Programme' was initiated only during the Fifth Plan (1974-79). The basic minimum needs ought to cover nutritional minimum of

food, clothing and housing as well, apart the social consumption facilities. Since these are covered under the separate anti-poverty programme, addressed to increasing the income of the poor, the 'Minimum Needs Programme' (MNP) under the plans covers largely public facilities. Items included in the programme are: Elementary Education (6-14 years age-group); Informal Adult Education; Rural Health Facilities, Drinking Water Supply, Rural Road Linkage, Rural Electrification and Urban Slum Improvement. Besides these, the MNP has two target-group focused activities: (1) Housing for landless labourers in the rural areas and (2) Nutrition in the form of mid-day meal for school children, and nutritional support for lactating / pregnant mothers belonging to the bottom group of poor families. Since the Fifth Plan the population covered under the MNP has considerably increased, affecting thereby the living conditions of the people.

In the background of above considerations let us look at the indicators of living conditions first at the all India macro level and then by sections of the people mentioned earlier. Since social consumption facilities can not be divided among sections and groups, these are considered at the macro level.

2. Levels of Living Indicators For India

During the first three decades of India's development, income per capita grew at less than 2 percent annual compound growth rate. During the 1980s it has been growing between 2 to 3 percent annually. In real terms, at 1970-71 prices, it increased from Rs.466 in 1950-51 to Rs.693 in 1980-81, an increase of about 50 percent in 30 years. At 1980-81 prices it increased from Rs.1627 in 1980-81 to Rs.1863 in 1985-86, an increase of about 15 percent in 5 years. Thus, there has been slow but gradual improvement in

the living standards of the Indian people. This is also indicated by the increase in the per capita availability of certain items of consumption, which are of basic nature. The figures in the Annexure Table show that foodgrains availability per capita per day increased from 395gms. in 1950-51 to 465gms. in 1985-86. Between 1960-61 and 1985-86 per capita availability of edible oil and sugar doubled. Cloth availability increased, so also tea availability per capita. Domestic use of electricity multiplied from 3.4 KWH per capita in 1960-61 to 23 KWH in 1985-86. These are not unimportant changes, if you keep in mind that this has happened while India's population since 1951 has been growing at 2.2 percent annually.

These changes in the living conditions of the Indian people are also reflected in the basic indices of living standards, namely life expectancy and infant mortality. The Life Expectancy at birth for an Indian increased from 32 years in 1950-51 to 57 years in 1985-86. Similarly, the infant mortality rate per one thousand of children born has come down from 146 in 1950-51 to 106 in 1985-86. Although an improvement has occurred, infant mortality rate is still very high. It is also a factor which induces a higher fertility and population growth.

There is no doubt that social consumption facilities have multiplied in India several fold since independence. At the time of independence literacy rate, that is persons who could read and write to the total population (including 0-4 age group) was less than 17 percent and as low as 8 percent for females. At the time of last census in 1981, literacy rate had gone up to 36 percent, 47 percent for males and 25 percent for females. At the next census in 1991, one should expect literacy rate to have come up to about 50 percent. There is provision for free elementary education for all children up to the age of 14 years. Almost every village in India now has a primary

school. Primary school enrolement rate (6-11 years age) had gone up from 43 percent in 1950-51 to 92 percent in 1984-85, 100 percent for boys and 69 percent for girls. Similarly, Middle School enrolment rate (11-14 years age) went up from a mere 13 percent in 1950-51 to 53 percent in 1984-85, 67 percent for boys and 38 percent for girls. During the same period, number of students enrolled in High and inermediate (pre-university) schools increased from 1.5 million to about 17 million. Similarly, the numbers enrolled in the universities increased from 200 thousand to 3.4 million, while the number of universities itself rapidly increased from 28 in 1950-51 to 135 in 1984-85. Note that these are public universities, as there are no private universities in India.

In the sphere of health, apart from eradication and control of epidemic and communicable diseases like small-pox, cholera and malaria, there has been a fast expansion in medical services including medical education. The number of Registered Medical Practitioners increased from 62 thousand in 1950-51 to 319 thousand in 1984-85. Accordingly, per 10,000 of population their number increased from less than 2 to more than 4 during this period. Earlier medical and health facilities were concentrated in the urban areas. Since the Fifth Plan (1974-79) health infrastructure under the Minimum Needs Programme has been growing to cover the rural population. There are three levels of health facilities under this programme: Base level Health Sub-Centre covering between 3000 to 5000 populations; Primary Health Centre covering 20 to 30 thousand population and, Community Health Centre covering 100,000 population. By this year that is the last year of the Seventh Plan (1985-90) the whole rural population is expected to be covered by the first two levels of health centres. And the Community Health Centres are expected to cover about 41 percent of the rural population.

In India out of over 600 thousand villages, 231 thousand have been identified as facing drinking water problem, either because of their unsuitable location such as in the desert or in the high hills, or because the available water is not suitable for drinking. By the end of the Sixth Plan 86 thousand villages had been covered with suitable drinking water supply. Along with rural health infrastruction there has also been progressive coverage of villages by road linkage and electrification. By end of the Sixth Plan 44 percent of villages had been electrified and Seventh Plan target was to increase it to 60 percent. Similarly, virtually all village with a population of 1500 or more should be road-linked by 1990.

I have quoted statistics at length to show that the facilities for social consumption have grown very much faster than the growth in private consumption as indicated by per capita income growth in India. There is, thus, no doubt that these facilities have contributed in a great measure to the improvement in the living conditions of the people. In reading the statistics, however, a caution is needed. The quality of services are far from satisfactory. You may come across a village primary school, where the teacher may be absent, or there may be only one in place of required two. Similarly, at the primary health centre doctor may be there but he may have little or no medicine to offer. A village may be electrified but there may no electricity. These are problems of maintenance and management of the services, where the desired level of achievement is still to come.

3. Sectional, Groupwise Indicators of Living Conditions

Let us now look at the private consumption or income indicating the differences in the levels of living of different sections and groups of the Indian population. The biggest black spot on Indian development is the

persistence of poverty. Poverty of a person or family simply means inability to acquire nutritionally required amount of food. Poverty as I pointed out (Chapter III) has been declining as percentage of population as well as in numbers. Today the number of poor may be anywhere around 200 million. Why does poverty persists? Is it because of lack of sufficient food availability in the country? Not at all. It is because of bad income distribution, because there are rich people at the other end of the scale.

Available consumer expenditure data do not give a true picture of expenditure's distribution. The reason is that while the poor have a tendency to overstate their consumption, the rich under report it. Anyway what is revealed through the data is that in 1983-84 (NSS Report No.319) bottom 30 percent of the population lived on about 15 percent of the total consumer expenditure. And the share of the top 5 percent was about 20 percent(?). As between the rural and urban population, the urban per capita monthly consumer expenditure, excluding expenditure on rent and taxes, was Rs. 164 as against Rs.112 per capita for the rural population, a difference of about 46 percent. It should be noted, however, that rural consumer prices, specially of food, are lower than the urban. The real difference, therefore, would be lower.

There is another way to look at the differences in the living standards of the Indian people, according to which sector of economic activity they largely depend upon for their living. At the one end you have the organized sector covering large scale industries and the government services. Here unionization of labour has created a sort of 'labour aristocracy'. At the other end the vast majority of the people is dependent on agriculture. In between there is the unorganized, non-agricultural (informal) sector covering small scale, cottage industries, retail-trade and petty services. If we

assume that there is no inter-sectoral transfer of incomes; that the population dependent for its living in each sector is proportional to the sector's share in the total labour force; and that the workers in the rural areas have no subsidiary occupations, such that an agricultural worker, for example, engages in no other work, then the per capita Net Domestic Product sectorwise works out as given in the table below. Note that these

Per Capita NDP In Current Prices* (Rs.)

Sectors	1970-71	1980-81	As Ratio of Agriculture 1970-71	1980-81
1. Agriculture	427(69.70)	860(66.50)	1.0	1.0
2. Unorganized, Non-Agriculture	765(20.62)	1937(23.22)	1.8	2.3
3. Organized	1777(9.68)	4931(10.28)	4.2	5.7

Source: V. M. Dandekar, 'Agriculture, Employment and Poverty' in Robert Lucas and Gustav Papanek (Ed.), The Indian Economy, Westview Press, Boulder, 1988.

* The figures in parantheses are percentages of each sector's labour in the total labour force.

assumptions are rather strong, not very realistic. Nonetheless, the figures in the table, by and large, are indicative of the differences in the living standards of the people dependent upon various sectors of the economy. In terms of per capita income generated within each sector every group increased its living standards. But those dependent on the organized sector, the 10 percent of the total population, were about 6 times as well-off as the people dependent on agriculture in 1980-81. Even the people dependent on unorganized, non-agricultural activities were twice as well-off as those dependent on agriculture.

Poverty in India, as you have seen, is largely a rural phenomenon, and agriculture is the predominant source of rural people's income. Could not rural poverty be eliminated by transfering income from the non-agriculture,

specially the organized sector, to agriculture. Dandekar, who has estimated the figures given in the above table, has also estimated that transfering 3.5 percent of the non-agricultural sector's income would eliminate rural poverty altogether. Even this small percentage of income transfer does not seem to be feasible. There is already an outcry against the government subsidy given to agriculture. On the other hand, government's tax-efforts have failed to mop up high incomes. Alongside there has arisen the phenomenon of unaccounted, 'black-money' income specially in the unorganized sector. Indeed, it has been argued by some economists that this pheonomenon is, in no small measure, due to government's very high marginal income tax rate. So, during the 1980s, the government has been reducing the marginal income tax rates and offering incentives to black-money holders to make it white.

4. Indicators of Regional Differences In The Levels of Living

Given the differences in the resource endowments of different regions, development strategies and policies give rise to uneven growth of incomes of different regions. You have seen (Chapter V) how the New Agricultural strategy in its initial phase benefitted only a few regions in North-West India. Late comers may benefit later. But the gap created may take long time to close. Levels of living in different states ofIndia, therefore are not the same.

The differences can be indicated by refering to the per capita state Domestic Product and incidence of rural poverty in different states. The state Domestic Product (SDP) is a measure of gross income generated within the area of a state. It does not give the idea of the income received by the people domiciled in the state, as it leaves out inter-state income

transfers. This is its weakness as an indicator of living levels. From another angle SDP is a good indicator of an state's infrastructural facilities, including facilities for social consumption, such as health and education, road-network, rural electrification etc. States with higher per capita SDP have higher levels of infrastructural development.

In the table below I present the per capita SDP, per capita rural monthly consumer expenditure and the percentage of rural poor for the top

State Domestic Product And Rural Poverty in Selected States of India

	SDP per Capita at Current Prices 1980-81 (Rs.)	Per Capita Monthly Consumer Expenditure 1983-84 (Rs.)	Incidence of Rural Poverty 1983-84 (Percentage)
States			
Top Group			
1. Punjab	2842	171	10.9
2. Haryana	2447	152	15.2
3. Maharashtra	2329	110	41.5
4. Gujrat	2150	123	27.6
Bottom Group			
5. Bihar	958	94	51.4
6. Uttar Pradesh	1212	104	46.5
7. Madhya Pradesh	1237	101	50.3
8. Orissa	1286	99	44.8

Source: For SDP, Monthly Abstract of Statistics, April 1985, C.S.O. New Delhi; Figures in column 2 and 3 from S.P. Gupta, Planning And Development in India: A Critique, pp.201-207, Allied Publishers, Delhi 1989.

and bottom group of major states to indicate the range in the regional levels of living. It is clear that the states with higher per capita SDP are much better-off, as the incidence of rural poverty there is also lower. The case of Maharasktra is exceptional. Its position gets distorted because of the income generated in the Bombay metropolis. The lowest income state, Bihar has as high as 51 percent of its rural population as poor. Punjab, whose per capita SDP is 3 times as high as that of Bihar, has only 11 percent of its rural population as poor. The per capita rural monthly consumer

expenditure also shows a similar pattern with incidence of poverty. Note that top group of states are in the North-West India and the bottom group in the Central-East region. Some of the states in the latter region like Uttar Pradesh, Madhya Pradesh and Bihar, are the largest population states in the country. This region, therefore, account for about two-third of India's rural poor. In brief, as indicated by per capita SDP and incidence of rural poverty among states, the level of living in the Central-East region is lowest and highest in the North-West region. The Southern states fall in between.

5. Summary

To conclude, there has been a gradual improvement in the living conditions of the Indian people since independence. A modest growth in per capita income has been responsible for growth in private consumption. Facilities for social consumption have grown very rapidly, specially since mid-1970s. While all sections and groups have improved their living conditions in the course of the last four decades, there are wide differences in their levels of living. There is a rich minority at the top in the true sense of the word. It engages in 'conspicuous consumption' and what in India is called 'Five-star Hotel Culture'. At the bottom there are vast number of poor people largely in the rural areas who do not have income enough to procure, inter alia, nutritionally required amount of food. Those who derive income from the organized sector of the economy are about 6 times better-off than those who depend upon agriculture, the majority of the Indian people, indeed. Then there are levels of living differences between the rural and the urban people and among the people living in different regions of the country.

Annexure Table

Indicators of Living Conditions: All India

Years	1950-51	1960-61	1980-81	1984-85	1985-86
Indicators					
A. Per Capita Income					
1) Rupees at Current Prices	246	306	1557	--	2734
2) Rupees at 1970-71 Prices	466	559	693 (1627)*	-- --	-- (1863)*
B. Per Capita Net Availability of Some basic Items					
1) Foodgrains (gms/day)	395	469	454	--	465$_P$
2) Edible Oil(kg./year)	--	3.2	5.0	--	6.3$_P$
3) Sugar (kg./year)	--	5.0	7.2	--	11.0$_P$
4) Cloth (meter/year)	--	13.8	14.7	--	14.8
Cotton	--	--	11.0	--	10.8
Synthetic	--	--	3.7	--	4.0
5) Tea (gms/year)	--	287	487	--	426
6) Domestic Electricity Use (KWH)	--	3.4	13.5	--	23.0
C. Health Indicators					
1) Life Expectancy(years)	32	--	52	--	57
2) Infant Mortality Rate (Per 1000)	146	--	110	--	106
3) Registered Medical Practitioners:					
a) Total in Thousand	62	--	269	--	319
b) Per 10,000 of Population	1.7	--	3.9	--	4.1
4) Hospital Beds Per 10,000 of Population	3	--	8	--	9
Rural Health Infrastructure					
5) Number of Health Sub-Centres	--	--	48000	83000^P	--
6) Number of Primary Health Centres	--	--	7399	11101^P	--
7) Number of Community Health Centres	--	--	249	649^P	--
8) Drinking Water Supply					
a) Number of Problem Villages	--	--	--	231000	--
b) Number of Villages Coverd with Supply	--	--	--	86000	--
D. Literacy And Education					
1) Literacy Rate**(Percent to Total Population)					
a) Total	17	28	36	--	--
b) Males	--	34	47	--	--
c) Females	--	14	25	--	--

2) School Enrolment Rate (Percents to Eligible Age-Group Population)					
a) Primary (6-11 years)					
1) Total	43	62	89	92	--
2) Boys	--	--	--	117	--
3) Girls	--	--	--	69	--
b) Middle (11-14 years)	13	23	40	53	--
1) Boys	--	--	--	67	--
2) Girls	--	--	--	38	--
3) Enrolment in High/ Intermediate Schools (in millions)	1.5	3.5	11.3	16.8	--
4) University Enrolment (in millions)	0.2	6.6	2.8	3.4	--
Educational Institutions					
5) Primary Schools (in thousand)	210	330	486	550	--
6) Middle Schools (in thousand)	13.6	49.7	116.4	140.0	--
7) High/Intermediate Schools (in thousand)	7.3	17.3	51.6	60.6	--
8) Number of Universities	28	44	123	135	--
9) Number of Colleges					
a) General	548	1161	3393	3500	--
b) Professional	147	381	1382	1500	--
E. Others					
1) Rural Road Linkage					
a) Number of Villages to be Linked with Populations more than 1000	--	--	--	39149	--
b) Number of Such Villages Linked	--	--	--	18000	--
2) Percentage of Villages Electrified	--	--	--	44	--
3) Housing For Landless Rural Poor Families					
a) Total Number Requiring House-Site(million)	--	--	--	13.79	--
b) Number Provided with House-Site(million)	--	--	--	13.07	--
c) Number Requiring Housing Construction Assistance (million)	--	--	--	12.21	--

Notes: * Estimates based on New Series of National Income Accounts started 1980-81. Per capita income figures are based on Net National Product.
P stands for provisional estimate subject to revision.
** Literacy Rate based on total population including infants in the age-group 0-4 years.

Source: (1)Government of India, Seventh Five Year Plan (1985-90) Vol. I & II, Planning Commission New Delhi.
(2)Government of India, Economic Survey 1988-89, Department of Economic Affairs, Ministry of Finance, New Delhi.