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DYNAMICS OF SECTORAL GROWTH AND TERMS OF TRADE IN INDIA

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The paper analyses the growth patterns of different sectors of the economy, such as agriculture, the industries, and the services, and their sub-sectors. It examines the inter-sectoral and inter-temporal growth differentials. The analysis of inter-sectoral terms of trade provides a separate treatment for the service sector. Section I presents a bird's eye-view of the growth and structural changes while Section II provides an in-depth and micro analysis of the growth patterns of agriculture and industrial sectors. Section III analyses the inter-sectoral terms of trade. In view of the changes in the policy regime, the sectoral growth performance during the 1990s is treated separately in Section IV. The last Section sums up the conclusions emanating from the study.

The growth performance of Indian economy is characterised by the inter-sectoral and inter-temporal growth differentials. In the agriculture sector, the growth rates of production of most of the crops displayed general declines in the post-Green revolution period. Similarly the industrial sector, after an improvement engendered by the large public sector investment in the Second Plan, witnessed stagnation in the mid-sixties and seventies, followed by the fairly good performance in the 1980s. The small scale sub-sector of industry, witnessed increasing incidence of sickness. However, the service sector performed in a relatively more stable manner. Moreover, the inter-sectoral terms of trade also tended to tilt in favour of the service *vis-a-vis* the agriculture and industrial sectors. The present study is an attempt to analyse the growth pattern of different sectors and sub-sectors of the economy. The study also extends the analysis of inter-sectoral terms of trade to provide a separate treatment for the service sector.

The scheme of the study is as follows. Section-I which provides an overview of growth and structural changes, is followed by Section-II which provides an in-depth and micro analysis of the growth pattern of agriculture and industrial sectors. Section-III analyses the inter-sectoral terms of trade. In view of the change in policy regime, an analysis of the sectoral growth performance during the 1990s is given a separate treatment in Section-IV. Section-V sums up the conclusions emanating from the study. The data used in the study have been taken from various issues of the Central Statistical Organisation (CSO) publications, viz., *National Accounts Statistics (NAS)* and *Annual Survey of Industries (ASI)*, the Reserve Bank of India (RBI) Publications, viz., *Report on Currency and Finance* and *RBI Bulletin*, the Government of India publications, viz., *Economic Survey* and Five Year Plan documents, and the Tata Services, Limited, publication, viz., *Statistical Outline of India*.

I-GROWTH AND STRUCTURAL CHANGES: AN OVERVIEW

Our analysis of growth and structural changes in Indian economy is based on the data culled out from various issues of the *National Accounts Statistics* [CSO].

I.1 Growth and Structural Changes During Planning Period

As a natural corollary of the process of economic growth in India, the sectoral shares of industry and service sectors in the total gross domestic product (GDP) have shown increases, while the share of agricultural sector displayed a steady decline during the planning period. The share of industry increased from 13.4 per cent in the First Plan to 24.0 per cent in the Seventh Plan and that of service sector increased from 31.7 per cent to 43.2 per cent during the same period. On the contrary, the share of agriculture declined from 49.0 per cent in the First Plan to 30.3 per cent in the Seventh Plan (Table 1). In the service sector, the share of trade, hotels and restaurants rose by 4.2 percentage points from 8.6 per cent in the First Plan to 12.8 per cent in the Seventh Plan, while the sectoral shares of transport, storage and communication, and public administration and defence displayed more than twofold increase to 5.3 per cent and 5.5 per cent, respectively, over

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the period. The share of banking and insurance showed a still higher increase of more than three-fold from 1.3 per cent in the First Plan to 4.3 per cent in the Seventh Plan. An analysis in terms of the sectoral composition and pattern of NDP, also revealed, more or less, the similar scenario (Table 2).

An increase in the share of a particular sector is associated with its growth performance. The rate of growth of gross value added (GDP) originating from agriculture improved from 3.2 per cent in the First Plan to 3.6 per cent in the Second Plan, despite the change in emphasis from agriculture to industry over the Plan and the failure of monsoons during 1957-58 and 1959-60 (Table 3). Subsequently, despite the unabated plan emphasis on agriculture, the growth rate of agriculture declined to an abysmal low of (-) 0.75 per cent in the Third Plan. The second consecutive drought of 1966-67 resulted in negative growth in agriculture, but the exceptionally good performance with an all time high agriculture growth rate of 17.1 per cent in 1967-68 yielded an overall average growth 4.8 per cent during the Three Annual Plan period. Thereafter, the growth of GDP originating from agriculture which declined to 2.96 per cent in the Fourth Plan, improved to 3.97 per cent in the Fifth Plan. In the Annual Plan 1979-80, the severe drought situation dipped the growth of agriculture to the trough of (-) 13.4 per cent. The subsequent record performance of agriculture with its growth average at 6.2 per cent in the Sixth Plan was dampened again by the drought conditions in 1986 and 1987 in the Seventh Plan when the growth of agriculture receded to an average of 3.6 per cent. Even such growth average was due to an outlier year 1988-89 in which the growth of agriculture was as high as 16.3 per cent. Such sudden jump in the growth rate in 1988-89 was partly due to the lower base figure of 1987-88 when the growth of agriculture was only 0.7 per cent. In the other remaining years of the Seventh Plan, the growth of agriculture was low at 0.31 per cent in 1985-86, (-) 1.7 per cent in 1986-87 and 2.3 per cent in 1989-90.

An analysis of the gross value added (GDP) originating from industrial sector indicates that the growth rate of industry rose from 5.8 per cent in the First Plan to 6.5 per cent in the Second Plan, reflecting the policy emphasis laid on the development of heavy and basic industries in the Second Plan. The growth rate of industry rose further to 6.9 per cent in the Third Plan, followed by the substantial decline to 2.7 per cent in the Three Annual Plans. In the subsequent Plans, the growth rate of industry recorded rise to 4.8 per cent in the Fourth Plan, 6.6 per cent in the Fifth Plan and after remaining virtually steady at 6.5 per cent in the Sixth Plan, it rose further to 7.1 per cent in the Seventh Plan. The only exception to such increases in the growth rate of industry was the Annual Plan of 1979-80 in which the rate of growth dipped to (-) 2.6 per cent. In the industrial sector, the constituent sub-sectors like manufacturing, mining and quarrying and electricity, gas and water supply exhibited the varying growth pattern during the planning period (Table 3).

The rate of growth of service sector accelerated from 4.0 per cent in the First Plan to 4.8 per cent in the Second Plan and then to 5.3 per cent in the Third Plan (Table 3). Thereafter, such growth rate declined to 4.1 per cent in the Three Annual Plan period and then to 3.4 per cent in the Fourth Plan. Subsequently, in the Fifth, Sixth and Seventh Plans, the growth rates of service sector were impressive at 5.5 per cent, 5.4 per cent and 6.7 per cent, respectively. In the service sector, the GDP originating from banking and insurance sub-sector recorded the highest rate of growth especially after the nationalisation of banks in July 1969. In descending order of growth performance during the Seventh Plan, the other sub-sectors can be ranked as public administration and defence (8.2 per cent), transport, storage and communication (7.8 per cent), trade, hotels and restaurants (7.0 per cent), other services 4.3 per cent) and construction (3.8 per cent) (Table 3). An analysis of the sectoral growth in terms of real NDP revealed largely the similar trends and pattern (Table 4).

1.2 Organised and Unorganised Counterparts of Sectoral Output

The data regarding net output originating from the organised and unorganised counterparts of different sectors were available for a short period and at *current prices*. The NDP deflators for such organised and unorganised bifurcation were also not available and, therefore, we could not work out the real NDP figures and the corresponding growth rates. It seems very much unreasonable to report even the sectoral composition of NDP at current prices, as such figures will be inclusive of the effect of inflation and hence may mask the true picture. However, in the absence of any other data, we have reported the sectoral composition of NDP (at current prices) just for the purpose of broad and rough comparison. Thus, the analysis presented here should be interpreted, keeping in view that such figures are inclusive of the inflation effect.

The sectors like mining and quarrying, manufacturing, transport, storage and communication and banking and insurance were largely organised in nature (Table 5). In the total NDP originating from mining and quarrying and banking and insurance, the organised segment shared a predominant proportion of 90.4 per cent and 98.8 per cent, respectively, during 1980-90. The organised component also constituted a relatively larger share in the NDP originating from manufacturing (58.2 per cent) during the same period. The electricity, gas and water supply and the public administration and defence were completely organised in character. The sectors in which an overwhelming proportion of their total NDP was contributed by their unorganised segments included agriculture (97.4 per cent), trade, hotels and restaurants (89.9 per cent) and *other services* (62.7 per cent) during 1980-90. The NDP originating from the sub-sectors like construction and transport, storage and communication was almost equally shared by their organised and unorganised counterparts. At the aggregate level, two-third of the total NDP emanates from the unorganised sector while the remaining only one-third originates from the organised sector (Table 5). In view of the predominance of unorganised sector, the approaches to the estimation of national income are guided largely by the availability of data. Nearly 60-65 per cent of the output of different industry-groups is estimated on the basis of directly available current data, while the remaining output is estimated on the basis of old sample surveys and *ad hoc* studies [CSO, 1989].

I.3 Public and Private Sector Segments of Industry-wise Output

The industry-wise data regarding the gross value added (GDP) originating from private sector were not directly available and, therefor, we have derived such statistics by deducting the real GDP figures available for public sector since 1960-61, from the total real GDP (*at 1980-81 prices*). A cursory glance at Table 6 indicates that the *growth rate* of GDP originating from the public and private sectors displayed not only the inter-temporal but also the intra-sectoral variations across different industry-groups. Similarly, an analysis of the *composition* of GDP indicated that the share of private sector which was overwhelmingly high at 90.5 per cent during 1960-65 displayed continuous declines in the subsequent period and reached to still remain at a predominant proportion of 76.4 per cent during 1985-90. During the overall period 1960-90, the private sector shared 83.5 per cent of the total GDP, while only the remaining 16.5 per cent was shared by the public sector (Table 7). An industry-group wise analysis of the composition of public and private sector GDP indicates that during 1960-90, the private sector occupied a predominant share of more than 85 per cent in the sectors and sub-sectors like agriculture, manufacturing, trade, hotels and restaurants and *other services*. In the overall industrial and service sectors also, the private sector shared a predominant proportion of GDP. The private sector shared 79.0 per cent of the GDP originating from industry and 72.0 per cent of the GDP emanating from the service sector during 1960-90. The sectors where the public sector occupied a predominant position were the transport, storage and communication and the banking and insurance, with their shares at 53.6 per cent and 68.1 per cent, respectively, during the overall period 1960-90. Before the nationalisation of banks in July 1969, the share of private sector was higher even in the case of banking and insurance. As a matter of fact, the pre-nationalisation period was largely characterised by the predominance of the private money lender who, with his deceptively informal approach and pressurized salesmanship, used to entrap the small and marginal farmers as well as the small scale industry owners into his welcoming folds. During 1960-65, the share of private sector in the GDP originating from banking and insurance was predominant at 64.6 per cent. Subsequently such share showed continuous declines to 49.4 per cent during 1965-70, 27.9 per cent during 1970-75, 20.1 per cent during 1975-80, 15.4 per cent during 1980-85 and 14.0 per cent during 1985-90. The public administration and defence were exclusively under the control of public sector for its obvious reasons. Intertemporally during 1960-90, the share of the private sector has shown only marginal declines in all the industry-groups (except transport, storage and communication) and keeping in view the time span of three decades involved, even such declines were virtually very negligible. It can, thus, be inferred from this that the private sector makes a predominant contribution to the output originating largely from the directly productive sectors.

I.4 Public and Private Sector Segments of Industry-wise Employment

Our analysis of employment is based on the data obtained from various issues of *Economic Survey* [Government of India]. An analysis of the growth in sectoral employment indicates that the growth rates of employment in the public sector segment were substantially higher than those in private sector segments of the industry groups like *agriculture* and *industry* during the sub as well as stretch periods of 1961-90 (Table 8). The only exception to such trends was a short period of early sixties (1961-65) in which the growth rate of employment in private sector component was higher than that in the public sector component of the agricultural sector. In the *service sector*, the growth rates of employment in private sector were substantially higher than those of public sector during the sub-periods of the sixties. However, during the sub-periods of the seventies and the first half of the eighties, the growth rates of employment in public sector were higher than those of private sector segment of the service sector. In the latter half of the eighties (1986-90), the growth rates of employment in the public and private components of service sector were virtually the same at around 1.8 per cent. At the aggregate level, the growth rate of employment in the public sector continued to remain higher than that in the private sector.

As a result of these trends, the share of public sector employment showed nearly twofold increase from 19.5 per cent in 1961-65 to 39.2 in 1986-90 in the agricultural sector and from 19.0 to 44.5 per cent during the same period in the industrial sector (Table 9). The relative shares of public and private sector employment in the service sector remained stagnant overtime. At the aggregate level, the public sector contribution to total employment which remained around 59-60 per cent during 1961-70, increased to 63.5 per cent in 1971-75, 66.9 per cent in 1976-80, 68.8 per cent in 1981-85 and then to 71.1 per cent in 1986-90. During the overall period 1961-90, the public sector absorbed 64.9 per cent, while the private sector absorbed the remaining 35.1 per cent of total employment.

A comparative analysis of the composition of employment indicates that the public sector made the major contribution and absorbed the largest proportion of employment in the *service* sector, while the private sector played a prominent role in providing employment in *agriculture* and *industrial* sectors (Table 9). In the service sector, the public sector absorbed the largest proportion in construction (87.8), transport, storage and communication (96.6 per cent), finance, insurance and real estate (79.5 per cent) and the community, social and personal services (86.8 per cent) during 1961-90. However, in the sub-sector like wholesale and retail trade, the private sector absorbed the largest proportion (64.7 per cent) during the same period. As regards *agriculture* and *industry*, the private sector absorbed 70.6 per cent of the people employed in agriculture and 67.7 per cent of those in industry during 1961-90. In the manufacturing sub-sector of industry, the private sector absorbed the largest proportion, 78.8 per cent during 1961-90. However, in the *mining and quarrying*, and *electricity*, gas and water supply sub-sectors of industry, the public sector employed the largest proportion of 62.6 per cent and 92.0 per cent, respectively, during 1961-90.

II - AGRICULTURE-INDUSTRY GROWTH: A MICRO ANALYSIS

The growth rates of different sectors computed on the basis of value added data discussed in the previous Section-I, enable only a limited inter-sectoral comparison. Therefore, with a view to going into the intra-sectoral and micro details, we have supplemented our analysis with more dis-aggregative data for the agriculture and industrial sectors.[1]

II.1 Growth of Agriculture

For the agriculture sector, we have used the index numbers of area, production and yield to compute the growth rates of different crops in the pre- and post-Green Revolution period.[2] The crop-wise analysis based on the index numbers of area, production and yield indicates that there was a general deceleration in the agricultural sector, as the growth rates of the production of individual as well as aggregate foodgrains, non-foodgrains and *all-crops* displayed declines in the post- as compared to the pre-Green Revolution period (Table 10). The only exceptions to such declines, were the improvements in the growth rates of production of a few crops like wheat, tur, and *other pulses* in the foodgrains group and those of sesame, rapeseed and mustard, and potato in the non-foodgrains group in the post- as compared to the pre-Green Revolution period. The general deceleration in the growth rates of agricultural production is due to the decline in the growth rate of area under crops unaccompanied by the off-setting increase in the growth rate of yield.

II.2 Growth of Industry

As discussed earlier, the value added data regarding the use-based classification of industry are not available in NAS. Therefore, for the purpose of such analysis, we have used the index numbers of production of different industry groups in the industrial sector (Table 11). An analysis of the growth rate measured in terms of such index numbers of industrial production indicates that the industry began with an average growth rate of 8.99 per cent during 1961-66 and went through a precarious period of negative growth rates during 1966-68, followed by the subsequent recovery during 1968-71. The average growth rate of 3.7 per cent during 1966-71, which was sustained during 1971-76, increased to 4.8 per cent during 1976-81, 7.3 per cent during 1981-86 and then to 8.4 per cent during 1986-90.

During these six quinquennial phases, the industrial sector showed substantial intra-sectoral imbalances in the growth rates of different industries. The basic goods industries recorded the growth rates of 10.5, 6.3, 5.4, 5.1, 8.4 and 7.5 per cent, while the capital goods industries had the corresponding growth rates of 19.7, (-) 1.4, 5.6, 5.3, 7.1 and 15.9 per cent during each successive quinquennial phase (Table 11). The high growth rates of capital goods industries during 1961-66 may be attributed to the forward lag effects of the emphasis laid on the development of these industries by the Mahalanobis model in the Second Five Year Plan. Other industries received relatively less attention and, hence, had registered lower rates of growth. The declines in the output of mainly consumer goods industries in 1967-68, 1973-74, 1975-76, 1979-80 and 1982-83 can be attributed to the situation in agriculture which partly explains the changes in industrial production. During the overall period of three decades 1961-90, the consumer-durable goods industries recorded the highest rate of growth of 9.2 per cent, followed by the capital goods industries (8.4 per cent) and basic goods industries (7.2 per cent). The rates of growth in these industries were higher than the overall rate of growth of all-industries (6.1 per cent). The rates of growth in other industries like intermediate goods (4.8 per cent), consumer non-durable goods (3.8 per cent) and consumer goods (total) (4.7 per cent) were lower than the overall growth of all-industries during 1961-90.

An analysis of the trends in the use of factors of production, namely, capital and labour in the industrial sector during 1960-90 indicates that there has been an increase in the use of capital relative to that of labour. The capital intensity (i.e., the capital-labour ratio (K/L)) showed more than twofold increase from 0.3 in the first half of the sixties to 0.7 in the second half of the eighties (Table 12). Consequently, the capital-output ratio (K/Y) has also shown an increasing trend during the sixties reflecting the emphasis on heavy industry as laid down in the Mahalanobis model, followed by the declining trend in the seventies. Capital-output ratio resumed its increasing trend in the eighties. The decennial averages indicate that the capital-output ratio which declined from 2.6 in the sixties to 2.4 in the seventies, recouped to 2.6 in the eighties. Such trends are further corroborated by the trends in incremental capital-output ratio (ICOR). The average ICOR which was 9.1 in the sixties declined to the low of 1.2 in the seventies, followed by the marginal rise to 1.4 in the eighties. These trends are also reflected in capital productivity (Y/K), which recorded a moderate improvement in the seventies, followed by a marginal decline in the eighties. On the other hand, labour productivity (Y/L) increased by nearly twofold from 0.13 in the sixties to 0.24 in the eighties. The increases in labour productivity are attributable not only to the technical progress but also to the accumulation of capital per worker, as indicated by the increases in capital intensity.

II.2.1. Changes in the Structure of Manufacturing Industries and Factor Use

The manufacturing sector is the most dynamic component of the industrial sector. Table 13 presents an overview of the changes in the structure of various industries in the manufacturing sector[3] during 1974-90. At the beginning of the seventies, i.e., 1973-74, agro-based industries such as food products, tobacco products, cotton textiles, wool products and jute textiles absorbed nearly one-fifth of the fixed capital stock and one-half of the work-force in the organised manufacturing sector. These industries accounted for nearly two-fifths of manufacturing output (net value added). But by the end of the eighties (i.e., 1989-90), the share of such agro-based industries in fixed capital stock and employment declined by 2-3 percentage points, while their share in manufacturing output declined drastically by nearly 14 percentage points. Engineering group (basic metals, alloy products, electrical machinery and transport equipment) constituted slightly more than two-fifths of the fixed capital and employment also witnessed a marginal decline (by 2 percentage points). The share of chemicals group (rubber, petroleum and chemical products), however, has shown an increasing trend in output, fixed capital and employment, with most of the increases in employment being confined to petroleum sector.[4] Their share in manufacturing output nearly doubled during 1974-90 (from 7 per cent in 1973-74 to 13 per cent in 1989-90). In most of the industries in the chemicals group, the share of fixed capital has shown an increasing trend. These trends are further corroborated by the trends in factor use (Table 14).

Capital intensity in the manufacturing sector has increased quite sharply in the eighties; from an average of 0.23 in the seventies (1974-80) to 0.39 in the eighties (1981-90) (Table 14). Most of the industries in the manufacturing sector witnessed capital deepening in the eighties, with substantial increases in capital intensity in some of the traditional agro-based industries like wool and synthetic textiles (from 0.19 in the 1970s to 0.40 in the 1980s), paper industry (from 0.26 in the 1970s to 0.51 in the 1980s). The increase in capital intensity in some of the capital goods industries can be attributed to the strategy of increasing investment in certain core sectors, so as to generate forward and backward linkages for other industries. Among the industries in the engineering group, transport equipment industry witnessed sharp increases in capital intensity in the eighties (from 0.26 in the 1970s to 0.40 in the 1980s). The capital-output (K/Y) ratio has also shown increases in all the manufacturing industries, except for the manufacture of food products, manufacture of rubber, plastic, petroleum and coal products, manufacture of chemicals and chemical products, and the manufacture of electrical machinery, apparatus, appliances and supplies and parts, where such ratio has displayed declines during the eighties as compared to the seventies. In the aggregate manufacturing industries, the capital-output ratio increased from 1.3 in the seventies to 1.6 in the eighties. Accordingly, most of the industries witnessed decreases in capital productivity in the eighties, with the exception of the industries such as food products, rubber products, chemicals and chemical products, and the electrical machinery, apparatus, appliances and supplies industries which recorded marginal improvements.

The labour productivity has shown substantial improvements in the eighties in most of the industries, except some of the traditional industries like tobacco products and cotton and jute textiles industries (Table 14). Most of the industries in the chemical group (including rubber products) and engineering group have recorded substantial improvements in labour productivity in the eighties. Labour productivity in the manufacturing sector as a whole increased from 0.17 in the seventies to 0.24 in the eighties.

II.2.2. Returns To Scale in the Manufacturing Industries

We have computed the returns to scale for the manufacturing sector, using the production functions estimated on the basis of the *ASI* data for the period 1974-90 [Singh and Ajit, 1995b, Pp. 125-155]. The methodological details regarding the specification of various production functions as well as the definitions of the variables used therein, are given in the Technical Appendix. The comparative picture of the returns to scale estimated from the Cobb-Douglas (CD), Constant Elasticity of Substitution (CES) and Bairam production functions for various industries in the manufacturing sector, is given in Table 15. At the aggregative level, the CD (0.72), CES (0.91) and Bairam (0.76) production functions consistently indicated the existence of decreasing returns to scale in the manufacturing sector in India during 1974-90. At the disaggregative level, the CD production function indicated that half (9) of the manufacturing groups registered increasing returns to scale (IRS), while the remaining half recorded decreasing returns to scale (DRS). For most of the industries, the returns to scale results obtained from the CD and Bairam production functions were broadly in the same direction, except for the industries such as cotton textiles, non-metallic mineral products and the electrical machinery industries.

II.3 Growth of Small Scale Industrial Sector

The promotion of small scale industries[5] was listed as one of the major objectives in the Five Year Plan documents. In various industrial policy statements also, the government showed its continued concern for this sector and various programmes were initiated and measures were adopted to promote the growth of this sector. Such measures included the reservation of commodities to immunize small scale units against competition from the large industries, provision of finance on easy terms and various other facilities relating to materials, marketing, technology support, etc. In the distribution of bank credit, the small scale industries were treated as one of the priority sectors. With a view to encouraging the tiny units, the banks and financial institutions have been advised not to insist on securities for advancing loans to these units. In May 1986, the Industrial Development Bank of India set up a Small Industries Development Fund (SIDF) with a view to providing refinance facility to the small scale sector. The various promotional policy measures helped in encouraging the growth of the small sector in India.

The number of small scale industries (hereafter SSIs) have increased at an annual average rate of 8.6 per cent, from 5.86 lakhs in 1976-77 to 23.84 lakhs in 1939-94 (Table 16). The rate of growth in the number of units was generally higher during the seventies and early eighties, as compared to the second half of the eighties and the nineties so far. As a result of the increase in number of units, the employment in the small scale sector has increased at an annual average rate of 5.5 per cent during 1976-94. The production and exports have also recorded the increase of 19.3 per cent and 22.6 per cent per annum, respectively, during the same period. The share of exports in production of SSIs which remained around 6 per cent during 1976-91, showed a substantial rise to 7.8 per cent in 1991-92, 8.5 per cent in 1992-93 and then to 9.4 per cent in 1993-94. Such increases in the share of exports can be attributed to various measures adopted to boost exports under the structural adjustment programme launched in July 1991.

The sub-period analysis indicates that though the absolute amount of output in the small scale sector[6] has increased, the growth rate of such output displayed deceleration from 16.2 per cent in 1974-80 to 14.4 per cent in 1980-85 and then to 8.8 per cent in 1985-90 (Table 17). The similar behaviour was noticed for the traditional industries sub-sector of SSIs. The amount of output in the *traditional industries* has increased, but the compound growth rates of such output displayed declines from 12.6 per cent in 1974-80 to 11.7 per cent in 1980-85 and then to 8.8 per cent in 1985-90. In the *modern industries* segment of small scale sector, the growth rate of output which was sustained at 18 per cent in both the periods of 1974-80 and 1980-85, also declined to 8.9 per cent in 1985-90. It may be noted that the growth rates of output in the traditional industries group were substantially lower than those in the modern industries group, except for the period 1985-90 in which such growth rates were virtually the same. The compound growth rates of output in the *other industries* segment declined from 11.1 per cent in 1974-80 to as low as (-)24.1 per cent in 1980-85. During 1985-90, the compound growth rate of *other industries* output recovered, but remained negligible at 0.72 per cent. This phenomenon of increasing output at a decreasing rate is further corroborated by the decreasing returns to scale in the small scale industries, discussed subsequently.

Moreover, the *traditional industries* which absorbed more than half of the total labour force employed in the small scale sector, could contribute more than 16.1 per cent to the total output of such sector in 1973-74. Even such contribution declined to 13.3 per cent in 1979-80 and then to remain at 11.8 per cent in 1984-85 and 1989-90 (Table 17). On the contrary, the modern *industries* segment, which absorbed a relatively lower proportion of the total labour employed in the small scale sector, made a major and rising contribution to output. Of the total labour employed in the small scale sector, the modern industries group absorbed 28.2 per cent in 1973-74, 33.4 per cent in 1979-80, 38.8 per cent in 1984-85 and 38.6 per cent in 1989-90. In contrast to the proportion of labour absorption, the contribution of *modern industries* to total small industries output, which was as high as 67.5 per cent in 1973-74, rose further to 74.2 per cent in 1979-80, 86.6 per cent in 1984-85, and to 87.2 per cent in 1989-90. On an average, such contribution worked out to be more than 75 per cent during the entire period of 1974-90. As compared to the *traditional industries*, the *modern industries* use more capital and hence are able to make relatively more contribution to the overall output of the small scale sector. Such a phenomenon of low output with high labour absorption observed in traditional industries, and high output with low labour absorption found in the modern industries, brings into focus the *trade off* between employment and growth.

In the growth of small scale sector, the government played an important role in terms of the provision of various incentives. However, the allocation of public sector outlay for the small scale sector during different Five Year Plans was quite disproportionate to the much proclaimed policy support provided to this sector. Of the public sector outlay, 4.9 per cent was allocated to industry and 2.1 per cent was provided to the small scale sector in the First Plan. The Second Plan laid stress on the development of heavy and basic industries and accordingly the allocation of public sector outlay for industry jumped to 24.1 per cent in that Plan. However, the small scale sector could get only a small share of 4.0 per cent of such public sector outlay in the Second Plan (Table 18). In the subsequent Plans until the Annual Plan (1979-80), the share of industry in the public sector outlay ranged between 19.7 to 24.7 per cent and such share declined to 15.5 per cent in the Sixth Plan and then to 12.5 per cent in the Seventh Plan. The share of the small scale sector which attained the highest peak of only 4.0 per cent in the Second Plan, showed declines in the subsequent Plans and reached the lowest at 1.5 per cent in the Fifth Plan. In the Seventh Plan also, the small scale sector shared the similar proportion (1.5 per cent) of the public sector outlay. Thus, the small scale was accorded very low priority in terms of the allocation of public sector outlay during different Five Year Plans.

II.3.1. Sickness in Small Scale Industrial Sector

A notable feature and a cause of concern is the increasing incidence of industrial sickness. A large number (nearly 98 per cent) of the sick units are in the small scale sector. Moreover, over a span of nearly one decade, the number of sick units in the small scale sector has displayed a dramatic increase from 422 units as at end-June 1981 to as high as 245,575 units as at end-March 1992 (Table 19). However, despite such a perceptible increase in the number of sick small scale industry (SSI) units, the amount of bank credit locked up in these units has displayed a relatively much lower increase from Rs 1,453.3 crore to Rs 3,100.7 crore, during the corresponding period. Moreover, the amount of bank credit outstanding against these units constituted only a small proportion (nearly 26 per cent) of the aggregate bank credit locked up in both SSI and non-SSI sick units, as at end-September, 1992 [Government of India, *Economic Survey*, 1994-95, Pp. 116-117].

An analysis of the industry-wise distribution of sick SSI units indicates that the largest number of sick SSI units as at end-June 1981 were in the Textiles (22.3 per cent) and the Engineering and Electrical industry groups (21.8 per cent), followed by the units in the miscellaneous industry group (15.4 per cent) and then the Sugar (11.4 per cent), Iron and Steel (11.1 per cent) and the Jute (8.3 per cent) industry groups (Table 19). The amount of bank credit outstanding against these units largely followed the similar pattern and distribution. As at end-March 1992, the pattern underwent some change and the largest number of sick SSI units were in the miscellaneous industry group (69.8 per cent), followed by the units in the Engineering and Electrical (13.9 per cent), Textiles (7.8 per cent) and the Chemical (4.1 per cent) industry groups.

An analysis of the state/region-wise distribution of sick SSI units indicates that as at end-June 1982, the largest number of sick SSI units were in the Western Region (34.5 per cent) followed, in descending order, by Eastern (29.7 per cent), Southern Region (20.0 per cent) and the Northern (15.9 per cent) regions (Table 20). The distribution of the amount of bank credit locked up in these sick SSI units also followed the similar pattern. In terms of the states, West Bengal (25.5 per cent) accounted for the largest proportion of sick SSI units, followed by Maharashtra (20.2 per cent) and Uttar Pradesh (12.2 per cent) as at end-June 1982. As at end-September 1992, the pattern underwent a change and the largest number of sick SSI units were in the Southern Region (31.6 per cent) followed, in descending order, by the Northern (27.1 per cent), Eastern (26.1 per cent) and the Western (15.3 per cent) regions. State-wise, the largest proportion of sick SSI units was in Uttar Pradesh (13.7 per cent) and West Bengal (13.6 per cent), followed by Andhra Pradesh (12.9 per cent) and Maharashtra (8.5 per cent). As regards the amount of bank credit outstanding against these sick units, the Southern Region accounted for the maximum proportion (31.2 per cent), followed by the Western (29.6 per cent), Northern (24.9 per cent) and the Eastern (14.4 per cent) regions.

The problem of prolonged sickness coupled with the finance and marketing problems led to the closure of many units. The incidence of closure was more preponderant in industrially advanced states that in the other states.[7] Even the surviving sick units are struggling for their existence. The gravity of the situation gets further aggravated, when we look at viability status of these units. A large proportion (nearly 90 per cent) of these sick units are non-viable.

In view of the seriousness of the situation, various studies have attempted to identify the underlying reasons for such sickness, so as to suggest for a suitable policy framework. In most of such studies, the industrial sickness has been attributed to the combined effect of a host of factors such as the lack of sound management practices, non-availability of adequate credit facilities, pricing and taxation of the government, competitiveness in the product market, etc. However, these arguments explain only a tip of the problem and fail to diagnose the root cause of the problem. As far as the competition is concerned, a large number of items[8] have been reserved for the small scale sector so as to immunize them against competition from the large units. But, despite such patronage, the performance of the reserved industries was no better than the performance of the unreserved small scale industries. It is perhaps because of the lack of proper identification of the root cause of the industrial sickness problem that the policy measures, adopted hitherto, could provide only the short term solutions.

We have adopted the production function framework and estimated the CD, CES and Bairam production functions separately for the small scale industries (SSIs), medium and large industries (M&LIs) and the overall industrial sector for the period 1974-92. All the three production functions consistently indicated the existence of decreasing returns to scale (DRS) in these industry groups (Table 21). Thus, the major reason for the persistent sickness in the small scale sector can be explained, *inter alia*, in terms of the decreasing returns to scale. Moreover, the average cost per unit of output in the small scale sector is high and this results in a lower surplus per unit of labour and capital. The existence of decreasing returns to scale in the industrial, and especially the small scale sector, can be mainly attributed to the use of outdated and obsolete technology and the disproportionality in factor use arising from the increasing use of labour relative to capital. Moreover, there is no incentive and, in fact, there is disincentive for the small scale units to expand their size in terms of their fixed capital assets. The government provides various concessions and subsidies to the small scale units. If these units cross their prescribed capital limit, then such units no more remain the small units and hence they lose all the concessions and subsidies from the government. In view of this, these units prefer to remain deliberately *small* instead of becoming *large*, so as to retain the subsidy benefits from the government. The government subsidies seem to have sapped their incentive to expand the capital base and use the optimal combination of capital and labour in the production process. Moreover, the policy of *reservation* also protects the obsolete technology and hence results in inefficiency in the reserved sector. As a result of all these factors, the small scale units continue to operate under the decreasing returns to scale and hence slog in sickness.

The long term solution for the problem of sustained sickness is to improve the efficiency and productivity by upgrading the technology in the small scale sector. The subsidies should be oriented towards encouraging them to upgrade and modernize their technology. Similarly, the solution for decreasing returns to scale in the medium and large industries also lies in improving their efficiency and productivity, through modernisation of their technology.

III- INTER-SECTORAL TERMS OF TRADE

The theoretical underpinning for the inter-sectoral terms of trade mainly derives from the sectoral linkages and interdependence. At constant prices, the sectors are inter-linked through the demand and supply of *real* output, but also the *prices*. The prices play an important role not only in the exchange of goods and services, but also in the transfer of resources from one sector of the economy to another. In the regime of government interventions and market imperfections, the prices are not the true reflections of the functioning of the pure demand and supply forces in the market mechanism. In India, the government intervenes the market and fixes the Minimum Support Prices of certain essential commodities and also undertakes the price support and commercial purchase operations. Moreover, the taxes levied and subsidies provided by the government to different commodities also reflect on the sectoral as well as overall prices.

In India, the studies regarding the terms of trade focussed on the computation of terms of trade between agriculture and non-agriculture sectors, with no cognizance of the terms of trade separately for the service sector. Besides, such studies[9] have used either the crop harvest prices or more commonly the Index Numbers of Agricultural and those of Manufactured Product Prices to compute the terms of trade. It is well accepted that as compared to the index numbers of wholesale prices, the GDP (or NDP) deflators have wider coverage and hence such deflators provide better reflections of the prices. In the present study, we have used such GDP and NDP deflators to compute the inter-sectoral terms of trade. We have measured the terms of trade as the ratios of sectoral prices. Moreover, the service sector which sells its services to and purchases the goods from the agricultural and industrial sectors, made an increasing contribution to output. As discussed earlier in Section I, the service sector constituted the predominant proportion of aggregate output (GDP/NDP) during the eighties and the nineties so far. In view of the important role of the service sector, we have provided a separate treatment to such sector in the computation of inter-sectoral terms of trade (hereafter TOT) in India.

An analysis of the trends in TOT between agriculture and industry indicates that the TOT remained against agriculture during the entire pre-Green Revolution period 1950-64 (Table 22). The ratio of agricultural prices to industrial prices generally remained less than unity till the mid-sixties. Subsequently, such ratio crossed the unity quotient and the TOT were favourable to agriculture during 1965-75. During 1975-90, there was a virtual balance between agricultural and industrial prices and the TOT largely remained neutral in this period. During 1990-93, the TOT again became favourable to agriculture. As regards the TOT between agriculture and service sector, the ratio of agricultural prices to service sector prices remained less than unity and the TOT remained against agriculture for the period 1951-65 and 1975-90. For the remaining years, the ratio of agricultural prices to service sector prices was almost equal to unity and hence the TOT were neutral and there was a virtual balance between agricultural and service sector prices. As regards the TOT between industry and service sector, the ratio of industrial prices to service sector prices remained less than unity during the entire period 1950-93, except for a few years like 1951-52, 1979-80 and 1980-82, in which such ratio was unity, indicating the neutrality of TOT between two sectors. Thus, except for these few years, the TOT remained against industry *vis-a-vis* service sector during the entire period under consideration. An analysis of the inter-sectoral TOT computed on the basis of NDP deflators yielded largely similar results (Table 22).

IV - POLICY REFORMS OF THE 1990s AND THE SECTORAL PERFORMANCE: AN APPRAISAL

IV.1. Policy Reforms of 1990s - An Overview

In 1990-92, India faced an unprecedented economic crisis in both the internal and external sectors. In the internal sector, the rate of inflation which started accelerating in 1990, reached its peak of 16.7 per cent in August 1991. In the external sector, payments crisis reached its zenith in June 1991 when the foreign currency reserves dipped so low that they were barely enough to finance only two weeks of imports. The short-term and long-term causes for such crises included the Gulf War in 1990 which led to the hike in oil prices and the consequential inflationary spiral, repatriation of workers from Kuwait and cessation of their remittances, cessation of exports to Iraq in view of the UN trade embargo, the collapse of the Eastern Bloc, the ever enlarging budget deficits and public sector dissavings since the beginning of the eighties, and the lack of efficiency and international competitiveness in the industrial sector. The situation was further aggravated by the drying up of short-term credit and commercial loans, and the net outflow of NRI deposits during the period.

To correct the deteriorating situation and to put the economy on the path of sustained economic growth, a macroeconomic stabilisation programme was launched in July 1991 and bold policy initiatives were undertaken by the government in the fiscal and external sectors supplemented with the simultaneous reforms in the financial, industrial and agricultural sectors. The reform process has been a step-by-step gradual approach. In the financial sector, the need for an integrated and well developed financial infrastructure was recognised and accordingly the reforms in such sector were initiated generally following the Narasimham Committee recommendations [Narasimham, 1991].

In the fiscal area, the major steps included the monitoring of fiscal deficit, the adoption of the internal debt management policies and the market related coupon rates through regular auctions, the use of open market operations and the limit on the quantum of short term treasury bills issued to the government by the Reserve Bank. In the interest of long-term stable growth, the government realised the need to reduce its reliance on all the three present sources of funds, viz., the banking sector, the Reserve Bank and the foreign savings.

As regards the industrial and public sectors, with a view to imparting inherent competitive strength to the industrial economy, a programme of structural reforms of trade, industry and public sector was initiated. The objective was to evolve an industrial and trade policy framework which would promote efficiency, reduce the bias in favour of capital intensity and encourage an employment oriented pattern of industrialisation.

In the external sector, the major policy initiatives included the two-step depreciation of exchange rate of Rupee in July 1991, the move towards a dual exchange rate in march 1992, the unification of exchange rate in march 1993 and the steps towards current account convertibility initiated in March 1994 and completed in August 1994. Besides, the trade policy reforms reversed the earlier policy framework which had an implicit bias against exports. These policy reforms in the external sector, have resulted in an improvement in the balance of payments, an increase in the foreign exchange reserves to their record levels and an increase in the Foreign Direct Investment (FDI).[10]

IV.2 Sectoral Performance During 1990s

The detailed data for the period 1990-95 were not available uniformly which could enable a disaggregative analysis of the sectoral performance, on the similar lines discussed in the earlier sections. In view of this, we have focussed only on the major and broad sectors and sub-sectors. Moreover, the period of analysis during the nineties is so far very short and most of the data available for such period are also provisional. In view of such limitation, we could make only *ad hoc* rather than *assertive* observations.

The growth rate of GDP which dipped from 4.9 per cent in 1990-91 to 1.1 per cent in 1991-92, recovered to 4.3 per cent in 1992-93 and such growth was sustained in 1993-94 (Table 23). In 1994-95, the rate of growth of GDP rose to 5.3 per cent. The sharp decline in the growth rate of GDP in 1991-92 was due to the poor performance and negative growth in both the agricultural and industrial sectors during the year. The growth rate of GDP originating from agriculture dipped from 4.1 per cent in 1990-91 to (-) 2.7 per cent in 1991-92 and that of GDP originating from industry dipped from 6.6 per cent to (-) 1.7 per cent during the same period. In 1991-92, the agricultural sector suffered a set back due to the fall in Kharif production which was caused by the delayed South-West monsoons followed by its erratic behaviour. The decline in industrial output can be attributed to the import compressions arising from the trade and monetary policy actions, the exchange rate adjustments effected in 1991, the reduction in demand from the government sector in view of the stringent control on deficit, and the disruption of the rupee trade with the Eastern Bloc. In the industrial sector, the setback was mainly in the capital goods, intermediate goods and consumer-durable goods industries (Table 24).

An analysis of the growth rates of agriculture and industry computed on the basis of their production indices also revealed largely the similar trends and pattern. In the agricultural sector, good performance in one year was followed by the poor performance in the next and hence there was no stable pattern of agricultural growth (Table 24). In the industrial sector, the rate of growth of production which dipped from 8.3 per cent in 1990-91 to as low as 0.6 per cent in 1991-92, started recovering subsequently to reach 2.3 per cent in 1992-93, 5.6 per cent in 1993-94 and 8.4 per cent in 1994-95. It may be noted here that after passing through the precarious phases, the growth of industrial sector is restored back to its initial position from where it started in 1990-91. The growth of the industrial sector at 8.4 per cent in 1994-95 was virtually the same as the growth in 1990-91 at 8.3 per cent. Moreover, the growth rate of industry at 8.4 per cent in 1994-95 was not much different from its growth recorded during the 1980s and, in fact, it was even lower for some of the years in the 1980s. The average rate of growth of industrial production at 5.0 per cent during 1990-95 was also lower than the average growth rates recorded in the quinquennial periods during the 1980s; 7.3 per cent during 1981-86 and 8.4 per cent during 1986-90 [see Tables 11 and 24].

An analysis of the comparative performance of the five year period till mid-1990s, *vis-a-vis* the previous Five Year Plans, indicates that during the five year period 1990-95, the annual average growth rate of overall GDP was 4.0 per cent and that of GDP originating from agriculture was 2.4 per cent, industry 4.1 per cent and service sector 5.1 per cent. Such overall as well as sectoral GDP growth rates during 1990-95 were lower than their corresponding annual average growth rates recorded in all the Fifth, Sixth and Seventh Plans. During these Fifth, Sixth and Seventh Plans, the annual average growth rates of *overall GDP* worked out at 4.9, 5.7 and 5.6 per cent, *agricultural GDP* at 4.0, 6.2 and 3.6 per cent, *industrial sector GDP* at 6.6, 6.5 and 7.1 per cent and *service sector GDP* at 5.5, 5.4 and 6.7 per cent, respectively (Table 3). From this entire analysis, it can be construed that during the five year period till mid-1990s, the economy and especially its directly productive sectors like agriculture and industry could not make any discernible drift in their growth trajectories. So far, these sectors could only recover from their initial shocks in 1991-92.

V - SUMMING UP

It can be inferred from the foregoing analysis that the rate of growth of GDP rose from 3.6 per cent in the First Plan to 5.7 per cent in the Sixth Plan and such growth was virtually sustained in the Seventh Plan. Subsequently during 1990-95, the rate of growth of GDP declined to 4.0 per cent, mainly due to the stochastic shocks of two consecutive droughts. In the overall GDP, the private sector shared a predominant proportion of 83.5 per cent, while the public sector shared the remaining proportion of only 16.5 per cent during 1960-90. At the industry-group level, the private sector occupied a predominant place with its share of more than 85 per cent in the output (GDP) originating from agriculture, manufacturing, trade, hotels and restaurants and *other services* during 1960-90. The private sector shared 79 per cent of the GDP emanating from the overall industrial sector and 72 per cent of that originating from the service during the same period. The sectors where the public sector contributed a relatively larger proportion of GDP were transport, storage and communication and the banking and insurance. Even in banking and insurance, the private sector shared a relatively larger proportion of output in the pre-nationalisation period. Intertemporally during 1960-90, the share of the private sector has shown only marginal declines in all the industry-groups (except transport, storage and communication) and, keeping in view the time span of the two decades involved, even such declines were virtually very negligible. The public sector made the major contribution and absorbed the largest proportion of employment in the *service* sector, while the private sector played a prominent role in providing employment in *agriculture* and *industrial* sectors. The unorganised sector still dominates the Indian economy with its as high as two-thirds share in the total GDP.

In the manufacturing sector, the agro-based industries like food products, tobacco products, cotton textiles, wool products and jute textiles have lost their shares not only in manufacturing output but also in fixed capital and employment during 1974-90. Similar trends were evident in engineering industries. However, the shares of chemical industries in manufacturing output, fixed capital and employment have shown improvements. There has been an increase in the use of capital relative to that of labour in most of the industries in the manufacturing sector in India. Capital productivity recorded marginal improvements in the seventies followed by the gradual declines in the eighties. The labour productivity has shown steady improvements during 1974-90, with the signs of significant improvements in the eighties. In the manufacturing sector, nearly half of the industries recorded decreasing returns to scale, while the remaining half registered increasing returns to scale.

The small scale industrial sector was also characterised by the existence of decreasing returns to scale (DRS). The decreasing returns to scale, *inter alia*, led to the persistent sickness in the industrial and especially the small scale sector in India. As a result of the problem of prolonged sickness, a large number of sick industrial units have been closed and a major proportion of the remaining units is non-viable. The long term solution for such problem of sustained sickness lies in improving the efficiency and productivity by upgrading the technology in the small scale sector. The government concessions and subsidies should be oriented towards encouraging the small scale units to modernize their technology.

An analysis of the terms of trade (TOT) between agriculture and industry indicated that the TOT, which generally remained against agriculture during the entire pre-Green Revolution period

1950-64, subsequently became favourable to agriculture during 1965-75 and then became neutral during 1975-90. A short period of 1990-93 was characterised by the favourable TOT to agriculture. As regards the TOT between agriculture and service sector, the TOT remained against agriculture during 1951-65 and 1975-90 and for the remaining years the TOT were neutral. An analysis of the TOT between industry and service sector indicated that the TOT remained against industry during the entire period 1950-93, except for a few years like 1951-52, 1979-80 and 1980-82 in which the TOT were neutral between two sectors.

NOTES

1. The sectoral analysis of the growth rates of agriculture and industry, made on the basis of production indices, will be somewhat different from that made on the basis of value added (gross/net) data, due to the obvious conceptual difference between the two terms - production and value added.

2. The term 'post-Green Revolution period' has been broadly used here to cover the period from 1967-68 to 1990-91 which includes both Green Revolution period (which spans up to nearly 1974-75) as well as the subsequent period. Hence the term 'post-Green Revolution period' may not be confused with the period after Green Revolution.

3. Our analysis of the manufacturing sector is based on the *Annual Survey of Industries (ASI)* data. The industrial classification in *ASI* was changed to National Industrial Classification (NIC) in 1973-74 and, hence, the data prior to that period are not strictly comparable with the data in the latter years. In view of this, our analysis here was restricted to the period 1974-90.

4. The share of chemical products (Item 11 in Table 13) in manufacturing employment has shown a decline from 6.25 per cent in 1973-74 to 3.37 per cent in 1989-90.

5. The small scale industries are defined on the basis of the number of workers employed and the amount of capital used. In terms of the value of fixed assets excluding land and building (gross, undepreciated plant and machinery), the definition of such industries has undergone changes over a period of time. In 1960, the cut-off investment limit (in terms of fixed assets), used for defining small scale industries, was Rs 5 lakh. The cut-off investment limit was changed periodically and at present such limit is Rs 60 lakh. Similarly, the cut-off investment limit for the ancillary unit is given at Rs 75 lakh. A unit, which produces and supplies more than 50 per cent of its products to one or many companies, is called the ancillary unit. The industrial policy statement of 1977 introduced a distinction between the small scale and tiny units. A unit, which has an investment limit in plant machinery up to Rs 1 lakh, was defined as the tiny unit. Such investment limit for the tiny units was raised to Rs 2 lakh in 1980 and then to Rs 5 lakh in June 1991. A large part (nearly 95 per cent) of the small scale industrial units belongs to the category of tiny units.

6. For this sub-period and intra-sectoral analysis of the small sector, we have used the data taken from the Planning Commission reports. These data are somewhat different from those of the RBI data, reported in Table 16.

7. For a detailed discussion regarding the closure of sick small units, see Sandesara [1993, Pp. 223-229].

8. At present, as many as 836 number of items are reserved for the small scale sector.

9. For an overview of the survey of literature on the terms of trade between agriculture and non-agriculture sectors in India, see Ahluwalia [1985].

10. As a result of the liberalisation of the foreign investment policy and the other reforms in trade and industrial sectors, the foreign investment climate has undergone a significant change, as reflected in the higher value of approvals and rising trend in actual flows. The total stock of Foreign Direct Investment (FDI) at the end of March 1991 was barely Rs 32.1 billion. The total value of FDI approvals granted as at the end of August 1994 stood at Rs 217 billion. The actual total inflow during July 1991 to August 1994 amounted to Rs 46 billion. The majority of foreign investment approvals have been in the core sectors such as power, oil refinery, food processing, chemicals, computers, pharmaceuticals and finance [*RBI Bulletin*, January 1995, p. 85 and *RBI Annual Report* 1995, Pp. 82-83].

TECHNICAL APPENDIX

I. Specification of Production Functions

The production functions used to compute the returns to scale are specified as under:

1. Conventional Cobb-Douglas and CES Production Functions

The theoretical framework for the conventional Cobb-Douglas (CD) and Constant Elasticity of Substitution (CES) production functions is well documented in the literature and, therefore, we would present only a brief description of such production functions. At the outset, it may be mentioned that K would denote capital and L labour. The usual log-linear specification of CD production function is given by:

$$\ln Y = \ln A + \alpha \ln K + \beta \ln L + \mu \tag{1}$$

where A is the efficiency parameter, α and β indicate the returns to a factor or the partial elasticities of output with regard to capital and labour, respectively. The sum of the exponents $(\alpha + \beta)$ indicates the returns to scale.

The Kmenta's approximation of the CES production function (μ omitted) is given by:

$$\ln Y = \Phi_1 + \Phi_2 \ln K + \Phi_3 \ln L + \Phi_4 (\ln K/L)^2 \quad (2)$$

For $\phi_4 = 0$, the CES production function reduces to CD production function.

2. New Production Function

The aforementioned conventional production functions are specified on *a priori* assumption about their functional form and hence are susceptible to the specification bias. Recently, Bairam [1989] has introduced a more generalised approach to the estimation of production function in which the data determine the appropriate functional form of the production function. The Bairam production function is specified as:

$$(Y^{\lambda} - 1)/\lambda = \Pi_0 + \Pi_1 [(K^{\lambda} - 1)/\lambda] + \Pi_2 [(L^{\lambda} - 1)/\lambda] + \varepsilon_t \quad (3)$$

where $-\infty < \lambda < +\infty$ and $\Pi_1 > 0, \Pi_2 > 0$

So long as $\lambda \leq 1$, the Bairam production function (3) satisfies the properties of the Neo-Classical production function and hence approximates to the CES production function. The Bairam production function reduces to linear form when $\lambda = 1$ and log-linear form when $\lambda = 0$. The mean elasticities of output with regard to capital (K) and labour (L) can be computed as:

$$\eta_{yk} = \hat{\beta}_k \left(\frac{\lambda}{K} \Big/ \frac{\lambda}{Y}\right) \quad \text{and} \quad \eta_{yl} = \hat{\beta}_l \left(\frac{\lambda}{L} \Big/ \frac{\lambda}{Y}\right)$$

Where η_{yk} indicates the elasticity of output with regard to capital (K) and η_{yl} stands for the elasticity of output with regard to labour (L). The sum of the elasticity parameters $(\eta_{yk} + \eta_{yl})$ can be used to measure the returns to scale.

The estimation of Bairam production requires the estimation of a set of several equations for different values of λ for each industry group. For each industry, we estimated *20 equations* for the *different values* of λ [-0.1, -0.2, ..., 0, + 0.1 + 0.2 + ... 1.0] and we selected the equation with the value of λ that maximised the log-likelihood function [see Singh and Ajit, 1995b, Pp. 125-155]. Such selected equations were then subjected to the log-likelihood ratio (LR) test with a view to test for the restriction of $\lambda = 0$ and $\lambda = 1$ and hence to decide as to which functional form (linear or log-linear) was more appropriate. The LR test statistics is given by:

$$L_{\max}(\tilde{\lambda}) - L_{\max}(\lambda) < (1/2)\chi^2(\alpha) \quad (4)$$

The LR test indicated that the log-linear model is accepted, while the linear model is rejected for all the industries in the manufacturing sector at the aggregative as well as disaggregative levels. Thus, the Bairam production function confirmed the conventionally accepted log-linear form of the production function. The concentrated log-likelihood function (L*) for the given λ is specified, except for a constant, as:

$$L^*(\lambda, \rho; Y, K, L) = -(N/2)\ln\hat{\sigma}^2(\lambda) + (1/2)\ln(1-\rho^2) + (\lambda - 1)\sum_{i}^{N} \ln Y_i \quad (5)$$

where $\hat{\sigma}^2$ is the constant variance of the error distribution and N is sample size.

II. Definitions of the Variables Used

The variables used in the estimation of aforementioned production functions are defined as under:

Notation	Definition of the Variable
Y	Net Value Added (real) - Nominal net value added (in Rs Lakh) *deflated* by wholesale price index of manufactured products [Base: 1981-82 = 100; weight = 57.04].
K	Fixed capital stock (real) - Nominal fixed capital stock (in Rs Lakh) *deflated* by wholesale price index of machine and machine tools [Base: 1981-82 = 100; weight = 6.27].
L	Number of Employees including supervisory staff.

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TABLE 1. PLAN-WISE SECTORAL COMPOSITION OF GROSS DOMESTIC PRODUCT (GDP) AT FACTOR COST AT 1980-81 PRICES (ANNUAL AVERAGES)

(Per cent)

Sector	First Plan 1951-52 to 1955-56	Second Plan 1956-57 to 1960-61	Third Plan 1961-62 to 1965-66	Annual Plans 1966-67 to 1968-69	Fourth Plan 1969-70 to 1973-74	Fifth Plan 1974-75 to 1978-79	Annual Plan 1979-80	Sixth Plan 1980-81 to 1984-85	Seventh Plan 1985-86 to 1989-90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Agriculture and Allied Activities	**54.91**	**51.86**	**46.61**	**43.57**	**42.93**	**40.62**	**36.17**	**37.17**	**32.78**
of which									
1.1 Agriculture	**48.96**	**46.55**	**41.64**	**38.33**	**38.14**	**36.29**	**32.48**	**34.02**	**30.25**
1.2. Forestry and Logging	5.23	4.52	4.21	4.43	3.98	3.52	2.90	2.40	1.78
1.3. Fishing	0.72	0.80	0.77	0.82	0.81	0.82	0.79	0.75	0.75
2. Industry:	**13.40**	**15.17**	**17.96**	**18.61**	**19.34**	**20.39**	**22.10**	**21.96**	**24.01**
of which									
2.1. Manufacturing	11.88	13.46	15.77	16.04	16.72	17.48	18.91	18.51	20.07
2.2. Mining and Quarrying	1.15	1.18	1.40	1.50	1.37	1.43	1.47	1.66	1.78
2.3. Electricity, Gas and Water Supply	0.38	0.53	0.79	1.07	1.25	1.49	1.71	1.78	2.15
3. Services:	**31.69**	**32.97**	**35.43**	**37.82**	**37.73**	**38.99**	**41.73**	**40.87**	**43.21**
3.1. Trade, Hotels and Restaurants	8.62	9.38	10.46	10.88	10.83	11.55	12.24	12.11	12.77
3.2. Transport, Storage and Communication	2.51	2.84	3.24	3.53	3.65	4.20	4.70	4.69	5.27
3.3. Banking and Insurance	1.28	1.51	1.75	1.80	2.15	2.50	2.99	3.07	4.29
3.4. Public Administration and Defence	2.24	2.48	3.05	3.56	3.97	4.22	4.76	4.76	5.46
3.5. Construction	3.37	3.89	4.56	5.44	5.00	4.76	4.73	4.72	4.43
3.6. Other Services @	13.67	12.87	12.37	12.61	12.12	11.77	12.32	11.51	11.00
Total Gross Domestic Product (GDP)	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Note: @: Other Services include i) Real Estate, Ownership of Dwellings and Business Services, ii) Community, Social and Personal Services, and iii) Certain Other Services.

TABLE 2. PLAN-WISE SECTORAL COMPOSITION OF NET DOMESTIC PRODUCT (NDP) AT FACTOR COST AT 1980-81 PRICES (ANNUAL AVERAGES)

(Per cent)

Sector	First Plan 1951-52 to 1955-56	Second Plan 1956-57 to 1960-61	Third Plan 1961-62 to 1965-66	Annual Plans 1966-67 to 1968-69	Fourth Plan 1969-70 to 1973-74	Fifth Plan 1974-75 to 1978-79	Annual Plan 1979-80	Sixth Plan 1980-81 to 1984-85	Seventh Plan 1985-86 to 1989-90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Agriculture and Allied Activities of which	**56.65**	**53.61**	**48.40**	**45.48**	**44.93**	**42.58**	**37.85**	**39.05**	**34.61**
1.1. Agriculture	**50.42**	**48.08**	**43.18**	**39.92**	**39.85**	**37.95**	**33.89**	**35.68**	**31.94**
2. Industry of which	**13.23**	**14.66**	**17.18**	**17.43**	**17.97**	**18.83**	**20.42**	**20.10**	**21.91**
2.2. Manufacturing	11.77	13.11	15.29	15.33	15.96	16.73	18.27	17.88	19.60
3. Services of which	**30.12**	**31.72**	**34.42**	**37.09**	**37.09**	**38.59**	**41.73**	**40.85**	**43.48**
3.1. Trade, Hotels and Restaurants	8.96	9.83	11.09	11.66	11.60	12.39	13.25	13.09	13.87
3.2. Transport, Storage and Communication	1.85	2.11	2.27	2.36	2.45	2.96	3.37	3.39	3.87
3.3. Banking and Insurance	1.33	1.58	1.85	1.92	2.31	2.69	3.26	3.35	4.69
3.4. Public and Administration and Defence	2.21	2.45	3.04	3.58	4.00	4.24	4.84	4.82	5.56
3.5. Other Services @	15.76	15.74	16.18	17.58	16.73	16.31	17.00	16.21	15.49
Total Net Domestic Product (NDP)	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Note: @: Other Services include i) Construction, ii) Real Estate, Ownership of Dwellings and Business Services, and iii) Community, social and Personal Services, and iv) Certain Other Services.

TABLE 3. PLAN-WISE SECTORAL GROWTH RATES OF GROSS DOMESTIC PRODUCT (GDP) AT FACTOR COST AT 1980-81 PRICES (ANNUAL AVERAGES)

(Per cent)

Sector	First Plan 1951-52 to 1955-56	Second Plan 1956-57 to 1960-61	Third Plan 1961-62 to 1965-66	Annual Plans 1966-67 to 1968-69	Fourth Plan 1969-70 to 1973-74	Fifth Plan 1974-75 to 1978-79	Annual Plan 1979-80	Sixth Plan 1980-81 to 1984-85	Seventh Plan 1985-86 to 1989-90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Agriculture and Allied Activities of which	**2.88**	**3.35**	**-0.28**	**4.43**	**2.76**	**3.59**	**-12.77**	**5.68**	**3.37**
1.1 Agriculture	**3.22**	**3.60**	**-0.75**	**4.81**	**2.96**	**3.97**	**-13.36**	**6.20**	**3.58**
1.2. Forestry and Logging	-0.21	0.82	4.34	1.63	1.06	0.42	-8.89	-0.78	-0.56
1.3. Fishing	5.89	5.11	3.42	4.66	3.41	3.05	-0.66	6.32	4.75
2. Industry of which	**5.79**	**6.51**	**6.88**	**2.73**	**4.76**	**6.57**	**-2.61**	**6.49**	**7.12**
2.1. Manufacturing	5.84	6.28	6.62	2.24	4.94	6.47	-3.22	6.23	6.80
2.2. Mining and Quarrying	4.40	6.97	6.76	2.74	1.64	5.28	1.08	8.25	7.73
2.3. Electricity, Gas and Water Supply	8.68	12.00	12.84	10.84	6.04	9.36	1.24	7.90	9.72
3. Services	**4.00**	**4.80**	**5.25**	**4.12**	**3.41**	**5.51**	**0.98**	**5.36**	**6.68**
3.1. Trade, Hotels and Restaurants	4.79	5.77	5.39	3.47	3.45	6.88	-3.23	5.38	6.98
3.2. Transport, Storage and Communication	4.38	6.99	6.27	4.81	4.75	6.93	5.65	6.38	7.77
3.3. Banking and Insurance	8.77	5.80	6.48	4.97	7.20	10.98	-3.45	8.72	12.51
3.4. Public Administration and Defence	3.45	6.83	8.97	5.66	6.54	4.94	7.07	6.55	8.16
3.5. Construction	6.80	6.70	6.83	6.30	-0.16	5.75	-5.28	4.96	3.80
3.6. Other Services @	2.48	2.72	3.33	3.09	2.89	2.88	5.27	3.82	4.26
Total Gross Domestic Product (GDP)	**3.61**	**4.27**	**2.84**	**3.92**	**3.35**	**4.88**	**-5.20**	**5.68**	**5.61**

Note: @: Same as for Table 1.

TABLE 4. PLAN-WISE SECTORAL GROWTH RATES OF NET DOMESTIC PRODUCT (NDP) AT FACTOR COST AT 1980-81 PRICES (ANNUAL AVERAGES)

(Per cent)

Sector (1)	First Plan 1951-52 to 1955-56 (2)	Second Plan 1956-57 to 1960-61 (3)	Third Plan 1961-62 to 1965-66 (4)	Annual Plans 1966-67 to 1968-69 (5)	Fourth Plan 1969-70 to 1973-74 (6)	Fifth Plan 1974-75 to 1978-79 (7)	Annual Plan 1979-80 (8)	Sixth Plan 1980-81 to 1984-85 (9)	Seventh Plan 1985-86 to 1989-90 (10)
1. Agriculture and Allied Activities	**2.75**	**3.30**	**-0.49**	**4.44**	**2.72**	**3.53**	**-13.76**	**5.78**	**3.49**
of which									
1.1 Agriculture	**3.09**	**3.57**	**-0.99**	**4.84**	**2.92**	**3.94**	**-14.43**	**6.34**	**3.74**
2. Industry	**5.45**	**5.82**	**6.37**	**1.81**	**4.57**	**6.55**	**-4.14**	**6.22**	**7.05**
of which									
2.2. Mining and Quarrying	5.56	5.61	6.33	1.46	4.96	6.64	-4.27	6.30	6.90
3. Services	**4.17**	**4.82**	**5.18**	**4.08**	**3.32**	**5.66**	**0.56**	**5.32**	**6.77**
3.1. Trade, Hotels and Restaurants	4.79	5.78	5.38	3.43	3.31	6.86	-3.49	5.32	7.03
3.2. Transport, Storage and Communication	4.81	6.62	4.03	4.52	4.68	8.19	5.38	6.55	8.14
3.3. Banking and Insurance	8.75	5.72	6.45	4.95	7.21	11.09	-3.57	8.70	12.35
3.4. Public Administration and Defence	3.05	6.86	8.93	5.62	6.41	4.90	7.08	6.38	8.26
3.5. Construction	3.55	3.66	4.45	4.08	1.96	3.74	2.04	4.10	4.19
Total Net Domestic Product (NDP)	**3.52**	**4.12**	**2.52**	**3.76**	**3.23**	**4.85**	**-6.27**	**5.63**	**5.60**

Notes: @ Same as for Table 2.

TABLE 5. SECTORAL COMPOSITION OF NET DOMESTIC PRODUCT (NDP) AT FACTOR COST - ORGANISED AND UNORGANISED SECTORS (AT CURRENT PRICES) (ANNUAL AVERAGES)

(Per cent)

Industry-group	1980-81 to 1984-85		1985-86 to 1989-90		Over-all Period 1980-81 to 1989-90	
(1)	Organised Sector (2)	Unorganised Sector (3)	Organised Sector (4)	Unorganised Sector (5)	Organised Sector (6)	Unorganised Sector (7)
1. Agriculture and Allied Activities	4.40	95.60	4.50	95.50	4.44	95.56
of which						
1.1. Agriculture	2.30	97.70	2.90	97.10	2.57	97.43
2. Mining and Quarrying	90.40	9.60	90.40	9.60	90.40	9.60
3. Manufacturing	57.00	43.00	59.70	40.30	58.20	41.80
4. Electricity, Gas and Water Supply	100.00	0.00	100.00	0.00	100.00	0.00
5. Construction	51.30	48.70	52.70	47.30	51.92	48.08
6. Trade, Hotels and Restaurants	10.10	89.90	10.10	89.90	10.10	89.90
7. Transport, Storage and Communication	53.90	46.10	52.50	47.50	53.28	46.72
9. Banking and Insurance	98.90	1.10	98.70	1.30	98.81	1.19
10. Public Administration and Defence	100.00	0.00	100.00	0.00	100.00	0.00
11. Other Services	34.60	65.40	40.70	59.30	37.31	62.69
Total Net Domestic Product (NDP)	**32.50**	**67.50**	**36.10**	**63.90**	**34.10**	**65.90**

Source: Computed on the basis of data taken from the *National Accounts Statistics (NAS)* (various issues), Central Statiscal Orgnisation (CSO), Government of India.

TABLE 6. SECTORAL GROWTH RATES OF GROSS DOMESTIC PRODUCT (GDP) AT FACTOR COST AT 1980-81 PRICES (ANNUAL AVERAGES)

(Per cent)

Industry-group	1961-62 to 1964-65			1965-66 to 1969-70			1970-71 to 1974-75			1975-76 to 1979-80			1980-81 to 1984-85			1985-86 to 1989-90			Over-all Period 1960-61 1989-90		
	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1. Agriculture (and Allied Activities)	8.82	2.32	2.41	8.17	1.63	1.74	5.20	1.07	1.17	2.35	1.31	1.34	2.57	5.79	5.68	0.21	3.70	3.60	4.70	2.60	2.62
2. Industry	21.76	6.43	8.06	7.26	3.54	4.1	9.33	2.02	3.36	6.70	5.08	5.42	8.69	5.80	6.49	11.63	5.20	6.98	10.87	4.66	5.69
2.1. Manufacturing	27.57	6.68	8.05	4.34	3.61	3.67	7.04	2.96	3.38	4.69	5.35	5.25	6.96	6.16	6.23	12.49	5.79	6.66	10.45	5.07	5.50
3. Services	9.41	4.93	5.75	7.90	3.03	4.09	6.08	2.06	3.06	7.92	3.92	5.09	7.14	4.50	5.36	8.61	5.96	6.89	7.82	4.00	4.98
3.1. Trade Hotels and Restaurants	22.43	6.40	6.58	22.93	2.86	3.27	11.62	3.06	3.30	6.51	5.27	5.32	6.05	5.36	5.38	1.27	7.46	7.12	12.16	4.99	5.09
3.2. Transport, Storage and Communication	6.37	6.71	6.52	5.54	4.54	5.07	4.17	7.37	5.58	6.83	5.53	6.10	5.12	7.82	6.38	4.83	10.78	7.89	5.50	7.00	6.20
3.3. Banking and Insurance	10.57	5.48	6.99	13.85	0.06	5.71	10.82	-8.64	3.46	13.44	7.96	12.19	9.65	5.09	8.72	14.04	11.14	13.55	11.99	3.25	8.26
3.4. Public Administrations and Defence	10.31	0.00	10.31	5.86	0.00	5.86	5.57	0.00	5.57	5.58	0.00	5.58	6.55	0.00	6.55	8.47	0.00	8.47	7.01	0.00	7.01
3.5. Other Services @	10.04	3.82	4.24	10.35	3.27	3.90	5.60	1.32	1.79	9.83	2.61	3.64	7.99	3.26	4.10	7.80	3.29	4.23	8.63	2.92	3.63
Total Gross Domestic Product (GDP)	11.82	3.76	4.47	7.73	2.31	2.93	6.76	1.53	2.28	7.20	2.86	3.61	7.31	5.29	5.68	9.13	4.76	5.61	8.30	3.37	4.04

Note: @: Inclusive of construction.

TABLE 7. SECTORAL COMPOSITION OF GROSS DOMESTIC PRODUCT (GDP) AT FACTOR COST AT 1980-81 PRICES (ANNUAL AVERAGES)

(Per cent)

Industry-group	1961-62 to 1964-65			1965-66 to 1969-70			1970-71 to 1974-75			1975-76 to 1979-80			1980-81 to 1984-85			1985-86 to 1989-90			Over-all Period 1960-61 1989-90		
	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1. Agriculture (and Allied Activities)	1.66	98.34	100	2.53	97.47	100	2.85	97.15	100	3.02	96.98	100	2.88	97.12	100	2.74	97.26	100	2.61	97.39	100
2. Industry	12.63	87.37	100	16.69	83.31	100	18.95	81.05	100	23.01	76.99	100	25.33	74.67	100	29.09	70.91	100	20.95	79.05	100
2.1. Manufacturing	8.54	91.46	100	10.86	89.14	100	10.70	89.30	100	11.85	88.15	100	12.42	87.58	100	14.20	85.80	100	11.43	88.57	100
3. Services	18.86	81.14	100	22.40	77.60	100	27.23	72.77	100	29.98	70.02	100	33.25	66.75	100	36.30	63.70	100	28.00	72.00	100
3.1. Trade, Hotels and Restaurants	1.26	98.74	100	2.86	97.14	100	4.70	95.30	100	5.14	94.86	100	5.28	94.72	100	4.73	95.27	100	3.99	96.01	100
3.2. Transport, Storage and Communication	54.76	45.24	100	56.17	43.83	100	55.69	44.31	100	55.45	44.55	100	52.86	47.14	100	46.90	53.10	100	53.64	46.36	100
3.3. Banking and Insurance	35.42	64.58	100	50.61	49.39	100	72.11	27.89	100	79.94	20.06	100	84.62	15.38	100	86.02	13.98	100	68.12	31.88	100
3.4. Public Administrations and Defence	100	0.00	100	100	0.00	100	100	0.00	100	100	0.00	100	100.00	0.00	100	100.00	0.00	100	100.00	0.00	100
3.5. Other Services @	7.26	92.74	100	9.28	90.72	100	12.24	87.76	100	14.69	85.31	100	19.19	80.81	100	22.14	77.86	100	14.13	85.87	100
Gross Domestic Product	9.53	90.47	100	12.67	87.33	100	15.28	84.72	100	17.86	82.14	100	20.23	79.77	100	23.61	76.39	100	16.53	83.47	100

Note: @: Inclusive of construction.

TABLE 8. SECTORAL GROWTH RATES EMPLOYMENT IN INDIA (ANNUAL AVERAGES)

(Per cent)

Industry-group	1961-65			1966-70			1971-75			1976-80			1981-85			1986-90			Over-all Period 1961-90		
	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1. Agriculture (including Hunting, etc.)	3.94	7.74	6.92	4.82	-1.74	-0.37	4.83	0.11	1.34	5.25	1.01	2.31	2.97	-1.26	0.22	2.02	1.66	1.79	3.97	1.03	1.87
2. Industry	10.79	3.53	4.84	4.60	1.13	1.88	10.45	-0.43	2.56	5.53	1.39	2.88	3.77	0.02	1.53	1.33	0.11	0.64	5.92	0.87	2.30
2.1. Mining & Quarrying	5.86	-2.56	-0.86	1.99	-2.68	-1.49	33.49	-20.29	6.46	2.82	0.39	2.46	4.11	-1.92	3.35	-0.15	-2.25	-0.39	8.09	-4.97	1.67
2.2. Manufacturing	14.61	4.59	5.82	4.26	1.60	2.01	5.51	1.08	1.87	7.3	1.46	2.72	4.03	0.05	1.08	1.22	0.17	0.47	5.86	1.38	2.21
2.3. Electricity, Gas & Water	6.79	0.00	5.84	6.72	3.05	6.17	4.89	-2.29	4.26	5.45	-2.62	4.95	2.83	2.80	2.83	3.40	0.55	3.26	4.95	0.26	4.51
3. Services	5.66	7.17	5.82	2.70	10.11	3.48	3.34	2.68	3.24	2.64	0.89	2.40	2.48	1.50	2.36	1.75	1.81	1.76	3.01	3.92	3.08
3.1. Construction	5.27	-4.70	2.53	1.52	-1.98	0.57	3.89	-1.79	2.90	2.26	-9.95	1.06	1.42	-0.77	1.29	-0.16	1.08	-0.2	2.27	-2.96	1.32
3.2. Wholesale & Retail Trade	11.10	8.50	9.46	16.15	7.92	10.43	-8.3	1.19	-4.80	16.19	-2.32	1.26	3.62	0.22	1.23	2.79	0.99	1.58	6.78	2.55	2.97
3.3. Transport, Storage and Communication	4.35	11.31	4.55	1.37	-1.43	1.23	1.55	-4.68	1.30	2.33	-1.61	2.20	1.77	-5.16	1.61	0.88	-0.73	0.85	1.96	-0.79	1.87
3.4. Finance, Insurance Real Estate, etc.	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.11	4.30	6.37	7.31	1.28	6.03	3.26	1.78	3.00	5.89@	2.46@	5.13@
3.5. Community, Social & Personal Services	6.17	14.8	6.81	2.96	17.01	4.35	3.31	1.57	3.05	2.31	2.49	2.34	2.38	2.33	2.37	2.12	2.21	2.13	3.11	6.46	3.39
Total	6.17	4.64	5.54	2.99	2.19	2.65	4.40	0.36	2.89	3.23	1.21	2.55	2.75	0.24	1.96	1.67	0.74	1.40	3.44	1.46	2.74

Notes: 1. The Employment figures reported in *Economic Survey* were as on March 31 of the calender year. 2. NA: Not available. 3. @ For the period 1976-90.

TABLE 9. SECTORAL COMPOSITION OF EMPLOYMENT IN INDIA (ANNUAL AVERAGES)

(Per cent)

Industry-group	1961-65			1966-70			1971-75			1976-80			1981-85			1986-90			Over-all Period 1961-90		
	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1. Agriculture (including Hunting, etc.)	19.48	80.52	100	22.49	77.51	100	27.20	72.80	100	31.59	68.41	100	36.30	63.70	100	39.16	60.84	100	29.37	70.63	100
2. Industry	19.04	80.96	100	22.54	77.46	100	29.73	70.27	100	37.40	62.60	100	40.79	59.21	100	44.48	55.52	100	32.33	67.67	100
2.1. Mining & Quarrying	22.87	77.13	100	27.66	72.34	100	60.72	39.28	100	85.61	14.39	100	87.93	12.07	100	90.72	9.28	100	62.59	37.41	100
2.2. Manufacturing	13.19	86.81	100	16.06	83.94	100	18.72	81.28	100	23.32	76.68	100	26.50	73.50	100	29.57	70.43	100	21.23	78.77	100
2.3. Electricity, Gas & Water	86.18	13.62	100	88.99	11.01	100	91.76	8.24	100	94.53	5.47	100	95.08	4.92	100	95.43	4.57	100	92.00	8.00	100
3. Services	88.65	11.35	100	84.75	15.25	100	85.65	14.35	100	86.53	13.47	100	87.06	12.94	100	87.40	12.60	100	86.67	13.33	100
3.1. Construction	77.72	22.28	100	80.70	19.30	100	86.78	13.22	100	92.44	7.56	100	94.15	5.85	100	94.90	5.10	100	87.78	12.22	100
3.2. Wholesale & Retail Trade	38.30	61.7	100	39.02	60.98	100	47.65	52.35	100	23.19	76.81	100	30.36	69.64	100	33.21	66.79	100	35.29	64.71	100
3.3. Transport, Storage and Communication	94.38	5.62	100	94.99	5.01	100	96.49	3.51	100	97.32	2.68	100	97.98	2.02	100	98.29	1.71	100	96.57	3.43	100
3.4. Finance, Insurance Real Estate, etc.	-	-	100	-	-	100	-	-	100	75.32	24.68	100	80.57	19.43	100	82.45	17.55	100	79.45@	20.55@	100
3.5. Community, Social & Personal Services	91.69	8.31	100	85.61	14.39	100	85.10	14.90	100	86.17	13.83	100	85.91	14.09	100	86.13	13.87	100	86.77	13.23	100
Total	59.15	40.85	100	59.71	40.29	100	63.50	36.50	100	66.86	33.14	100	68.81	31.19	100	71.05	28.95	100	64.85	35.15	100

Notes: 1. The Employment figures reported in *Economic Survey* were as on March 31 of the calender year. 2. NA: Not available. 3. @ For the period 1976-90.

TABLE 10. ALL-INDIA COMPOUND GROWTH RATES OF AREA(A), PRODUCTION(P) AND YIELD(Y) OF PRINCIPAL CROPS
(Per cent per annum)

	Pre-Green Revolution 1949-50 to 1964-65			Post-Green Revolution 1967-68 to 1990-91			Over-all Period 1949-50 to 1990-91		
Crop	A	P	Y	A	P	Y	A	P	Y
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Total Foodgrains	**1.41**	**2.93**	**1.52**	**0.20**	**2.80**	**2.60**	**0.58**	**2.69**	**2.10**
Rice	1.33	3.49	2.13	0.58	2.82	2.26	0.83	2.62	1.77
Wheat	2.68	3.99	1.27	1.83	5.05	3.16	2.48	5.78	3.22
Jowar	0.99	2.50	1.50	-0.73	1.30	2.04	-0.30	1.21	1.52
Bajra	1.08	2.34	1.24	-0.80	0.52	1.33	0.06	1.70	1.64
Maize	2.66	3.87	1.18	-0.06	1.35	1.41	1.42	2.41	0.99
Ragi	0.84	3.08	2.22	-0.19	1.31	1.50	0.03	1.50	1.47
Small Millets	-0.30	-0.20	0.09	-2.84	-2.18	0.68	-1.40	-1.34	0.05
Barley	-0.64	-0.28	0.36	-5.07	-2.97	2.20	-2.83	-1.28	1.60
Coarse Cereals	0.90	2.23	1.32	-1.01	0.66	1.69	-0.22	1.24	1.46
Total Cereals	1.30	3.24	1.87	0.16	3.00	2.83	0.66	3.01	2.34
Gram	1.64	2.66	1.00	-0.65	-0.38	0.26	-0.66	-0.09	0.58
Tur	0.57	-1.34	-1.90	1.58	2.02	0.43	0.91	0.81	-0.09
Other Pulses	2.07	1.28	-0.77	0.61	1.66	1.05	0.70	0.86	0.16
Total Pulses	1.90	1.39	-0.50	0.33	0.93	0.59	0.28	0.46	0.19
2. Total Non-Foodgrains	**2.52**	**3.54**	**0.99**	**0.54$**	**2.82$**	**2.27$**	**0.98$**	**2.69$**	**1.69$**
Sugarcane	3.27	4.26	0.95	1.62	2.91	1.28	1.84	3.01	1.15
Groundnut	4.01	4.33	0.31	0.38	1.53	1.14	1.16	1.86	0.69
Sesamum	0.14	-0.32	-0.46	-0.10	1.89	2.09	0.01	0.86	0.85
Rapeseed and Mustard	2.97	3.36	0.37	1.85	4.67	2.76	1.84	3.78	1.91
Seven Oilseeds	2.64	3.34	0.68	0.55	2.52	1.96	0.98	2.25	1.26
Total Oilseeds	2.69	3.11	0.48	0.36	2.37	2.01	0.86	2.18	1.31
Cotton	2.47	4.56	2.04	-0.28	2.27	2.55	0.21	2.35	2.13
Jute	3.00	3.51	0.49	0.09	2.23	2.13	0.59	1.57	0.97
Mesta	6.21	7.97	1.66	-1.09	0.02	1.11	0.60	1.00	0.40
Jute and Mesta	3.86	4.20	0.33	-0.01	1.89	1.91	0.58	1.47	0.89
Total Fibres	2.57	4.45	1.84	-0.26	2.14	2.41	0.21	2.09	1.88
Potato	4.37	4.27	-0.11	3.47	6.49	2.92	3.79	5.99	2.11
Tobacco	1.66	2.79	1.11	-0.51	1.63	2.17	0.37	1.95	1.58
3. All Crops (1+2)	**1.61**	**3.13**	**1.50**	**0.28$**	**2.81$**	**2.53$**	**0.66$**	**2.69$**	**2.02$**

Notes: 1. $: Provisional.

2. A: Area, P: Production, Y: Yield.

3. Seven Oilseeds include groundnut, castorseed, sesamum, rapeseed and mustard, linseed, nigerseed and safflower.

4. Total oilseeds include seven oilseeds, cottonseed and coconut.

TABLE 11. TRENDS IN THE GROWTH RATES OF INDUSTRIAL PRODUCTION (USE-BASED CLASSIFICATION) (1961 TO 1990)

(Per cent)

Year	Basic Goods Industries	Capital Goods Industries	Intermediate Goods Industries	Consumer Goods			All Industries
				Durables	Non-Durables	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961-62	12.64	17.98	5.71	10.72	5.78	6.66	9.21
1962-63	13.78	29.71	7.36	1.35	1.30	1.31	9.61
1963-64	14.36	11.16	8.25	6.44	1.41	2.29	8.31
1964-65	3.78	21.27	7.62	11.69	6.58	7.42	8.52
1965-66	7.87	18.30	6.00	24.67	4.04	7.43	9.29
Annual Average (1961-1966)	**10.49**	**19.68**	**6.99**	**10.97**	**3.82**	**5.02**	**8.99**
1966-67	5.81	-13.54	-2.49	7.80	3.08	4.13	-0.48
1967-68	1.66	-2.66	2.21	3.48	-7.53	-5.24	-0.36
1968-69	10.30	2.41	6.02	14.38	2.16	4.92	6.76
1969-70	8.88	1.82	4.18	12.93	9.26	10.08	7.58
1970-71	4.60	4.93	2.88	4.06	7.30	6.50	5.15
Annual Average (1966-1971)	**6.25**	**-1.41**	**2.56**	**8.53**	**2.85**	**4.08**	**3.73**
1971-72	4.60	5.60	4.40	10.90	2.70	3.60	4.40
1972-73	8.03	0.57	7.47	0.72	4.97	4.44	5.56
1973-74	-3.10	16.38	1.78	1.16	-0.56	-0.37	1.63
1974-75	3.93	4.77	-1.66	10.80	0.56	1.76	2.05
1975-76	13.36	0.46	1.25	-15.34	-0.19	-2.10	4.72
Annual Average (1971-1976)	**5.36**	**5.56**	**2.65**	**1.65**	**1.50**	**1.47**	**3.67**
1976-77	14.57	10.30	7.39	14.06	10.13	10.61	10.53
1977-78	4.87	5.71	3.03	13.32	5.15	6.06	4.54
1978-79	4.77	3.36	7.95	7.96	10.03	9.76	6.87
1979-80	2.34	2.30	2.72	6.02	-3.21	-2.17	1.15
1980-81	-0.96	4.80	0.86	3.51	-0.08	0.44	0.80
Annual Average (1976-1981)	**5.12**	**5.29**	**4.39**	**8.97**	**4.40**	**4.94**	**4.78**
1981-82	10.90	6.70	3.70	10.90	14.10	13.80	9.30
1982-83	7.03	3.66	0.87	9.11	-2.80	-1.58	3.20
1983-84	5.90	11.66	9.85	16.12	-0.36	1.61	6.74
1984-85	11.14	3.00	9.75	21.57	5.07	7.21	8.55
1985-86	6.80	10.61	7.45	18.74	11.46	12.54	8.72
Annual Average (1981-1986)	**8.35**	**7.13**	**6.32**	**15.29**	**5.49**	**6.72**	**7.30**
1986-87	9.25	18.19	4.43	18.93	4.87	7.14	9.15
1987-88	5.64	15.94	4.81	7.84	6.19	6.46	7.29
1988-89	9.87	6.95	11.53	11.96	2.50	4.21	8.71
1989-90	5.39	22.36	4.29	1.68	7.45	6.31	8.57
Annual Average (1986-1990)	**7.54**	**15.86**	**6.27**	**10.10**	**5.25**	**6.03**	**8.43**
Annual Average Over-All (1961-1990)	**7.17**	**8.44**	**4.81**	**9.22**	**3.84**	**4.66**	**6.07**

Note: Growth rates have been worked out on the basis of Index Numbers of Industrial Production (Base: 1980 = 100).

TABLE 12. TRENDS IN FACTOR USE AND PRODUCTIVITY RATIOS IN THE INDUSTRIAL SECTOR IN INDIA: 1960-90

Period	Capital Intensity (K/L)	Capital-Output Ratio (K/Y)	Incremental Capital-Output Ratio (ICOR)	Capital Productivity (Y/K)	Labour Productivity (Y/L)
(1)	(2)	(3)	(4)	(5)	(6)
			Quinquennial Averages		
1960-65	0.30	2.35	7.52	0.43	0.13
1966-70	0.41	2.92	10.73	0.34	0.14
1971-75	0.39	2.60	-0.81	0.39	0.15
1976-80	0.40	2.27	3.25	0.44	0.18
1981-85	0.52	2.55	1.90	0.39	0.20
1986-90	0.74	2.70	0.92	0.37	0.27
			Decennial Averages		
1960-70	0.35	2.61	9.12	0.39	0.13
1971-80	0.40	2.43	1.22	0.42	0.16
1981-90	0.63	2.63	1.41	0.38	0.24
			Overall Averages		
1960-80	0.37	2.52	5.17	0.40	0.15
1960-90	0.45	2.56	3.92	0.40	0.18

Source: Computed on the basis of data taken from the *Reports of the Annual Survey of Industries (ASI)* (various issues), Central Statistical Organisation (CSO), Government of India.

TABLE 13. STRUCTURE OF MANUFACTURING INDUSTRIES IN INDIA-SHARES OF VARIOUS INDUSTRIES IN MANUFACTURING SECTOR OUTPUT, FIXED CAPITAL AND EMPLOYMENT (PERIOD: 1974-90)

(Per cent)

Industries	Net Value Added			Fixed Capital			Employment		
	1973-74	1979-80	1989-90	1973-74	1979-80	1989-90	1973-74	1979-80	1989-90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Manufacture of Food Products	8.51	8.78	10.91	7.89	7.50	7.61	13.53	17.29	15.52
2. Manufacture of Beverages, Tobacco and Tobacco Products	5.24	2.75	2.86	0.99	0.82	1.08	4.31	5.93	7.42
3. Manufacture of Cotton Textiles	19.33	15.93	7.02	7.99	6.24	4.78	18.89	16.64	12.27
4. Manufacture of Wool, Silk and Synthetic Fibre Textiles	3.82	4.16	4.22	2.31	2.29	4.26	3.12	3.25	4.09
5. Manufacture of Jute, Hemp and Mesta Textiles	3.13	3.83	1.13	1.14	0.59	0.64	5.22	4.24	3.03
6. Manufacture of Textile Products (incl. wearing apparel other than footwear)	1.10	1.28	1.86	0.44	0.53	0.74	1.30	1.55	2.32
7. Manufacture of Wood and Wood Products, Furniture and Fixtures	0.80	0.77	0.38	0.40	0.35	0.35	1.47	1.26	1.04
8. Manufacture of Paper and Paper Products, Printing and Publishing and Allied Industries	5.17	4.85	3.65	4.70	4.08	4.01	4.88	4.03	3.91
9. Manufacture of Leather, Leather and Fur Products (except repair)	0.68	0.87	0.85	0.23	0.46	0.43	0.87	0.89	1.47
10. Manufacture of Rubber, Plastics, Petroleum and Coal Products.	3.94	5.66	14.36	4.93	6.58	20.77	2.20	2.68	8.05
11. Manufacture of Chemicals and Chemical Products (except products of petroleum and coal).	3.26	3.47	8.13	21.01	22.18	7.28	6.25	7.21	3.37
12. Manufacture of Non-Metallic Mineral Products.	3.79	4.16	4.46	5.04	3.54	8.45	5.51	4.98	6.23
13. Manufacture of Basic Metal and Alloy Industries.	11.60	12.44	11.91	22.83	24.78	21.03	8.90	8.18	8.45
14. Manufacture of Metal Products and Parts, except Machinery and Transport Equipment.	3.64	3.83	2.70	1.98	1.48	1.48	3.42	2.97	3.10
15. Manufacture of Machinery, Machine Tools and Parts.	8.09	9.12	7.74	5.94	5.00	4.63	6.31	6.18	6.24
16. Manufacture of Electrical Machinery, Apparatus, Appliances and Supplies and Parts.	8.25	8.40	9.01	5.28	4.14	5.22	4.91	4.62	5.47
17. Manufacture of Transport Equipment and Parts.	8.38	8.82	7.51	6.04	8.86	6.33	7.61	7.09	6.77
18. Other Manufacturing Industries.	1.26	0.88	1.28	0.86	0.59	0.92	1.33	1.01	1.26
Manufacturing Industries (1 to 18)	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

TABLE 14. TRENDS IN FACTOR USE AND PRODUCTIVITY RATIOS (AVERAGES) IN MANUFACTURING IN INDIA (PERIOD: 1974-90)

Industries	Capital Intensity (K/L)		Capital Output Ratio (K/Y)		Capital Productivity (Y/K)		Labour Productivity (Y/L)	
	1974-80	1981-90	1974-80	1981-90	1974-80	1981-90	1974-80	1981-90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Manufacture of Food Products	0.11	0.18	1.39	1.32	0.72	0.76	0.08	0.14
2. Manufacture of Beverages, Tobacco and Tobacco Products	0.05	0.07	0.44	0.63	2.25	1.59	0.11	0.10
3. Manufacture of Cotton Textile	0.10	0.18	0.75	1.30	1.33	0.77	0.13	0.13
4. Manufacture of Wool, Silk and Synthetic Fibre Textiles	0.19	0.40	0.99	1.69	1.01	0.59	0.19	0.23
5. Manufacture of Jute, Hemp and Mesta Textiles	0.04	0.07	0.43	0.62	2.34	1.62	0.1	0.10
6. Manufacture of Textile Products (incl. wearing apparel other than footwear)	0.08	0.13	0.62	0.72	1.61	1.38	0.13	0.18
7. Manufacture of Wood and Wood Products, Furniture and Fixtures	0.07	0.13	0.83	1.11	1.2	0.9	0.09	0.11
8. Manufacture of Paper and Paper Products, Printing and Publishing and Allied industries	0.26	0.51	1.41	2.44	0.71	0.41	0.18	0.20
9. Manufacture of Leather, Leather and Fur Products (except repair)	0.10	0.16	0.75	1.03	1.34	0.97	0.13	0.15
10. Manufacture of Rubber, Plastics, Petroleum and Coal Products	0.66	1.00	1.82	1.79	0.55	0.56	0.36	0.55
11. Manufacture of Chemicals and Chemical Products (except products of petroleum and coal)	0.8	0.97	11.11	5.88	0.09	0.17	0.07	0.17
12. Manufacture of Non-Metallic Mineral Products	0.2	0.48	1.61	2.33	0.62	0.43	0.12	0.18
13. Manufacture of Basic Metal and Alloy Industries	0.75	1.1	3.23	3.57	0.31	0.28	0.23	0.31
14. Manufacture of Metal Products and Parts, except Machinery and Transport Equipment	0.13	0.21	0.79	0.93	1.27	1.08	0.17	0.22
15. Manufacture of Machine Tools and Parts	0.23	0.31	1.02	1.02	0.98	0.98	0.23	0.30
16. Manufacture of Electrical Machinery, Apparatus, Appliances and Supplies and Parts.	0.26	0.36	0.96	0.94	1.04	1.06	0.27	0.38
17. Manufacture of Transport Equipment and Parts	0.26	0.4	1.23	1.52	0.81	0.66	0.19	0.26
18. Other Manufacturing Industries	0.15	0.27	0.87	0.93	1.15	1.08	0.18	0.28
Manufacturing Industries (1 to 18)	0.23	0.39	1.33	1.64	0.75	0.61	0.17	0.24

TABLE 15. RETURNS TO SCALE IN MANUFACTURING INDUSTRIES IN INDIA (PERIOD: 1974-90)

Industries	Returns to Scale					
	As per CD Production Function	Status	As per C.E.S. Production Function	Status	As per Bairam Production Function	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Manufacture of Food Products	1.21	IRS	1.00	CRS	1.25	IRS
2. Manufacture of Beverages, Tobacco and Tobacco Products	0.42	DRS	0.67	DRS	0.34	DRS
3. Manufacture of Cotton Textiles	1.29	IRS	0.68	DRS	0.67	DRS
4. Manufacture of Wool, Silk and Synthetic Fibre Textiles	0.07	DRS	0.75	DRS	0.77	DRS
5. Manufacture of Jute, Hemp and Mesta Textiles	1.40	IRS	1.27	IRS	1.40	IRS
6. Manufacture of Textile Products (incl. wearing apparel other than footwear)	1.36	IRS	1.37	IRS	1.36	IRS
7. Manufacture of Wood and Wood Products, Furniture and Fixtures	0.35	DRS	0.33	DRS	0.34	DRS
8. Manufacture of Paper and Paper Products, Printing and Publishing and Allied Industries.	-0.55	DRS	-0.81	DRS	-0.86	DRS
9. Manufacture of Leather, Leather and Fur Products (except repair)	1.23	IRS	1.21	IRS	1.22	IRS
10. Manufacture of Rubber, Plastics, Petroleum and Coal Products	1.51	IRS	0.78	DRS	1.22	IRS
11. Manufacture of Chemicals and Chemical Products (except products of petroleum and coal)	0.04	DRS	-0.05	DRS	0.66	DRS
12. Manufacture of Non-Metallic Mineral Products	2.19	IRS	2.21	IRS	0.74	DRS
13. Manufacture of Basic Metal and Alloy Industries	0.10	DRS	0.29	DRS	0.08	DRS
14. Manufacture of Metal Products and Parts, except Machinery and Transport Equipment	1.33	IRS	1.31	IRS	1.36	IRS
15. Manufacture of Machine Tools and Parts	1.64	IRS	1.62	IRS	1.66	IRS
16. Manufacture of Electrical Machinery, Apparatus, Appliances and Supplies and Parts.	0.99	DRS	1.74	IRS	1.75	IRS
17. Manufacture of Transport Equipment and Parts	0.91	DRS	0.91	DRS	0.95	DRS
18. Other Manufacturing Industries	0.79	DRS	0.72	DRS	0.79	DRS
Manufacturing Industries (1 to 18)	0.72	DRS	0.91	DRS	0.76	DRS

Notes: 1. DRS indicates decreasing returns to scale, CRS: constant returns to scale and IRS: increasing returns to scale.
2. The negative values are due to the negative signs and predominant magnitudes of the elasticities of output with regard to labour.

TABLE 16. GROWTH OF SMALL SCALE INDUSTRIES IN INDIA

Year	Number of Units (Lakh)	Growth Rate (Per cent)	Employment (Million)	Growth Rate (Per cent)	Production at Current Prices (Rs Crore)	Growth Rate (Per cent)	Exports (Rs Crore)	Growth Rate (Per cent)	Exports As Percentage of Production
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1976-77	5.86		5.6		12,400		766		6.18
1977-78	6.63	13.14	5.9	5.36	14,300	15.32	845	10.31	5.91
1978-79	7.34	10.71	6.4	8.47	15,790	10.42	1,069	26.51	6.77
1979-80	8.05	9.67	7.0	9.38	21,635	37.02	1,226	14.69	5.67
1980-81	8.74	8.57	7.1	1.43	28,060	29.70	1,643	34.01	5.86
1981-82	9.62	10.07	7.5	5.63	32,600	16.18	2,070	25.99	6.35
1982-83	10.55	9.67	7.9	5.33	35,000	7.36	2,095	1.21	5.99
1983-84	11.50	9.00	8.4	6.33	41,300	18.00	2,350	12.17	5.69
1984-85	12.42	8.00	9.0	7.14	50,520	22.32	2,563	9.06	5.07
1985-86	13.56	9.18	9.6	6.67	61,228	21.20	2,785	8.66	4.55
1986-87	14.64	7.96	10.1	5.21	72,250	18.00	3,631	30.38	5.03
1987-88	15.86	8.33	10.7	5.94	87,300	20.83	4,373	20.44	5.01
1988-89	17.12	7.94	11.3	5.61	106,400	21.88	5,490	25.54	5.16
1989-90	18.26	6.66	12.0	6.19	132,320	24.36	7,626	38.91	5.76
1990-91	19.48	6.68	12.5	4.17	155,340	17.40	9,763	28.02	6.28
1991-92	20.82	6.88	13.0	4.00	178,699	15.04	13,883	42.20	7.77
1992-93	22.35	7.35	13.4	3.08	209,300	17.12	17,785	28.11	8.50
1993-94	23.84	6.67	13.9	3.73	241,648	15.46	22,764	28.00	9.42
Average Growth Rate (Per cent) (1976-94)		**8.62**		**5.51**		**19.27**		**22.60**	**6.16**

TABLE 17. TRENDS IN OUTPUT (AT CURRENT PRICES) AND EMPLOYMENT IN SMALL SCALE INDUSTRIES IN INDIA

Industry	Output in Rs Crore and Employment in Lakhs								Compound Growth Rates (per cent)							
	1973-74		1979-80		1984-85		1989-90		1979-80 over 1973-74		1984-85 over 1979-80		1989-90 over 1984-85		1989-90 over 1973-74	
	Output	Employment	Output	Employment	Output	Employment	Output	Employment	Output	Employment	Output	Employment	Output	Employment	Output	Employment
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
. Traditional Industries																
1. Khadi	33	8.84	92	11.2	170	14.58	300	20	18.63	4.02	13.07	5.42	12.03	6.53	14.79	5.24
2. Village Industries	122	9.27	348	16.13	759	22.41	1,700	30	19.09	9.67	16.88	6.80	17.50	6.01	17.90	7.62
3. Sericulture	63	12	131	16	317	20	510	24.25	12.98	4.91	19.33	4.56	9.98	3.93	13.96	4.50
4. Coir	60	5	86	5.59	101	5.59	170	9.23	6.18	1.88	3.27	0.00	10.98	10.55	6.73	3.91
5. Handlooms	840	52.1	1,740	61.5	1,880	74.66	3,680	98.13	12.90	2.80	10.60	3.95	5.02	5.62	9.67	4.04
6. Handicrafts	1,065	15	2050	20.3	3,500	27.4	5,400	35.8	11.53	5.17	11.29	6.18	9.06	5.49	10.68	5.59
I. Total Traditional Industries (1 to 6)	2,183	102.21	4,447	130.72	7,727	164.64	11,760	217.41	12.69	4.19	11.68	4.72	8.76	5.72	11.10	4.83
Per cent to Grand Total	16.05	57.96	13.26	55.93	11.76	52.32	11.75	54.35								
II. Modern Industries																
1. Small Scale Industries	7,200	39.65	21,635	67	50,520	90	80,220	119	20.13	9.14	18.48	6.08	9.69	5.75	16.26	7.11
2. Powerlooms	1,980	10	3,250	11	6,423	32.19	7,020	35.32	8.61	1.60	14.60	23.96	1.79	1.87	8.23	8.21
II. Total Modern Industries (1 to 2)	9,180	49.65	24,885	78	56,943	122.19	87,240	154.32	18.08	7.82	18.01	9.39	8.91	4.78	15.11	7.34
Per cent to Grand Total	67.50	28.15	74.20	33.27	86.63	38.83	87.15	38.58								
III. Other Industries	2,237	24.5	4,206	25	1,061	27.86	1,100	28.27	11.10	0.34	-24.08	2.19	0.72	0.29	-4.34	0.90
Per cent to Grand Total	16.45	13.89	12.54	10.70	1.61	8.85	1.10	7.07								
Grand Total (I+II+III)	13,600	176.36	33,538	233.72	66,731	314.69	100,100	400	16.23	4.81	14.41	6.13	8.78	4.91	13.29	5.25
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00								

TABLE 18. TRENDS IN PLAN-WISE PUBLIC SECTOR OUTLAY ON INDUSTRY

(Rs Crore)

Industry	First Plan 1951-52 to 1955-56	Second Plan 1956-57 to 1960-61	Third Plan 1961-62 to 1965-66	Annual Plans 1966-67 to 1968-69	Fourth Plan 1969-70 to 1973-74	Fifth Plan 1974-75 to 1978-79	Annual Plan 1979-80	Sixth Plan 1980-81 to 1984-85	Seventh Plan 1985-86 to 1989-90 (Planned)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Village and Small Industries	42	187	241	126	243	593	256	1,945	2,753
2. Industry and Minerals	55	938	1,726	1,510	2,864	8,989	2,384	15,002	19,708
I. Total Industry (1+2)	97	1,125	1,967	1,636	3,107	9,582	2,640	16,947	22,461
II. Total Outlay on All heads	1,960	4,672	8,577	6,625	15,779	39,426	12,177	109,292	180,000
1. Share of Village & Small Industries in Total Outlay (Per cent)	2.14	4.00	2.81	1.90	1.54	1.50	2.10	1.78	1.53
2. Share of Industry & Minerals in Total Outlay (Per cent)	2.81	20.08	20.12	22.79	18.15	22.80	19.58	13.73	10.95
3. Share of Total Industry in Total Outlay (Per cent)	4.95	24.08	22.93	24.69	19.69	24.30	21.68	15.51	12.48

TABLE 19. INDUSTRY-WISE CLASSIFICATION OF SICK SMALL SCALE UNITS AND OUTSTANDING BANK CREDIT

Industry	End-June 1981				End-March 1992			
	Number of Units	Percentage Share in the Total	Amount of Outstanding Bank Credit (Rs Crore)	Percentage Share in the Total	Number of Units	Percentage Share in the Total	Amount of Outstanding Bank Credit (Rs Crore)	Percentage Share in the Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Engineering & Electrical	92	21.80	319.61	21.99	34,171	13.91	813.64	26.24
2. Textiles	94	22.27	406.48	27.97	19,162	7.80	210.67	6.79
3. Jute	35	8.29	92.26	6.35	204	0.08	5.52	0.18
4. Paper	NA	NA	NA	NA	2,533	1.03	54.23	1.75
5. Rubber	12	2.84	64.95	4.47	2,989	1.22	50.50	1.63
6. Cement	3	0.71	13.20	0.91	1,296	0.53	22.41	0.72
7. Iron & Steel	47	11.14	105.89	7.29	3,403	1.39	157.05	5.07
8. Sugar	48	11.37	117.00	8.05	374	0.15	16.04	0.52
9. Chemicals	26	6.16	186.12	12.81	10,027	4.08	318.56	10.27
10. Miscellaneous	65	15.40	147.78	10.17	171,416	69.80	1,452.06	46.83
Total	**422**	**100.00**	**1,453.29**	**100.00**	**245,575**	**100.00**	**3,100.68**	**100.00**

Note: NA: Not available. .

Source: Computed on the basis of data taken from the *Report on Currency and Finance* (various issues), Reserve bank of India, Bombay.

TABLE 20. STATE-WISE DISTRIBUTION OF SICK SMALL SCALE INDUSTRIAL UNITS AND OUTSTANDING BANK CREDIT

(Rs Crore)

State/Union Territories	End-June 1982				End-June 1987				End-September 1992			
	No. of Units	Percentage Share in Total	Amount of Outstanding Bank Credit	Percentage Share in Total	No. of Units	Percentage Share in Total	Amount of Outstanding Bank Credit	Percentage Share in Total	No. of Units	Percentage Share in Total	Amount of Outstanding Bank Credit	Percentage Share in Total
I. Northern Region												
Chandigarh	NA		NA		204	0.13	5.72	0.37	299	0.13	9.78	0.29
Delhi	1	0.23	7.82	0.45	2,577	1.63	83.49	5.41	4,634	1.99	222.51	6.65
Haryana	6	1.38	12.43	0.72	1,819	1.15	38.44	2.49	3,613	1.55	107.00	3.20
Himachal Pradesh	NA		NA		665	0.42	8.08	0.52	1,509	0.65	19.7	0.59
Jammu & Kashmir	NA		NA		2,290	1.45	9.66	0.63	681	0.29	8.16	0.24
Punjab	3	0.69	4.31	0.25	1,834	1.16	35.51	2.30	5,673	2.43	107.23	3.21
Rajasthan	6	1.38	35.07	2.03	8,657	5.47	39.61	2.57	14,813	6.35	69.83	2.09
Uttar Pradesh	53	12.18	183.6	10.62	16,287	10.29	125.74	8.15	31,949	13.69	287.95	8.61
Total Northern Region	69	15.86	243.23	14.07	34,333	21.70	346.25	22.45	63,171	27.06	832.16	24.87
II. Southern Region												
Andhra Pradesh	13	2.99	31.64	1.83	14,064	8.89	108.19	7.02	30,044	12.87	308.95	9.23
Karnataka	20	4.60	140.64	8.13	5,105	3.23	95.64	6.20	17,458	7.48	225.67	6.75
Kerala	17	3.91	73.51	4.25	11,805	7.46	92.76	6.01	14,754	6.32	176.86	5.29
Pondicherry	2	0.46	5.78	0.33	366	0.23	3.31	0.21	461	0.20	7.83	0.23
Tamil Nadu	35	8.05	216.33	12.51	25,146	15.89	167.48	10.86	10,953	4.69	323.15	9.66
Total Southern Region	87	20.00	467.9	27.06	56,486	35.70	467.38	30.31	73,670	31.56	1,042.46	31.16
III. Eastern Region												
Assam	2	0.46	2.28	0.13	3,542	2.24	12.66	0.82	5,483	2.35	33.69	1.01
Arunachal Pradesh	NA		NA		22	0.01	0.02	0.00	62	0.03	0.37	0.01
Andaman & Nicobar Islands	NA		NA		NA		NA		22	0.01	0.03	0.00
Bihar	13	2.99	41.16	2.38	7,870	4.97	61.12	3.96	8,254	3.54	94.39	2.82
Manipur	NA		NA		932	0.59	0.86	0.06	2,341	1.00	1.48	0.04
Meghalaya	NA		NA		122	0.08	1.56	0.10	171	0.07	0.75	0.02
Mizoram	NA		NA		NA		NA		37	0.02	0.24	0.01
Nagaland	NA		NA		14	0.01	0.13	0.01	2,039	0.87	7.65	0.23
Orissa	3	0.69	18.36	1.06	7,229	4.57	32.5	2.11	9,862	4.22	66.73	1.99
Sikkim	NA		NA		1	0.00	0.01	0.00	75	0.03	0.44	0.01
Tripura	NA		NA		556	0.35	0.53	0.03	661	0.28	2.27	0.07
West Bengal	111	25.52	426.17	24.65	18,129	11.46	167.37	10.85	31,849	13.64	272.95	8.16
Total Eastern Region	129	29.66	487.97	28.22	38,417	24.28	276.76	17.95	60,856	26.07	480.99	14.38
IV. Western Region												
Daman & Diu	NA		NA		3	0.00	0.12	0.01	26	0.01	1.53	0.05
Dadra, Nagar Haveli	NA		NA		5	0.00	0.14	0.01	11	0.00	1.56	0.05
Goa	4	0.92	7.32	0.42	1,261	0.80	13.57	0.88	1,149	0.49	17.11	0.51
Gujarat	42	9.66	131.73	7.62	5,211	3.29	114.99	7.46	6,391	2.74	228.16	6.82
Madhya Pradesh	16	3.68	35.58	2.06	11,053	6.99	45.49	2.95	8,232	3.53	108.79	3.25
Maharashtra	88	20.23	355.22	20.55	11,457	7.24	277.55	18.00	19,935	8.54	632.78	18.91
Total Western Region	150	34.48	529.85	30.65	28,990	18.32	451.86	29.30	35,744	15.31	989.93	29.59
Grand Total	435	100.00	1,728.95	100.00	158,226	100.00	1,542.25	100.00	233,441	100.00	3,345.54	100.00

Note: NA: Not available.
Source: Computed on the basis of data taken from the *Report on Currency and Finance* (various issues), Reserve Bank of India (RBI), Bombay.

TABLE 21. RETURNS TO SCALE IN DIFFERENT INDUSTRY GROUPS IN INDIA AS PER COBB-DOUGLAS, BAIRAM AND CES PRODUCTION FUNCTIONS: 1974-92

Industry Group	Returns to Scale					
	As per CD Production Function	Status	As per Bairam Production Function	Status	As per CES Production Function	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SSIs	0.8860	DRS	0.9524	DRS	0.9293	DRS
M&LIs	0.9774	DRS	0.9695	DRS	0.9317	DRS
Over-All Industrial Sector	0.9463	DRS	0.9508	DRS	0.9470	DRS

Note: DRS: indicates decreasing returns to scale, CRS: Constant returns to scale and IRS: Increasing returns to scale.

TABLE 22. TRENDS IN TERMS OF TRADE BETWEEN AGRICULTURE, INDUSTRY AND SERVICE SECTORS

Years	Terms of Trade (TOT) Between					
	Agriculture and Industry		Industry and Service		Agriculture and Service	
	Gross	Net	Gross	Net	Gross	Net
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1950-51	1.04	1.02	0.97	0.98	1.01	1.00
1951-52	0.99	0.97	1.00	1.00	0.98	0.97
1952-53	1.02	1.00	0.91	0.92	0.93	0.92
1953-54	1.00	0.98	0.93	0.93	0.92	0.91
1954-55	0.85	0.83	0.91	0.91	0.77	0.75
Annual Average (1950-55)	**0.98**	**0.96**	**0.94**	**0.95**	**0.92**	**0.91**
1955-56	0.86	0.85	0.86	0.86	0.75	0.73
1956-57	0.94	0.92	0.92	0.93	0.86	0.85
1957-58	0.93	0.91	0.90	0.92	0.85	0.84
1958-59	0.97	0.95	0.89	0.90	0.86	0.85
1959-60	0.94	0.92	0.90	0.91	0.85	0.84
Annual Average (1955-60)	**0.93**	**0.91**	**0.89**	**0.90**	**0.83**	**0.82**
1960-61	0.86	0.85	0.92	0.93	0.80	0.79
1961-62	0.88	0.86	0.93	0.94	0.82	0.81
1962-63	0.89	0.87	0.92	0.93	0.81	0.81
1963-64	0.98	0.97	0.92	0.93	0.90	0.90
1964-65	1.06	1.05	0.89	0.89	0.94	0.93
Annual Average (1960-65)	**0.93**	**0.92**	**0.92**	**0.92**	**0.85**	**0.85**
1965-66	1.13	1.13	0.88	0.88	0.99	0.99
1966-67	1.23	1.24	0.88	0.87	1.07	1.08
1967-68	1.25	1.27	0.85	0.84	1.06	1.06
1968-69	1.26	1.27	0.85	0.84	1.07	1.07
1969-70	1.24	1.24	0.86	0.85	1.06	1.06
Annual Average (1965-70)	**1.22**	**1.23**	**0.86**	**0.86**	**1.05**	**1.05**
1970-71	1.11	1.11	0.89	0.88	0.99	0.98
1971-72	1.09	1.08	0.89	0.89	0.97	0.96
1972-73	1.18	1.19	0.89	0.89	1.05	1.05
1973-74	1.26	1.26	0.92	0.92	1.16	1.17
1974-75	1.12	1.12	0.97	0.97	1.09	1.09
Annual Average (1970-75)	**1.15**	**1.15**	**0.91**	**0.91**	**1.05**	**1.05**

(Contd.)

TABLE 22. (CONCLD.)

Years	Terms of Trade (TOT) Between					
	Agriculture and Industry		Industry and Service		Agriculture and Service	
	Gross	Net	Gross	Net	Gross	Net
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1975-76	0.96	0.97	0.94	0.93	0.90	0.89
1976-77	1.01	1.01	0.92	0.91	0.93	0.92
1977-78	1.02	1.02	0.93	0.93	0.95	0.94
1978-79	1.00	1.00	0.94	0.93	0.93	0.92
1979-80	1.00	1.00	1.00	1.00	1.00	1.00
Annual Average (1975-80)	**1.00**	**1.00**	**0.95**	**0.94**	**0.94**	**0.93**
1980-81	1.00	1.00	1.00	1.00	1.00	1.00
1981-82	0.95	0.95	1.00	1.00	0.95	0.95
1982-83	0.97	0.97	0.97	0.97	0.94	0.94
1983-84	0.98	0.98	0.95	0.96	0.94	0.94
1984-85	0.98	0.98	0.93	0.94	0.92	0.92
Annual Average (1980-85)	**0.98**	**0.98**	**0.97**	**0.97**	**0.95**	**0.95**
1985-86	0.97	0.97	0.94	0.94	0.91	0.91
1986-87	1.03	1.04	0.90	0.89	0.92	0.93
1987-88	1.08	1.09	0.88	0.87	0.95	0.95
1988-89	1.06	1.07	0.88	0.87	0.93	0.93
1989-90	1.06	1.07	0.90	0.88	0.95	0.95
Annual Average (1985-90)	**1.04**	**1.05**	**0.90**	**0.89**	**0.93**	**0.93**
1990-91	1.09	1.11	0.87	0.86	0.96	0.95
1991-92	1.20	1.23	0.87	0.85	1.05	1.05
1992-93	1.18	1.21	0.87	0.85	1.03	1.03
Annual Average (1990-93)	**1.16**	**1.18**	**0.87**	**0.85**	**1.01**	**1.01**

Notes: 1. The 'Gross' refers to the terms of trade computed on the basis of the ratio of GDP deflators, while the 'Net' refers to the terms of trade computed on the basis of the ratio of NDP deflators. 2. The TOT between (i) agricualture and industry indicate the ratio of agriculture to industrial prices, (ii) industry and services stand for the ratio of industry service sector prices, and (iii) agriculture and services indicate the ratio of agriculture to service sector prices.

TABLE 23. SECTORAL GROWTH RATES OF GROSS DOMESTIC PRODUCT (GDP) AT FACTOR COST [AT 1980-81 PRICES]

(Per cent)

Sector	Weights in terms of Sectoral Shares Average 1990-91 to 1994-95	Growth Rates of GDP					
		1990-91	1991-92	1992-93	1993-94	1994-95	Annual Average 1990-91 to 1994-95
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Agriculture and Allied Activities of which	**30.02**	3.78	-2.47	5.10	2.90	2.40	2.34
1.1. Agriculture	**22.49**	4.14	-2.74	5.30	3.00	NA	2.43
2. Industry of which	**24.91**	6.62	-1.73	3.40	3.90	8.30	4.10
2.1. Manufacturing	**20.42**	6.23	-3.23	3.10	3.60	8.70	3.68
3. Services	**45.07**	4.64	5.35	4.40	5.40	5.50	5.06
Total Gross Domestic Product (GDP)	**100.00**	**4.87**	**1.11**	**4.30**	**4.30**	**5.30**	**3.98**

Note: NA: Not available.

TABLE 24. RATES OF GROWTH OF AGRICULTURAL AND INDUSTRIAL PRODUCTION

(Per cent)

Item	1990-91	1991-92	1992-93	1993-94	1994-95 (P)	Annual Average 1990-91 to 1994-95
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Agriculture $	**3.00**	**-2.00**	**4.10**	**2.80**	**4.70**	**2.52**
of which						
1.1. Foodgrains*	**3.16**	**-4.54**	**6.59**	**1.45**	**4.23**	**2.18**
a) Rice	0.95	0.54	-2.41	8.37	3.29	**2.15**
b) Wheat	10.64	1.09	2.69	3.32	6.60	**4.87**
c) Coarse Cereals	-6.03	-20.49	40.77	-15.57	1.29	**-0.01**
d) Pulses	11.72	-16.08	6.67	2.34	6.11	**2.15**
1.2. Oilseeds*	10.06	0.00	8.06	6.97	3.72	**5.76**
1.3. Sugarcane*	6.87	5.35	-10.24	-0.39	14.22	**3.16**
1.4. Cotton*	-14.04	-1.02	17.53	-6.14	5.61	**0.39**
1.5. Jute and Mesta*	10.84	11.96	-16.50	-1.16	9.41	**2.91**
2. Industry #	**8.25**	**0.61**	**2.34**	**5.57**	**8.39**	**5.03**
of which						
a) Mining and Quarrying	4.54	0.59	0.54	3.35	6.31	**3.07**
b) Manufacturing	8.97	-0.77	2.13	5.56	8.77	**4.93**
c) Electricity	7.78	8.53	5.02	7.45	8.48	**7.45**
2.1. Use-based Classification						
a) Basic Industries	6.87	6.48	2.64	8.84	3.79	**5.72**
b) Capital Goods	16.13	-8.50	-0.15	-5.03	23.95	**5.28**
c) Intermediate Goods	4.68	-2.04	5.43	11.56	4.37	**4.80**
d) Consumer Goods	6.78	0.95	1.78	4.07	8.21	**4.36**
i) Durables	10.68	-10.87	-0.75	15.72	9.51	**4.86**
ii) Non-durables	5.78	3.98	2.40	1.51	7.91	**4.31**

Notes: (1) P: Provisional. (2) $: Based on the Index Numbers of Agricultural Production (Base: Triennium ending 1981-82 = 100). (3) * : Derived from production figures. (4) # : Based on the Index Number of Industrial Production (Base: 1980-81 = 100).

INDIA'S FOOD POLICY SINCE INDEPENDENCE

F.K. Wadia

The food policy followed by the Government of India has been dependent, to a large extent, upon the availability of foodgrains in the country. In periods of shortages, stringent controls on movement, procurement of foodgrains and rationing have been resorted to. In periods of good production, on the other hand, a relaxation in these measures has taken place. Over the years, the fair price shop system has become the major instrument for supplies of foodgrains from government stocks to consumers.

Food Policy During 1947-1951

The food policy in the country, at the time of Independence in August 1947, comprised a 'comprehensive scheme of controls involving internal procurement, imports from abroad on government account, planned movement of supplies and the rationing of supplies' [Ministry of Food and Agriculture, 1954, Pp. ii-iii]. This policy had been introduced during the World War II period by Orders issued under the Defence of India Rules and later, after the war ended in 1945, by the Essential Supplies (Temporary Powers) Act, 1946. In view of the shortage of availability of foodgrains both within the country and from abroad, the control measures were tightened further during the immediate post-war period of 1945-47. The partition of the country at the attainment of Independence meant a further loss 'to the Indian Union of 8 to 10 lakh tons of foodgrains from the surplus areas that went over to Pakistan' [Ministry of Food and Agriculture, 1954, Pp. ii and iii].

The main features of controls as they operated in 1947 could be broadly divided into two groups, namely, 'All India Control' and 'Local Control'. The two principal features of 'All India Control' were first, the procurement of foodgrains from abroad on a monopoly basis by the Central Government and secondly, the implementation of what was called the All India Basic Plan. There were two principal features of 'Local Controls' in each province and state. First, there was what was called 'Rationing and Controlled Distribution' which broadly determined the commitments of the provincial (or state) government concerned to its own people. Secondly, there was 'Procurement' which meant the securing from local sources, of the quantities of grain required for meeting those commitments as well as (in the case of surplus units) for meeting the 'export' quotas under the All India Basic Plan. There were numerous other controls, such as control on 'wholesale prices and retail prices, control of movements from one district to another, or of movements from area to area in the same district, control of stocks held by consumers, traders, producers, and so on' [Ministry of Food, 1947, p. 4].

Basic Plan: 'The Basic Plan implied the allocation by the Government of India of internal surplus and foreign imports to the deficit areas. After ascertaining from the states their estimates of requirements, procurement and surplus or deficit, the Central Government allocated the surplus and the availability from imports to the deficit areas' [Ministry of Food and Agriculture, 1954, p. xvi].

Rationing: The systems of rationing adopted in that period were mainly of 'three types, namely, (i) statutory rationing, (ii) non-statutory rationing and (iii) controlled distribution. The object of each type was the same- to ensure that the people who had to buy foodgrains for consumption obtained the rationed quantity regularly at reasonable prices. Statutory rationing bound the Government legally to provide a specific ration to every card holder and made it illegal for the card holder to buy grain except from the ration shop. Under non-statutory rationing and controlled distribution, there was no legal obligation either on the part of the Government or on the part of the rationed population, and purchases from the open market were permissible. In 1948 a new form of distribution through relief quota/fair-price shops was also devised' [Ministry of Food and Agriculture, 1954, p. xx]. By December 1947, the population covered by all forms of rationing was 144.6 milion persons.

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Procurement: 'Procurement implied purchases by Government of the surpluses of producers and traders at pre-determined fair prices. The surplus thus mopped up was utilised to feed the rationed population while the quantities left with the producers and traders fed the non-rationed population. .... Broadly speaking, six main systems of procurement were utilised: - (1) The Intensive Procurement System; (2) The Levy-cum-Monopoly System; (3) The Levy System; (4) The Monopoly System; (5) The Trader Levy System; and (6) Open Market Purchases' [Ministry of Food and Agriculture, 1954, Pp. viii-xi]. The aim of the Intensive Procurement System was to obtain the whole surplus of all foodgrains into Government hands, at a fixed price, by assessment of the surplus of each producer and direct from him. The system acted on the principle of universal procurement and universal rationing, the only exception being the producer who was allowed to retain his produce to the extent of his estimated consumption requirements. In its rigid form, the system did not permit any free market in foodgrains. This system was prevalent in Madras and, with certain deviations, in Travancore, Cochin and Mysore. The Levy-cum-Monopoly System was identical with the Intensive Procurement System except that it did not aim at taking the whole surplus of each producer. It limited itself to taking, by compulsion, at fixed prices from the producer direct, the substantial surplus available with him, calculated not on the basis of his production in each field but on a series of formulae designed to relieve the producer from harassment. The balance of surplus left with the producer was required to be sold, subject to a small specified quantity, to the Government. The best example of this system was Bombay and, to a certain extent, Hyderabad. Under the Levy System, the Government took a fixed quantity from the producer direct at a fixed price. The balance was left with the producer and allowed to be sold in the open market. This system was prevalent mainly in Saurashtra, Rajasthan and Hyderabad. The producer was not tackled directly under the Monopoly System, but the Government allowed no transaction in grains outside the village, except to itself, at a fixed price. There were, however, several variations of this system, both in point of rigidity and exclusiveness. The most intensive form of this system was worked in Punjab where the Government permitted practically no transaction or movement of grain as between villages but allowed freedom within the village itself. Anything which came out of the village had to be sold through the Government or a Government agent at a fixed price. In West Bengal, on the other hand, surplus areas were cordoned off, but within a cordoned area which comprised several villages, transactions and movements were permitted side by side with the Government purchases. Similar variations of this system were observed in other states also, mainly Uttar Pradesh, Bihar and Orissa, the monopoly in the latter two types being generally of a loose type. Under the Trader Levy System, which was prevalent in Madhya Pradesh, the Government took a fixed proportion of the supplies passing through each trader's hands at a fixed price. For the balance, the trader was allowed to do as he wished. The Government purchased grains from the open market through the trader or its own agents at or below the maximum price fixed by the Government under the system of Open Market Purchases. The private trader was, however, also permitted to purchase from the market along with the Government. This system was prevalent mainly in Vindhya Pradesh and PEPSU. In PEPSU, purchases were made through grain-dealers' associations and were generally intended for export. In Vindhya Pradesh, purchases were made through trade. 'Procurement operations commenced from the kharif year 1943-44. The working of the different systems of procurement during the first four years revealed that the total quantity procured, did not show any significant variation from year to year and fluctuated around 4 million tons' (4.06 million tonnes) [Ministry of Food and Agriculture, 1954, Pp. viii-xi].

Imports: Imports of cereals on private account were prohibited from September 1943, and purchases from abroad became the monopoly of the Government. With the increase in rationing commitments and near stagnation of the quantum of procurement, imports of foodgrains increased. The Government of India imported about 2.74 million tonnes of foodgrains in 1947. Since 1946, the landed cost of imported wheat became higher than the market prices of indigenous grains; a scheme of subsidy was therefore introduced by the Government of India for maintaining parity between the prices of imported and indigenous grains. The share of the subsidy borne by the Government on imported cereals rose from Rs 20.65 crore in 1946-47 to Rs 26.57 crore in 1947-48 [Ministry of Food and Agriculture, 1954, Pp. xii-xv].

Price Policy: The price policy followed during the period of controls aimed at procuring foodgrains from the cultivators at a price which would assure them of a fair return and at supplying foodgrains to consumers at a price which would not unduly raise the cost of living. In pursuance of this objective, the Government of India fixed (a) the procurement prices payable to producers in respect of the surplus procured by them, and (b) the issue rates at which rationed foodgrains were to be issued to ration card holders. The state governments were expected to take measures to ensure that the open market prices did not rise above these prices. Guaranteed minimum prices were fixed for wheat (Rs 7.50 per md. or Rs. 20.09 per qtl.), jowar (Rs 5.50 per md. or Rs. 14.74 per qtl.) and bajra (Rs 6.00 per md. or Rs. 16.08 per qtl.) from April 1944, which were continued until November 1947, with minor modifications in their prices. No purchases at the guaranteed minimum prices were however made, in view of the rising trend in market prices. Statutory maximum prices for wheat, barley, jowar, bajra, maize and gram were also fixed from 1944, accompanied by procurement and rationing. By 1946, there was a rise in market prices of foodgrains as also of imported cereals. The landed cost of imported foodgrains became higher than that of indigenous grains. In April, 1946 it was decided to hold the controlled prices at the then levels. This necessitated subsidising of the imported grains by the Government. The procurement and issue prices thus remained unaltered till about the end of 1947 [Ministry of Food and Agriculture, 1954, Pp. xxiv-xxv].

At the advent of Independence, therefore, the Government faced a double strain on its financial resources. On the one hand, it had to spend a large amount of foreign exchange on purchases of foodgrains from abroad; on the other, it had to bear a heavy loss on the sale of these grains at home. There was also gradually growing popular discontent against the rigours and inconveniences of controls and the country was divided on the merits of food controls.

Foodgrains Policy Committee, 1947

On September 27, 1947, the Government appointed the Foodgrains Policy Committee with Sir Purshotamdas Thakurdas as Chairman to examine the position of foodgrains in India and the perspective position during the next five years in the light of considerations of production, procurement, imports, distribution and controls and advise the Government on (i) the measures which could be taken to increase domestic production and procurement, (ii) the extent to which reliance could and should be placed on imports, and (iii) the modifications which may be necessary in the foodgrains policy so far pursued. The Committee submitted its Interim Report in December 1947. It came to the conclusion that the system of food controls was unable to fulfil the purposes for which it was intended and drew attention to three features of the situation, namely, (i) decreasing procurement attended by increasing difficulties; (ii) decreasing scales of ration, attended by increasing difficulty in maintaining the scales and depletion of government stocks; and (iii) steadily increasing demands for imports from abroad. The country appeared to have fallen into a rut in which the condition of continuing food crisis was likely to perpetuate itself in an artificial manner. Every decrease in the scale of ration allowed resulted in an increase in demand in the free market, thereby widening the gap between the controlled price and the price prevalent in the free market. The tendency for the market to convert itself into an illegal black market also increased. The more grain was sold in the black market, the greater was the drop in procurement, necessitating a further decrease in the scale of ration. A vicious circle was thus set up [Ministry of Food, 1947, p. 11].

The Committee therefore recommended that an entirely new approach to the food problem of the country was necessary. This approach was to be based on two main objectives. 'First, the dependence of the country on imports from abroad should be liquidated by orderly and planned stages. Secondly, the commitments undertaken by the Governments of the country under the present system of food controls- involving as they do an undesirable degree of dependence of the people on the administrative agencies of Governments- should be liquidated by similar orderly and planned stages. Unless this policy is accepted immediately and the process of liquidation begun without delay, the present crisis would continue indefinitely .... The real solution is not imports or controls on procurement and distribution. It is only a substantial increase of domestic production within the earliest possible time that can solve the Indian food problem' [Ministry of Food, 1947, Pp. 12-13].

Progressive Decontrol of Foodgrains, November 1947

Even before the Foodgrains Policy Committee could submit its interim report, the Government of India decided in November 1947, to give a trial to the policy of progressive decontrol of foodgrains. The salient features of this policy were: gradual withdrawal of rationing and price control, removal of restrictions on movement of foodgrains and greater emphasis on internal procurement rather than on imports. As a safety measure, the ban on inter-state movement was not lifted and imports on government account were also continued. Basic quotas for movement of foodgrains out of the surplus areas and into the deficit areas were fixed. The state governments were asked to reduce their rationing commitments and, as far as possible, to meet their commitments out of internal procurement, instead of relying on the Centre. To augment internal procurement, the states were allowed a food bonus at the rate of 8 annas (as) per maund (Rs 1.34 per quintal) of foodgrains procured and another 8 annas per maund of foodgrains 'exported' [Ministry of Food and Agriculture, 1954, p. iii].

The revival of free trade in the de-rationed areas, it was hoped, would provide an incentive for increased production, and thereby, prevent a rise in market prices. It was also hoped that internal procurement would be stepped up and the demand on government stocks would ease. These expectations, however, did not materialise, as evidenced by shortfall in procurement and low Government stocks. This was because of an increase in demand following decontrol; prices took an upward turn. By July 1948, the rise became steep. The Economic Adviser's Index Numbers of Wholesale Prices in September 1948 showed an increase of 56 per cent in the case of rice, 127 per cent in the case of wheat and 62 per cent in the case of other cereals in comparison with December 1947. The consumer was hit hard and the Government had to step in to provide relief. Relief-quota shops and fair price shops were opened to supply certain quantities of foodgrains to the vulnerable sections of the population at reasonable prices. As a consequence, the state governments increased their demand on the Centre, which in turn led to an increase in the imports of foodgrains from abroad. The policy of progressive decontrol could no longer be pursued and in September 1948, controls were re-imposed. It was decided that the state governments should, by October 1949, return to the system of control which operated in each state, in December 1947 [Dandekar, 1966, Pp. 23-24].

Controls on Foodgrains, September 1948

The revised food policy commencing September 1948 comprised the following: (a) the control of rice, wheat, gram, maize, jowar, bajra, barley and ragi (where it was an important crop); (b) the provincial state governments could decide whether the prices of foodgrains should be controlled by fixing a maximum price statutorily or otherwise, but all provincial/state governments had to declare a price at which they would have the power to requisition or procure compulsorily; (c) maximum internal procurement and rationing in each area, with the aim of enforcing uniform standards of rationing and monopoly procurement as soon as possible; (d) procurement prices in different parts of the country could be fixed at different levels, although the general policy was to be to bring about a gradual reduction of foodgrains prices to reasonable levels; - by the time the controls were re-imposed, market prices had risen very high. Procurement prices had to be fixed at 25 to 50 per cent higher than those prevailing prior to the adoption of the policy of gradual decontrol. - (e) there was to be no increase in the prices at which grain was to be issued from Government shops except that adjustment was to be made between the prices of coarse grains and of rice or wheat; (f) sufficient quantities of foodgrains were to be imported to facilitate the transition from decontrol to control; (g) no subsidy was to be payable by the Centre in respect of grain procured in India. In respect of imported grain, the subsidy was to be shared between the provinces and the Centre in the proportion of 1:3 and between the princely states and the Centre in equal proportion; (h) the provinces and states were to get a bonus of 8 as per md. (Rs 1.34 per quintal) of foodgrains procured by them and an additional 8 as per md. (Rs 1.34 per quintal) on quantities exported by them under the Basic Plan with effect from October 1, 1948; and (i) the polishing of rice was to be banned in order to augment supplies and procure nutritively better rice. The policy was re-affirmed at a conference of the Food Ministers of the states in October, 1949 and again in January, 1950 [Maitra, 1950, Pp. 1-4].

With the gradual intensification of procurement and rationing the scope of the free market got restricted. Market prices turned easier. In September, 1949, the Indian Rupee was devalued, along with the pound sterling. To counter the inflationary potential of devaluation, a cut varying from 7 to 15 per cent was effected in the issue price of kharif cereals in November 1949 simultaneously with a reduction in the prices of certain other essential commodities [Ministry of Food and Agriculture, 1954, Pp. i-iv]. By August 1949, the Government of India had started receiving complaints from various sections of the public, that the quality of foodgrains issued to consumers in rationed areas was bad and also that the prices charged were high and out of proportion to the price paid for procuring the grains. The Government therefore appointed the Foodgrains Investigation Committee to examine the above complaints [Maitra, 1950, p. i].

The Committee submitted its report on April 30, 1950 [Maitra, 1950]. It agreed that the complaints of the working of controls, namely, the cost of administration and quality of the grains, were well founded. There was also substance in most of the other complaints of heavy losses sustained in the storage and transport of grains and corruption and maladministration in the different stages of procurement, movement, storage and distribution of supplies. The conditions that prevailed were an argument for an extension of the open market system. The Committee however recommended that in view of the general distrust of private trade, the time was not yet ripe for complete decontrol. Still, the country should be prepared for the abandonment of controls and return to normalcy, with the goal of self sufficiency by 1951. In the transition period, vulnerable sections such as industrial areas, highly deficit pockets and large cities should continue to be statutorily rationed. In other areas, a system of controlled distribution along with a free market should function for some time to act as a check on the rise of prices. A sense of self-sufficiency should be created in the minds of people. For this purpose, steps should be taken to build up buffer stocks. Thus, within a year of the decision to return to a policy of controls, the policy was regarded to be no more than transitory, the aim being to return to normalcy, that is decontrol, within another year [Dandekar, 1966, Pp. 24-25].

Foodgrains Procurement Committee, 1950

Before the Foodgrains Investigation Committee could submit its report, a Foodgrains Procurement Committee was appointed on February 8, 1950, in pursuance of the recommendations of the All India Food Ministers' Conference held in August 1949, with Shri M. Thirumala Rao, M.P. as Chairman, to enquire into the systems of procurement and distribution adopted in the states; and to recommend such changes as may be necessary in the existing system of procurement and distribution to minimise imports in the case of a deficit state and to maximise exports in the case of a surplus state and to reduce the difference between the prices in the market and the prescribed control prices. The Committee submitted its report on June 26, 1950 [Rao, 1950, p. 1].

The Committee observed that the systems of procurement and distribution in the various states did not show a picture of a coordinated all-India policy. There was confusion, even a contradiction in the objectives of food policy, without a definition of priorities, or an absorption of them into a single system. Some of the more important examples of the confusion were: (1) A determined attempt was very rightly being made to Grow More Food. No solution, however, was indicated of the contradiction between the controlled prices for foodgrains as against uncontrolled prices of other crops grown by the same producer. (2) The Government was endeavouring to feed the consumer, or at least vulnerable sections of the population at a reasonable price, simultaneously with reduction of imports, the extent of this reduction being determined largely by financial, not supply considerations. Some attempt at reconciling this had been found in the formula, 'reduction of commitments', but the implications of this on prices were largely ignored. (3) Foodgrains prices were to be lowered simultaneously with a declared and widely publicised policy of reducing and then stopping imports. And (4) the Government was endeavouring to bring down, or at least stabilising, food prices, simultaneous with permitting open market prices to find their own level. The result was wide divergence between procurement prices fixed by states and market prices, in those very states. In the circumstances, the pressure of facts, unchecked and unregulated by a firm and well-thought out policy and lacking, consequently, a standard for assessment and valuation not only made practical administration extremely difficult and hazardous, but accentuated contradictions in policy [Rao, 1950, p. 7].

The Committee further pointed out that in practice, the system of procurement and distribution had varied among the states, the variations tending to be much wider as between deficit and surplus states. Each state found its own answer to the problems of procurement and distribution; control and decontrol flourished simultaneously and variously in several states and even in different parts or at different seasons, in the same state. A logical, consistent food policy had not been defined and had, therefore, not been enforced. The main aim of food policy and administration, in the circumstances of the country, should be to achieve a stable and reasonable price level for foodgrains, which included supplies of foodgrains to the consumer at that price and fair remuneration to the producer. The Government had no alternative except by means of control to establish the food policy planks referred to.

The Committee recommended that a uniform system of procurement should be established which gave a monopoly of grain to the Government at the first point of marketing. Such a system would imply procurement by the Government at fixed prices at the primary level, with the Government supervision of all distribution beyond the village at fixed prices, procurement by means of a levy or through the Madras system of intensive procurement wherever necessary, particularly in deficit areas, and small and defined exemptions from procurement in surplus areas. The system of monopoly procurement would entail the distribution of grain to all consumers in urban areas and to those consumers in rural areas whose villages were deficit, or where surplus producers had disposed off their grain, who were unable to obtain supplies in the village itself. The Government commitment was to extend (1) statutory rationing, with a total prohibition on private imports, to all towns with a population of and above 50,000; (2) informal rationing to other urban areas, and (3) provision of a rough system of distribution to deficit rural areas, when and if necessary. The Committee stressed that the system of procurement and distribution recommended by it, would depend for its success largely on good administration and a satisfactory standard of efficiency. It believed that a substantial contribution in the reduction of dependence on imports could be made by greater administrative efficiency in procurement and distribution.

The outbreak of the Korean War in June 1950, however, generated a new inflationary pressure. The situation was aggravated by a succession of natural calamities, beginning with severe floods in North Bihar. This led to a worsening of the crop prospects, a sharp rise in prices and a tendency towards hoarding and profiteering. To meet the situation, the Essential Supplies (Temporary Powers) Act was amended in August 1950 so as to provide for severe punishment in the case of hoarding of foodgrains; rationing was also extended and larger imports were arranged. Even with increased imports the demand on government stocks outstripped the supply in certain parts of the country. By the beginning of 1951, the Government of India had to approach the Government of the United States of America for an ad-hoc assistance of 2.03 m tonnes of wheat to meet the internal food shortage. It was increasingly realised that the controlled economy should be continued and prices maintained at reasonable levels. This was particularly important in view of the fact that the general price level had reached an all-time peak by April 1951 [Ministry of Food and Agriculture, 1954, Pp. iv-v].

The food policy between 1947 and 1951 entailed Government commitments at the following levels (Table 1).

TABLE 1. GOVERNMENT'S COMMITMENTS, 1947-51

Year*	Procurement (thousand tonnes)	Imports (thousand tonnes)	Distribution (thousand tonnes)	Subsidy Borne (Rs Crore)
1947	4,279	2,696	7,181	26.57
1948	2,737	3,254	5,213	25.48
1949	4,685	4,068	7,817	17.22
1950	4,692	2,916	7,676	20.76
1951	3,826	4,927	7,991	44.32
1952	3,477	3,987	6,800	23.04

Note: * Financial years since 1947-48.
Source: *Food Situation in India, 1939-53.*

First Plan Period 1951-52 - 1955-56

The First Plan document iterated the continuation of controls for the Plan period. It referred to the systems of control developed since 1943 in the country and concluded that the free market was not a dependable mechanism when the economy was, or was likely to be, under pressure due either to short supplies in the country or unfavourable developments abroad. It was not without significance that most proposals for decontrol and the restoration of the free market visualised certain safeguards like cheap grain shops, licensing of traders, requisitioning of stocks if necessary, etc. But, these forms of control were tried in the early stages, and it was because they proved unsatisfactory that more stringent control and rationing had to be adopted. A plan for development involves large outlays on investment and this, in the early stages, increases money incomes faster than the available supply of consumer goods. In a planned economy, food controls had thus certain positive functions, such as safeguarding the minimum consumption standards of the poorer classes, preventing excessive or ostentatious consumption by the well-to-do, and facilitating the country's programme of direct utilisation of unemployed manpower for investment.

The average net absorption of imported foodgrains into the country had been around three million tons between 1947 and 1952, the minimum being 2.44 m tonnes in 1948 and the maximum being 4.17 m tonnes in 1951. The net absorption of imports was indicative of the measure of deficiency that had to be made good. The country had at the same time been paying heavily for the imported grain, the total cost of imported grain since 1948 working out at over Rs 750 crore. Any change in food policy likely to reduce procurement and increase the dependence on imports, which, in turn, might mean further expenditure on subsidies, had to be avoided. In fact, according to the Plan document, the aim should be to reduce imports progressively. The optimum utilisation of the resources available to the country demanded that for meeting the requirements of the food administration, the system of internal procurement must not only be maintained but must be steadily improved. Food policy had to be based on the assumption of a continuance of the condition of relative scarcity and strain in spite of a progressive increase in production, if serious risks in a vital matter like food were to be avoided. This meant that for the period of the Plan, rationing and procurement together with certain minimum imports, must be regarded as the key to the maintenance of a stable system of food controls. The need for a disinflationary price policy also continued.

The Plan repeated that if 'food for all' was to be the effective basis of policy and if the investment targets in the Plan were to be adhered to, the basic structure of food controls had to be kept intact during the period of the Plan. Until domestic production of foodgrains was stepped up to the extent of 7.62 m tonnes, as envisaged in the Plan, the country could not be considered to have an adequate and assured food supply. Controls might be relaxed or their form altered after the target of additional production had been achieved. The extent to which such relaxation or changes could be made would depend upon the investment targets that the country might then have and the alternative demands for additional production of raw materials like cotton, jute and oil seeds.

As regards price policy, the Plan emphasised that the problem was to define a level which could be considered reasonable under given circumstances and to ensure, through direct controls or through fiscal and other devices, that the producer of foodgrains was not placed at an undue disadvantage. A policy of price stabilisation must have in view certain maxima as well as certain minima. At the time when the economy was subject to inflationary pressures, the emphasis was inevitably on the maintenance of the maxima. If the trend in prices was persistently downward, a system of controls with defined procurement prices could be used to safeguard the interest of producers and to prevent the prices from falling unduly. Judicious purchases by the Government at the defined prices are thus an excellent device for stabilising prices and for evening out, to some extent, the inter-state disparities. State trading in a few essential commodities was all the more desirable as it would play a vital part in stabilising or reducing the cost of living and in diverting to the public sector, the surpluses which might accrue [Planning Commission, 1952, Pp. 173-183].

Progress during the First Plan Period

In practice, however, prices, production and food policy fluctuated sharply during the First Plan period. Just before the First Plan was launched, the country had been in the grip of a serious food shortage and food prices were ruling at high levels. There was a strong latent inflationary pressure which was sought to be repressed through a system of country-wide procurement and rationing. Yet prices could be kept under check only with considerable difficulty. On the one hand, rationing commitments increased steadily, new areas had often to be brought under rationing and ghost cards tended to multiply to abnormal proportions; on the other, procurement registered a sharp fall. It appeared as though after a few years of successful operation, the system of rationing and procurement was ending up in a vicious circle of reduced supplies and enlarged demand for foodgrains as a result of impairment of the incentive to produce under the schemes of procurement in force. An attempt was made to counteract the effect of lower production and reduced procurement by stepping up imports. In 1951, there were as many as 122 million persons under rationing of whom 47 million were statutorily rationed, 3.86 m tonnes of foodgrains were procured within the country and 4.78 m tonnes valued at Rs 217 crore were imported. The Food Administration itself cost Rs 10 crore for the Centre and the states. A total subsidy of Rs 44.60 crore had to be paid for reducing the price of imported cereals to the level of domestic prices, although the latter had reached an all-time high peak [Mehta, 1957, Pp. 5-6, 17].

There were, however, indications fairly early in 1952 that the worst phase of the food shortage had perhaps passed. The production index for cereals went up to 101.4 in 1952-53 or an increase of 12.3 per cent over 1950-51. At the same time, money supply declined by 12.1 per cent. The price index for cereals was 8.1 per cent lower than in 1950-51.

There was a general feeling that stability had been largely restored. In fact, 1952-53 proved to be one of the most stable years in that period. This stability was, however, short lived. The 1953-54 crop was even better than that in 1952-53, the production index for cereals went up from 101.4 to 120.1 between the two years. This large increase in production had a significant impact on the food economy; prices declined and the net releases from imported stocks declined from 3.35 m tonnes in 1952 to 2.54 m tonnes in 1953 and 0.71 m tonnes in 1954. The year 1953 also opened with a comfortable stock of 19 lakh tonnes with the Central and state governments which was a record. Because of increased availability of foodgrains in the open market at lower prices, the demand on rationing and fair price shops declined. The state governments' offtake from the Central Governments' stocks also diminished month by month, while the arrivals of foodgrains from abroad which had been arranged during 1951 continued. The Government of India was thus confronted with the problem of storage of imported grains. To meet this 'storage crisis', imports to the tune of half a million tonnes from abroad were cancelled and further imports staggered [Mehta, 1957, Pp. 32-33].

In March 1952, the Ministry of Food and Agriculture made proposals for a gradual relaxation of controls. The essential features of these proposals were a progressive reduction in the rationed population, restoration of free markets with adequate buffer stocks being maintained for emergency purposes, control of bank credit and licensing of traders with a view to keeping a minimum administrative control over them. For financial reasons, the subsidy on imported foodgrains had been withdrawn with a few minor exceptions, with effect from March 1952. This led to some rise in the issue price from ration shops and reduced the attraction of the rationed grains for many people. It was recognised that any scheme of decontrol would be attended with certain risks, and that it was necessary to take adequate measures before any substantial relaxation could be considered. The Foodgrains (Licensing and Procurement) Order, 1952 was therefore issued on July 8, 1952. Under this order no person was to engage in any business which involved purchase, sale or storage for sale of any foodgrains, except under and in accordance with a licence issued by the state governments. The Order empowered the state governments to require any banking company to furnish information relating to any financial assistance granted by it to any dealer. It also empowered them to require any dealer, in case they considered it necessary or expedient, to sell his stocks to specified persons at the procurement price plus 10 per cent; in the event of his not doing so, the state government could seize his stocks and sell them to the needy at procurement price plus 10 per cent. The Order gave powers to the state governments to enter and search the dealers' premises and to collect from them periodic returns about stocks. The Order was at first made applicable to wheat, paddy, rice, jowar and bajra but was later extended to maize, barley and minor millets. The promulgation of this Order was followed by gradual relaxation of controls during the second half of 1952 [Mehta, 1957, Pp. 18-19].

The salient features of the scheme of gradual relaxation that was introduced during 1952 were (i) reduction in statutory rationing commitments, (ii) restoration of free trade within the states, and (iii) suspension or modification of procurement. While introducing these relaxations, care was taken to see that the erstwhile rationed population was not thrown suddenly to the working of the open market. Hence, wherever statutory rationing was withdrawn the ration shops were converted into fair price shops, so that at least the minimum requirement of the de-rationed population could be met from these shops at reasonable prices [Mehta, 1957, p. 33].

Madras was the first province to give a trial to the policy of decontrol. The main features of the decontrol scheme introduced by Madras in June 1952 were (a) suspension of procurement in respect of cereals; (b) withdrawal of statutory rationing and opening of fair price shops; (c) division of the state into six self-sufficient zones, each zone comprising surplus and deficit areas within which movement was permitted; and (d) removal of price control. Following the steps taken by Madras, statutory rationing was replaced by distribution through fair price shops in Bihar, Uttar Pradesh, West Bengal, Hyderabad, Madhya

Bharat, Mysore city and Saurashtra during 1952. In other states, the number of towns under statutory rationing were reduced further, and decontrol of rice was formally announced on July 10, 1954. Ration shops were substituted by fair price shops in practically all parts of the country. The volume of procurement was reduced and inter-state ban on movement of foodgrains was replaced by zones. However, as foodgrains prices continued to fall further, rationing, procurement, fair price shops, and zones were all abandoned during 1953-54. Imports of foodgrains were also reduced and instead, for the first time since the beginning of the Second World War, exports of foodgrains in small quantities were allowed so as to arrest the declining trend in foodgrains prices during this period [Mehta, 1957, p. 33]. A policy of offering support to the producer was enunciated and floor prices were announced for jowar, bajra and maize in December 1954, for wheat in April 1955 and gram in June 1955. In August 1955 the price support scheme was extended to rice. Small quantities of foodgrains were purchased under the price support scheme during 1954-55; these included 77.63 thousand tonnes of wheat, 1.32 thousand tonnes of gram, 38.40 thousand tonnes of jowar and 0.41 tonnes of maize [Ministry of Food and Agriculture, 1956, p. 22].

On January 26, 1955 the Essential Supplies (Temporary Powers) Act, 1946 lapsed and with it the Foodgrains (Licensing and Procurement) Order, 1952 also lapsed automatically. In order to retain the control system over commodities on the expiry of the Essential Supplies (Temporary Powers) Act, 1946, an Essential Commodities Ordinance was promulgated in January 1955. The Ordinance was subsequently replaced by the Essential Commodities Act, 1955. Inter-zonal restrictions on the movement of wheat and its products, the last vestiges of controls, disappeared with effect from March 18, 1956.

Although during 1954 and 1955 the general supply position appeared to be quite easy, the Ministry of Food and Agriculture started exploring possibilities of regular imports on a large scale to meet the deficit in the country's food requirements that was visualised on a long term assessment of demand and domestic supplies. Their estimate was that the country would require 8 to 10 million tonnes of wheat and 4 to 5 million tonnes of rice from abroad for the Second Plan period [Mehta, 1957, p. 21]. Consequently, in May 1955, even when the prices of cereals in the country were low, rather than procuring and stocking supplies from the domestic market, the Government initiated negotiations for the import of substantial quantities of wheat and rice from the United States under the PL 480 [Dandekar, 1966, p. 34]. The conclusion of negotiations, however, took some time. In June, 1956 an agreement was signed with Burma for the import of 2 million tonnes of rice during the next five years and in August 1956 an agreement was signed with the United States of America for importing 3.1 million tonnes of wheat and 0.19 million tonnes of rice under Public Law 480 during the next three years. While the Burmese purchase was on a cash basis, the purchase from the U.S.A. was on a loan basis, repayable in 30 years [Mehta, 1957, p. 21].

In the meanwhile, the break in prices ended and the food situation in the country took a rapid turn for the worse. The millet crop in 1955 was poor and in October 1955, as soon as the reports of the shortfall reached the market, prices began to rise. The price index of jowar rose from 55 to 71, of bajra from 73 to 99 and of wheat from 60 to 80 between June and December 1955. The rise in prices was helped to a certain extent by the knowledge that the Government had no stock of millets and its stock of wheat was also low. Speculative elements took advantage of the situation and the rise in wheat prices was rather marked in Calcutta and Bombay. The Government sought to keep the prices under control by releasing wheat to the market in these cities and in Delhi from their own stocks, which were about 5 lakh tonnes at the end of November 1955. Between January and August, 1956 over 5 lakh tonnes of wheat were sold. At the same time, the Government placed orders for wheat mainly from Australia on normal commercial terms to replenish its stocks. Exports of foodgrains including those of wheat products were prohibited early in 1956. It was announced in April, 1956 that the Government had decided to build up a buffer stock of 2 million tonnes, of which 1 million tonnes would be wheat and 1 million tonnes rice [Mehta, 1957, Pp. 11, 22-23].

Rice prices started rising from January 1956. It was found that the amount of advances granted by banks against hypothecation of rice and paddy was on the increase; in April, 1956 the amount of bank credit was 100 per cent higher than in the corresponding period of the previous year. With a view to discouraging speculative holding of stocks with the help of bank finance, in the middle of May, 1956 the Reserve Bank issued a directive to banks requiring them to increase the margins in respect of their loans against paddy and rice and to refrain from granting fresh advances in excess of Rs 50,000 against this security. Demand documentary bills were subsequently exempted from the purview of the directive as these represented movement of crops and it was not the intention to hinder such movement. As in the case of wheat, although there were no imports of rice in the first six months of 1956, releases from the Union Government stocks which stood at over 5 lakh tonnes at the beginning of January 1956 continued at an average rate of 50,000 tonnes a month. Commencing 1956, the Government thus tried to influence prices of foodgrains by increasing releases from its stocks (largely of imported grain) which were distributed through fair price shops opened in different parts of the country [Mehta, 1957, Pp. 22-23].

Second Five Year Plan, 1956-57 to 1960-61

The Second Five Year Plan began with rising prices, and from 1956-57 itself, the efforts of the Government had to be directed to finding ways and means of keeping down prices. Whereas in previous years, the policy was to dispose of large stocks of foodgrains in government stocks by auction or tender, to avoid possible loss to the Government by deterioration, the policy during 1956-57 was to conserve and build up stocks by imports and to regulate distribution by issues through fair price shops. The steps taken to bring down prices included measures like stopping exports of foodgrains, desisting from internal purchases on government account; restricting bank credit for advances on foodgrains; cordoning off the cities of Bombay, Calcutta, and Delhi against imports of indigenous wheat, issuing wheat to flour mills with restrictions on sale price of their products; opening a large number of fair price shops all over the country; and entering into long term contracts with United States of America and Burma to ensure large imports of wheat and rice [Ministry of Food and Agriculture, 1957, p. 1].

The measures taken during 1956-57 were intended to augment market supplies of foodgrains and to make effective use of the limited government stocks. In October 1956, it appeared that the rise in the prices of rice and wheat had been somewhat arrested. There was, however, little impression on the prices of jowar which continued to rise. Then came the Suez Crisis. The Suez Canal remained closed for all navigation between November 1, 1956 and March 28, 1957. This imparted a certain bullish trend to the wheat market and wheat prices once again started moving up. This was, however, the time for the 1956-57 kharif harvests to flow into the market. The rice crop was expected to be a bumper one. It was also felt that instead of spending scarce foreign exchange on import of rice, an attempt might be made to purchase certain quantities of rice from within the country for building up stocks. Necessary arrangements for making purchases of rice in the open market were completed in December. But contrary to expectations, the seasonal fall in rice prices was small, and no internal purchases of rice were made by the Union Government. With the new rice marketing season, the Reserve Bank had been requested to withdraw its credit restrictions to rice. However, with the prices of rice remaining firm, and a fresh tendency to accumulate stocks with the help of bank finance becoming noticeable, credit controls were re-imposed on rice with effect from February 9, 1957 requiring banks to maintain a minimum margin of 35 per cent in respect of all advances against paddy and rice. Banks were also asked to endeavour to maintain after March 15, 1957, a level of aggregate advances, not higher than 75 per cent of the corresponding period in 1956 [Mehta, 1957, Pp. 22-23].

The foodgrains economy was seriously upset in 1957-58 on account of severe set back to production following unprecedented weather conditions. The various measures taken in the 1956-57 season were therefore strengthened for the 1957-58 season. The Essential Commodities

Act, 1955 was amended in June 1957, enabling the Government to requisition stocks from dealers at the average of the prices prevailing during the three months prior to the issue of the notification applying the Act to a particular locality. The state governments were also delegated powers under the Act to regulate trade through the licensing of wholesale traders. Three wheat zones were formed in June 1957 with free movement within each zone, but ban on movement of wheat into or outside the zone from or to any other part of the country. The zones were (a) Himachal Pradesh, Delhi and Punjab, (b) Uttar Pradesh, and (c) Rajasthan, Madhya Pradesh and Bombay (excluding Bombay City). Movement of rice and paddy were prohibited by the Government of India from Orissa, at the request of the state government, during the same month. The Southern Rice Zone comprising the states of Andhra Pradesh, Madras, Mysore and Kerala was created in July 1957. Movement of paddy and rice were banned from Punjab on September 30, 1957 (later relaxed for movement to Himachal Pradesh and Delhi) and from Madhya Pradesh and certain specified districts in Uttar Pradesh on December 20, 1957. The movement of rice, paddy, wheat, gram, barley and maize were also prohibited from Bihar from December 20, 1957. The cordons around the cities of Bombay and Calcutta for wheat and rice continued during the year. Owing to difficulties of procuring rice from abroad, limited purchases were made by the Government internally from the rice surplus areas which were cordoned off for the purpose. Maximum controlled prices of rice were fixed in several areas where government purchases were undertaken. Distribution of imported and internally procured foodgrains through fair price shops continued. In order to tighten further the control on credit by banks, the minimum margin on advances to foodgrains was raised to 40 per cent and the aggregate level of advances reduced to two-thirds of that given in the preceding years with effect from June 7, 1957. Forward trading in foodgrains including non-transferable specific delivery contracts were also prohibited [Ministry of Food and Agriculture, 1958, Pp. 4-7; Mehta, 1957, Pp. 23-26].

Report of the Foodgrains Enquiry Committee, November 1957

In June 1957, the Government appointed the Foodgrains Enquiry Committee, with Shri Asoka Mehta as Chairman to (i) review the food situation and to examine the causes of the rising trend of food price since about the middle of 1955; (ii) assess the likely trends in demand and availability of foodgrains over the next few years; and (iii) make recommendations to ensure a level of prices which would provide the necessary incentive to the producer with due regard to the interest of the consumer and the maintenance of a reasonable cost structure in the economy. Later, the Committee was also requested to examine problems of those areas where the food problem was one of recurring nature and pay more attention to the food problem of eastern Uttar Pradesh. The Committee submitted its report by November 1957.

The Committee concluded that in a developing economy a secular tendency to price rise existed, although prices fluctuated. It was part of economic growth to achieve adjustments between production, incomes, employment, demand, costs, prices, etc., at successive levels. However, sharp and abrupt rise or fall in prices in even one sector of the economy could cause wide disparities all round. The Committee pointed out that it was the relative instability in food prices which caused wide fluctuations in prices all round. Further, there were scarcity pockets in the country which were the epicentres of the rise in prices; these included (a) areas with dense population, extremely small holdings, low per-capita incomes and prone to heavy rainfall and floods like eastern Uttar Pradesh and northern Bihar; (b) areas with similar economic and demographic conditions but burdened with the pressure of demand from a metropolitan city like the districts of West Bengal and Calcutta; (c) the dry millet growing areas of Western India and the Deccan Plateau with limited population, sparse rainfall and low yields; and (d) the tribal areas. Failure of crops in any of these areas influenced the rise in prices in all parts of the country.

The Foodgrains Enquiry Committee recommended that ordinarily it should be sufficient for the Government to undertake open market purchase and sale of foodgrains as a regular measure, socialise part of the wholesale trade, exercise control over traders operating in the rest of the market through a system of licensing, maintain a sizeable reserve stock of wheat and rice, arrange for the regular import of a certain quantity of rice and wheat and organise propaganda for the consumption and production of subsidiary food. But in a period of rising prices the above measures would need to be supplemented by much larger imports, direct sales of cereals by the Government through modified ration shops, formation of zones and limited compulsory procurement by the Government in surplus areas for replenishing its reserve stocks. In periods of sharper inflationary trends the above measures could be further supplemented by compulsory issue of wheat along with rice from modified ration shops, announcement of prices at which the Government would requisition surplus stocks and temporary cordoning off of big cities like Calcutta, Madras, Bombay, etc., if the overall food situation deteriorated [Mehta, 1957, p. 80].

The Committee emphasised that until there was social control over the wholesale trade it would not be possible to bring about stabilisation of foodgrains prices. The Government's policy should, therefore, be that of progressive and planned socialisation of the wholesale trade in foodgrains. It therefore recommended (a) the formation of a Price Stabilisation Board, (b) establishment of a Foodgrains Stabilisation Organisation for undertaking open market purchase and sale of foodgrains, (c) a non-official Central Food Advisory Council, and (d) the creation of an Intelligence Organisation to assist the Price Stabilisation Board.

The general food position showed considerable improvement during 1958-59 when the production of foodgrains in the country rose to 74.68 million tonnes, the highest on record. Consequent on the increased output, prices of foodgrains dropped appreciable in the post-harvest months of the 1958-59 crop, as compared to the preceding season. In November 1958, the National Development Council (NDC) decided that the State should take over the wholesale trade in foodgrains. It was also decided that an adequate number of primary marketing societies should be set up and linked with village cooperatives which should serve as agencies for collection and sale at assured prices at the village level. A Working Group was constituted to work out the details of a scheme for the implementation of the decision.

Working Group of the NDC on State Trading

The Working Group had recommended that the primary objective of state trading in foodgrains was to maintain price levels which were fair to the producer and to the consumer throughout the season and over an agricultural cycle. The proposals made by the Working Group involved the steady expansion of purchases by the Government with control over the market and the intensification of existing measures, such as licensing of wholesale traders and imposing certain obligations on them, the system of distribution at the retail stage through fair price shops, and statutory price control at the wholesale stage. The scheme suggested by the Working Group also provided for the progressive development of cooperatives so that a comprehensive network of marketing cooperatives, capable of taking over the entire marketable surplus might be built up. As an interim measure, the scheme provided for the regulation of wholesale trade by licensing of dealers with obligations to submit returns regarding purchases, sales, stocks, etc. [Dandekar, 1966, p. 41].

The Government of India considered the report of the Working Group and decided that (i) the ultimate pattern of state trading in foodgrains was to consist of a system which provided for the collection of the farm surpluses through the service cooperatives and the apex marketing cooperatives for distribution through retailers and through consumers' cooperatives; (ii) in the interim period the wholesale traders were to be permitted to function as licensed traders and make purchases on their own behalf on specified minimum prices. While the Government had the right to acquire the whole or a portion of the stocks from the licensed traders at controlled prices, the traders were at liberty to sell their remaining stocks to the retailers at prices not exceeding the controlled prices. They were required to maintain proper accounts of their purchase and sale transactions and of their stocks, and submit periodical returns to government; (iii) in the initial stages, state trading was to be confined only to the two major cereals, namely, rice and wheat; and (iv) in order to ensure that the producers get the minimum prices, the Government proposed to set up an agency for making direct purchase of foodgrains from the producers who were desirous of selling their surplus produce to government [Dandekar, 1966, Pp. 41-42].

With the decision on state trading, the purchase/procurement operations which were confined largely to surplus areas were extended to deficit and marginally placed areas also in the 1958-59 season. But the system of procurement/purchases differed from state to state. The state trading led to a difficult situation in the deficit and marginally placed states. Open market prices tended to rise appreciably above the maximum controlled prices. The general experience was that the procurement of foodgrains in deficit states from wholesale traders and millers was an extremely difficult proposition and efforts in that direction created more problems than they solved. Hence, within one year, state trading in deficit states was suspended. Procurement of wheat was suspended in Rajasthan from March 5, 1960, in Punjab from July 18, 1960, in Uttar Pradesh from August 7, 1960 and in Madhya Pradesh from September 15, 1960. The Statutory Price Control on wheat in Uttar Pradesh was also withdrawn from August 7, 1960. The effect of suspension of purchase operations in the deficit and marginally placed states on the market arrivals was quite beneficial. Encouraged by this experience, the Government stopped purchasing rice/paddy even in the surplus states except in Madhya Pradesh and Punjab [Dandekar, 1966, p. 42].

There was general evidence to show that a shrinkage in market arrivals was one of the major reasons for rise in prices in 1959. To ascertain the exact behaviour of the market arrivals of rice and wheat from the 1958-59 crops, a special enquiry was conducted in July-August 1959 through the Agro-Economic Research/Farm Management Centres under the Directorate of Economics and Statistics, Ministry of Food and Agriculture. The report of the enquiry which was conducted within a record period of three weeks, revealed that market arrivals of wheat were lower in Uttar Pradesh, Punjab and Madhya Pradesh in the post-harvest months of 1959 than the corresponding months of 1958 on account of price consciousness and the greater holding power of the producer and the procurement and price control policies adopted under the scheme of state trading. In Uttar Pradesh, market arrivals of wheat were stated to be significant only up to May 5, 1959, the date on which the Food and Civil Supplies authorities of the state government raided the various markets under the provisions of the U.P. Wheat Procurement (Levy) Order and the U.P. Wheat Price Control Order. After this, market arrivals diminished considerably and at many markets became negligible. In Madhya Pradesh the market arrivals were low till May 1959, in apprehension of a compulsory levy, but thereafter with the announcement of purchase policy on voluntary offers, the arrivals increased. In Punjab, since the Government did not interfere with the normal process of price formation, the procurement policy had no adverse effects on market arrivals [Dandekar, 1966, Pp. 42-43].

In the case of rice, the flow of market supplies from the 1958-59 crop showed an increase in the surplus states of Madhya Pradesh, Orissa, Andhra Pradesh and Punjab. In other states, either the increase in output was not associated with an increase in market arrivals, as in Bihar, or there was actually a substantial diminution in these arrivals as in Uttar Pradesh, Madras and Mysore. The situation was worst in West Bengal, where the effect of other factors was aggravated by the decline in output in the 1958-59 season. As in the case of wheat, diminution of market arrivals of rice in the deficit areas was due largely to the regulatory measures adopted under the scheme of state trading. The effect of this policy in different areas varied according to the extent to which market prices had tended to rise above the maximum controlled rates and the extent to which these controlled rates were enforced. Market prices of rice were generally higher than the maximum controlled rates in the areas, except Madhya Pradesh and Orissa [Dandekar, 1966, p. 43].

The Government's policy during the 1959-60 and 1960-61 seasons was more relaxed. With the suspension of state trading in foodgrains, the purchase and procurement operations in the country were gradually reduced, being confined largely to surplus states and one or two marginally placed states. The quantum of procurement was reduced and the manner, relaxed. By May 1960, the Government concluded a long-term Agreement with the U.S.A. under PL 480 for the import of rice and wheat. Under this Agreement, 16 million tonnes of wheat and one million tonnes of rice were to be imported from the U.S.A. over a period of four years, 1960-64, in order to meet the current consumption requirements and also to enable the Government to build up a reserve stock of 5 million tonnes of foodgrains. This Agreement led to a psychology of de-hoarding on the part of traders and producers and helped in curbing speculative tendencies. With the decline in prices in the later part of 1960, the demand for foodgrains from government stocks dropped considerably. This factor, coupled with steady imports from the U.S.A. and other countries, enabled the Government to build up some reserves of foodgrains (2.31 million tonnes by December end, 1961) [Ministry of Food and Agriculture, 1961, p. 1].

The movement of cereals on trade account which had been restricted during the period of state trading was also gradually relaxed. The Eastern Rice Zone, comprising the states of West Bengal and Orissa was formed in December 1959. Movement of rice and wheat from Madhya Pradesh to Gujarat and Maharashtra by traders specially licensed for the purpose was allowed from November 1960. Earlier, in August 1960, restrictions on the movement of wheat within the state of Uttar Pradesh, which were imposed in 1959, were withdrawn. Credit restrictions were also modified. In January 1960, the Reserve Bank issued directives to scheduled commercial banks to increase the ceiling limit on aggregate advances against paddy and rice for each month from February 1960 at the level of credit permitted to be maintained for the corresponding month in 1958 or 1959, whichever was higher. Separate ceiling limit on advances against wheat, as prescribed for Punjab, Himachal Pradesh, Delhi and Jammu and Kashmir, was abolished from August 1960 and made uniform for all the states. The ceiling limit on aggregate advances against wheat for each month from September 1960 was fixed for the country as a whole at the level of credit actually maintained in the corresponding month in 1958. In August 1960, temporary relaxations in ceiling limit on advances against rice and paddy, up to 200 per cent of the level of credit permitted in the corresponding month of 1959, were granted in favour of traders in Kerala for the period August to October 1960. The relaxations were further extended up to December 1960. The minimum margin requirements in respect of advances for rice and paddy were lowered from 40 to 25 per cent for licensed millers and traders in Punjab from October 1960. By February 1961, the minimum margins for all foodgrains were reduced from 40 to 35 per cent and the ceiling limit for advances against paddy and rice raised to 110 per cent of the permissible level in 1960 in all the states other than Andhra Pradesh. Austerity measures imposed in 1957 for serving of foodgrains and entertainment of guests were also relaxed with effect from August 1960. Distribution of foodgrains through fair price shops was, however, continued [Ministry of Food and Agriculture, 1961].

Third Five Year Plan, 1961-62 to 1965-66

Commencing 1960-61, therefore, and until 1963-64, the Government's policy for foodgrains continued to be one of relaxation of most of the control measures. All foodgrains, except rice, were allowed to move freely throughout the country and there were no restrictions on their prices, purchase or sale. With the assured supplies of wheat from the U.S.A., the prices of foodgrains, especially of wheat, could be stabilised at a relatively low level. In the case of rice, four large zones comprising contiguous deficit and surplus states were formed, namely, (a) Punjab, Himachal Pradesh and Delhi; (b) Madhya Pradesh, Gujarat and Maharashtra; (c) Andhra Pradesh, Mysore, Madras and Kerala; and (d) West Bengal and Orissa. Some purchases of paddy and rice were continued in the states of Assam, Jammu and Kashmir, Madhya Pradesh, Orissa, Punjab, Uttar

Pradesh and Tripura. Procurement operations were undertaken either through a system of levy on traders or rice millers or through open market purchases. The Government also announced in 1962 a minimum support price for the 1961-62 wheat crop, to be marketed in the 1962-63 season, at Rs 34.83 per quintal for the common white varieties of wheat in the country. Procurement prices were also announced for rice. By 1963, minimum support prices were fixed for rice and jowar and raised by Rs 2.68 per quintal for wheat.

The easy price situation did not continue for long. There was a shortfall in the production of foodgrains for two consecutive years, 1962-63 and 1963-64. Despite larger supplies of foodgrains through the fair price shops system, prices of foodgrains started rising from the latter half of 1963. By March 1964, restrictions were reimposed on the movement of wheat through the formation of larger wheat zones. Single state zones were constituted for rice and the states were authorised to ban movement of coarse grains too. Procurement operations were stepped up through levy, monopoly and open market purchases and, although minimum support prices were announced for the major cereals, maximum controlled prices were also fixed to facilitate procurement operations. By 1965, statutory rationing was introduced in the major cities of Bombay, Calcutta, Delhi and Madras and extended to a number of important industrial centres and towns by the end of 1966. With a view to maintaining supplies in the market, the imports of wheat and rice were considerably increased. The import of wheat which used to be of the order of 2.50 to 3.00 lakh tonnes per month, was stepped up to 4 to 5 lakh tonnes per month until September 1964 and to about 6 lakh tonnes per month thereafter. Arrangements were also made to import rice from Pakistan, Thailand, Cambodia and the U.S.A. Other steps taken by the Government included restrictions on bank advances against stocks of foodgrains, fixation of maximum wholesale and retail prices, substantial stepping up of supplies out of the central stocks through an enlarged network of fair price shops, suitable modifications in the zonal system, promulgation of anti-hoarding measures, strengthening of the administrative and enforcement machinery in the states and amendment of the Essential Commodities Act, 1955 providing for summary trial of offenders of the food laws [Ministry of Food and Agriculture, 1965(a), p. 2].

The Government of India enunciated the major objectives of its food policy in April 1965 as follows: (i) To ensure a reasonable support price which will induce the farmer to adopt improved methods of cultivation for increasing production. (ii) To ensure that consumer prices do not rise unduly. (iii) To avoid excessive price fluctuations and reduce the disparity of prices between state and state. (iv) To build a sizeable buffer stock of wheat and rice from imports and internal procurement. (v) To enable the Food Corporation to assume a commanding position in the market as a countervailing force to the speculative activities of traders. vi) To introduce regulatory and distributive measures in the bigger cities, with a view to diminishing the draw on the market of these high purchasing power pockets. (vii) To relax gradually restrictions on the movement of foodgrains in the country which have been found necessary to meet the current situation. And (viii) to introduce such regulatory measures on the trade as are necessary to secure the above objectives [Ministry of Food and Agriculture, 1965(b), p. 6].

Foodgrains Prices (Jha) Committee, 1964

Earlier, in August 1964, the Government of India had appointed the Foodgrains Prices Committee under the Chairmanship of Shri L.K. Jha, to advise on the determination of the prices of rice, wheat and coarse grains for the 1964-65 season. The Committee was also asked to advise on the terms of reference which would be suitable for an agency to provide such advice on a continuous basis in respect of future seasons, the suitable form of such agency, and the kind of personnel it should have, and the best manner in which the work of such an agency could be fitted in with arrangements being made for advice on policy in regard to wages, incomes and savings.

The Foodgrains Prices (Jha) Committee recommended producer prices for paddy and wholesale and retail prices for rice as also producer prices for wheat and coarse grains for the 1964-65 season. The Committee referred to the trends in the foodgrains economy which had its effects on long-term policy. The trends included (a) the shortages in domestic production *vis-a-vis* demand; (b) the resultant upward trend in foodgrains prices which could act as a stimulant to increased production; (c) an upward trend in prices could however lead to increased inventory demand, artificial reduction of supplies and further price increases; and (d) uncoordinated attempts at varying levels of authority at reconciling the conflicting claims of producers, traders and consumers leading to imposition of restrictions and other impediments to free movement of foodgrains. Based on the recommendations of the Foodgrains Prices Committee, the Government fixed the producer, wholesale and retail prices for foodgrains for the 1964-65 season.

The Committee recommended the terms of reference and composition of the Agricultural Prices Commission. Based on these recommendations, the Government of India set up the Agricultural Prices Commission (APC) in January 1965. The Commission was to advise on the price policy for agricultural commodities, particularly paddy, rice, wheat, jowar, bajra, maize, gram and other pulses, sugarcane, oilseeds, cotton and jute. While recommending the price policy and the relative price structure, the Commission was to keep in view (i) the need to provide incentive to the producer for adopting improved technology and for maximising production; (ii) the need to ensure rational utilisation of land and other production resources; and (iii) the likely effect of the price policy on the rest of the economy, particularly on the cost of living, level of wages, industrial cost structure, etc. The Commission was also to suggest such non-price measures as would facilitate the achievement of the policy objectives. The Commission was to recommend measures to reduce costs of marketing of agricultural commodities and suggest fair price margins for different stages of marketing.

The Government also established the Food Corporation of India in January 1965. The Corporation was to undertake purchase, storage, movement, transport, distribution and sale of foodgrains and other foodstuffs. It could, with the previous approval of the Central Government, promote the production of foodgrains and other foodstuffs. It would set up or assist in the setting up of rice mills, flour mills and other undertakings for the processing of foodgrains and other foodstuffs. The Corporation would be encouraged to function generally as an autonomous organisation working on commercial lines. It was expected to secure for itself a strategic and commanding position in the foodgrains trade of the country [Ministry of Food and Agriculture, 1965(a)].

The APC submitted its first Report on price policy for kharif cereals for the 1965-66 season in May-June 1965. The Commission observed that in a situation of shortages as prevalent in the country, the most important strategy was for the state to acquire and continuously maintain its command over reasonably large stocks, so that it secured a position of strength in the foodgrains market. Such stocks would enable the Government to influence the course of prices, through continuous purchase and sale operations over a wide front and throughout the season. The Commission indicated three areas where regulation or control was most essential, namely, (a) regulation of inter-state trade, (b) procurement/ purchase and distribution, and (c) price control. The Commission recommended its preference for single state zones, particularly in a period of shortages. It also recommended a partial levy amounting to 15 to 25 per cent of the marketable surplus of each producer. The marketing organisation on which Government could rely for its purchases could consist of marketing cooperatives, the Food Corporation of India (FCI) and the state and Central government procurement administrations. As regards distribution, the fair price shop system was suggested as the instrument for distribution through which the two objectives of bringing price relief to consumers and price stabilisation, could be realised. The Commission also recommended the drawing up of a National Food Budget assessing the surpluses and deficits of the states and their requirements.

The Commission's recommendations were generally accepted by the Government and the following food policy was announced in August 1965 for the 1965-66 season: '(1) The existing zonal restrictions on the movement of rice and wheat should continue, except that after statutory rationing is introduced in Delhi, the Northern Zone will consist of Punjab and Himachal Pradesh. (2) The existing restrictions on the movement of coarse grains and gram will continue. (3) The surpluses and deficits of the different states in the Union will be assessed and periodically revised, if necessary, by the Planning Commission, assisted by the Agricultural Prices Commission. The decisions of the Planning Commission will be binding on all states. The Planning Commission will thereafter draw up a National Food Budget on the basis of availabilities by way of imports and internal procurement. Each of the surplus states will be expected to deliver to the Central pool such quantities as may be determined by the Planning Commission. Deficit states will be required to plan their distribution in accordance with the allocation made to them under the National Food Budget plus such additional procurement that they may find necessary in order to meet their commitments. (4) The method of procurement in various states may be decided by the state governments concerned though the objective should be to achieve as far as possible uniformity in the method of procurement. It was recognised that it would not be feasible to introduce on a national scale monopoly procurement. (5) The Food Corporation of India should be entrusted as far as possible with the procurement, storage and movement of foodgrains. In particular, the FCI should take up the purchase of coarse grains and gram in the surplus states and arrange for their movement to the deficit states in accordance with the directions which may be issued by the Central Government. (6) Statutory rationing should be introduced in the first instance in cities having a population of one million and above, namely, Calcutta, Bombay, Delhi, Madras, Hyderabad, and Secunderabad, Bangalore, Ahmedabad and Kanpur, and also in areas having heavy concentration of industrial workers. The latter areas will be selected in consultation with the state governments concerned. Statutory rationing will be introduced in the above cities as soon as the necessary administrative arrangements can be completed and the required stocks built up. (7) The proposal of the Committee of Chief Ministers that the cost of introducing and enforcing statutory rationing in cities should be borne wholly by the Government of India should be examined' [Ministry of Food and Agriculture, 1965(b), Pp. 10-11].

Thus commencing 1965-66, the pattern of APC recommending on food policy and prices, and the Government examining the same became a hardy ritual.

The foodgrains position worsened during 1965-66, as the country witnessed one of the worst droughts in recent history. The production of foodgrains suffered a severe setback and declined to 72.3 million tonnes from 89 million tonnes in 1964-65. Arrivals from rural areas also recorded a sharp decline resulting in an acute shortage of market supply. This called for intensification of procurement efforts, stepping up of imports and further strengthening of the public distribution system. Despite a shortfall of over 17 million tonnes in production in 1965-66, the level of procurement of cereals was higher than in the previous year and reached 4 million tonnes. Imports were also higher and exceeded 10 million tonnes in 1966 benefiting 30 million people under statutory rationing and 211 million people under informal rationing. A major catastrophe, threatened by the precipitous fall in production, was averted by the timely and effective action taken, the massive food and other aid received from foreign countries and the discipline and fortitude shown by the people at all levels [Department of Food, 1967, p. 1].

Two Committees which had been set up in the 1964-65 and 1965-66 seasons submitted their reports during 1966. The Study Team on Fair Price Shops, set up in 1964 with V.M. Dandekar as Leader submitted its report in April 1966. Later in September 1966, the Foodgrains Policy Committee with B. Venkatappiah as Chairman gave its report to the Government.

The Study Team on Fair Price Shops had been asked to review (i) the working of the fair price shops for foodgrains, (ii) the pricing of the grains sold through these shops, and (iii) to examine the general impact of the sale of foodgrains through fair price shops on the foodgrains market and to make recommendations relevant on the subject [Dandekar, 1966, p. 1]. The Study Team pointed out that its review was being conducted under extreme crisis-ridden conditions when the atmosphere of the working of fair price shops was no longer one of relaxed abundance which prevailed during the period 1956-63. The system had also not yet geared itself to meet the challenge of the situation where the demand from fair price shops expanded rapidly and supplies from abroad proved inadequate to meet demand. According to the Study Team, of the two commonly stated objectives of fair price distribution, namely, to bring down the prices in the foodgrains market and to protect the vulnerable sections of the population, the first was more primary because to the extent that this was fulfilled, the second would not be necessary. The system of fair price shops established in the country since 1956 functioned mainly on the basis of imported supplies and, consequently, the fair price shop system came to be equated with release of additional supplies on the market. This led to the common belief that distribution through fair price shops helped to bring down prices in the market. When additional supplies had not been available from outside, and distribution at subsidised prices had been dependent on internal procurement, the fair price shops system not only could not bring down prices in the residual market but made itself vulnerable to the pressures of the residual market. The Study Team had therefore recommended that if the system of fair price shops was to function alongside a free market, the price in the fair price shops should be neither producer nor consumer oriented but market oriented. The system should maximise its share in the total market and acquire command over a larger share in the total distribution system. As regards imports, the Study Team recommended that they should be restricted to such quantities as were required by the market and for building reserve stocks. It was necessary for the Government to maximise its revenue from the sale of imported foodgrains, and to meet from such revenue part of the distribution costs, and thus improve the competitive position of the public marketing agency *vis-a-vis* the free market, to expand its own operations in the purchase and sale of domestic grain. A public marketing agency would be able to achieve an effective position in the market only if its operations were placed on a permanent footing. A certain amount of regulation of consumer demand at fair price shops was necessary by means of identity cards, fixation of quantum of issue, etc.

The Foodgrains Policy Committee was expected to (i) examine the existing zonal arrangements in regard to the movement of foodgrains and the systems of procurement and distribution in the country; and (ii) make recommendations for modifications, if any, in these arrangements and these systems for bringing about an equitable distribution of foodgrains at reasonable prices between different regions and sections of the country. The Committee analysed the various factors responsible for the food situation and came to the conclusion that food controls were inescapable for a number of years to come, and that long-term food planning coupled with prudent management of resources with active role of Central and state governments was essential. The Committee advocated the formulation of a National Food Budget on the basis of the zonal restrictions, introduction of statutory rationing in bigger urban areas, intensification of procurement, building of buffer stock and a more important role for the Food Corporation of India in the inter-state trade. The Committee did not find any justification for continuing a subsidy on foodgrains for consumers in general [Venkatappiah, 1966].

For the 1966-67 season, the APC gave its recommendations for price policy for kharif cereals in May-September 1966. It recommended the continuation of the minimum prices fixed for the 1965-66 season in the ensuing season too, as it felt that minimum support prices were to provide a long-term guarantee to the producer and should be revised only if warranted by long-term secular forces. (The Government accepted this recommendation). For procurement prices, the Commission pointed out that a number of states had raised prices in the 1965-66 season, and also provided bonus over and above the procurement price because of the adverse production in that year. As a result, the inter-state parity in procurement prices which had been attained in 1965-66, underwent a considerable change. The Commission took into account the better crop prospects in 1966-67, as compared to 1965-66, which would help farmers obtain relatively higher incomes. It recommended a set of procurement prices for rice and paddy as also other kharif coarse cereals which, it felt, would provide sufficient incentive to the farmers. The procurement prices for kharif cereals subsequently announced by the Government were generally somewhat higher than those recommended by the Commission.

The APC also made recommendations for the 1965-66 rabi cereals (wheat and gram), marketed in the 1966-67 season. It recommended a set of minimum prices of wheat and gram, but these were not announced by the Government. As regards procurement prices and policy, the Commission examined three alternative policy measures for the 1966-67 marketing season, namely, (a) continuance of the restrictions on inter-state movement of wheat; (b) cordoning off of the cities/industrial areas with high purchasing power and introduction of statutory rationing therein with no restrictions on movement in the rest of the country; and (c) extending the network of fair price shops, together with removal of restrictions on inter-state movement. The Commission recommended a combination of a network of fair price shops, with selective statutory rationing and inter-state movement of foodgrains only through licensed traders who would be required to submit periodically detailed information regarding all inter-state transactions. The Government's policy should be to reduce dependence on imports over a period of time. However, for maintaining the public distribution system, there was no escape from an extensive and effective system of procurement from domestic supplies. It commended a procurement system of partial graded levy on producers, the rate and extent of levy being dependent on arrangements regarding restrictions on inter-state movement. In those parts of the country where the pre-emptory purchases in the open market had succeeded, they could continue. The Food Corporation of India should constitute an important agency for acquiring supplies for the Government, and on an increasing scale from year to year even in competition with the trade. The Commission recommended two sets of procurement prices of wheat, one for the major wheat producing states of Bihar, Madhya Pradesh, Punjab, Rajasthan and Uttar Pradesh and the other for the deficit states of Gujarat and Maharashtra.

During the major part of 1967, the food situation in the country continued to be extremely difficult due to the widespread drought and the consequential failure of crops for the second year in succession. In 1966-67, not only the same states were affected again, but the drought in Bihar, Eastern Uttar Pradesh and some areas of Madhya Pradesh was of an unprecedented intensity and resulted in acute scarcity conditions in these areas. The production of foodgrains which had registered a sharp decline of 17 million tonnes in 1965-66 showed a marginal increase in 1966-67 but was still 14 million tonnes lower than the 1964-65 level of 89 million tonnes. Altogether there was a decline of 31 million tonnes in production over the two years, 1965-66 and 1966-67. The virtual absence of carry-over stocks from the previous year's crops made the food situation during 1967 much more difficult than during 1966. In view of the difficult food situation, the Government continued the policy of controlled distribution to ensure regular supplies of foodgrains at reasonable prices to as large a number of people as possible, especially to the vulnerable sections. By the end of 1967, about 31 million people had been brought under statutory rationing and 245 million under informal rationing making a total of 276 million, i.e., a little more than half the population. Distribution of foodgrains on such a massive scale could be maintained only by importing large quantities from abroad and by maximising internal procurement. The total imports of foodgrains during the year 1967 amounted to 8.7 million tonnes as against 10.4 million tonnes during 1966. Due to the vigorous efforts made by the Government, internal procurement during 1966-67 exceeded 4 million tonnes (as in the previous year), in spite of a second successive year of low production. Though procurement of rice was lower, procurement of wheat and coarse cereals was substantially higher than that of the preceding year. Despite the limited availability, supplies of foodgrains from the Central pool to various states, particularly those affected by drought, were kept at a high level. The rice position became difficult but all efforts were made to avoid any major break-down, and the shortfall in rice issues was made good by increased supplies of wheat to the extent possible [Department of Food, 1968, Pp. 1-2].

In view of the difficult foodgrains situation, the single state zones for rice and coarse grains were continued. The bigger wheat and gram zone comprising the states of Punjab, Uttar Pradesh and Haryana and the Union Territories of Himachal Pradesh, Chandigarh and Delhi (excluding areas under statutory rationing) was split in April 1967 and each state/Union Territory was formed into an independent zone, except Delhi Union Territory which was added to Haryana for gram. The states of Punjab and Haryana and the Union Territories of Chandigarh and Himachal Pradesh were also formed into single state zones for rice, paddy and maize. Movement of wheat, rice, gram and maize from Punjab and Haryana to Chandigarh was however kept free. The zonal arrangements were again reviewed at the Chief Ministers' Conference held in September 1967. The continuance of the restrictions was considered necessary in view of the importance of maximising procurement [Department of Food, 1968, Pp. 1-2].

The prospects for the 1967-68 foodgrains crop were quite good. In its report on Minimum Support Prices for Kharif Cereals for 1967-68 season, the APC felt that the minimum support prices could play only a marginal role in stimulating agricultural growth. The dominating influences were (a) the open market prices, (b) the purchase prices fixed for government procurement, and (c) the relative price movements between kharif cereals and competing crops in different states. With the general buoyancy in market prices as a result of two bad crop years, maximum stress was needed to be placed on the development and extension programmes since the state of price expectations was generally conducive to a breakthrough in foodgrains production. The Commission, however, did not consider the fixation of minimum prices as an irrelevant exercise as the prices of foodgrains could become unduly depressed in certain pockets, due to the imperfections in the market or other institutional factors. Keeping in view the factors mentioned earlier as also the relevant past data on the costs of production, suitably adjusted to changes in the prices of important inputs, the Commission recommended minimum support prices for the standard varieties of paddy, jowar, bajra, maize and ragi. In September 1967, the APC recommended that (a) in view of the prospects of a considerable increase in foodgrains output for 1967-68, the country's dependence on food imports should be substantially reduced; (b) a beginning should be made to build a buffer stock of foodgrains of the order of 2 to 3 million tonnes; (c) a domestic procurement target of more than 8 million tonnes should be set for 1967-68 of which at least 7 million tonnes should be from the kharif crop consisting of 5.1 million tonnes of rice and 1.9 million tonnes of coarse grains; (d) a producer levy should be introduced in all states and for all crops for which procurement targets were set; (e) the quantum of domestic coarse grains made available through the public distribution system should be raised appreciably; (f) the subsidies in the issue prices of imported foodgrains should be dispensed with; (g) the level of procurement prices for 1967-68 should reflect both the likely improvement in foodgrains output as well as the need for restraining the inflationary pressures prevalent in the economy; and (h) the distortions that had crept into the structure of inter-state and inter-grain price relationships should be gradually eliminated.

For wheat and gram of the 1966-67 crop to be marketed in the 1967-68 season, the Commission reiterated that support prices were in the nature of a long-term guarantee to the producers and recommended minimum support prices for wheat and gram. These prices were accepted and announced by the Government. The Commission had also recommended in March 1967 that (a) releases of wheat from the stocks with the Government of India should be reduced by 25 per cent with immediate effect; (b) the subsidy in the issue price of wheat as well as other foodgrains be withdrawn gradually; (c) a producer levy on ownership holdings of 10 acres and above be enforced to the extent of 10 per cent of the wheat output of such holdings; (d) a second order procurement of wheat on behalf of the Government be undertaken either through pre-emptive purchases or open market operations; (e) the total quantity of wheat to be procured should be at least one million tonnes, whatever may be the systems of procurement which the authorities decide; (f) for the producer levy, the prices recommended were Rs 57.50, Rs 61.50 and Rs 65.50 per quintal for the red, common white and superior farm varieties, respectively, in the principal wheat producing states and Rs 64.00, Rs 69.00 and Rs 74.00 per quintal, respectively, for other states including Gujarat, Maharashtra and Mysore; (g) for the high yielding varieties of wheat, a bonus of Rs 2.50 per quintal was recommended over and above the corresponding producer levy price; (h) for gram, the Food Corporation of India could be entrusted with purchases either through the discretion of pre-emption or open market transactions.

The country harvested a record foodgrains crop of 95.6 million tonnes during 1967-68. This was 21.4 million tonnes higher than the production of 1966-67 and 6.6 million tonnes higher than the previous record attained in 1964-65. The increase in production of foodgrains led to an all-round improvement in the food situation. Market availability of foodgrains increased considerably and prices registered a significant fall. The offtake from the public distribution system declined appreciably from 13.2 million tonnes in 1967 to 10.3 million tonnes in 1968, while procurement on government account rose to a record figure of 6.7 million tonnes, being over 2 million tonnes higher than the quantity procured in 1967. The Central and state reserves of foodgrains which at the beginning of 1968 had reached an all-time low- barely sufficient for a fortnight's requirements- stood at 3.8 million tonnes at the beginning of 1969. Imports declined from 8.7 million tonnes in 1967 to 5.7 million tonnes in 1968. The Government also announced the building of a buffer stock of 5 million tonnes during the Fourth Five Year Plan [Department of Food, 1969, Pp. 1-27].

With the improvement of the foodgrains availability position for the 1967-68 season, the zonal arrangements were reviewed in the Chief Ministers' Conference held in March 1968. In accordance with their recommendations, a bigger northern zone comprising Punjab, Haryana, Jammu and Kashmir, Chandigarh, Delhi and Himachal Pradesh was constituted. Movement of rice, wheat and wheat products within this zone was made free. However, movement of paddy from Punjab and Haryana was restricted to ensure that rice levy on mills in those states was collected in full. Movement of gram and barley was made free throughout the country on March 28, 1968. Movement of jowar, bajra, and maize was also allowed from the producing states of Punjab, Haryana and Rajasthan on March 28, 1968. Thus, restrictions on movement which were tightened for the 1966-67 season were relaxed in the following year itself. Procurement operations, however, continued either through (a) the system of monopoly procurement as in Assam and Orissa for paddy/rice and Maharashtra for paddy/rice and jowar; (b) levy on producers as in Andhra Pradesh, Bihar, Kerala, Gujarat and West Bengal for paddy, Madhya Pradesh for wheat, Uttar Pradesh for wheat and paddy, and Mysore for paddy and coarse kharif grains; (c) levy on licensed millers and traders as in Andhra Pradesh, Bihar, Haryana, Punjab, Madhya Pradesh and West Bengal for rice, and Uttar Pradesh for rice, jowar, bajra and maize; or (d) the right of pre-emption as in Punjab and Haryana for wheat. The procurement prices announced for the cereals were higher than those recommended by the APC for the 1967-68 season. With the improvement in the food situation of the country, it was decided to make some relaxations in the austerity orders. The state governments were advised to issue revised austerity orders relaxing restrictions on the number of people who could be entertained at parties and functions and also the items of food that could be served to them. Instead of building up the much needed foodgrains stocks from internal purchases, with improvement in production in only one year, restrictive measures started being eased out.

In November 1967, the APC recommended an upward hike in the minimum prices of wheat and gram of the 1967-68 crop to be marketed in the 1968-69 season. It mentioned that the assurance of support to the producer could not be effective unless it was backed by actual support operations whenever the need arose. There had been occasions when prices had been allowed to fall below the announced support levels. The Government accepted the recommendations of the Commission.

In March 1968, the Commission referred to the shortfall in kharif procurement in the 1967-68 season from the target of 7 million tonnes to about 4 million tonnes. In view of this shortfall, the Commission recommended that the opportunity provided by the prospects of an excellent rabi crop should be availed of by procuring 2 million tonnes or more of wheat in the 1968-69 season. The Commission held the view that, in fixing the level of procurement prices, attention should be given to the trend in open market prices, as also to the objective of reducing progressively the inter-state and inter-grain disparities in prices. The Commission recommended that procurement prices for the 1968-69 season be fixed at Rs 66.00, Rs 70.00 and Rs 74.00 per quintal for the red, common white and superior (farm) varieties of wheat, respectively, in Haryana, Madhya Pradesh, Punjab, Rajasthan and Uttar Pradesh and at Rs 73.00, Rs 78.00 and Rs 83.00 per quintal, respectively, in other states. However, following the Chief Ministers' Conference to examine the recommendations, the Government decided to fix the procurement prices higher than those suggested by the APC.

The APC had also referred to the alterations at frequent intervals in zonal arrangements for movement of foodgrains. Such shuffling raised doubts about the stability of the Government's policy measures, and affected the state of expectation of the producers. Any decision taken should be consonant with the Government's long-term policy on food procurement and distribution. The Commission emphasised that (a) the consideration of larger procurement should remain paramount for the next few years and at least until the dependence on imported food was appreciably reduced, and (b) before any alteration in the arrangements were introduced, a buffer stock of a sizeable quantity should be built. Further, experience spanning over a few years should be assessed before any fundamental reordering was effected in the system of public distribution, the actual building of an adequate buffer being the minimum pre-condition for a possible switch-over.

In April 1968 the APC submitted its recommendations for minimum support prices for kharif cereals for the 1968-69 season. It recommended that (a) the minimum support prices for the standard varieties of paddy, jowar, bajra, maize and ragi be fixed uniformly at Rs 44.00 per quintal throughout the country; and (b) organisational details for undertaking price support operations be worked out between the Union and the state governments, and arrangements made regarding the financial requirements. However, as the Government had decided to purchase all foodgrains of fair average quality offered for sale at the procurement prices, which were considerably higher than the minimum support prices and included an element of incentive to the farmers, the minimum support prices for 1968-69 kharif and 1969-70 rabi seasons were not announced.

In September 1968, the APC submitted its report on other aspects of price policy for kharif cereals for the 1968-69 season. In determining the procurement targets for the kharif season, the Commission had kept in view the objective of national self-sufficiency in foodgrains by 1970-71; this meant the cessation of imports by 1971. It had also borne in mind the other stated objective of food policy that the buffer stock under the control of the Government should reach 7 million tonnes by 1971. Keeping the two objectives in view, the Commission had recommended an aggregate procurement target of 8 to 9 million tonnes from out of the 1968-69 foodgrains crop, of which procurement of kharif cereals should be 5.7 million tonnes, consisting of 4.2 million tonnes of rice and 1.5 million tonnes of coarse grains. In arriving at the procurement prices, the Commission took note of the declining trend in market prices, and the effect of high prices on real incomes, agricultural wages and cost of cultivation, thus feeding the cost-price spiral in agriculture. It recommended a set of prices which were generally lower than those fixed by the state governments for the 1967-68 season. The Commission's recommendations were examined by the state governments and the Government of India, and the targets for procurement recommended by the Commission were considered to be somewhat high in view of the shortfall in production on account of drought and scarcity in some parts of the country and floods in others. The procurement prices as in force during the previous season were continued with marginal adjustments in some states. This was done to provide an incentive to the farmer for increasing agricultural production.

The production of foodgrains during 1968-69 turned out to be only slightly lower at 94.0 million tonnes than in 1967-68 (95.1 million tonnes). The increased level of production had brought about a large measure of stability on the food front. Market availability of foodgrains remained generally easy during 1969 and the seasonal fluctuations in their prices were by and large normal. Internal procurement of foodgrains crossed the 6 million mark for the second year in succession while imports of foodgrains were reduced further, from 5.7 million tonnes in 1968 to 3.9 million tonnes. The offtake from the public distribution system declined from 10.4 million tonnes in 1968 to 9.6 million tonnes in 1969. The Government plans for building up a buffer stock made further progress during the year, the total stocks with the Government having gone up from 3.9 million tonnes at the end of 1968 to 4.4 million tonnes at the end of 1969. Considering the general improvement in the availability of foodgrains and the increase in government stocks, restrictions on the movement and distribution of foodgrains were further relaxed during 1969. An enlarged Northern Wheat Zone was formed.

With the improvement in supplies, statutory rationing of foodgrains was discontinued in Siliguri, Kanpur, Delhi, Hyderabad and Secunderabad during 1968. In Greater Calcutta, Madras, Coimbatore, Visakhapatnam, Greater Bombay, Poona, Sholapur, Nagpur, Asansol and Durgapur Complex areas which continued to be under statutory rationing, the overall quantum of ration was advised to be increased to 2,500 grams per adult per week, by increasing the quantum of foodgrains other than rice [Department of Food, 1970, Pp. 1-2]. Informal rationing continued in other areas on the basis of identity cards. Statutory rationing was discontinued in some of the towns in Maharashtra and West Bengal during 1969. In view of a substantial increase in market supplies, following the record production of 1967-68, restrictions on bank advances against foodgrains were relaxed at different stages during the year under report in the light of the price situation. Further, because of easy availability of coarse cereals, movement restrictions were lifted on these grains from Uttar Pradesh on December 19, 1968, Bihar on January 18, 1969 and Mysore (maize and bajra) on January 17, 1969. Movement of wheat from Uttar Pradesh to Delhi was also permitted with effect from January 13, 1969. Movement restrictions on the 'export' of coarse cereals from Madhya Pradesh were relaxed on February 6, 1969. By the beginning of the Fourth Plan, therefore, movement of coarse grains was more or less free throughout the country; rationing commitments were reduced, procurement operations for coarse grains was reduced and wheat procurement was largely limited to the surplus states.

Fourth Five Year Plan, 1969-74

The objectives of food policy in the Fourth Plan document included: (i) to ensure that consumer prices are stabilised and, in particular, that the interests of the low income consumers are safeguarded; (ii) to ensure that the producers get reasonable prices and continue to have adequate incentives for increasing production; and (iii) to build up an adequate buffer stock of foodgrains with a view to ensuring both the objectives mentioned above. The following instruments of policy were to be employed, to achieve the objectives: (a) The continuance of the public distribution system; (b) the acquisition by the public sector of a sizeable percentage of marketable surplus of foodgrains with a view to meeting the commitments under the public distribution system and maintaining the buffer stock at the desired level; (c) the imposition of such restrictions on the movement of foodgrains as may be necessary to help the attainment of procurement targets or to prevent, in a condition of shortage, an excessive rise in prices throughout the country; (d) the regulation of private trade to curb speculation and hoarding; and (e) the continuance of the ban on forward trading [Planning Commission, 1970, Pp. 233-236].

The Plan document laid stress on the setting up of cooperative consumer stores or shops of multipurpose societies as the principal apparatus of foodgrains distribution in place of the fair price shop system. The cooperative shops could also cover the sale of other goods of mass consumption. As early cessation of concessional imports of foodgrains was contemplated, commitments for the public distribution system and buffer stock operations would have to be increasingly met from internal procurement. The procurement target for the country as a whole would have to be not less than 8 to 10 million tonnes in any given year. The choice of the methods of procurement and the restrictions on movement of foodgrains could be made by individual states with the aim of fulfilling their obligations of procurement. The Fourth Plan recommended the building up of a buffer stock of 5 million tonnes by 1974 to be managed by the Food Corporation of India, which would be the principal agency for the implementation of the food policy. The Food Corporation of India was to attain a commanding position in the distribution of foodgrains and stabilisation of prices. It was expected to have adequate autonomy and flexibility in its operation, as it would have to go increasingly into the open market. Its pricing strategy would have to be determined not on the basis of individual transactions but with reference to their total volume.

As in the previous seasons, the APC submitted its recommendations for rabi and kharif foodgrains for the 1969-70 season. It recommended a uniform minimum support price of Rs 44.00 per quintal for the standard variety of paddy as well as for jowar, bajra, maize and ragi. The Commission pointed out that even though the Government had not announced minimum support prices for the previous season as it had assured that it would provide support at the procurement prices, market prices of a number of grains - both rabi and kharif - for a number of weeks were below the levels of procurement prices. In the aggregate, the Government had been purchasing only 7 to 8 per cent of the total output of cereals in the country. It was also necessary to take cognizance of the fact that the scale of purchases that would be required to offer support at the level of procurement prices could well exceed the capacities of the existing organisation and storage. In recommending the level of minimum prices, the Commission had observed that it did not seem that any marked change in the cost of production had occurred since the previous year. For the rabi cereals, the Commission recommended the maintenance of the minimum support prices for wheat and gram of the 1968-69 crop to be marketed in the 1969-70 season at the same levels as in the preceding season. The Government did not announce the minimum prices for rabi cereals for the 1969-70 marketing season. For the kharif cereals, it accepted the Commission's recommendation of Rs 44.00 per quintal for the coarse cereals, but raised the minimum support price for the standard variety of paddy to Rs 45.00 per quintal to provide a slight edge over the price of coarse grains, in view of the extra labour and care involved in growing paddy.

The Commission recommended in March 1969 that the opportunity provided by the further increase in wheat production should be taken into account for working out the targets of procurement for the 1969-70 marketing season which should be not less than 3.6 million tonnes. The Commission referred to the hike in the procurement prices of wheat for the 1968-69 season, and the subsidy that had to be borne by the Government in its issues through the public distribution system. Part of the subsidy was made good by the lower prices at which imports of wheat were being made. This factor would have to be kept in mind with the Government's policy of reduction of imports of wheat and the issue through the public distribution system. The procurement prices of wheat for the 1969-70 marketing season should not only reflect the success with the high yielding varieties and the realities of the market, but also the desirability of lowering the import content of the aggregate public distribution of the grain. As against the procurement prices of Rs 76.00 per quintal for the common white and Mexican varieties of wheat and Rs 81.00 per quintal for the superior farm varieties fixed by the Government for the 1968-69 marketing season, the Commission recommended for the 1969-70 season, procurement prices of Rs 66.00 per quintal for the indigenous red, Rs 70.00 per quintal for the common white and Mexican varieties and Rs 74.00 per quintal for the superior (farm) varieties of wheat uniformly in all states. The Food Corporation of India should be encouraged to undertake, wherever economical, direct purchases from the producer, of wheat as also gram and barley. The success of the Food Corporation's operations would depend upon its efficiency in rationalising its costs and margins in line with those of the trade. The Commission stressed the need for intensive research in evolving high yielding varieties of gram and barley.

The Report of the Commission was considered at the Chief Ministers' Conference held in April 1969. The procurement/purchase prices of all varieties of wheat, other than the indigenous red wheat, was fixed at Rs 76.00 per quintal and not reduced as recommended by the Commission as it was felt that such a step would have acted as a disincentive to the farmer. The issue price of all varieties of wheat was raised to Rs 78.00 per quintal, because of the larger component of indigenous wheat in the total quantity likely to be available with Government for distribution.

As regards kharif cereals for the 1969-70 season, the Commission recommended that (a) procurement operations should be maintained during 1969-70 on a sizeable scale in the interest of rendering the transition from a regime of high prices smooth, so as not to hurt the nascent process of induction of modern technology into agriculture; (b) the programme of imports be appropriately scaled down; (c) the procurement target for the 1969-70 season be fixed at 4.5 million tonnes of rice and at least 1 million tonnes of coarse cereals; (d) the system of public distribution to the vulnerable sections be extended to the rural areas; and (e) attention be given to the requirements of storage in the rural areas. For fixing the levels of procurement prices for kharif cereals, the Commission took into account (i) the downward drift in market prices, (ii) the realities of the rural society, (iii) the latest available data on cost of cultivation, etc., and recommended for the 1969-70 season slightly lower procurement prices than those fixed in 1968-69 for the standard varieties of paddy, rice and coarse grains. The Commission suggested that commencing the 1969-70 procurement season, a scheme be instituted for the deferred payment of a certain proportion of the procurement price for different foodgrains and the proceeds be used for providing credit and other types of development assistance to the small farmers and agricultural labourers. The Government of India accepted the Commission's recommendation for fixing the procurement prices for all coarse kharif grains at Rs 52.00 per quintal for purchase for the Central pool. The procurement prices for paddy/rice were continued at the previous year's levels.

The production of foodgrains again touched a new record of 99.5 million tonnes in 1969-70 surpassing the previous record of 95.1 million tonnes attained in 1967-68 by 4.6 per cent. A still bigger crop was expected during 1970-71. The continuing increase in production of foodgrains led to an all round improvement in the food situation. Market arrivals were larger and foodgrains prices generally easy. Procurement had shown an increase while imports and public distribution had gone down. Procurement of foodgrains out of the 1969-70 crop was 6.6 million tonnes which was over 0.2 million tonnes higher than that of the previous year. On the other hand, imports during 1970 were lower by a similar amount; the total quantity imported during the year was only 3.6 million tonnes. With the increase in market availability of foodgrains, the offtake from public distribution system also declined further from 9.5 million tonnes in 1969 to about 8.9 million tonnes in 1970. Foodgrains stocks with the Government also marked an increase of nearly 1.0 million tonnes during 1970, the total stocks at the end of the year being 5.4 million tonnes as against 4.4 million tonnes at the end of 1969. In view of the continuing improvement in the food situation, restrictions on the movement and distribution of foodgrains were further relaxed during 1970 [Department of Food, 1971, Pp. 1-2].

Considering the easy availability of foodgrains statutory rationing was discontinued in certain areas of Asansol group of towns, Nagpur, Sholapur and Pune during 1969, and in Madras and Coimbatore in January 1970. Rice was de-rationed in Hyderabad-Secunderabad from April 1, 1968 and statutory rationing was totally withdrawn from Andhra Pradesh from February 15, 1970. In certain statutorily rationed areas, card holders were permitted to bring limited quantities of foodgrains from outside the rationed areas. The entire state of Kerala and the Union Territories of Goa, Daman and Diu and Pondicherry continued to be covered by informal rationing The total number of fair price/ration shops functioning in the country at the end of 1969 was 138 thousand as against 140 thousand at the end of 1968. The total population covered under statutory and informal rationing was about 22.6 million and 249.0 million, respectively, at the end of 1969 as against 25.6 million and 233.4 million, respectively, at the end of 1968 [Department of Food, 1970, p. 19].

The Government revised upward the issue prices of rice and wheat during 1969. The issue prices of rice which ranged between Rs 96.00 and Rs 125.00 per quintal since January 1, 1968 were raised to range between Rs 100.00 and Rs 128.00 per quintal from May 1969. This revision in the issue prices was necessitated by the revised economic cost of various varieties of rice. In the case of wheat a uniform issue price of Rs 78.00 per quintal was fixed for all the imported and indigenous varieties as against the previous year's prices ranging between Rs 70.00 and Rs 95.00 per quintal for different varieties. This change was effected because a uniform procurement price of Rs 76.00 per quintal was fixed for all varieties of wheat (except indigenous red) for the rabi marketing season 1969-70 and also because of the higher component of indigenous wheat in the Central Pool.

With the completion of the transfer of the executive functions of the Food Department from April 1969, the Food Corporation of India had become the sole agency of the Central Government for state trading in foodgrains. In a short span of five years it had expanded its activities both in terms of area of operation and the volume of purchases and sales. The internal purchases of the Corporation out of the 1968-69 crop increased to about 4.7 million tonnes. The purchases and sales turnover expanded from Rs 290 crore in 1965-66 to Rs 1,500 crore during 1968-69. The Corporation which was set up with the object of securing a commanding position in the foodgrains trade, was playing a dominant role in purchase, storage and distribution of foodgrains in the country.

In its report on the procurement and price policy for rabi foodgrains of the 1969-70 crop to be marketed in the 1970-71 season, the APC referred to the changed pattern of market arrivals of wheat which had become substantial during the first quarter, resulting in drying up of the market flow of wheat in the later part of the season. The increase in the area under the high yielding varieties of wheat and the resultant expectations of a higher output, the building of buffer stocks and larger supply through the public distribution system, and the Government's decision for a reduction in the dependence on imports, all required a larger quantum of wheat procurement from internal production during 1970-71. The Commission recommended that 3.7 million tonnes of wheat should be procured during the 1970-71 marketing season. It stressed that too frequent changes in zonal arrangements and other matters of policy was not desirable for any sound and stable food policy for the country. The Commission also pointed out that the cushion of the lower priced imported wheat available in fixing a lower issue price for wheat was likely to diminish with a reduction in the quantum of wheat imported into the country. If the issue prices were not to be fixed at too high a level, and in the interest of rendering the transition from an era of high prices smooth, the Commission recommended that the procurement prices for wheat for the 1970-71 season be lowered from Rs 76.00 per quintal and fixed uniformly for all the states at Rs 66.00 per quintal for the indigenous red and at Rs 72.00 per quintal for the indigenous common white and the different Mexican varieties. The Government, however, continued the procurement price at Rs 76.00 per quintal for 1970-71.

Despite an excellent kharif crop expected for the 1970-71 season, the Commission felt that the likelihood of achieving the foodgrains targets of the Fourth Five Year Plan was remote. The imbalance between demand and supply would continue until 1974, leading to dependence on imports. The public distribution system would also be required to be maintained on an adequate scale. On the other hand, with improvements in kharif production in 1969-70, a number of states had relaxed their procurement efforts. The regulations should be re-tightened for the 1970-71 season so that the procurement effort could be intensified, thereby reducing dependence on imports for the public distribution of foodgrains and augmenting the buffer stocks. The Commission recommended that the procurement target for kharif cereals should be fixed at 5.5 million tonnes comprising 4.7 million tonnes of rice and 0.8 million tonnes of coarse grains. In order to ensure stability in foodgrains prices, the Commission recommended the continuance of the procurement prices for the standard variety of paddy of the preceding year for 15 states, raised them moderately for 3 states and reduced them marginally for 6 states. For the standard varieties of coarse cereals the Commission recommended an uniform procurement price of Rs 52.00 per quintal for the 1970-71 season. The Food Corporation of India should be entrusted with the entire complex of operations involved in the procurement, movement, storage and distribution of foodgrains, at least in respect of the quantities purchased for, or on behalf of, the Union Government.

The Commission's recommendations were considered at a Chief Ministers' Conference held in September 1970 and the procurement prices for paddy were fixed either marginally higher or maintained at the same level as in the preceding year. For coarse grains, a procurement price of Rs 55.00 per quintal was fixed for purchases made for the Central Pool. The state governments were permitted to fix higher procurement prices for coarse grains up to Rs 57.00 per quintal for purchases for their internal consumption.

Production of foodgrains touched a new peak of 107.8 million tonnes in 1970-71 marking an increase of 8.3 million tonnes or 8.4 per cent over the previous year's record of 99.5 million tonnes. The increase in production reflected itself in larger market arrivals. As a result, procurement of foodgrains out of the 1970-71 crop touched a new high of 8.8 million tonnes marking an increase of 2.2 million tonnes over the previous year, while offtake from the public distribution system declined from 8.8 million tonnes in 1970 to 7.7 million tonnes in 1971. For the first time since Independence, domestic procurement of foodgrains exceeded the total public distribution [Department of Food, 1972, p. 1]. Imports of foodgrains were reduced from 3.6 million tonnes in 1970 to 2.1 million tonnes in 1971. Stocks with the Government rose from 5.8 million tonnes at the end of 1970 to 7.9 million tonnes by the end of 1971. As a result, barring seasonal pressures, the price index of cereals during 1970-71 remained generally lower than in the corresponding period of 1969-70. The Economic Adviser's average index of prices of cereals for 1970-71 (April to March) at 199.6 was lower than the previous year's average index of 201.3. There was therefore a general relaxation in Government's policies during 1970-71.

The zonal arrangements for the movement of foodgrains were further relaxed. With effect from April 1970, the movement of wheat and wheat products was permitted throughout the country, except in the statutorily rationed areas of West Bengal and Maharashtra. Restrictions on the movement of coarse grains were withdrawn from all the major producing states by December 1970, except from Maharashtra. Restrictions on the movement of wheat to Bombay were removed from May 1, 1971 with the discontinuation of statutory rationing of wheat and wheat products. Statutory rationing was also withdrawn from all the principal cities during 1970-71, except for Greater Bombay in Maharashtra and the Calcutta Industrial Area and Asansol group of towns in West Bengal. Informal rationing of foodgrains through the fair price shop system continued in the rest of the country. With the fall in the demand for foodgrains through the public distribution system, the number of fair price shops functioning in the country declined from 139 thousand at the end of 1969 to 122 thousand by the end of 1970. The population covered under statutory and informal rationing was about 15.4 million and 284.5 million at the end of 1970 as against 22.6 million and 249.0 million, respectively, at the end of 1969. The control on bank credit against foodgrains was generally relaxed during the year, particularly against coarse cereals.

With the continuation of the procurement price of wheat at Rs 76.00 per quintal in the 1970-71 season, the issue price of wheat was also retained at Rs 78.00 per quintal for all varieties, except the amber-coloured wheat which was raised to Rs 84.00 per quintal from May 1970. As the Government was purchasing all quantities of foodgrains of fair average quality offered for sale at procurement prices, it was felt that the minimum prices had no operational significance.

For the 1971-72 season, the APC suggested that the objectives of food policy should be to step up domestic procurement to match, as far as possible, the requirements of public distribution so that the imports of foodgrains during 1971 could help augment the buffer. Even with a target of procurement of 4 million tonnes of wheat from the 1970-71 crop to be marketed in the 1971-72 season, a gap of about one million tonnes would remain in the requirements of public distribution. This could be met from imports. For arriving at a procurement price for wheat, the Commission analysed again the impact on procurement/issue prices of wheat, with the diminution in the import content of wheat released through the public distribution system. If the issue/procurement prices were left undisturbed, the Government would have to incur a subsidy of Rs 35 crore during 1971-72. The burden of a further increase in issue prices would have to be borne by the vulnerable stratum of the consuming community, while the incidence of a lowering in the procurement price would fall more on those with larger surplus and the capacity to bear. The Commission, therefore, recommended that the procurement prices be fixed uniformly for all the states at Rs 68.00 per quintal for the indigenous red varieties, and at Rs 74.00 per quintal for the indigenous common white and the different Mexican varieties. The Government, however, continued the procurement price of Rs 76.00 per quintal fixed for wheat for the 1970-71 season for all varieties other than the indigenous red varieties. The issue price of wheat was also kept at Rs 78.00 per quintal for all varieties including the amber coloured varieties (whose prices had been raised to Rs 84.00 per quintal for the 1970-71 season).

For the 1971-72 kharif cereals crop, the APC urged the Government not to be complacent about the record production of foodgrains that had taken place in 1970-71, largely due to excellent weather conditions during that year. Although there were indications of the kharif paddy production increasing during 1971-72, there was likely to be a shortfall in coarse cereals production. The demand for rice through the public distribution system was likely to increase during 1971-72, due partly to the upward pressure on prices and also because of the influx of evacuees from Bangladesh in that year. There was also need for enlarging the rice component of the buffer stock of foodgrains in the country. The Commission therefore recommended that 4.3 million tonnes of rice and 0.5 million tonnes of coarse grains should be procured in the country. The trend towards relaxation of the procurement effort in some states, and inter-state movement of rice should be reversed. The procurement prices for paddy and rice should remain at the same levels as in 1970-71, except for Jammu and Kashmir and Orissa where some upward adjustment was suggested. It was not advisable to increase the general level of procurement prices, in view of the need to contain any upward pressure in market prices. The coarse cereals could be purchased in the market within the range of the minimum prices fixed for the 1971-72 season and the procurement prices fixed for the 1970-71 season. The Commission's recommendations on procurement prices were accepted by the Government for 1971-72.

As expected, the kharif crops were adversely affected in Andhra Pradesh, Maharashtra and Mysore by drought, in Uttar Pradesh, Bihar, West Bengal and Rajasthan by heavy rains and floods and in Orissa by cyclones. As a result, the production of coarse cereals showed a sharp fall of over 6 million tonnes, the fall being more pronounced in bajra and maize. Paddy production increased only marginally, while the wheat crop registered an increase. The overall production of foodgrains declined from 108.4 million tonnes in 1970-71 to 104.7 million tonnes in 1971-72. Market arrivals were lower and an upward pressure on foodgrains prices was witnessed almost throughout the country. The average all-India index number of wholesale prices of cereals rose from 199 in 1971 to 221 in 1972. The price position was aggravated by drought conditions again during the growing period of the 1972-73 kharif crop. The offtake from the public distribution system rose in 1972 to 10.5 million tonnes from 7.8 million tonnes in 1971. The number of fair price shops also rose to 165 thousand by the end of 1972. The step up in public distribution of foodgrains led to the depletion of buffer stocks. Total stocks with the Government at the end of December 1972 stood at 3.4 million tonnes as against 7.9 million tonnes at the end of 1971. Procurement was intensified; the total procurement out of the 1971-72 crop reached 8.4 million tonnes which was only marginally lower than the previous year's record level of 8.8 million tonnes [Department of Food, 1973, Pp. 2-3].

In view of the fact that procurement operations for wheat had unambiguously acquired the character of support purchases, the APC questioned the need of a two-tier system of prices for wheat - support and procurement prices - and advised that the practice of fixing procurement targets for wheat should be dispensed with. It also recommended the lowering of the procurement prices of wheat from Rs 76.00 to Rs 72.00 per quintal for the 1972-73 marketing season. The Government however continued to maintain the procurement price at Rs 76.00 per quintal.

The 1972-73 kharif season commenced with erratic and scanty rainfall and the prevalence of drought conditions in several parts of the country. Scarcity conditions were experienced in varying degrees in a number of states, the worst affected areas being Maharashtra, Gujarat, Rajasthan and parts of Andhra Pradesh and Mysore. The APC had recommended minimum support prices to be announced before the sowing season of the kharif crops in May 1972. However, minimum support prices for kharif or rabi cereals were not announced, in view of the Government's policy of purchasing all quantities of foodgrains offered for sale at the procurement prices.

The uncertainty of the 1972-73 kharif crop was a rude reminder that agriculture continued to be dependent on the vicissitudes of the weather, as the irrigated area in the country was still one-fourth of the total cropped area. The APC recommended that while a buffer stock was indispensable for neutralising the effect of instability in foodgrains production, it could be examined whether it would be more economic, at the margin, to invest in irrigation rather than in a larger buffer. The major instability was in coarse grains production. Irrigation in the coarse grains production areas could result in a shift to the cultivation of more lucrative crops. A progressive increase was recommended in the rice and coarse grain component of the buffer for their supplies through the public distribution system. A procurement target of 4 million tonnes of rice and 0.6 million tonnes of coarse grains was recommended for the 1972-73 season, and also an increase by Re 1 to Rs 2 per quintal in the procurement prices for the standard varieties of paddy in the states, where they were at or below Rs 55.00 per quintal. A hike in coarse grains prices was also recommended for the 1972-73 season by Rs 2 per quintal. The APC's recommendations were accepted for the states where procurement prices of paddy were below Rs 55.00 per quintal, but were retained at the 1971-72 levels in those states where they were much higher. Coarse grains prices were raised by Rs 3 per quintal for bajra and Rs 2 per quintal for ragi. The Government also fixed for the first time procurement prices for kodon and kutki (minor millets) at Rs 50 per quintal.

With the decline in foodgrains production in 1972-73, there was a perceptible shrinkage in market supplies, and prices ruled high throughout the year. Scarcity relief operations, undertaken on a massive scale in 1972 in the drought affected areas, were further expanded in the first half of 1973. Public distribution of foodgrains was considerably stepped up from 10.5 million tonnes in 1972 to 11.4 million tonnes in 1973. To ensure uninterrupted flow of supplies through the public distribution system, the Government decided towards the later part of 1972 to import 2 million tonnes of foodgrains from abroad. The sizeable portion of this quantity was received in February-March, 1973. The total imports of foodgrains during 1973 amounted to 36.14 lakh tonnes as against 4.45 lakh tonnes in the previous year. Of the quantity imported in 1973, 2 million tonnes were obtained from the USSR, on a loan basis under an agreement signed in October 1973

[Department of Food, 1974, Pp. 1-2].

Steps were taken to intensify procurement. The state governments tightened the measures in force: The percentage of levy on millers/dealers in respect of rice was increased from 60 to 80 in Madhya Pradesh and Uttar Pradesh, 85 to 90 in Haryana, and from 85 to 90 for fine rice and 85 to 95 in respect of coarse rice in Punjab. In Andhra Pradesh, the percentage of levy in respect of rice was raised to 75 in two districts and 50 in ten districts. A 50 per cent levy on licensed dealers in bajra, jowar and maize was introduced in Rajasthan and Uttar Pradesh, 60 per cent for jowar in Madhya Pradesh and 75 per cent for maize in Punjab. In the other states, the procurement systems continued as hitherto. The procurement of foodgrains out of the 1972-73 crop amounted to 7.6 million tonnes as compared to 8.4 million tonnes in the preceding year.

Restrictions on the movement of foodgrains were again tightened during 1972-73. A decision was taken at the Chief Ministers' Conference held in September 1972 to continue with the restrictions on the movement of paddy/rice and, wherever necessary, to impose inter-district restrictions on movement of paddy/rice so as to maximise procurement. Movement of kharif coarse cereals was also to be restricted from the producing areas to prevent large-scale speculative buying by private trade and to facilitate procurement by public agencies. Inter-district restrictions on the movement of paddy were imposed in November 1972 in Mysore. Restrictions on the movement of coarse grains were imposed in October-December 1972 in Gujarat (for bajra), Haryana (bajra and maize), Uttar Pradesh (bajra, maize and jowar), Bihar (maize), Mysore (maize), Punjab (maize), Rajasthan (bajra, jowar and maize), Chandigarh (bajra and maize) and Himachal Pradesh (maize).

Directives were issued by the Centre to all the states in August 1972 to enforce austerity measures rigorously. The state governments, in turn, issued necessary orders to reduce the number of guests at ordinary parties from 50 to 25 and for the strict enforcement of austerity measures. Statutory rationing continued in Calcutta and Asansol-Durgapur group of towns for rice, wheat and wheat products and in Bombay for rice and jowar. The total number of fair price shops functioning in the country also increased from 165 thousand at the end of 1972 to 207 thousand at the end of 1973. In order to contain prices of foodgrains through speculative hoarding, bank advances against foodgrains were tightened during the year.

A policy decision was taken at the Conference of State Food Ministers held in December 1972, to take over the wholesale trade in wheat and rice. A Committee headed by the Union Minister for Agriculture was appointed to examine the various operational difficulties. A Sub-Committee was constituted with Prof. S. Chakravarty, Member, Planning Commission, as Chairman to work out the detailed guidelines for the take over of the wholesale trade in wheat from the 1973-74 marketing season. Based on the Sub-Committee's report, it was decided to implement the scheme from the 1973-74 rabi marketing season with the following basic ingredients: (a) the system to be operated, by and large, on the marketed surplus, as distinct from the marketable surplus; (b) imposition of ban on private wholesalers in wheat all over the country; (c) institution of single state wheat zones; cordoning of wheat surplus areas and heavily deficit areas to facilitate procurement and distribution of wheat and wheat products; (d) permitting the retailers to operate under appropriate conditions; these included laying down areas of operation, specifying maximum quantity they could deal in, stock or retail; (e) imposing suitable storage and purchase/sale limits on the retailers and consumers as well as the producers in certain cases; (f) procurement of wheat by public agencies, inter-state movement of the same through FCI or in accordance with the orders of the Central Government; and (g) strengthening the public distribution system in order to discharge the responsibility of the Government to supply adequate quantity of wheat to the consumer [Department of Food, 1974, Pp. 18-19].

With two years of lower foodgrains output, the relaxations in food policy introduced in 1970-71 were not only given up by 1972-73, but a decision was taken to take over, entirely, the wholesale trade in the two major cereals, rice and wheat. Following the decision taken by the Government to take over the wholesale trade in wheat for the

1973-74 marketing season, the procurement prices of wheat were fixed at Rs 71.00 to Rs 74.00 per quintal for the indigenous red varieties, Rs 76.00 per quintal for the common white/Mexican varieties and Rs 82.00 per quintal for the superior varieties.

In view of the Government's decision to take over the wholesale trade in wheat, followed by rice, the APC estimated in May 1973 that at the rate of providing 100 kg per capita per annum, the Government's commitments of rice and wheat for the urban areas alone would amount to 11 million tonnes. If the segments in the rural areas who were not self-sufficient were also taken into account, the requirements could increase substantially. The procurement out of the 1973-74 kharif cereals crop would therefore need to be enlarged considerably. With the introduction of the wholesale trade in foodgrains, the APC recommended administered prices to be announced prior to the sowing season at higher levels than the usual minimum support prices. The Government announced the APC recommended prices as the minimum support prices for the 1973-74 season. It fixed procurement prices in September 1973, following a Conference of Chief Ministers, at Rs 70.00 per quintal for paddy, jowar, maize and ragi, Rs 72.00 per quintal for bajra, and Rs 60.00 per quintal for kodon and kutki.

Consequent upon the upward revision of the procurement prices, the issue prices of foodgrains released from Central stocks for public distribution were also increased from November 1973. The issue price of coarse rice was raised from Rs 100 to Rs 125 per quintal, and that of jowar, bajra and maize from Rs 65 to Rs 80 per quintal, the standard varieties of wheat from Rs 78 to Rs 90 per quintal, and superior varieties from Rs 84 to Rs 96 per quintal.

With the decision taken by the Government to take over the wholesale trade in wheat from April 1973, single state wheat zones were constituted from April 1, 1973. In Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh the intra-state movement of wheat and wheat products was also restricted. Various statutory orders under the Essential Commodities Act, 1955 were promulgated by the Central/State Governments for the successful implementation of the take over scheme. Steps were also taken to effectively implement anti-hoarding and movement restriction orders. The state governments were also requested to associate non-officials with the implementation of the scheme in addition to the official agencies. Widespread campaigns were undertaken to educate the masses about the objectives and merits of the scheme. Statewise operational targets were fixed by the Food Corporation of India in consultation with the state governments. Steps were taken to introduce a scheme for the payment of a bonus incentive to the states which achieved the procurement targets set for them. The public agencies which were the main buyers in the different wheat markets considerably enlarged their operational set up to purchase almost the whole of the marketed surplus. About 4,000 purchase centres were set up not only in the markets but also in the rural areas [Department of Food, 1974, Pp. 19-20].

The actual level of procurement of wheat was, however, much lower in the 1973-74 marketing season than that in the preceding year. This shortfall was attributed to : (a) adverse weather conditions preceding the harvesting of the wheat crop which resulted in a fall in the output of the crop; (b) withholding of wheat by the farmers, as they felt that the procurement price of Rs 76.00 per quintal was low as compared to the prevailing prices of other foodgrains; they were also able to meet their financial requirements by disposal of other rabi grains such as gram, barley, etc., which were fetching relatively higher prices; (c) acute shortage of different consumer goods, which gave rise to a general psychology of shortage among the masses and encouraged large scale hoarding of foodgrains not only by the producers but also by the traders and consumers; (d) propaganda by wholesalers and other interested parties against the new policy; (e) widespread agitation by political parties against the take-over scheme in Punjab, Haryana and Bihar, persistent rumours in the northern states that the Government was on the verge of revising the procurement price or giving some sort of cash incentive; and (f) lack of preparedness in some states [Department of Food, 1974, Pp. 19-20].

Consequently, the scheme was not extended to the wholesale trade in rice for the 1973-74 season. It was felt that the policy for rice required not only careful consideration of the operational details but also full involvement and cooperation of the state governments and political parties. Several difficulties were envisaged in the implementation of the scheme. In the absence of a buffer stock and requisite arrangements, it was decided to re-phase the take-over of the wholesale trade in rice. The states were left free to adopt any system of procurement that was best suited to the prevailing local conditions. The scheme was also given up for wheat in the following season [Department of Food, 1974, Pp. 20-21].

Policy during the Fifth Five Year Plan, 1974-79

The APC submitted in February 1974 its report on price policy for wheat for the 1974-75 season. It stressed the need for building up stocks of foodgrains which had depleted with the larger public distribution of foodgrains as a result of the take-over of the wholesale trade in rice and wheat. The high prices of cereals in the international market had made it incumbent upon the Government to obtain the requisite supplies for distribution from internal production. Procurement of cereals would therefore need to be maximised. At the same time, in view of the hike allowed in the 1973-74 paddy procurement prices, the difficulties faced by the producers in obtaining inputs, especially of diesel oil and fertilisers, and the adverse effect on the cultivators due to the inflationary pressures prevalent, the APC recommended for the 1974-75 marketing season, procurement prices at Rs 90.00 per quintal for the indigenous red variety, Rs 95.00 per quintal for the indigenous common white and Mexican varieties and Rs 100.00 per quintal for the superior varieties of wheat. The Government raised the prices recommended by the Commission, and announced a uniform procurement price for wheat at Rs 105.00 per quintal for fair, average quality (FAQ) grade of all varieties for the 1974-75 rabi marketing season.

In September 1974, in its report on kharif price policy for the 1974-75 season, the APC pointed to the impact of the increases made by the Government in administered prices of foodgrains (procurement/issue prices) on the open market prices which had risen sharply. The inflationary trend had eroded the discipline in the system of administered prices, which was indispensable for managing it. It referred to the shortfalls in the achievement of the targets for foodgrains production laid down in the Fourth Plan, partly due to the shortfalls in the production of fertilisers and the sharp increase in their prices. The Government had already increased the procurement prices of paddy to Rs 70.00 per quintal for the 1973-74 season. In view, however, of the changes in input prices over the year, the Commission recommended that the procurement price of the standard variety of paddy be fixed uniformly throughout the country at Rs 74.00 per quintal for the 1974-75 season. As regards kharif coarse grains, the Commission did not feel any change in the procurement prices fixed for the 1973-74 season was called for, as the consumption of fertilisers for the crops was low and the incidence of the increase in fertiliser prices on their cost of production small. The Commission suggested a procurement target of 5 million tonnes of rice and 1.5 million tonnes of coarse grains for the 1974-75 season. The Government announced the procurement price for all the kharif cereals (paddy, jowar, bajra, maize and ragi) for the 1974-75 season at Rs 74.00 per quintal.

With the experience of state trading in wheat during the 1973-74 season, the policy changed for the 1974-75 marketing season. While the movement restrictions imposed for wheat in the previous year were continued, the Governments of the surplus states of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and Rajasthan were given powers to issue permits to private traders for the export of levy-free wheat. All restrictions on the movement of coarse cereals were lifted with effect from March, 1974. The single state zones in the case of paddy and rice were, however, continued.

As regards the procurement policy, it was decided that while procurement of wheat by the public agencies in all states would continue, private traders including the cooperatives would be allowed to operate in addition, even though under a system of strict licensing and control. A 50 per cent levy was imposed on such traders purchasing wheat at mandi points in the surplus states of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and Rajasthan and the traders were allowed to sell the balance levy-free stock in the open market but they could take it outside the state only on the basis of an export permit. The procurement price of wheat was fixed at Rs 105.00 per quintal for all varieties and the issue price of wheat from the Central pool was consequently raised to Rs 125 per quintal. In June 1974, the Wheat (Price Control) Order, 1974 was issued fixing Rs 150 per quintal as the maximum price of wheat in the surplus states of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and Rajasthan and in the Union Territory of Chandigarh for the purpose of sale in the course of inter-state trade and commerce. The governments of the deficit states were advised to fix maximum wholesale and retail prices of wheat on the basis of the price of Rs 150 per quintal fixed by the Central Government. Accordingly, in June-July 1974, maximum prices of wheat were fixed in the states of Andhra Pradesh, Assam, Bihar, Karnataka, Maharashtra, Orissa, Tamil Nadu, and West Bengal and in the Union Territory of Delhi [Department of Food, 1975, Pp. 26-27]. In September-October 1974, the states of Maharashtra, Andhra Pradesh and Karnataka, lifted the price control on wheat.

The procurement policy for paddy/rice continued as hitherto, with the systems of procurement varying in the different states. These included monopoly purchase-cum-compulsory procurement, graded levy on producers, levy on millers and dealers, requisitioning of stocks and open-market purchases. In respect of coarse cereals, the levy on producers/traders introduced by a number of states in 1973-74 were continued for 1974-75 with minor variations.

In addition to the efforts made at stepping up procurement operations within the country a quantity of 4.9 million tonnes of foodgrains was imported during 1974 to supplement the domestic supplies. Public distribution of foodgrains was continued through fair price/ration shops functioning in the country, with statutory rationing in Calcutta and Asansol-Durgapur group of industrial towns in West Bengal and Bombay city in Maharashtra. With the enhancement of the procurement prices for the 1974-75 season, the issue prices of foodgrains released from the Central pool for public distribution were also revised upward. The issue prices of coarse rice were raised from Rs 125.00 to Rs 135.00 per quintal, coarse grains from Rs 80.00 to Rs 86.00 per quintal and of all varieties of wheat from Rs 90-96, to Rs 125.00 per quintal. The Government's target of building a stock of 7 million tonnes of foodgrains by the end of the Fourth Five Year Plan was not attained, the actual physical stocks with the Central and state governments at the end of 1974 having stood at 2.4 million tonnes only.

For the 1975-76 marketing season, the APC recommended the continuation of the procurement prices for wheat at Rs 105.00 per quintal, fixed by the Government for the 1974-75 season. This was necessary to consolidate the stabilising effect on the price level of the anti-inflationary measures which the Government had undertaken. The need to maximise procurement of wheat for the 1975-76 season was also stressed and a target of 5.5 million tonnes was recommended for the same. In order to achieve the target, the Commission recommended that (i) the inter-state movement of wheat on private account be banned, (ii) a reversion be effected in the states of Punjab and Haryana to the system of purchase of wheat prevalent prior to the 1973-74 season, and (iii) procurement be made through a levy on the producers in the other states. The Commission urged a review of the prices, imports and domestic production of fertilisers to keep their prices under check.

The APC also recommended the maintenance of the procurement prices for paddy, jowar, bajra, maize and ragi at the previous year's level. The procurement prices of rice were to be fixed, derived from the procurement price for paddy on the basis of the hulling/milling ratios and the processing and incidental charges obtaining in different states. A target for the procurement of 5.3 million tonnes of rice and 1.3 million tonnes of kharif coarse cereals for the 1975-76 season was suggested. Further, the incentive bonus scheme for rice should be modified so that the bonus earned by the state governments for supply of rice to the Central Pool was utilised for providing fertilisers and other inputs on concessional basis to the farmers.

Restrictions on inter-state movement of paddy/rice and wheat were continued for the 1975-76 season. Procurement of wheat was undertaken through the system of open market purchases by public agencies at the procurement prices in Punjab and Haryana. A graded levy on producers operated in Rajasthan, Uttar Pradesh, Gujarat and Madhya Pradesh. A system of levy based on land revenue of the total land holdings of a cultivator was introduced for wheat procurement in Maharashtra, while in Bihar a levy of 15 per cent on purchases of wheat made by wholesalers and 15 per cent on direct purchases by retailers from producers was undertaken. For rice, the systems of monopoly purchase-cum-compulsory procurement, graded levy on producers, levy on millers/dealers and open market purchases continued in different states as hitherto. With the improvement of the foodgrain crops, the level of procurement also increased in the 1975-76 marketing season to 10.67 million tonnes from 6.05 million tonnes in the 1974-75 season.

Imports of foodgrains, contracted for in earlier years, increased in 1975 (7.41 million tonnes) as compared to 1974 (4.87 million tonnes). The issues of foodgrains through the public distribution system also increased in 1975 (11.12 million tonnes) as compared to 10.79 million tonnes in the previous year. The increased offtake took place, despite a significant fall in foodgrains prices in 1975. The stocks with the Government increased from 2.8 million tonnes at the end of February 1975 to 9.7 million tonnes by the end of February 1976.

As the 1975-76 wheat crop to be marketed in the 1976-77 season was expected to be larger than in the preceding year, the APC recommended that the opportunity provided by the likely upsurge in wheat production, together with the increase in procurement and diminution in the offtake from the public distribution system, should be availed of for the building up of a buffer stock. For this purpose, the financial, administrative and storage implications of such a programme should be examined in all its aspects. The Commission recommended a procurement target of 5.2 million tonnes of wheat for the 1976-77 marketing season.

The APC referred to the record production of foodgrains that had taken place in 1975-76, which had resulted in the attainment of peak procurement levels and a stock of 17 million tonnes of foodgrains. While part of the increase in foodgrains production reflected the strengthening of the development efforts, namely, irrigation, consumption of fertilisers, etc., the excellent weather conditions were also responsible for the good crop. There was, therefore, no grounds for complacency in the stepping up of the production programmes for foodgrains. With expectations of a good 1976-77 kharif crop, the problems of marketing, storage, warehousing and transport bottlenecks were likely to get accentuated. The APC, therefore, recommended the setting up of a cell in the Food Corporation of India to review and formulate solutions to the problems of storage, purchase and movement of foodgrains.

The 1976-77 kharif foodgrains crop turned out to be lower than that of the preceding year by nearly 10 million tonnes. With higher procurement in the preceding year, larger stocks with the Government and easy availability of foodgrains in the market, the offtake from the public distribution system had declined from 11.3 million tonnes in 1975 to 9.2 million tonnes in 1976. The stock position with the Government had increased from 10.5 million tonnes in March 1976 to 18.0 million tonnes by March-end 1977. In June 1976, the Government also decided to stop further imports of foodgrains. Some of the controls that were in existence for a number of years were relaxed or removed. Larger zones in the South and in the North were formed for rice. The surplus state of Andhra Pradesh was combined with the states of Karnataka and Tamil Nadu and the Union Territory of Pondicherry (except Mahe) to form the Southern Rice Zone. The Northern Rice Zone comprising Punjab, Haryana, Himachal Pradesh, Jammu and Kashmir and Union Territories of Delhi and Chandigarh were enlarged to include Rajasthan also. Inter-state movement of paddy within the enlarged Rice Zone, however, continued to be restricted. The restrictions on the movement of wheat products like maida, suji, mill atta and wholemeal atta were removed from November 15, 1976. Restrictions on the inter-state movement of wheat were also withdrawn with effect from April 1977. The policy for procurement also got modified. In the case of wheat, procurement during 1976-77 marketing season was made through open market purchases in Punjab, Haryana, Uttar Pradesh, Rajasthan and Madhya Pradesh as well as in Bihar and Gujarat. The system of rice procurement continued as hitherto, while coarse cereals were generally purchased through the open market as a measure of support, except in Maharashtra where procurement was under a scheme of levy based on land revenue payable by the producers of their total land holdings [Department of Food, 1977, Pp. 16-18].

In the context of the comfortable stock position, various steps were taken to increase offtake, particularly of wheat and milo. All the state governments were advised to open more fair price shops, to meet the requirements of the restaurants and *dhabhas* in full, and to make arrangements for opening fair price shops at weekly markets and hats where wheat and milo could be issued to consumers without the requirements of a ration card. Particular stress was laid on simplifying the procedure for the issue of ration cards and removal of restrictions on certain categories of individuals. State governments were requested to formulate schemes for giving advances to their employees as well as employees of the state public sector undertakings for the purchase of wheat and milo from the fair price shops. The Government of India also formulated a scheme for giving an advance of Rs 300 each, free-of-interest, to their employees for the purchase of wheat and rice in bulk from the fair price shops. Statutory rationing, however, continued in the Calcutta and Asansol-Durgapur group of industrial towns in West Bengal for the supply of rice and wheat and in the city of Bombay in Maharashtra for rice.

The Government of India set up in December 1975 a Technical Group to examine in depth the size of buffer stocks of foodgrains needed to tide over inter-seasonal fluctuations in production of foodgrains. The Group which submitted its report in December 1976 recommended a buffer stock of cereals of 12 million tonnes, to be built by the end of the Fifth Five Year Plan. This was in addition to the operational stocks of foodgrains needed for running the public distribution system. The quantum of operational stocks as estimated by the Technical Group varied for different points of time, the range being 3.5 to 3.8 million tonnes as on April 1, to 8.2 to 8.8 million tonnes as on July 1, [Department of Food, 1976, Pp. 19-26].

In March 1977, the APC pointed to the rise in wheat prices in the latter part of the 1976-77 season, due partly to the fall in the production of the kharif cereals in the season, but largely due to the inadequacy of the public distribution system in the rural areas, especially in the deficit states. In view of the expectations of a better 1976-77 wheat crop and in the interest of softening the incidence of procurement on the already difficult problem of storage, and also of containing the rise in the prices of foodgrains, the public distribution system should be strengthened in the rural areas, especially in the deficit states.

The APC did not feel that any change was called for in the procurement prices of either the rabi or kharif cereals. It recommended that the bonus payable for delivery of paddy to the Central Pool should also be done away with and in its place the procurement price for paddy be rationalised. The Commission referred to the demands for the removal of the zonal restrictions on the movement of rice and opined that, except for 1975-76, domestic procurement of rice had not been much in excess of the normal requirements of the public distribution system, with the result that a genuine buffer of an adequate size in rice had yet to be built up. The APC did not deem it advisable that all restrictions on the inter-zonal movement of rice on private account should be removed, although the rice zones could be suitably enlarged, keeping the consideration of their viability and the requirements of the buffer in view.

The recommendations of the Commission for fixing a procurement price of Rs 77.00 per quintal for paddy and maintaining the procurement price for jowar, bajra, maize and ragi at Rs 74.00 per quintal were accepted by the Government. However, in view of the comfortable stock position and the bright prospects of the 1977-78 kharif crop, the Government abolished the zonal arrangements and removed movement restrictions on paddy and rice with effect from October 1, 1977. As regards rabi cereals, the Government had announced its policy earlier in April 1977, when it was decided to purchase all wheat of fair average quality offered for sale by the farmers during the 1977-78 rabi season at the price of Rs 110 per quintal fixed for all varieties. All restrictions on the movement of wheat were withdrawn. Since the procurement of wheat was only by way of price support, no target for procurement of wheat during 1977-78 was fixed. Support prices of Rs 65 per quintal for barley and Rs 95 per quintal for gram were also announced. Although the procurement prices of paddy and jowar were raised, the issue prices of the cereals from the public distribution system were not raised for the 1977-78 season, thus adding to the element of subsidy in the issue prices.

Production of foodgrains reached a new high of 125.6 million tonnes in 1977-78, marking an increase of 14.4 million tonnes over that in 1976-77 and of 4.6 million tonnes over the previous record attained in 1975-76. Production of both rice and wheat touched new peaks during 1977-78. The substantial increase in production was reflected in market arrivals, particularly in the surplus areas. Arrangements for procurement by public agencies were streamlined and extensive purchases were undertaken to prevent market prices from falling below uneconomic levels to the detriment of the producers. A total quantity of 10.3 million tonnes of foodgrains was procured out of the 1977-78 crop - the bulk of it by way of support purchases. Public distribution of foodgrains was maintained at a high level to safeguard the interests of consumers, particularly the vulnerable sections. Besides meeting fully the requirements of the public distribution system, wheat and rice were also made available to the state governments for gratuitous and other relief works in the flood affected areas as also under the 'Food for Work' programme for generation of employment opportunities in the rural areas. For the first time since Independence, the country did not have to import any foodgrains. On the contrary, it was able to not only repay a major part of the wheat loaned by the USSR but also supply some quantities of wheat, wheat flour and rice to friendly countries like Vietnam, Afghanistan, Indonesia and Mauritius. This happy situation was the result of a significant increase in domestic production in 1977-78 and the policies followed by the Government, particularly maintenance of sizeable stocks, procurement, public distribution and allowing inter-state movements of foodgrains. The total physical stocks of foodgrains with the Government amounted to 17.3 million tonnes by January 1978 [Department of Food, 1979, Pp. 2-3].

The food situation in the country during 1978-79 was marked by plentiful availability of cereals in all parts of the country and a remarkable stability in their prices. As a result, the gulf between the prices in the surplus areas and those in the deficit areas narrowed down. Market arrivals of foodgrains were also higher than in the preceding season, in the selected markets for rice and wheat for which data was collected. With the growth in production and the consequent increase in market arrivals, procurement by the Government largely assumed the character of support operations. The entire quantity of wheat and bulk of the paddy procured by the Government agencies during 1978-79 was acquired through support purchases. The system of graded levy on producers was still in force in Karnataka and Kerala. In the case of rice, the system of levy on millers/dealers was followed in Andhra Pradesh, Assam, Bihar, Haryana, Punjab, Madhya Pradesh, Tamil Nadu, Uttar Pradesh and West Bengal. In Orissa, the system of purchases of paddy/rice through licensed wholesale dealers including millers was continued [Department of Food, 1979, p. 15]. The offtake from the public distribution system also declined from around 11.74 million tonnes in 1977 to around 10 million tonnes in 1978. There was free movement and availability of foodgrains throughout the country, statutory rationing being confined only to Greater Calcutta and Durgapur-Asansol industrial complex during 1978-79. Supply of foodgrains through fair price shops continued in the rest of the country. Wheat was also made available to the state governments for gratuitous and other relief works in the flood affected areas. Besides, foodgrains were released to state governments under the 'Food for Work' programme for generation of additional employment opportunities in the rural areas. The stocks of foodgrains with the Government stood at 16.2 million tonnes by the end of March 1979.

In view of the rising burden of subsidy borne by the Government on the issue prices of cereals from the public distribution system, the issue price of wheat was raised from Rs 125 per quintal to Rs 130 per quintal from December 1, 1978.

For the 1979-80 marketing season, the APC submitted three reports, on wheat and gram in November 1978, tur, mung and urad in March 1979 and kharif cereals in May 1979. The Commission referred to the need for raising wheat productivity in the states of Madhya Pradesh, Bihar, Rajasthan and Uttar Pradesh, which together accounted for roughly two-thirds of the area under wheat cultivation, through a positive interaction of wheat prices with the established technology. In the context of the food situation, effort was also necessary for improvement of the market efficiency by developing and strengthening the structure of storage, transport, processing and orderly marketing. The Commission stressed the intensification of research efforts for the development of the high yielding varieties of pulses, particularly gram. It recommended minimum prices for wheat and gram at Rs 115 and Rs 140 per quintal for the 1978-79 crop to be marketed in the 1979-80 season. So long as wheat procurement fell short of the offtake from the public distribution system, vigorous efforts were called for to expand both production and procurement. The Government accepted the Commission's recommendations and decided to purchase all wheat of fair average quality offered for sale by the farmers during 1979-80 season at the price of Rs 115.00 per quintal fixed for all varieties. The policy of free movement of wheat and wheat products throughout the country was continued. The Central issue price of wheat was maintained at Rs 130.00 per quintal. The support price for gram was fixed at Rs 140.00 per quintal for the marketing season 1979-80.

The APC urged that (a) the problems of transportation of agricultural surpluses be reviewed in the light of the emerging trends in production and effective steps taken to remedy the situation; (b) physical facilities, such as mechanical dryers and cleaners, be provided particularly in the large markets; and (c) a Task Force be appointed to delineate marginal and sub-marginal areas in rice farming systems and examine how the land use pattern in such areas could be further rationalised.

A notable policy development during 1979-80 was the commitment of the Government to fix support/procurement prices before the commencement of the sowing season with a view to helping the farmers in an informal manner to plan changes in the cropping pattern. Keeping in view the increases in the marketed surpluses and the need to ensure that the benefits of price support reached a larger number of farmers, the official agencies further streamlined their purchase/procurement arrangements [*Economic Survey*, 1979-80, p. 11].

The production of foodgrains declined in 1979-80 by 23 million tonnes, or by 17.5 per cent. Nearly half of the decline was due to lower output of rice. The worst sufferers were bajra and barley among cereals and gram among pulses. The production of gram at 3.28 million tonnes was lower by as much 42.8 per cent compared with the previous year and it was the lowest in the last 30 years. The decline in output of rice, maize and other coarse cereals was mainly because of lower yields. In the case of bajra, gram and sugarcane, there was an appreciable shrinkage in acreage. While kharif foodgrain production declined by 19.2 per cent, the production of rabi foodgrains was also lower by 15 per cent resulting in an overall decline in agricultural production by 15.5 per cent [*Economic Survey*, 1980-81, p. 5].

The decline in production, which was largely due to acute drought conditions during 1979-80, had its effect on foodgrain prices. The existence of large food-stocks with the Government (16.2 million tonnes by March-end, 1979), however, permitted the public distribution system to insulate the consumer to a large extent from the impact of rising wholesale prices of foodgrains. While foodgrains prices increased by 11.7 per cent between 31st March 1979 and March 29, 1980, issue prices were held constant [*Economic Survey*, 1979-80, p. 29]. The stocks with the Government declined to 14 million tonnes by March-end 1980, while supplies from the public distribution system increased from 10.18 million tonnes in 1978 to 11.66 million tonnes in 1979 and still further to 14.84 million tonnes during 1980. The quantum of procurement declined from 13.83 million tonnes in 1979 to 11.11 million tonnes in 1980 [*Economic Survey*, 1980-81, p. 31].

The offtake of foodgrains from the public distribution system started increasing from April 1980 due to shrinkage in the overall availability of foodgrains during 1979-80. In the first nine months of 1980-81 (up to December 1980) the offtake of rice increased to 4.34 million tonnes and that of wheat to 5.90 million tonnes as against 3.28 million tonnes and 5.14 million tonnes, respectively, during the corresponding period of 1979-80. As a result of lower procurement, increased offtake of wheat for public distribution and for the National Rural Employment Programme, and repayment of Russian wheat loan, the stock of wheat declined to 5.0 million tonnes by the end of December 1980, compared with 8.4 million tonnes at the end of December 1979. Steps were taken to conserve wheat stocks at a reasonable level by allocating more rice from the Central Pool for both, public distribution and the National Rural Employment Programme. The buffer stocks and effective management of the public distribution system greatly helped in keeping the price rise of foodgrains under check during 1980-81, despite the severe drought of 1979-80 [*Economic Survey*, 1980-81, p. 31].

The APC submitted three reports on foodgrains for the 1980-81 marketing season- for gram in August 1979, for wheat in November 1979, and for kharif cereals in May 1980. In keeping with Government's policy of announcing support/procurement prices before the sowing season these reports were submitted before the sowing season for the crops. In the case of gram, the Commission recommended that (a) the grower be assured a price of Rs 145.00 per quintal for gram of fair average quality to be marketed in the 1980-81 season; (b) some of the marginal lands under wheat, which had some irrigation facilities be diverted to the cultivation of gram, so that its production could be expanded through stabilisation of yields at higher levels; and (c) research be intensified to develop disease resistant high yielding varieties of gram with improved plant character which produced more grain than the foliage. The Government announced on March 14, 1980 a support price of Rs 145.00 per quintal for the fair average quality of gram for the marketing season 1980-81.

For wheat, the Commission reviewed the prospects of the 1979-80 crop in the context of the spill-over of the unfavourable weather conditions that had prevailed in 1979. Reference was also made to the wider negative deviations in wheat production in Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan, which were largely dependent on the vicissitudes of weather conditions for the growth of the crop. It was, therefore, necessary to earmark sufficient stocks of *Sonalika* and other varieties of certified wheat seed resistant to Karnal Bunt disease, so as to achieve the target of production of 40 million tonnes fixed for the 1979-80 wheat crop. Priority in the supply of fertilisers, pesticides and weedicides to the wheat farmers was also recommended. The Commission also reviewed the returns to the farmers over the operational costs which had declined during the period 1970-71 to 1977-78. In the light of the review, the Commission recommended that the minimum price for wheat in the different states for the 1979-80 crop to be marketed in the 1980-81 season be fixed at Rs 117.00 per quintal. It also stressed the larger purchases of domestic wheat at the above price, so that the quantity procured could be larger than the offtake of wheat from the public distribution system and help augment stocks.

The Government fixed the support price of wheat at Rs 117.00 per quintal. While announcing the price and procurement policy in March 1980, the Government emphasised the need to ensure that in respect of wheat of the fair average quality, the producer would not get a price lower than that fixed by the Government. Free movement of wheat from one part of the country to another was continued. The Central issue price of wheat for distribution through the public distribution system was maintained at Rs 130.00 per quintal.

In its report on kharif cereals, the Commission pointed out that over 80 per cent of the rice procurement was being made in Punjab, Haryana and the surplus pockets of Andhra Pradesh and Uttar Pradesh. These states needed to be geared to meet the specific requirements of the deficit states by the encouragement of cultivation of varieties suitable for par-boiling. The Commission also recommended that the problem of transportation of the agricultural surpluses, which over-swamped the markets in the northern states in the immediate post-harvest period, should be examined and effective steps taken to remedy the situation. Further, a beginning be made in setting up semi-automatic mechanical dryers in selected large rice markets in the country, in view of the fact that high moisture harvest of paddy gave higher yields and minimised grain cracking. After considering the available information on the cost of production of paddy and coarse grains and also accounting for the rise in the prices of fertilisers and diesel, the Commission recommended that the procurement price for the common group of paddy for the 1980-81 marketing season be fixed at Rs 100.00 per quintal and for jowar, bajra and maize at Rs 97.50 per quintal.

The Government of India decided that the procurement price for paddy for the 1980-81 marketing season, be fixed at Rs 105.00 per quintal for common varieties, Rs 109.00 per quintal for fine varieties and Rs 113.00 per quintal for superfine varieties. The procurement price for the coarse kharif cereals, namely, jowar, bajra, maize and ragi for the 1980-81 season were fixed at Rs 105.00 per quintal. It was also decided that the movement of rice/paddy and coarse grains would continue to be free throughout the country. Consequent on the increase in the procurement prices of paddy and coarse grains, the issue prices of rice were raised to Rs 165.00 per quintal for common varieties, Rs 177.00 per quintal for fine varieties and Rs 192.00 per quintal for superfine varieties. The issue prices of coarse grains were also raised to Rs 106.00 per quintal. These increases took effect from the January 1, 1981.

Agricultural production recovered fully during the 1980-81 season and the total foodgrains production was expected at about 132 million tonnes, i.e. about 23 million tonnes higher than 109 million tonnes during 1979-80. The Government decided in early 1980 to make the public distribution system a permanent feature of the economy and an integral part of the price stabilisation policy. The buffer stocks and effective management of public distribution system greatly helped in keeping the price rise in foodgrains under check during 1980-81, despite the severe drought of 1979-80.

Sixth Five Year Plan, 1980-85

The Sixth Plan document stressed the need for maintaining a balance between demand and supply, especially for essential commodities, in order to contain rise in prices. The plan mentioned that 'prices of agricultural products exercise a significant influence on the general price level.... In fact, prices of foodgrains act as a pace setter in the behaviour of general prices.... The output of agricultural commodities is not only subject to year to year fluctuations but the demand for these being generally inelastic, a marginal rise or fall in their output causes a disproportionate increase in prices. Maintenance of relative stability and reduction in seasonal fluctuations in their case is therefore of vital importance. ... An important instrument of maintaining price stability is the establishment of adequate buffer stocks in as many of the essential commodities as possible. A buffer stock of about 15 million tonnes in respect of foodgrains, for instance, is considered absolutely necessary in order to minimise the impact of weather fluctuations on their availability and price' [Planning Commission, 1981, Pp 79-80]. The Plan further stated that the public distribution system would need to be revamped and streamlined, its infrastructure strengthened, and the system expanded so that it could cover all areas in the country, 'particularly in the backward, remote and inaccessible areas. Special attention will need to be given to rural areas, as the system is relatively less developed in such areas' [Planning commission, 1981, p. 82]. The total number of fair price shops, including private outlets, in the country was proposed to be increased from 2.5 lakh to 3.5 lakh by the end of the Sixth Plan [Planning Commission, 1981. p. 83).

The Sixth Plan also proposed the building of a

National Food Security System with components of (a) ecological security, (b) technological security, (c) building grain reserves, (d) social security, (e) nutrition education, and (f) stability of prices. With regard to (c), building grain reserves, the Plan stated: 'A minimum grain reserve of 15 million tonnes has to be maintained. In addition, all losses in storage both in rural and urban homes and in the fields and threshing yards should be minimised through an intensification of the "Save Grain Campaign". A national grid of rural storage will be established both for perishable and non-perishable commodities' [Planning Commission, 1981, p. 100]

For (d), social security, the Plan mentioned that 'the availability of purchasing power in the hands of the poor is as important as availability of food in the market. The employment generation programme should help all families to acquire the wherewithal to purchase food' [Planning Commission, 1981, p. 100]

As regards (e), nutrition education, the Plan pointed out that 'several nutritional problems like vitamin A deficiency leading to blindness, iron anaemia, etc., can be easily eliminated through suitable educational, horticultural and intervention programmes. The National Food Security System will be complete only when all avoidable nutritional disorders are eliminated [Planning Commission, 1981, p. 100].

The Plan referred to the limitations of price policy for agricultural commodities: 'While remunerative price is a necessary condition for sustained agricultural production, it is not a sufficient condition. The prices of certain crops such as pulses have been ruling consistently high, but this has not led to increased production. Price policy can be effective only when it operates in conjunction with a significant varietal improvement and other complementary inputs and services. Finally, it is necessary that the agricultural price policy must be so framed that it ensures a careful balance between the need for providing incentive to the farmers for production, with a suitable measure of protection also to the consumers. One must recognise that these consumers are not confined to urban areas only. In rural areas, there are a large number of agricultural labourers, artisans and others. It is in this wide context that we must see price policy concerning agricultural development' [Planning Commission, 1981, p. 116].

Progress during the Sixth Plan

Foodgrains production rose from 109.70 million tonnes in 1979-80 to 145.54 million tonnes in 1984-85, however there were fluctuations in production in the intervening years. Procurement increased steadily from around 11.18 million tonnes in 1979-80 to 20.12 million tonnes by 1984-85, and the stock position with the Government stood at 25.21 million tonnes by 1984-85. The public distribution system continued, the number of fair price shops rising from 283,560 in 1979-80 to 315,290 by 1984-85, with supplies through these shops fluctuating between 13 and 16 million tonnes during the period. The Government of India also took a policy decision in December 1984 that the size of buffer stock to be maintained by the public agencies in the country should be at 10 million tonnes, comprising 5 million tonnes of wheat and 5 million tonnes of rice. The buffer stock would be over and above the operational stock which, on different dates in the year, would range between the lowest figure of 6.5 million tonnes on April 1, and 11.4 million tonnes on July 1.

In December 1984, Government created the Ministry of Food and Civil Supplies with two departments, namely, Department of Food and Department of Civil Supplies. The primary responsibility of the Department of Food is the management of the country's food economy, involving procurement of foodgrains, their timely movement to deficit regions, building up and maintenance of buffer stocks, and the creation of adequate storage capacity for holding the stocks. Production, stocks and price levels are to be closely monitored by the Department, stock releases and imports to be suitably regulated so as to maintain adequate availability at reasonable prices. 'The Department of Civil Supplies is responsible for monitoring of prices and availability of essential commodities, administration of the Prevention of Black Marketing and Maintenance of Supplies of Essential Commodities Act, 1980, public distribution system, consumer protection and consumer cooperatives, integrated management of supply', etc. [Ministry of Information and Broadcasting, 1987, p. 376].

Seventh Five Year Plan, 1985-90

The Seventh Five Year Plan recognised the public distribution system (PDS), 'as a permanent feature of the strategy to control prices, reduce fluctuations and achieve an equitable distribution of essential goods. Since an efficient public distribution system requires a nexus between production, procurement, transportation, storage and distribution of selected commodities brought under the system, the Sixth Plan underlined for a selective approach and a certain flexibility in assessing the essentiality of commodities for public distribution' [Planning Commission, Vol. II, 1985, p. 404].

The Plan document mentions further that 'the working of the PDS is periodically reviewed in consultation with the State Governments and corrective measures are taken from time to time to improve the supply of various essential commodities to the consumers. At the Centre, an Advisory Council on Public Distribution System has been constituted to review its working from time to time. For supervision over the public distribution system all the States have, on the suggestion of the Central Government, set up Consumers' Advisory Committees at district and tehsil levels in some form or the other. The States have also been asked to strengthen their administrative infrastructure for improving the PDS. As a result of effective implementation, essential commodities are reaching the weaker sections of society' [Planning Commission, Vol. II, 1985, p. 404].

For the Seventh Plan, the 'expansion of the public distribution system has been made an important point of action in the new 20-Point Programme. Special emphasis is being given to increasing the number of fair price shops in the hitherto under-served and unserved areas and on organising mobile shops in far-flung regions. The main thrust of expansion is in the rural areas with special attention to remote and inaccessible areas, so that the public distribution system becomes supplementary to poverty alleviation programme' [Planning Commission, Vol. II, 1985, p. 404].

As regards prices, the Plan document pointed out that 'foodgrain prices play a critical role in determining the distribution of income and the role of inflation. At present the Government announces support prices on the basis of advice tendered by the Commission on Agricultural Costs and Prices.... The Commission takes into account the cost of production of different crops and the need for incentives to encourage production. This basic framework for determining support prices has worked well and needs to be strengthened. One distortion that has crept in is the announcement of substantially higher minimum prices by State Governments on the basis of limited considerations which do not take into account *inter se* - parity between different crops and different areas. Another difficulty is the notional nature of the support prices when there is no organised system of official procurement. The example of rice and wheat shows that a system based on rationally determined support prices and backed by arrangement for procurement can reduce fluctuations, maintain profitability and stimulate steady growth' [Planning Commission, Vol. I, 1985, p. 74]. The Plan suggested that efforts should be made to establish such systems for other crops like coarse grains, pulses and oilseeds.

Eighth Five Year Plan, 1992-97

The Eighth Plan reiterated that 'maintaining food security and relative self-sufficiency in food production is a strategically desirable long-term goal for the country. A reasonable degree of food self-sufficiency or supply of "wage goods" is seen to have a very positive influence on stability and growth even in our limited experience of development. It may be largely due to the factor of relative food self-sufficiency, among others, that India achieved a higher rate of growth and better economic stability and resilience during the eighties. This was the only decade as a whole when we felt somewhat comfortable on the food front. Hence, it seems appropriate that food self-sufficiency remains an important element of the strategy of development even in the perspective of a period of next fifteen years or so'.

'Food security implies not only sufficient supplies, but also supplies at prices affordable by the poorer sections of the society. Appropriate institutional mechanisms, such as a public distribution system, sharply focused on the poorer sections, should be put into place to protect the poor from rise in food prices. However, this task would be rendered difficult if food prices in general rise very sharply'.

'A moderate increase in food prices consistent with remunerative returns to the farmers should be the desired objective. In order to enable farmers to earn higher incomes, a combination of processing and business activity with the farming activity is necessary. In other words, farming must be encouraged to grow into "agribusiness"' [Planning Commission, 1992, p. 21].

The Plan pointed out that 'India will have an estimated 941 million people by the year 1997 A.D. This will increase to 1,102 million by 2007. With this population and given improvements in consumption levels associated with growth in incomes, the estimated foodgrain requirement for 1997 and 2007 will be around 208 million tonnes and 283 million tonnes, respectively. The foodgrain production has to match this level of demand. The required production levels of foodgrains by 1997 and 2007, are 210 million tonnes and 285 million tonnes, respectively' [Planning Commission, Vol. I, 1992, p. 31].

The Government's policy of food security operations continued through the Seventh and Eighth Five Year Plans. By March 1995, there were 4.33 lakh fair price shops operating in the country, of which 3.05 lakh shops were in the rural areas. With improved foodgrains production, the offtake from fair price shops declined and revolved around 15 million tonnes during the period 1992-93 to 1994-95. As a result, new schemes for utilisation of food surpluses were announced in August 1994, which included (i) release of subsidised wheat to Modern Food Industries, Ltd., and its franchised units, (ii) supply of subsidised foodgrains to Scheduled Castes, Scheduled Tribes and other Backward Castes Hostels, and (iii) allotment of foodgrains at concessional prices for the Employment Guarantee Scheme [*Economic Survey*, 1995-96, Pp. 85-86].

Thus from the acute food shortage position prevailing at the time of Independence, with increase in production, the country has been able to provide food from its own resources at present.

Data in Tables 2 to 6 on subsidies, procurement prices, availability, procurement and public distribution of foodgrains, and number of fair price shops/ration shops have been appended at the end for ready reference to readers.

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TABLE 2. SUBSIDY BORNE BY THE GOVERNMENT OF INDIA ON ISSUES OF FOODGRAINS

(Rs Crore)

Year	Subsidy	Year	Subsidy
1946-47	20.65	1971-72	50.00
1947-48	23.51	1972-73	117.00
1948-49	43.66	1973-74	251.00
1949-50	08.84	1974-75	295.10
1950-51	15.93	1975-76	250.10
1951-52	44.59	1976-77	506.00
1952-53	22.79	1977-78	480.00
1953-54	01.39	1978-79	570.00
1954-55	36.00	1979-80	600.00
1955-56	18.48	1980-81	650.00
1956-57	23.04	1981-82	700.00
1957-58	10.02	1982-83	710.00
1958-59	08.82	1983-84	835.00
1959-60	12.85	1984-85	1,101.00
1960-61	12.41	1985-86	1,650.00
1961-62	13.27	1986-87	2,000.00
1962-63	13.14	1987-88	2,200.00
1963-64	15.66	1988-89	2,300.00
1964-65	18.75	1989-90	2,476.00
1965-66	139.21	1990-91	2,450.00
1966-67	91.74	1991-92	2,850.00
1968-69	12.10	1992-93	2,500.00
1969-70	30.80	1993-94	5,537.00
1970-71	17.98	1994-95	5,100.00

Notes: (i) 1946-47 to 1966-67 relates to the trading losses/subsidy borne by the Government of India, in the imports/internal purchases, movement and storage of foodgrains, and their sale during each year.

(ii) 1967-68 onwards relates to the food subsidy paid to the Food Corporation of India on account of reimbursement of (a) the difference between the economic cost of different foodgrains and their issue price, and (b) the cost of carrying buffer stocks. The economic cost comprises procurement price/purchase cost and procurement incidentals as well as movement, storage and other miscellaneous charges for purposes of distribution. Subsidy is inclusive of the cost of carrying buffer stocks.

Sources: (i) For 1946-47 to 1961-62, *Bulletin on Food Statistics*, January 1963, Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi.

(ii) For 1962-63 to 1991-92, *Report on Currency and Finance*, (various years), Reserve Bank of India, Bombay.

(iii) For 1992-93 onwards, *Economic Survey*, 1995-96, Ministry of Finance, Government of India.

TABLE 3. PROCUREMENT PRICES FOR FOODGRAINS

(Rs per qtl.)

Year	Paddy (Coarse/ Common)	Rice (Coarse)	Jowar (FAQ)	Bajra (FAQ)	Maize (FAQ)	Ragi (FAQ)	Wheat (Common White)	Barley	Gram
1947-48	15.24 to 26.80	24.17 to 54.94	14.40 to 30.35	14.40 to 37.75	13.39 to 18.75		21.44to 32.16	13.39 to 22.44	13.39 to 28.80
1948-49	21.76 to 29.47	29.09 to 85.06	16.07 to 37.51	20.26 to 43.20	17.61 to 30.14	20.09*	31.48 to 48.22	18.75 to 32.15	22.77 to 37.51
1949-50	20.47 to 29.47	25.95 to 85.06	19.08 to 32.15	19.13 to 34.83	16.07 to 29.47	20.09*	29.47 to 50.23	18.75 to 26.12	24.78 to 37.51
1950-51	20.47 to 26.97	25.95 to 85.06	19.08 to 29.47	19.13 to 34.83	16.07 to 26.79		34.16 to 43.53	18.75 to 26.79	24.78 to 32.15
1951-52	18.75 to 26.79	29.47 to 76.67	19.07 to 29.47	20.09 to 34.83	16.07 to 28.13		32.15 to 43.54	18.75 to 29.47	
1952-53	21.43 to 31.99	30.92 to 80.02	19.07 to 29.47	20.09 to 34.83	18.75 to 26.79		26.79 to 43.54	18.75 to 29.47	
1953-54	16.07 to 28.13	30.81 to 80.02	20.09 to 29.47	20.09 to 34.83	20.09 to 26.79		32.15 to 43.54	18.75 to 28.80	
1957-58	24.62 to 31.64	42.86 to 50.36							
1958-59	23.28 to 28.80	40.18 to 52.91							28.13@
1959-60	23.57 to! 28.80	34.83 to ! 49.81					37.51 to x 42.87		
1960-61	27.46 to! 29.31	44.88 to ! 49.81							
1961-62	24.11 to 28.80	31.83 to ! 48.74							
1962-63	25.77 to 30.46	34.83 to ! 52.49							
1963-64	34.83!	42.87 to ! 58.27							
1964-65	35.00 to 41.00	55.75 to 71.16							
1965-66	36.00 to 45.00	60.00 to 76.18	44.50 to 53.00	44.50 to 50.00	40.00 to 50.00	45.00 to 60.00	59.00 to 60.00		
1966-67	41.00 to 74.84	69.50 to 125.00	45.50 to 54.00	47.00 to 54.00	48.00 to 60.00	50.00 to 52.00	54.00 to 65.00		
1967-68	45.00 to 56.25	72.69 to 95.25	43.00 to 55.00	47.00 to 55.00	47.00 to 55.00	47.00 to 55.00	70.00 to 95.00		
1968-69	45.00 to 56.25	74.22 to 96.83	47.00 to 55.00	47.00 to 55.00	47.00 to 55.00	47.00 to 55.00	76.00 to 81.00		
1969-70	45.00 to 57.00	72.69 to 96.83	52.00	52.00	52.00	52.00	76.00		

(Contd.)

TABLE 3. (Concld.)

Year	Paddy (Coarse/ Common)	Rice (Coarse)	Jowar (FAQ)	Bajra (FAQ)	Maize (FAQ)	Ragi (FAQ)	Wheat (Common White)	Barley	Gram
1970-71	46.00 to 58.00	74.30 to 96.83	55.00	55.00	55.00	55.00	76.00		
1971-72	47.00 to 58.00	74.30 to 96.83	55.00	55.00	55.00	55.00	76.00		
1972-73	51.00 to 58.00	80.32 to 89.80	58.00	60.00	58.00	57.00	76.00		
1973-74	70.00	98.00 to 119.00	70.00	72.00	70.00	70.00	76.00		
1974-75	74.00	104.00 to 125.00	74.00	74.00	74.00	74.00	105.00		
1975-76	74.00	121.00 to 127.00	74.00	74.00	74.00	74.00	105.00		
1976-77	74.00	121.00 to 126.00	74.00	74.00	74.00	74.00	105.00		
1977-78	77.00	123.00 to 159.00	74.00	74.00	74.00	74.00	110.00		
1978-79	85.00	134.50 to 171.00	85.00	85.00	85.00	85.00	112.50		
1979-80	95.00	..	95.00	95.00	95.00	95.00	115.00		
1980-81	105.00	..	105.00	105.00	105.00	105.00	117.00		
1981-82	115.00	..	116.00	116.00	116.00	116.00	130.00		
1982-83	122.00	..	118.00	118.00	118.00	118.00	142.00		
1983-84	132.00	..	124.00	124.00	124.00	124.00	151.00		
1984-85	137.00	..	130.00	130.00	130.00	130.00	152.00		
1985-86	142.00	..	130.00	130.00	130.00	132.00	157.00		
1986-87	146.00	..	132.00	132.00	132.00	132.00	162.00		
1987-88	150.00	..	135.00	135.00	135.00	135.00	166.00		
1988-89	160.00	..	145.00	145.00	145.00	145.00	183.00		
1989-90	185.00	..	165.00	165.00	165.00	165.00	215.00		
1990-91	205.00	..	180.00	180.00	180.00	180.00	225.00		
1991-92	230.00	..	205.00	205.00	210.00	205.00	275.00		
1992-93	270.00	..	240.00	240.00	245.00	240.00	330.00		
1993-94	310.00	..	260.00	260.00	265.00	260.00	350.00		
1994-95	340.00	..	280.00	280.00	290.00	280.00	360.00		
1995-96	360.00	..	300.00	300.00	310.00	300.00	380.00		

Notes: * In Mysore State only; @ Rajasthan only; x U.P. only; ! Procurement and maximum controlled price; .. Procurement prices for rice are based on procurement prices of paddy, millers/wholesalers margins, etc., and vary from state to state.

Sources: (1) *Bulletin on Food Statistics*, (various years), Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi. (2) *Economic Survey*, (various years), Ministry of Finance, Government of India, New Delhi.

TABLE 4. MINIMUM SUPPORT PRICES FOR FOODGRAINS

(Rs per qtl.)

Year	Paddy Coarse/ Common	Wheat (Common White)	*Coarse Grains	Gram	Barley	Arhar	Moong	Urad
1954-55	29.47@	26.79	14.74 to					
1955-56	29.47@	26.79	16.07	16.07				
1962-63		34.83						
1963-64		37.51						
1964-65	34.00 to 41.00	37.51	36.00 to 40.50					
1965-66	35.00 to 40.00	49.50	36.00 to 40.50					
1966-67	35.00 to 40.00	49.50	36.00 to 40.00					
1967-68	42.00 to 44.00	53.50 to 56.75	42.00	43.00				
1968-69		56.00 to 59.00						
1969-70	45.00		44.00					
1970-71	46.00		45.00					
1971-72	46.00		45.00					
1972-73								
1973-74	63.00		55.00 to 65.00					
1974-75		85.00						
1975-76								
1976-77				90.00	65.00			
1977-78				95.00	65.00			
1978-79				125.00	67.00	155.00	165.00	-
1979-80				140.00	-	165.00	175.00	175.00
1980-81				145.00	-	190.00	200.00	200.00
1981-82				-	105.00	-	-	-
1982-83				-	-	215.00	240.00	230.00
1983-84				235.00	122.00	245.00	250.00	245.00
1984-85				240.00	124.00	275.00	275.00	275.00
1985-86				-	130.00	300.00	300.00	300.00
1986-87				260.00	132.00	320.00	320.00	320.00
1987-88				280.00	135.00	325.00	325.00	325.00
1988-89				325.00	145.00	360.00	360.00	360.00
1989-90				421.00	180.00	425.00	425.00	425.00
1990-91				450.00	200.00	480.00	480.00	480.00
1991-92				500.00	210.00	545.00	545.00	545.00
1992-93				600.00	260.00	640.00	640.00	640.00
1993-94				640.00	275.00	700.00	700.00	700.00
1994-95				670.00	285.00	760.00	760.00	760.00
1995-96				700.00	295.00	800.00	800.00	800.00

Notes: * Coarse grains include jowar, bajra, maize, ragi and minor millets.
@ Purchase prices announced.

Sources: (1) *Bulletin on Food Statistics*, (various years), Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi. (2) *Economic Survey*, (various years), Ministry of Finance, Government of India, New Delhi.

TABLE 5. AVAILABILITY, PROCUREMENT AND PUBLIC DISTRIBUTION OF FOODGRAINS

(million tonnes)

Year (1)	Net Production of Foodgrains (2)	Net Imports (3)	Net Availability of Foodgrains@ (4)	Procurement (5)	Public Distribution ** (6)	Central Pool Stocks (7)
1951	48.1	4.8	52.4	3.8	8.0	-
1952	48.7	3.9	52.0	3.5	6.8	0.42
1953	54.1	2.0	56.6	2.1	4.6	0.53
1954	63.3	0.8	63.9	1.4	2.2	0.87
1955	61.9	0.5	63.2	1.3	1.6	0.75
1956	60.7	1.4	62.6	Neg	2.1	0.21
1957	63.4	3.6	66.6	0.3	3.1	0.76
1958	58.3	3.2	61.8	0.5	4.0	0.52
1959	69.0	3.9	72.3	1.8	5.2	0.79
1960	67.5	5.1	71.2	1.3	4.9	1.94
1961	72.0	3.5	75.7	0.5	4.0	2.31
1962	72.1	3.6	76.1	0.5	4.4	1.89
1963	70.3	4.5	74.8	0.8	5.2	1.94
1964	70.6	6.2	78.1	1.4	8.7	0.53
1965	78.2	7.4	84.6	4.0	10.1	1.11
1966	63.3	10.3	73.5	4.0	14.1	0.88
1967	65.0	8.7	73.9	4.5	13.2	0.53
1968	83.2	5.7	86.8	6.8	10.2	2.02
1969	82.3	3.8	85.6	6.4	9.4	2.92
1970	87.1	3.6	89.5	6.7	8.8	1.67
1971	94.9	2.0	94.3	8.9	7.8	6.64
1972	92.0	-0.5	96.2	7.7	10.5	2.48
1973	84.9	3.6	88.8	8.4	11.4	1.96
1974	91.6	5.2	97.1	5.6	10.8	1.61
1975	87.4	7.5	89.3	9.6	11.3	5.64
1976	105.9	0.7	95.8	12.8	9.2	14.70
1977	97.3	0.1	99.0	9.9	11.7	13.85
1978	110.6	-0.6	110.2	11.1	10.2	13.90
1979	115.4	-0.2	114.9	13.8	11.7	14.54
1980	96.0	-0.3	101.4	11.2	15.0	16.73
1981	113.4	0.7	114.3	13.0	13.0	11.12
1982	116.6	1.6	116.9	15.4	14.8	10.35
1983	113.3	4.1	114.7	15.6	16.2	11.76
1984	133.3	2.4	128.6	18.7	13.3	14.79
1985	127.4	-0.4	124.3	20.1	15.8	21.78
1986	131.6	0.5	133.8	19.7	17.3	23.99
1987	125.5	-0.2	134.8	15.7	18.7	22.43
1988	122.2	3.8	130.8	14.1	18.6	13.26
1989	148.7	1.2	147.2	18.9	16.4	8.53
1990	149.7	1.3	144.8	24.0	16.0	11.26
1991	154.3	-0.1	158.6	19.6	20.8	17.90
1992	147.3	-0.4	148.5	17.9	18.8	13.91
1993*	157.0	2.6	149.3	28.1	16.4	11.80
1994*	161.2	0.5	154.2	26.0	14.0	21.99
1995*	167.2	-	167.8	22.5	15.3	30.12

Notes: (1) * Provisional; Neg: Negligible; @ Net Availability = Net Production + Net Imports - Changes in Government Stocks; ** Includes quantities released under the 'Food for Work' programme during 1978 to 1980. (2) Production figures relate to agricultural year,1951 figures corresponding to 1950-51, and so on. (2) Net Production = Gross Production - 12.5 per cent for seed, feed and wastage.

Sources: (1) For columns 1-6, and from 1980 onwards for col. 7, *Economic Survey, 1995-96*, p. s-25, Ministry of Finance, Government of India. (2) For col 7, 1951-1979, *Bulletin on Food Statistics*, (various years), Directorate of Economics, Ministry of Agriculture, Government of India.

TABLE 6. NUMBER OF FAIR PRICE SHOPS/RATION SHOPS

Year	Number	Year	Number
1955	18,000	1975	2,40,210
1956	17,500	1976	2,36,196
1957	37,591	1977	2,38,622
1958	45,631	1978	2,38,727
1959	51,671	1979	2,38,985
1960	50,910	1980	2,43,828
1961	47,818	1981	2,83,560
1962	50,523	1982	2,77,672
1963	60,123	1983	2,84,028
1964	1,02,193	1984	3,02,360
1965	1,09,881	1985	3,15,290
1966	1,35,997	1986	3,25,081
1967	1,42,815	1987	3,33,467
1968	1,40,402	1988	3,45,191
1969	1,38,777	1989	3,51,802
1970	1,22,038	1990	3,58,490
1971	1,21,032	1991	3,74,799
1972	1,65,081	1992	3,99,000
1973	2,00,655	1993	4,24,000
1974	2,21,975	1994	4,33,000

Sources: 1. *Bulletin on Food Statistics*, (various years), Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi. 2. *Economic Survey*, (various years), Ministry of Finance, Government of India, New Delhi.

A REVIEW OF INDIA'S BALANCE OF PAYMENTS: 1985-86 TO 1993-94

Dhanmanjiri Sathe

The Journal of the Indian School of Political Economy has published in its July-December 1989 issue a Paper, titled 'India's Balance of Payments - 1948-49 to 1984-85: A Survey'. This Paper is an update of the same. The period reviewed is significant because of the balance of payments crisis in 1991 and important external and internal policy changes. It discusses the genesis and nature of the crisis in 1991, the adjustment made by the economy to it and the effects of such adjustment and of the consequent policy changes on various components of the balance of payments in the post-liberalisation period.

The paper examines the behavior of the balance of payments of the Indian economy for the period 1985-86 to 1993-94. Thus, the study focuses on the period preceding and succeeding the crisis of 1991. This period has also witnessed many important external and internal policy changes. These changes have resulted in the ascendency of certain components of the balance of payments in the post-liberalisation period. For the post-1991 period, the exports show a robust rate of growth, while the imports do not seem to have stabilized as yet. The importance of capital flows has increased greatly, as has the economy's vulnerability on their account.

I - INTRODUCTION

In this paper, we seek to examine the balance of payments situation of the Indian economy for the period 1985-86 to 1993-94. An examination of this period would inform us about the genesis of the crisis which occurred in 1991, the nature of the crisis itself and the adjustment made by the economy to it. Since the strains on the balance of payments get reflected in the debt burden, we have studied the debt problem also.

I.1. Background of the Crisis and Consequent Policy Changes

It is well known that the Indian economy has had balance of payments problems for most of the time, since its Independence in 1947. The situation improved somewhat in the mid-seventies, but had deteriorated again by 1980, when India had to take a loan from the International Monetary Fund (IMF). The situation continued to be unfavorable for the Indian economy during the Sixth Plan period (i.e., 1979-80 to 1984-85), especially due to the second oil shock of 1979-80.

During the entire Seventh Plan period (i.e., 1985-86 to 1989-90), the balance of payments was under tremendous strain. The problem was rooted in the 'continuing high average trade deficits and a sharp decline in the role of the invisibles in financing these deficits' [*Economic Survey 1989-90*]. Moreover, during the period 1987-1989 there was a drought, which had adverse implications for exports and imports. Thus, even at the beginning of 1990-91 (i.e., the crisis year), the situation was very difficult.

The Gulf crisis began in August 1990 with Iraq's invasion of Kuwait and ended in February 1991 with its 'liberation'. This led to disruption in supplies of, and sharp increases in the prices of crude oil and petroleum products. Thus, the imports escalated at a high rate while exports did not rise much. Indian workers employed in Kuwait had to be air-lifted back to India and there was a sharp fall in their remittances. Exports to Iraq and Kuwait also fell. There was a loss of confidence in the government's ability to manage the situation. The drying-up of commercial loans in 1990-91 was accompanied by the net outflow of Non Resident Indians' (NRI) deposits, which began in October 1990 and continued in 1991. In May 1991 and again in July 1991 gold was sold abroad to raise foreign exchange. A stand-by arrangement was negotiated with the IMF for a total loan of $2.3 billion in October 1991. This was followed by the negotiations for a structural adjustment loan from the World Bank in December 1991. (The Bank made a commitment between $2,750 and $3,000 million) Many short term and long term measures were initiated on the policy front to grapple with the situation. Besides the short term measures taken to compress imports (e.g., credit facilities were tightened in

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the early months of 1991), many revenue generating steps were also taken, as the expenses of the government were sought to be reduced. However, it is the structural adjustment programme undertaken by the government which marks a watershed in the development process of the economy. Under this programme, steps to liberalise the economy, both internally and externally were, and are still being taken, with a view to increasing the efficiency and competitiveness of the economy. These steps consist of fiscal correction, trade policy and industrial policy reforms. Thus, the rupee was depreciated by 18 per cent (in two instalments) in July 1991 and significant changes were announced in the exports-imports (EXIM) policy in the same month. Policy towards foreign investment was liberalised in 1991 and the Indian stock markets were opened to Foreign Institutional Investors (FII) in September 1992. The Liberalised Exchange Rate Mechanism (LERMS) was introduced in the Budget of 1992-93. The exchange rate was, however, unified in the beginning of 1993-94.

II - DATA

The balance of payments data examined in this study have been taken from the various issues of the *Report on Currency and Finance* published by the Reserve Bank of India (RBI). The RBI data on exports and imports are based on the actual receipts and payments in foreign exchange. It does not match with the foreign trade data made available by the Director General of Commercial Intelligence and Statistics (DGCI&S), who compiles it on the basis of customs records at the ports. Over the years, especially since the mid-eighties the discrepancy between the two sets of data has increased, particularly in the case of imports. Only while examining the composition of exports/imports, have we used DGCI&S data, in all other instances we have used RBI data. We have also used the data from the various issues of the *Economic Survey* published by the Ministry of Finance, Government of India, and the various issues of the *RBI Bulletin*.

The study of balance of payments has been divided into two periods. The first period is from 1985-86 to 1990-91, for which 'partially revised' data are available. The second covers the period from 1991-92 to 1993-94, for which 'quick estimates' are available. The classification scheme made available for both the periods is also dissimilar. However, in case of certain other parameters, (e.g., composition of exports/imports, share of exports/imports in GDP, etc.) we have used the most recent data available. Again, though our focus has been on the post 1985-86 period, in certain cases to understand the trends better, we have examined the earlier data as well. The work is at current prices and does not adjust for exchange rate fluctuations and price changes.

This paper takes as a point of departure Sarma's 1989 paper, which surveys the balance of payments situation for the Indian economy for the period 1948-49 to 1984-85 [Sarma, 1989]. It has used, by and large, the same framework for the succeeding period. As the concepts and definitions have been presented in that article, they have not been repeated here.

III - ANALYSIS OF THE BALANCE OF PAYMENTS

The Balance of Payments Statement is divided into two parts- 1. The current account, and 2. The capital account. The current account and the capital account are related in two ways. First of all, the deficit (surplus) on current account is neutralised by the surplus (deficit) on the capital account. Secondly, if there is an increase in foreign loans (in whichever form) to an economy, interest payments rise and are reflected in the current account (under the item 'Investment income' as we shall see later).

Table 1.1 and Table 1.2 give the overall balance of payments statement for the Indian economy. Table 1.1 covers the period from 1985-86 to 1990-91 and Table 1.2 covers the period from 1991-92 to 1993-94.

III.1. The Current Account

We begin the study by looking at the current account deficit in detail. The percentage share of each of the items in the total current account deficit for the first period, has been indicated in the Table 2.1. It can be seen from the Table, that the current account deficit has increased by around three times during this period, from Rs 5,955 crore in 1985-86 to Rs 17,368 crore in

TABLE 1.1. INDIA'S OVERALL BALANCE OF PAYMENTS

(Rs Crore)

	1985-86PR			1986-87PR			1987-88PR			1988-89PR			1989-90PR			1990-91PR		
	Credits	Debits	Net	Credits	Debits	Net	Credits	Debits	Net	Credits	Debits	Net	Credits	Debits	Net	Credits	Debits	Net
A Current Account																		
1. Merchandise	11,577.6	21,163.6	-9,586.0	13,315.0	22,668.9	-9,353.9	16,396.4	25,692.5	-9,296.1	20,646.7	34,202.3	-13,555.6	28,229.0	40,642.4	-12,413.4	33,152.6	50,086.2	-16,933.6
a Private	11,577.6	9,641.7	1,935.9	13,315.0	11,396.7	1,918.3	16,396.4	12,643.0	3,753.4	20,646.7	17,447.2	3,199.5	28,229.0	21,610.4	6,618.6	33,152.6	24,523.8	8,628.8
b Government	0	11,521.9	-11,521.9	0	11,272.2	-11,272.2	0	13,049.5	-13,049.5	0	16,755.1	-16,755.1	0	19,032.0	-19,032.0	0	25,562.4	-25,562.4
2. Non-monetary gold movement	28.5	0	28.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Invisibles	7,875.2	4,245.0	3,630.2	8,274.4	4,750.5	3,523.9	9,278.5	6,275.0	3,003.5	10,926.3	8,950.8	1,975.5	12,483.9	11,459.1	1,024.8	13,393.6	13,828.5	-434.9
a Travel	1,189.1	411.6	777.5	1,606.6	370.6	1,236.0	1,856.1	487.8	1,368.3	2,053.8	586.4	1,467.4	2,386.2	670.4	1,715.8	2,612.5	702.5	1,910.1
b Transportation	603.9	816.1	-212.2	688.0	747.9	-59.9	881.6	1,127.9	-246.3	1,299.8	1,486.5	-186.7	1,510.5	1,856.7	-346.2	1,764.6	1,961.0	-196.0
c Insurance	78.6	83.3	-4.7	83.1	101.0	-18.5	105.5	106.9	-1.4	136.0	95.2	40.8	197.9	139.7	58.2	198.4	158.4	40.0
d Investment income	669.1	1,619.0	-949.9	640.5	1,890.0	-1,249.5	578.6	2,312.2	-1,733.6	602.7	4,250.9	-3,648.2	687.8	5,562.4	-4,874.6	660.5	7,392.9	-6,732.4
e Govt. not included elsewhere	116.4	123.8	-7.4	132.8	135.8	-3.0	120.8	182.1	-61.3	118.0	212.2	-94.2	51.9	211.0	-159.1	27.3	311.2	-283.9
f Miscellaneous	2,062.7	1,163.8	898.9	1,602.8	1,485.1	117.7	1,667.5	2,020.5	-353.0	2,177.3	2,287.1	-169.4	2,923.7	2,987.5	-63.8	3,564.3	3,275.0	289.3
g Transfer Payments	3,155.4	27.4	3,128.0	3,520.6	19.5	3,501.1	4,068.4	37.6	4,030.8	4,598.3	32.5	4,565.8	4,725.9	31.4	4,694.5	4,566.0	27.5	4,538.5
(i) Official	439.9	12.6	427.3	530.0	4.7	525.3	535.7	3.3	532.4	732.9	8.7	724.2	902.0	5.2	896.8	829.3	1.8	827.5
(ii) Private	2,715.5	14.8	2,700.7	2,990.6	14.8	2,975.8	3,532.7	34.3	3,498.4	3,865.4	23.8	3,841.6	3,823.9	26.2	3,797.7	3,736.7	25.7	3,711.0
Total current account (1+2+3)	19,481.3	25,408.6	-5,927.3	21,589.4	27,419.4	-5,830.0	25,674.9	31,967.5	-6,292.6	31,573.0	43,153.1	-11,580.1	40,712.9	52,101.5	-11,388.6	46,546.2	63,914.7	-17,368.5
B Capital Account																		
1. Private	2,617.0	525.8	2,091.2	3,233.1	966.2	2,266.9	3,984.3	1,735.9	2,248.4	7,783.5	3,363.3	4,420.2	11,668.8	6,960.4	4,708.4	15,499.3	12,136.0	3,363.3
a Long Term	2,611.3	519.0	2,092.3	3,218.4	960.9	2,257.5	3,955.6	1,717.3	2,238.3	7,767.7	3,353.7	4,414.0	11,627.6	6,859.4	4,768.2	15,419.1	12,104.9	3,314.2
b Short Term	5.7	6.8	-1.1	14.7	5.3	9.4	28.7	18.6	10.1	15.8	9.6	6.2	41.2	101.0	-59.8	80.2	31.1	49.1
2. Banking Capital	754.5	568.4	186.1	375.6	445.7	-70.1	315.2	240.4	74.8	697.9	963.1	-265.2	973.5	914.3	59.2	1,098.7	2,232.9	-1,134.2
3. Official	4,692.8	2,047.9	2,644.9	8,351.4	4,648.8	3,702.6	12,849.2	7,679.3	5,169.9	13,973.1	6,653.4	7,319.7	16,725.9	9,157.7	7,568.2	24,252.9	13,821.2	10,431.7
a Loans	3,692.9	9.5	3,683.4	6,477.8	15.4	6,462.4	6,851.6	20.0	6,831.6	8,464.8	27.4	8,437.4	8,435.8	7.9	8,427.9	12,223.8	10.5	12,213.3
b Amortization	0	1,152.1	-1,152.1	0	2,587.9	-2,587.9	7.8	2,841.4	-2,833.6	14.9	3,081.7	-3,066.8	14.3	3,004.4	-2,990.1	16.7	4,298.8	-4,282.1
c Rupee Debt Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,139.8	-2,139.8
d Miscellaneous	999.9	886.3	113.6	1,873.6	2,045.5	-171.9	5,989.8	4,817.9	1,171.9	5,493.4	3,544.3	1,949.1	8,275.8	6,145.4	2,130.4	12,012.4	7,372.1	4,640.3
Total Capital Account (1+2+3)	8,064.3	3,142.1	4,922.2	11,960.1	6,060.7	5,899.4	17,148.7	9,655.6	7,493.1	22,454.5	10,979.8	11,474.7	29,368.2	17,032.4	12,335.8	40,850.9	28,190.1	12,660.8
C IMF	0	253.0	-253	0	672.3	-672.3	0	1,209.0	-1,209.0	0	1,547.3	-1,547.3	0	1,459.6	-1,459.6	3,333.7	1,155.9	2,177.8
D SDR allocation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E	8,064.3	3,395.1	4,669.2	11,960.1	6,733.0	5,227.1	17,148.7	10,864.6	6,284.1	22,454.5	12,527.1	9,927.4	29,368.2	18,492.0	10,876.2	44,184.6	29,346.0	14,838.6
F	27,545.6	28,803.7	-1,258.1	33,549.5	34,152.4	-602.9	42,823.6	42,832.1	-8.5	54,027.5	55,680.2	-1,652.7	70,081.1	70,593.5	-512.4	90,730.8	93,260.7	-2,529.9
G			580.1			-129.3			-947.7			203.4			-720.0			236.8
H			706.5			732.2			956.2			1,449.3			1,232.4			2,293.1

Notes: E: Capital Account, IMF and SDR allocation; F: Total Current Account, Capital Account, IMF and SDR allocation; G: Errors and Omissions; H: Reserves and Monetary Gold; PR: Partially Revised.

Source: Reserve Bank of India (RBI), *Report on Currency and Finance 1993-94*, Vol. 2, Pp. 238-239.

TABLE 1.2. INDIA'S OVERALL BALANCE OF PAYMENTS

(Rs crore)

	Item	1991-92qe	%*	1992-93qe	%*	1993-94qe	%*
A	Current Account						
	Exports f.o.b.	44,923		54,762		71,210	
	Imports c.i.f.	50,159		70,495		75,241	
	Trade Balance	-5,236	-100.96	-15,733	-100.34	-4,031	-408.00
	Invisibles, Net	1,050	20.25	-977	-6.23	1,882	190.49
	Official Transfers	-1,000	-19.28	1,031	6.58	1,161	117.51
	Current A/C Balance	-5,186	-100.00	-15,679	-100.00	-988	-100.00
B	Capital Account						
	External Ass. Net	7,188		5,646		5,333	
	Disbursements	10,644		10,121		10,409	
	Amortization	-3,456		-4,475		-5,076	
	Commercial Borrowings, Net	4,060[1]		-1,465		2,632	
	Disbursements	7,457		3,562		9,009	
	Amortization	-3,397		-5,027		-6,377	
	N.R.I. Deposits	-1,111		6,111		2,949	
	Foreign Investments	n.a.		1,793		12,893	
	Rupee Debt Service	-3,260		-2,994		-2,337	
	Other Capital, Net	6,077		5,788[2]		6,738[2]	
	Total Capital A/C	12,954		14,879		28,208	
C	Overall Balance (current + capital A/C)	7,768		-800		27,220	
D	IMF, Net	2,077		3,363		599	
E	SDR Allocation	0		0		0	
F		9,845		2,563		27,819	
G		0		n.a.		n.a.	
H	Reserve and Monetary Gold (increase-, decrease+)	-9,845		-2,563		-27,819	

Notes: F: Total Current Account, Capital Account, IMF and SDR allocation; G: Errors and Omissions; qe: Quick Estimates; * = Per cent of Current A/C Balance. 1. Includes India Development Bonds. 2. Includes delayed export receipts. It also includes errors and omissions arising out of the application of dual exchange rates which prevailed under the Liberalised Exchange Rate Mechanism (LERMS).

Source: RBI, *Report on Currency and Finance 1992-93*, Vol. 1, p. 378, 1993-94, Vol. 1, Pp. 11-31.

1990-91. An examination of the percentage change over the preceding year in the current account deficit given in the last row of the Table, shows that there were two major kinks in the period considered. The current account deficit increased by a phenomenal rate of 84.03 per cent between 1987-88 to 1988-89 and again by 52.51 per cent in the period between 1989-90 to 1990-91.

The current account can be divided into two parts: 1. Merchandise trade and 2. Invisibles. It can be seen that the deficit on merchandise trade account increased from Rs 9,586 crore in 1985-86 to Rs 16,933 crore in 1990-91, i.e., by 1.7 times. On the other hand, invisibles had a positive balance of Rs 3,630 crore in 1985-86. Over the period the positive balance declined and it became negative (Rs 434 crore) in 1990-91. Thus the deficit on merchandise account was being reduced to a certain extent, by the invisibles account till 1989-90. The positive balance on invisibles accounted for about 38 per cent of the deficit on merchandise account in 1985-86 (i.e., Rs 3,630 crore as a share of Rs 9,586 crore). This percentage share decreased to about 8 per cent in 1989-90. Ultimately, both the merchandise trade and invisibles account had a deficit by 1990-91.

The balance of payments for the second period under consideration, i.e., from 1991-92 to 1993-94, has been presented in Table 2.2. It can be seen that in this statement, unlike the earlier statement (i.e., Table 1.2), 'net invisibles' and 'official transfers' have been presented separately. Considering them together for the sake of comparability, we find that the total current account deficit has fluctuated widely in the period examined. Between 1991-92 and 1992-93, it increased from Rs 5,186 crore to Rs 15,679 crore, i.e., a rise by three times. However, in the next period, the deficit has fallen. The reason for these fluctuations seem to be rooted in the trade deficit which has fluctuated widely. In 1991-92, the trade balance was Rs 5,236 crore and it increased to Rs

TABLE 2.1. BEHAVIOUR OF CURRENT ACCOUNT DEFICIT

(Rs Crore)

	1985-86	%*	1986-87	%*	1987-88	%*
Current Account Deficit						
1. Merchandise	-9,586.0	-161.0	-9,353.9	-160.4	-9,296.1	-147.7
2. Invisibles	3,630.2	61.0	3,523.9	60.4	3,003.5	47.7
a Travel	777.5	13.1	1,236.0	21.2	1,368.3	21.7
b Transportation	-212.2	-3.6	-59.9	-1.0	-246.3	-3.9
c Insurance	-4.7	-0.1	-18.5	-0.3	-1.4	-0.0
d Investment Income	-949.9	-16.0	-1,249.5	-21.4	-1,733.6	-27.6
e Govt. not included elsewhere	-7.4	-0.1	-3.0	-0.1	-61.3	-1.0
f Miscellaneous	898.9	15.1	117.7	2.0	-353.0	-5.6
g Transfer Payments	3,128.0	52.5	3,501.1	60.1	4,030.8	64.1
(i) Official	427.3	7.2	525.3	9.0	532.4	8.5
(ii) Private	2,700.7	45.4	2,975.8	51.0	3,498.4	55.6
Total Current A/C Deficit	-5,955.8	-100.0	-5,830.0	-100.0	-6,292.6	-100.0
Percentage change over preceding year in Current A/C Deficit			-2.1		7.9	

(Contd.)

TABLE 2.1. (CONCLD.)

	1988-89	%*	1989-90	%*	1990-91	%*
Current Account Deficit						
1. Merchandise	-13,555.6	-117.1	-12,413.4	-109.0	-16,933.6	-97.5
2. Invisibles	1,975.5	17.1	1,024.8	9.0	-434.9	-2.5
a Travel	1,467.4	12.7	1,715.8	15.1	1,910.1	11.0
b Transportation	-186.7	-1.6	-346.2	-3.0	-196.0	-1.1
c Insurance	40.8	0.4	58.2	0.5	40.0	0.2
d Investment income	-3,648.2	-31.5	-4,874.6	-42.8	-6,732.4	-38.8
e Govt. not included elsewhere	-94.2	-0.8	-159.1	-1.4	-283.9	-1.6
f Miscellaneous	-169.4	-1.5	-63.8	-0.6	289.3	1.7
g Transfer payments	4,565.8	39.4	4,694.5	41.2	4,538.5	26.1
(i) Official	724.2	6.3	896.8	7.9	827.5	4.8
(ii) Private	3,841.6	33.2	3,797.7	33.4	3,711.0	21.4
Total Current A/C Deficit	-11,580.1	-100.0	-11,388.6	-100.0	-17,368.5	-100.0
Percentage change over preceding year in Current A/C Deficit	84.0		-1.7		52.5	

Note: * Percent of Total Current A/C Deficit.
Source: Derived from data in Table 1.1.

TABLE 2.2. BEHAVIOUR OF THE CURRENT ACCOUNT DEFICIT

(Rs Crore)

	1991-92	%*	1992-93	%*	1993-94	%*
Current Account Deficit						
1. Trade	-5,236	-100.96	-15,733	-100.34	-4,031	-408.00
a. Exports f.o.b.	44,923		54,762		71,210	
b. Imports c.i.f.	50,159		70,495		75,241	
2. Invisibles	50	0.96	54	0.34	3,043	308.00
Total Current Account Deficit (1+2)	-5,186	-100.00	-15,679	100.00	-988	-100.00
Percentage Change over Preceding Year in the Current A/C Deficit			202.33		-93.70	

Note: * Per cent of Total Current Account Deficit.
Source: Derived on the basis of data in Table 1.2.

15,733 crore in 1992-93 (an increase by three times). However, by 1993-94 the deficit had decreased to Rs 4,031 crore.

An important reversal which can be observed from the Table is that the net invisibles, which had turned negative in 1990-91, become positive in 1991-92. In 1993-94, the invisibles surplus as a share of trade deficit was as high as 75.48 per cent. According to the *Economic Survey, 1993-94*, the rise in the invisibles could be because of a shift of private transfers away from illegal (*hawala*) channels to banking channels, which become more attractive due to policy changes. Tourist earnings had also picked up by 1992-93.

Generally speaking, a current account deficit of more than two percent of the gross domestic product is considered to be unsustainable [*Economic Survey, 1994-95*, p. 84]. We have indicated these percentages for the Indian economy from 1980-81 onwards in Table 3. It can be seen that

TABLE 3. CURRENT ACCOUNT TRANSACTION AS PERCENTAGE OF GROSS DOMESTIC PRODUCT

Year	Trade Net	Invisibles Net	Total Net
1980-81	-4.68	3.38	-1.30
1981-82	-4.14	2.58	-1.57
1982-83	-3.50	2.11	-1.39
1983-84	-3.03	1.86	-1.17
1984-85	-3.13	1.80	-1.33
1985-86	-4.10	1.55	-2.55
1986-87	-3.60	1.36	-2.24
1987-88	-3.15	1.02	-2.13
1988-89	-3.86	0.56	-3.30
1989-90	-3.09	0.26	-2.84
1990-91	-3.58	-0.09	-3.68
1991-92	-0.97	0.01	-0.96
1992-93	-2.55	0.01	-2.55
1993-94	-0.58	0.44	-0.14

Note: Gross Domestic Product at market price has been taken from *National Account Statistics*, various issues.

the current account deficit was usually less than 1.3 per cent of the GDP until 1984-85. The percentage increased to 2.5 percent in 1985-86 and to 3.6 percent in 1990-91, which was the highest for the entire decade.

The current account balance is composed of merchandise balance and invisibles balance. There was a surplus in the invisibles account in the early eighties. Its percentage to GDP, which was high in the early eighties, has been consistently declining over the period. In 1990-91, it became negative at -0.09. The percentage of merchandise deficit to GDP which was 4.68 percent in 1980-81 has also been declining over the period, and in 1990-91, it became 3.58. Thus at the onset of the crisis, the trade balance did not behave in too deviant a way (nor was it particularly high), rather the developments in the invisibles account were aberrant.

We find that the current account deficit as a percentage of GDP was 0.96 in 1991-92. The invisibles had turned positive and the deficit was much lower than the earlier years and especially the preceding crisis year. The merchandise deficit was very low for this year mainly due to the import compression policies followed. In the next year, the merchandise deficit had increased manifold mainly due to the increase in the imports but by 1993-94, the deficit (both merchandise and total) had decreased substantially, largely due to an expansion in the exports (as the next section shows).

III.2. Trends in the Behavior of Trade

a) *Movements in Trade Flows:* In this section, we examine the behavior of merchandise credits (exports) and debits (imports) for the period 1980-81 to 1993-94 put forth in Table 4. The period can be divided into four parts. The first is the pre-liberalization period from 1980-81 to 1984-85. In this period, we find that for each of the years, the percentage change over the preceding year was higher for exports than for imports. In the next period, i.e., 1985-86 to 1989-90, when the trade regime had become comparatively more liberalized, the growth in imports was higher than growth in exports for some of the years. A slight fall in the growth of exports can also be observed for one of the years. However between 1988-89 and 1989-90, exports rose by 36.72 per cent, which is a very high rate for the Indian economy and imports rose by 18.83 per cent only. Further, between 1989-90 and 1990-91, the rate of growth of exports abruptly decreased to 17.44 per cent and the import growth rate increased to 23.24 percent. The sudden fall in the export growth rate was due to the Gulf crisis, contraction in world trade, recessionary conditions in the USA and the UK, and the political uncertainty in the rupee payment countries [*Report on Currency and Finance*, 1990-91, Vol. 1, p. 338].

TABLE 4. TRENDS IN INDIA'S MERCHANDISE TRADE

(Rs Crore)

Year	Exports	Imports	Percentage Change over the Previous Year	
			Exports	Imports
1980-81	6,576.4	12,543.6		
1981-82	7,765.5	13,886.5	18.08	10.71
1982-83	9,137.1	14,913.2	17.66	7.39
1983-84	10,168.5	16,039.3	11.29	7.55
1984-85	11,959.2	18,680.3	17.61	16.47
1985-86	11,577.6	21,163.6	-3.19	13.29
1986-87	13,315.0	22,668.9	15.01	7.11
1987-88	16,396.4	25,692.5	23.14	13.34
1988-89	20,646.7	34,202.3	25.92	33.12
1989-90	28,229.0	40,642.4	36.72	18.83
1990-91	33,152.6	50,086.2	17.44	23.24
1991-92	44,923.0	50,159.0	35.50	0.15
1992-93	54,762.0	70,495.0	21.90	40.54
1993-94	71,210.0	75,241.0	30.04	6.73

Source: RBI, *Report on Currency and Finance*, various issues.

Consequently, the deficit on the trade account was one of the highest for 1990-91. However as Table 3 shows, the merchandise deficit as a share of GDP has been higher for the Indian economy for 1980-81 and 1981-82 (it was more than 4 per cent). Thus as explained above, it is the changes in invisibles which precipitated the crisis. The fourth period is from 1991-92 onwards. In this period, the changes in the imports have been quite erratic, while the exports have shown robust results. Between 1990-91 and 1991-92, imports increased at a low rate of 0.15 per cent, mainly as a result of import compression measures initiated in this period. Between 1991-92 to 1992-93, imports had a steep growth rate at 40.54 per cent, only to fall to 6.73 per cent between 1992-93 and 1993-94. On the other hand, between 1990-91 and 1991-92, exports increased by 35.50 per cent. Later, exports have increased at a rate of 21.90 per cent in 1991-92 to 1992-93, and between 1992-93 and 1993-94, the rate of growth was high at 30.04 per cent.

b) *Composition of Exports and Imports:* The composition of exports and imports has been examined for the years 1985-86 and 1992-93 (i.e, the latest year for which data are available at a disaggregated level). Thus, a seven year period has been considered in Table 5.1 and Table 5.2. It can be seen that the share of 'Textiles and textile articles' in total exports, has increased substantially from 18.49 per cent to 27.56 per cent in this period. Further, the share of 'Pearls, precious stones, etc., has also increased from 12.96 per cent to 16.62 per cent in the same period. There has not been any crucial change in the export shares of 'Machinery, etc', 'Transport equipment' and 'Project goods' put together. On the other hand, there has been a considerable fall in the share of 'Mineral products' (from 16.52 to 6.21 per cent) and 'Animal and vegetable products, etc.' (from 25.05 to 17.24 per cent) in the same period. At a more disaggregated level, we find that the shares of iron ore, tea, sugar, etc., have fallen, while that of Marine products is almost the same.

Some of the most important imports of the Indian economy for the period examined have been and continue to be crude petroleum, machinery and chemicals. The importance of 'Pearls, precious stones, etc.' has also increased from 5.60 per cent in 1985-86 to 12.24 per cent in 1992-93.

III.3. Trends in the Behavior of Invisibles

An examination of the components of invisibles (Table 2.1) shows that the important items are 1. Investment income, 2. Travel, 3. Transfer payments, and 4. Miscellaneous. The deficit in Investment income, which was 15.95 per cent of

TABLE 5.1. COMPOSITION OF EXPORTS

(Rs crore)

	1985-86	%*	1922-93	%*
1. Animal & vegetable products, prepared foodstuffs, animal or vegetable fats and oils of which	2,729	25.05	9,256	17.24
Tea	626	5.75	977	1.82
Sugar and Molasses	17	0.16	354	0.66
Marine Products	420	3.85	1,743	3.25
2. Mineral products of which	1,800	16.52	3,334	6.21
Iron Ore	579	5.31	1,104	2.06
3. Products of chemicals or allied industries	394	3.62	3,669	6.83
4. Plastics and articles thereof, rubber and articles thereof	n.a.		968	1.80
5. Hides and skins, leather products, footwear, head-gear etc.	647	5.94	3,878	7.22
6. Textiles and textiles articles	2,014	18.49	14,795	27.56
7. Pearls, precious & semi-precious stones/metal and articles thereof, imitation jewellery, coin	1,412	12.96	8,921	16.62
8. Base metals and articles of base metals	807	7.41	3,201	5.96
9. Machinery and their parts, electric & electronic equip and parts thereof	517	4.75	2,276	4.24
10. Transport Equipment	187	1.72	1,546	2.88
11. Project Goods	n.a.		67	0.12
12. Others	165	1.51	1,777	3.31
Total Exports	10,895	100.00	53,688	100.00

Notes: * Per cent of Total Exports.
The classification scheme has been changed in the *RBI Report on Currency and Finance 1993-94*. Therefore, we have had to make certain adjustments for 1985-86.
Source: RBI, *Report on Currency and Finance, 1988-89*, Vol. 2, p. 158; RBI, *Report on Currency and Finance, 1993-94*, Vol. 2, p. 198.

TABLE 5.2. COMPOSITION OF IMPORTS

(Rs Crore)

	1985-86	%*	1992-93	%*
1. Animal & vegetable products, prepared foodstuffs, beverages and tobacco	882	4.49	2,187	3.45
2. Animal and vegetable fats and oils and their cleavage products prepared edible fats	770	3.92	287	0.45
3. Mineral products	5,213	26.52	20,036	31.61
4. Products of chemicals or allied industries	3,339	16.99	8,104	12.79
5. Plastics and articles thereof, rubber and articles thereof	101	0.51	1,684	2.66
6. Paper and paperboard & articles thereof	471	2.40	1,134	1.79
7. Textiles and textiles articles	297	1.51	1,398	2.21
8. Pearls, precious, semi-precious stones/metal and articles thereof, imitation jewellery	1,100	5.60	7,756	12.24
9. Base metals and articles of base metals	2,501	12.72	5,452	8.60
10. Machinery and their parts, electric & electronic equip and parts thereof	3,515	17.88	7,473	11.79
11. Transport equipment	569	2.89	1,338	2.11
12. Instruments & apparatus, clocks, watches, parts and accessories thereof	379	1.93	1,452	2.29
13. Project goods	n.a.		3,703	5.84
14. Others	n.a.		1,371	2.16
Total Imports	19,658	100.00	63,375	100.00

Notes: * Per cent of Total Imports.
The classification scheme has been changed in the *RBI Report on Currency and Finance 1993-94*. Therefore, we have had to make certain adjustments for 1985-86.
Source: RBI, *Report on Currency and Finance, 1988-89*, Vol. 2, p. 159; RBI, *Report on Currency and Finance, 1993-94*, Vol. 2, p. 199.

the current account deficit in 1985-86, has more than doubled in the seven-year period under consideration. In absolute terms the deficit has increased from about Rs 950 crore to Rs 6,732 crore, a rise by seven times. This is a result of tremendous increase in the capital inflows as can be seen from Table 1.1. In this period, the private long term inflows increased by about six times, while the official loans increased by three times. Broadly, this gives us the relative importance of each in increasing the investment income deficit. On the other hand, the positive contribution of 'Travel' has declined from 13.05 per cent in 1985-86 to 11 per cent 1990-91. The surplus on the 'Miscellaneous' account has also declined in absolute and percentage terms in the said period (from Rs 899 crore to Rs 289 crore and from 15 per cent to 1.6 per cent). The 'Transfer payments', which have been an important source of invisible earnings since the mid-seventies, decreased drastically in percentage terms during these years. Even in absolute terms, net earnings which had increased from Rs 3,128 crore (Official plus Private) in 1985-86 to Rs 4,694 crore in 1989-90, decreased in 1990-91 to Rs 4,538 crore according to the *Economic Survey 1989-90*, the stagnation in the transfer payments could be due to the oil boom having worked itself out and the availability of more attractive schemes like Non Resident Indian Deposits schemes.

III.4. Proportion of Exports to Imports

Another way of looking at the data is to find out the proportion of exports to imports, i.e., the extent to which the exports can pay for imports. It can be seen from Table 6 that, on the whole, this proportion has been consistently rising for the economy for most of the period under consideration. In 1985-86, the ratio of exports to imports was 54.70 per cent. It continued to rise till 1987-88 when it became 63.82. In the next year, a three percentage point decrease was observed which was followed by a rise of 9 percentage points. A fall of the similar magnitude (i.e., 3 percentage points) was observed between 1989-90 to 1990-91. However, a steep fall of 12 percentage points in the ratio can be observed between 1991-92 and 1992-93. For the last year under observation, a 17 percentage point increase can be perceived. Thus, the export to import ratio has shown wide fluctuations, though on the whole it has been rising.

TABLE 6. PROPORTION OF EXPORTS TO IMPORTS

	Percentage of Exports to Imports
1985-86	54.71
1986-87	58.74
1987-88	63.82
1988-89	60.37
1989-90	69.46
1990-91	66.19
1991-92	89.56
1992-93	77.68
1993-94	94.64

Note: These percentages are based upon exports, imports figures in Tables 1.1 and 1.2.

Variability in the Components of Current Account: One of the reasons for investigating the export to import ratio is that, besides trade contributing for a very large share of the foreign exchange flows, it is believed that exports earnings are more stable than earnings on invisibles account. To check the validity of this assertion, we have examined the coefficient of variation of the components of the current account in Table 7. They have been estimated for the periods 1980-81 to 1984-85 and 1985-86 to 1990-91 separately and have been presented in a descending order. The first period can be called the pre-liberalization period and the second the post-liberalization period.

It can be observed that, generally speaking, the coefficient of variation has been greater for the debits than for the credits. It can also be seen that the variability of merchandise credits and debits (i.e., exports and imports, respectively) has increased in the said period. For the period 1980-81 to 1984-85, the coefficient of variation for exports and imports was 0.20 and 0.14, respectively. In the period 1984-85 to 1990-91, it rose to 0.38 and 0.32, respectively. It also needs to be noted that the variability in exports has been higher than that in imports for both the periods. A comparison between exports and invisibles (inflows) shows that the variability of the former has always been higher than that of the latter for

TABLE 7. COEFFICIENT OF VARIATION FOR THE COMPONENTS OF CURRENT ACCOUNT

For 1980-81 to 1984-85

Credits			Debits
Miscellaneous	0.47	TP Official	0.60
Insurance	0.34	Travel	0.51
Investment Income	0.25	Investment Income	0.51
TP Official	0.23	Invisibles	0.36
Transportation	0.22	Govt. n.i.e.	0.33
Merchandise	0.20	Insurance	0.33
Govt. n.i.e.	0.16	Transportation	0.31
Invisibles	0.14	Miscellaneous	0.25
TP Private	0.13	TP Private	0.16
Travel	0.09	Merchandise	0.14
For 1985-86 to 1990-91			
Govt. n.i.e.	0.42	TP Official	0.60
Transportation	0.38	Investment Income	0.55
Merchandise	0.38	Invisibles	0.43
Insurance	0.37	Transportation	0.36
Miscellaneous	0.30	Miscellaneous	0.34
TP Official	0.26	Merchandise	0.32
Travel	0.24	Govt. n.i.e.	0.31
Invisibles	0.20	TP Private	0.29
TP Private	0.13	Travel	0.23
Investment Income	0.06	Insurance	0.23

Notes: TP = Transfer Payments;
n.i.e. = not included elsewhere.

both the periods considered. Thus, the exports have been less stable than the inflows of invisibles and the difference between the two has increased over the period. When the outflows are studied, exactly opposite results are seen, i.e., imports are more stable than the outflows of the invisibles, though the difference between the two has drastically decreased. For the period from 1980-81 to 1984-85, the coefficient of variation of the imports was quite low at 0.14. However, in the next period it rose to 0.32. Thus, both exports and imports have become more variable in the post-liberalisation period as compared to the pre-liberalisation period. Comparing exports/imports with the components of invisibles, we find that the variability of merchandise trade usually fall somewhere in between.

III.5. The Capital Account

The next step is to examine the capital account in detail. In Table 8.1, we have put down the net balances of the different components of the capital account and their share in the total capital account(*) surplus. It needs to be noted that the total capital account(*) has been defined as total capital account + International Monetary Fund (IMF) + Special Drawing Rights (SDR) allocation.

TABLE 8.1. BEHAVIOUR OF CAPITAL ACCOUNT SURPLUS

(Rs Crore)

Capital Account Surplus	1985-86	%@	1986-87	%@	1987-88	%@
1. Private	2,091.2	44.79	2,266.9	43.37	2,248.4	35.78
a. Long Term	2,092.3	44.81	2,257.5	43.19	2,238.3	35.62
b. Short Term	-1.1	-0.02	9.4	0.18	10.1	0.16
2. Banking Capital	186.1	3.99	-70.1	-1.34	74.8	1.19
3. Official	2531.3	54.22	3,874.5	74.12	3,998.0	63.62
a. Loans	3,683.4	78.89	6,462.4	123.63	6,831.6	108.71
b. Amortization	-1,152.1	-24.67	-2,587.9	-49.51	-2,833.6	-45.09
4. Rupee Debt Service	0	0	0	0	0	0
5. Miscellaneous	113.6	2.43	-171.9	-3.29	1,171.9	18.65
6. Total Capital A/C Surplus (1+2+3+4+5)	4,922.2	105.43	5,899.4	112.86	7,493.1	119.24
7. IMF	-253.0	-5.42	-672.3	-12.86	-1,209.0	-19.24
8. SDR Allocation	0	0	0	0	0	0
9. Total Capital A/C* (i.e., Total Capital A/C + IMF + SDR Allocation) Surplus	4,669.2	100.00	5,227.1	100.00	6,284.1	100.00
Percentage increase over preceding year			11.95		20.22	

(Contd.)

TABLE 8.1 (CONCLD.)

Capital Account Surplus	1988-89	%@	1989-90	%@	1990-91	%@
1. Private	4,420.2	44.52	4,708.4	43.29	3,363.3	22.66
a. Long Term	4,414.0	44.46	4,768.2	43.84	3,314.2	22.33
b. Short Term	6.2	0.06	-59.8	-0.55	49.1	0.33
2. Banking Capital	-265.2	-2.67	59.2	0.54	-1,134.2	-7.64
3. Official	5,370.6	54.10	5,437.8	50.00	7,931.2	53.45
a. Loans	8,437.4	84.99	8,427.9	77.49	12,213.3	82.31
b. Amortization	-3,066.8	-30.89	-2,990.1	-27.49	-4,282.1	-28.86
4. Rupee Debt Service	0	0	0	0	-2,139.8	-14.42
5. Miscellaneous	1,949.1	19.63	2,130.4	19.59	4,640.3	31.27
6. Total Capital A/C Surplus (1+2+3+4+5)	11,474.7	115.58	12,335.8	113.42	12,660.8	85.32
7. IMF	-1,547.3	-15.59	-1,459.6	-13.42	2,177.8	14.68
8. SDR Allocation	0	0	0	0	0	0
9. Total Capital A/C* (i.e., Total Capital A/C + IMF + SDR allocation) Surplus	9,927.4	100.00	10,876.2	100.00	14,838.6	100.00
Percentage increase over preceding year	57.98		9.56		36.43	

Note: @ Per cent of Total Capital A/C* (i.e., Total Capital A/C + IMF + SDR Allocation) Surplus.

It can be seen that the net positive balance in 1985-86 was due to large inflows of funds in the official loans account (this includes drawings on loans from international institutions such as International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA) and from other countries and private (long term) account. Thus, while the first item accounted for 78.89 per cent of net capital account(*) surplus, the second item accounted for 44.81 per cent. For the same year, outflows can be observed for official amortization to the tune of 24.67 per cent. On the IMF account (which captures the transactions related to purchases and re-purchases by India from the IMF) also capital outflows can be observed to the extent of Rs 253 crore (i.e., 5.42 per cent). The important changes which had occurred by 1990-91 can be listed as follows.

First of all, the share of Miscellaneous inflows increased from 2.43 in 1985-86 to 31.27 per cent in 1990-91. The item Miscellaneous comprises 'changes in rupee balances held by the Central Banks of East European countries, technical credit granted to/repaid by these countries, changes in rupee balances held by foreign government and semi-government institutions, changes in the balances held by the U.S. Embassy in India with the RBI, changes in the balances held abroad by government agencies, capital subscription to international agencies, movement in funds held by public sector undertakings out of foreign currency loans raised by them' [Sarma, 1989]. It is not very clear why this item should have increased so much. Secondly, there is a reversal in the capital flows from the IMF. Thus, in 1990-91 the IMF inflows were Rs 2,177 crore, i.e., 14.68 per cent of the total capital inflows. The share of official loan inflows also increased to 82.31 per cent in 1990-91. On the outflow side, the rupee debt service accounted for 14.42 per cent of the net capital account and banking capital outflows accounted for 7.64 per cent.

For the next sub-period under consideration, the classification scheme used is different from the one used for the earlier period. As can be seen, there have been many upheavals in this small period. Table 8.2 gives us the per cent share of each of the items in the net capital account deficit. The total capital account(*) has been defined as before (i.e., total capital account + IMF + SDR allocation). It can be seen that the share of foreign investment inflow in capital account surplus has increased from 9.83 per cent in 1992-93 to 44.76 per cent in 1993-94. External assistance (net) and commercial borrowing (net) have both fallen in this period (the terms have been defined in the footnotes to the Table). NRI Deposits have fluctuated in this period from -7.39 per cent in 1991-92 to 33.50 percent in 1992-93. The rupee debt service has consistently fallen over the period.

TABLE 8.2. BEHAVIOUR OF CAPITAL ACCOUNT SURPLUS

(Rs Crore)

Capital Account Surplus	1991-92	%@	1992-93	%@	1993-94	%@
1. External Ass. Net	7,188	47.82	5,646	30.95	5,333	18.51
2. Commercial Borr. Net	4,060[1]	27.01	-1,465	-8.03	2,632	9.14
3. N.R.I. Deposits	-1,111	-7.39	6,111	33.50	2,949	10.24
4. Foreign Investment	n.a.		1,793	9.83	12,893	44.76
5. Rupee Debt Service	-3,260	-21.69	-2,994	-16.41	-2,337	-8.11
6. Other Capital, Net	6,077	40.43	5,788[2]	31.73	6,738[2]	23.39
7. Total Capital A/C (items 1 to 6)	12,954		14,879		28,208	
8. IMF, Net	2,077	13.82	3,363	18.44	599	2.08
9. SDR Allocation	0		0		0	
Total Capital Account (*) (i.e., Total Capital A/C+I.M.F+ SDR Allocation) Surplus	15,031	100	18,242	100	28,807	100

Notes: @ Per cent of Total Capital Account (*) (i.e., Total Capital A/C+I.M.F + SDR Allocation) Surplus. 1. Includes India Development Bonds. 2. Includes delayed export receipts. It also includes errors and omissions arising out of the applications of dual exchange rates which prevailed under the LERMS. External Assistance includes Government loans and grants (including food assistance but excluding other commodity grant assistance). These figures do not include suppliers credits, commercial borrowings and IMF credits other than Trust Fund loans. External commercial borrowing includes loans from commercial banks and other financial institutions, bonds FRNs, suppliers credit, buyers credit and credit from export credit agencies of concerned governments, International Finance Corporation (w), private sector borrowing from Asian Development Bank (ADB), non-governmental loans and grants. Excludes borrowing up to one year maturity.
Source: RBI, *Report of Currency and Finance, 1992-93*, Vol. 1, p. 378; RBI, *Report on Currency and Finance 1993-94*, Vol. 1, Pp. 11-31.

In Table 9, we have given the key indicators of the capital account for the period 1988-89 to 1993-94 (earlier data not being available), using a different classification scheme, which focuses on the foreign investment. The figures are in US dollars.

TABLE 9. BALANCE OF PAYMENTS: KEY INDICATORS

(US $ million)

	1988-89	%@	1989-90	%@	1990-91P	%@
1. External Assistance (Net)	2,217	31.69	1,856	30.44	2,210	26.30
2. External Commercial Borrowings (Net)	1,894	27.07	1,777	29.15	2,249	26.77
3. IMF (Net)	-1,068	-15.27	-877	-14.38	1,214	14.45
4. Non-resident Deposits	2,511	35.89	2,403	39.41	1,536	18.28
5. Rupee Debt Service	n.a.		n.a.		-1,193	-14.20
6. Foreign Investment (of which)					68	0.81
a DFI					68	0.81
b FII	1,442	20.61	938	15.38	0	0.00
c Euro Equities					0	0.00
7. Other Flows(**)					2,318	27.59
8. Capital Account (Net)	6,996	100	6,097	100	8,402	100

(Contd.)

TABLE 9. (CONCLD.)

	1991-92P	%@	1992-93P	%@	1993-94 Q.E.	%@
1. External Assistance (Net)	3,037	63.88	1859	43.70	1,700	18.51
2. External Commercial Borrowings (Net)	1,456*	30.63	-358	-8.42	839	9.14
3. IMF (Net)	786	16.53	1288	30.28	191	2.08
4. Non-resident Deposits	290	6.10	2001	47.04	940	10.24
5. Rupee Debt Service	-1,240	-26.08	-878	-20.64	-745	-8.11
6. Foreign Investment (of which)	154	3.24	585	13.75	4,110	44.76
a DFI	154	3.24	344	8.09	620	6.75
b FII	0	0.00	1	0.02	1,665	18.13
c Euro Equities	0	0.00	240	5.64	1,460	15.90
7. Other Flows(**)	271	5.70	-243	-5.71	2,148	23.39
8. Capital Account (Net)	4,754	100	4254	100	9,183	100

Notes: @ per cent of Capital A/C Net. * Includes India Development Bonds. ** Includes delayed export receipts and errors and omissions for the year 1992-93, it also includes errors and omissions out of dual exchange rates applicable under the LERMS. P is preliminary actuals and Q.E. is quick estimates. (The definition of capital account is different for 1988-89 and 1989-90. However we have made adjustments using the latest definition, and the series is comparable).
Source: Ministry of Finance, (i) *Economic Survey 1994-95*, p. 87, and (ii) *Economic Survey 1992-93*, p. 96, Government of India, New Delhi.

It can be observed that in 1988-89, the share of the NRI Deposits was 35.89 per cent in the total capital flows (net). The share of external assistance and external commercial borrowing (both in net terms) was 31.69 and 27.07 per cent, respectively. The economy was making net payments to the IMF to the tune of 15.27 per cent of the capital account (net). The situation was almost the same in 1989-90. (Foreign investment and other flows are not separately available for these two years). For 1990-91, some prominent changes can be observed. First of all, net inflows from the IMF to the tune of 14.45 per cent (US $ 1,214) can be seen. It can also be noticed that the share of NRI Deposits has fallen to 18.28 per cent. The burden of rupee debt service also started from this year and the share was -14.20 percent. The share of external assistance and external commercial borrowing inflows, in fact, decreased somewhat in this period. The share of foreign investment was extremely low in this year, i.e., 0.81 and the entire amount came in as direct foreign investment. In the next year, i.e., 1991-92, the share of external assistance inflows increased greatly to 63.88 per cent. The capital inflows from commercial borrowing and IMF also increased somewhat. However, the most interesting behavior is that of the NRI deposits which fell down to 6.10 per cent from 39.41 per cent in the 1988-89 (i.e., a fall by 85 per cent). The outflows under rupee debt service also increased substantially to 26.08 per cent. Foreign investments increased from US $ 68 million in 1990-91 to US $ 154 million in 1991-92 (and the share increased to 3.24 per cent).

One observation which can be made is that almost all the items have fluctuated greatly, reflecting the turmoil in this period. Only in case of foreign investments a positive and very steep up-trend can be observed.

Between 1990-91 to 1991-91, foreign investments increased by 126 per cent. In the next two periods, the rise was by 280 per cent and 602 per cent, respectively. Foreign investment can be divided into three parts. They are 1. Direct foreign investment (DFI), 2. Foreign institutional investors (FII) and 3. Euro equities. It can be observed that, over the four years examined, the importance of DFI, which is the most desirable form of foreign investment has decreased, while FII and Euro equities have increased their share manifold. Thus, in 1993-94, foreign investment accounted for 44.76 per cent of the capital account (net) inflows out of which FII and Euro equities accounted for 18.13 and 15.90 per cent, respectively.

It has been claimed by the *Economic Survey 1993-94* [p. 88] that the composition of capital account has changed from concessional and commercial debt-creating flows, to non debt creating foreign investment flows. However, keeping in mind the general erratic nature of the capital flows observed all over the world and for the Indian economy, more evidence seems to be necessary before reaching such conclusions.

Impact of Gulf Crisis: The direct impact of Gulf crisis on the economy has been indicated in Table presented as Appendix. The crisis, on the one hand, led to an increase in expenditure on repatriation of Indian nationals from Kuwait and Iraq and increase in petroleum, oil and lubricants (POL) prices. On the other hand, it led to decrease in the exports from Iraq and Kuwait. The share of these items in the current account deficit for 1990-91 turns out to be 29.82 per cent. Thus, the direct impact of the Gulf crisis is quite high and along with the indirect effects, the impact would turn out to be quite substantial.

IV - INDIA'S EXTERNAL DEBT PROBLEM

The inevitable consequence of the patterns of behavior of the trade and the invisibles has been a rise in India's debt burden.

As can be seen from Table 10, the gross external debt has increased 2.1 times between 1989-90 and 1993-94, from Rs 130,199 crore to Rs 283,792 crore. The per cent change over the preceding year has fluctuated in this period. The highest increase of 55.12 per cent occurred between 1990-91 and 1991-92 and the lowest by 1.12 per cent between 1992-93 and 1993-94. Some of the debt indicators in percentage terms have been presented in the Table. The debt-GDP ratio shows an upward cycle for the period considered. The ratio which was 28.5 in 1989-90, rose to 41.1 per cent in 1991-92 and decreased to 35.3 per cent in

1993-94. The debt service ratio (i.e., total debt service to exports of goods and service ratio) and the debt to exports ratio also show a similar cyclical trend. According to the World Bank classification, India falls into the category of 'moderately indebted low-income countries' [*World Debt Tables* 1994-95, Vol. 1, p. 187].

There is an inherent instability and a potentially explosive situation embedded in the flows which we have studied above.

TABLE 10. INDIA'S EXTERNAL DEBT#

(Rs crore)

	1989-90	%@	1990-91	%@	1991-92	%@	1992-93	%@	1993-94*	%@
Multilateral	32,886	28.05	40,386	27.62	68,262	29.40	77,758	29.81	81,775	30.02
Bilateral	22,993	19.61	27,378	18.72	47,603	20.50	50,258	19.27	53,545	19.66
IMF	2,572	2.19	5,132	3.51	8,934	3.85	14,985	5.75	15,812	5.80
Export Credit	8,002	6.83	8,374	5.73	12,418	5.35	13,484	5.17	13,770	5.05
Commercial Borrowings	15,988	13.64	19,727	13.49	35,664	15.36	36,251	13.90	36,178	13.28
NRI and FC (B&O) Dept.	15,719	13.41	20,030	13.70	27,384	11.79	34,941	13.40	39,729	14.58
Rupee Debt**	19,075	16.27	25,199	17.23	31,956	13.76	33,149	12.71	31,608	11.60
Total Long Term Debt	117,235	100	146,226	100	232,221	100	260,826	100	272,417	100
Share of Long Term Debt in Total Debt		90.04		89.71		91.84		92.94		95.99
Short Term Debt	12,964		16,775		20,642		19,804		11,375	
Share of Short Term in Total Debt		9.96		10.29		8.16		7.06		4.01
Gross Total	130,199 (75,857)	100	163,001 (83,801)	100	252,863 (85,270)	100	280,630 (89,986)	100	283,792 (90,630)	100
Per cent change over preceding year			25.19		55.1		10.98		1.12	
Debt indicators in per cent										
(i) Debt-GDP Ratio	28.5		30.6		41.1		40		35.3	
(ii) Debt Service Ratio (including debt servicing on non-civilian credits)	31.7		32.9		30.1		30.6		25.1	

Notes: # Revised classification; @ Per cent of Total Long Term Debt or the Gross Total, as the case may be; * provisional; ** Debt owed to Russia denominated in Rupees and converted at current exchange rates.
1. The data on NRI deposits are inclusive of accrued interest credited to the accounts under Foreign Currency (Non-Resident) Accounts (FCNRA), Foreign Currency (Non-Resident) Account (Banks) Scheme (FCNR(B)) and Non-Resident (External) Rupee Account (NR(E)RA) schemes. 2. Figures in bracket indicate US dollar million 3. Multilateral loans do not include revaluation of IBRD pooled loans and exchange rate adjustment under IDA loans for pre-1971 credits.
Source: *RBI Bulletin*, Aug. 1994 (Supplement), p. 237.

When the capital inflows are buoyant, the economy can allow freer imports and absorb the capital surpluses. But this can lead to a unsustainable current account which can itself lead to a loss of investor confidence resulting in outflows and crisis. In the case of India, currently the economy has foreign exchange reserves to the tune of $17 billion. If imports are further liberalized (say, with respect to consumer goods), the current account will start having higher deficits and soon the situation may become unsustainable. However, if imports are not further liberalized and the money supply increases (because sterilization cannot fully solve the problem), this contributes to inflation. On the other hand, more of investment goods could be imported which in turn could lead to higher exports and higher output growth. In such a situation, the time lag between the two is of crucial importance.

V - CONCLUDING REMARKS

A simple analysis of the available data has shown us that the crisis of 1991 was largely a result of combination of external factors and, as it has already been described, 'a crisis of confidence'. For almost four to five years before the crisis year, the economy was running unsustainable current account deficit. However, since exports were growing at a much faster rate than imports and the capital account was showing buoyancy, there was no cause for concern. This is not to imply that nothing was wrong with the Indian economy. Consistent balance of payments problems are a result of a much deeper malaise afflicting the economy. In the long run, the payments situation is a result of the performance of the economy and improvement in the situation is possible only if the rate of growth of exports is higher than the rate of growth of consumption and investment.

There are two arguments which are made with respect to the reasons for the persistent deficits in India's balance of payments. The first argument blames the import-substitution policies followed by the Government of India since the Second Five Year Plan. The argument goes thus: while the import-substitution policies followed created a bias against exports of the economy, they did not lead to a fall in the demand for imports. This was because the import intensity of import-substitution itself is high and the technological upgradation which takes place in the developed world necessitates new imports. Rising imports and lagging exports lead to an unsustainable situation, as increasing imports have to be financed through borrowing.

The second argument favours 'inward-looking' policies and puts the blame on the liberalization policies pursued, especially since 1985. Thus, the argument runs, if the government allows liberal imports of goods, the current account is bound to worsen, if exports do not rise sufficiently. The argument implicitly assumes that the exports of a developing country like India would not rise 'sufficiently'. This leads to an increase in borrowing and consequently in the amortization and interest payment burden. This soon leads the economy to an unsustainable situation (i.e., a debt trap). Thus this argument favours continuation of 'inward-looking' policies for the Indian economy. However, it needs to be pointed out that the analysis carried out above has revealed that it was not the movements in the trade flows which triggered off the crisis. Rather, it is the developments in the invisibles and the capital account which led to the crisis. These in turn were determined by the *non-economic factors*.

Further, it is now widely accepted that the import substitution and export promotion policies are not mutually exclusive strategies. The emphasis has now shifted to the attainment of efficiency in the domestic and international markets. It is clear that there has been a paradigmatic change in the perceptions about the role of external sector in the Indian economy. While nobody is arguing in favour of developing external sector as 'an engine of growth', it has been generally accepted in the policy making circles that the role of external sector should become more dominant than what it ever was. This means that fundamental changes need to take place in the external as well as the domestic fields. Many of these changes have already been initiated. Thus the discussion about the economy should not only take into consideration the changed scenario but also the changes in the expectations of the people.

Changed Scenario

A few decades back, the balance of payments situation used to be largely dependent on the current account and in it mainly the trade flows. Over the period, the importance of the invisibles has increased. However, in the last decade or so capital movements have become more significant. This trend can be observed the world over for the developing as well as the developed economies. This can now be observed for the Indian economy also. For the Indian economy, invisibles became important around mid-seventies and the importance of capital flows increased in the early nineties. Thus capital inflows, which were earlier balancing the current account deficits, have now become independent of the changes in the current account (at least to a certain extent). This has led to comparatively large inflows of capital, and the consequent increase in the money supply. A growth in money supply could have resulted in a higher rate of inflation observed since 1990-91. Thus, foreign inflows have turned out to be a mixed blessing and caution in this area is of utmost necessity as the example of Mexico has shown. Relative liberalization of the capital account is one of the most important changes that have occurred in the Indian economy. Secondly, the performance of exports has been quite encouraging, especially since 1991-92. There is a buoyancy in export performance and, generally speaking, it is expected that this trend would sustain itself. Import demand, on the other hand, has been fluctuating greatly since 1991-92. The level and the trend of import demand under the new regime have not yet become clear. However, it can be safely expected that the ongoing policy changes in the industrial sector and the industrial revival itself, may lead to a rise in the import demand.

The reasons for the balance of payments difficulties have been changing over a period, for the Indian economy. In the fifties and the sixties, it was the dismal export performance along with the high import demand which led to persistent current account deficits. In the seventies, the exports and invisibles performance improved, but the two oil shocks led to a deterioration in the current account situation. The decade of the eighties was a period of increasing liberalization along with increasing exports and imports. The increasing imports were financed out of commercial borrowings. In the current decade, it seems that the economy's vulnerability to the oil prices will remain. The balance of payment situation will also be affected by the NRI deposits and other investment flows. When an economy is inward-looking, it can take external shocks in a better way but it develops many distortions which keep the economy inefficient and inside the production possibility curve. When an economy opens up, it exposes itself to the vagaries of the international environment, though the efficiency of the economy rises. Thus, though now India has become much more vulnerable to the external climate, its potential for growth has increased.

Finally, it may not be out of place to mention that politics and psychology often dominate economics, especially in international affairs. Thus, an economy should not only have strong fundamentals but it should also be perceived as having such. It is of the utmost importance that the 'crisis of confidence' is avoided and the decision-makers are seen as capable of taking the required action, that is, to ensure the high rate of growth of exports and high rate of growth of the economy along with its stability.

APPENDIX TABLE

DIRECT IMPACT OF GULF CRISIS DURING 1990-91

	Item	Rs Crores
1.	Additional POL Import Bill (Net of POL exports)	3,625
2.	Export Loss to West Asia	500
3.	Non realization of other export dues from Iraq	205
4.	Loss in remittances from Iraq and Kuwait	490
5.	Foreign exchange costs of emergency repatriation	360
A	Total (items 1 to 5)	5,180
B	Total Current Account Deficit for 1990-91	17,368.5
C	Share of A in B	29.82

Source: Ministry of Finance, *Economic Survey, 1990-91*, Government of India, New Delhi, p. 156.

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RIGHT TO LAND IN CITIES : A SKETCH OF MUMBAI

Suneeti Rao

The Portuguese and the British were the first rulers of Mumbai who noticed its significance as a naval base and a commercial port. Later, its suitability for the textile industry was perceived. Consequently, a policy of encouraging and inviting people to settle on the islands, almost inhabitable in the early years, was followed. It was expected that with the rise in population, the city would grow automatically. The city emerged as the commercial and industrial capital of India, but the inconceivable growth of population brought in its trail other problems- congestion and discord regarding land rights, to mention a few. The paper sketches the history of this discord up to Independence, in the light of the population growth given in the Appendix Table.

Cities have existed at least for the last 6,000 years. They grew as shelter from besiegers and enemies. Ramparts protected the inhabitants and cities developed as cradles of human civilisation. They were mostly seats of culture and learning, centres of trade and commerce and, above all, administrative capitals of the rulers. However, few ancient cities were very large. Only one, Chang'an (meaning *enduring peace*), the imperial city of the Tang dynasty in China (618-907) sheltered 'one million (people) inside the walls and perhaps another million in the surrounding satellite towns' [Wechsler, 1988, Vol. 1, p. 248-249]. Modern cities began growing with the Industrial Revolution. They grew through urbanisation, a process involving large shifts of people from rural to urban settings. Some, like Mumbai, were developed deliberately by their rulers to serve specific ends. In 1800, three per cent of the population of the world lived in cities. By 1900, approximately ten per cent of the world's population was urban. Yet, there were hardly any sprawling, congested urban agglomerates. In 1950, there were just 10 metropolitan locales with population of 50 lakh or more. However, in 1990s there are not only about 22 mega cities with population between 80 lakh to one crore, but also five or so 'hyper-cities', i.e., those over 1.5 crore inhabitants, which are regarded too large to be efficient, with congestion rendering critical infrastructure inadequate and thereby far outstripping the traditional urban economies of scale like higher productivity of urban labour, or other advantages of urbanisation like acceptance of modern knowledge, skills and ideas [Harris, 1993]. Moreover, there are in the latter patterns of urbanisation other variations from the past. Natural growth of urban population and not in-migration appears to be the cause of the current gigantic rise in most of the urban agglomerates, for instance, the percentage of population born in the city was just 23.43 in Mumbai in 1901 [Edwardes, 1901], while it rose to 49.44 in Brihan Mumbai in 1981, i.e., out of the 81,19,000 enumerated, 40,14,000 were born there [Government of Maharashtra, 1994, Table No. 1.28, p. 118]. The relative young age of the urbanites in comparison with the rural dwellers may have added to this growth. In developing countries, the sheer number of city-dwellers is unprecedented, staggering even when the rate of urbanisation is not faster, in comparison with the developed world. Further, human settlements in larger cities are spreading out in the suburbs and neighbourhoods, eating into the countryside and absorbing smaller cities and towns. People usually follow the large and medium industries which, for various reasons, move out of the central, older parts of these cities which, generally continue as financial and trade centres and, in some cases, housing small scale industries.

Ancient cities came into being as a cooperative defence against attacking enemies, but modern cities, whether of the first or the second half of the twentieth century, have enemies of their own creation. 'In modern cities the enemies are still

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here, but their weapons are different: dirt, disease, dacoity, ignorance and, worst of all, corruption' [Batley, 1934, p. 32]. These observations of the 1930s are still discussed in various forums of the 1990s, rather as the urban problems of environmental degradation, lack of infrastructural basic amenities leading to intolerably, unhygienic living and working conditions, giant traffic jams, violence and crime in the slums, squatter settlements and shanty towns, their forceful eviction and displacement, the discriminatory treatment meted out to them and violation of their human rights. The terminology has changed, but the essential content remains almost the same. In the 1930s, in a series of lectures under the theme of *Bombay Looks Ahead*, problems of the city, such as unemployment due to closure of about one-third of Bombay's textile mills during the Great Depression of the 1930s and the resulting hardships for the labour, the plight of the beggars, the leprosy-stricken, the street children and the child labour were analysed. The social function of municipal government was viewed as the management of the affairs of the inhabitants in such a manner as to make the city healthy, happy and holy, meaning thereby that the citizens of the then Bombay should be provided by the Bombay Municipality (now Brihan Mumbai Municipal Corporation- BMC) not merely the basic amenities like water supply, conservancy and sanitation, lighting and maintenance of roads, primary education and medical relief, but also adequate living space, gardens and playgrounds and well-maintained public places, like public halls, libraries, temples, mosques and churches. The Municipality was expected to contribute to the all-round, physical as well as spiritual, development of the citizens [Masani, 1934]. Today also, it is urged in most of the urban policy frameworks that a holistic approach be adopted to the problems of the metropolises. Habitat II, the second major human settlements conference organised by the United Nations Centre for Human Settlements (UNCHS) in Istanbul in July 1996, has the following objective: 'To document, with a degree of penetration never attempted before, the nature, extent and depth of the settlements problems humanity is now facing in a rapidly urbanising world; to understand what has gone wrong; to document and analyze the many good things that have happened; to identify opportunities; and to build, on the basis of this new knowledge a vision of a better world to come that we can all build together, with full respect for cultural identity'. Some major global forums of official (governmental) and the non-governmental organisations (NGOs) were the *World Bank Policy Paper, 1991*, which delineated on 'Urban Policy and Economic Development: An Agenda for the 1990s' and the *United Nations Development Programme (UNDP) Strategy Paper, 1991*, devoted to 'Cities, People and Poverty : Urban Development Cooperation for the 1990s'.

In India, the National Commission on Urbanisation [1988], the first comprehensive national level urban policy statement, perceived and recognised the contribution of urbanisation in the development process, and advocated for sustainable and equitable urbanisation. It particularly stressed the economic and social importance of the four metropolises, Calcutta, Delhi, Madras (Chennai) and Mumbai for the country, and recommended in its *Report* to declare these as national cities and invest in each Rs 500 crore. There can be two views on the question- whether the contribution of these cities justified such sizable appropriation of national resources or it was a case of subsidizing by the country at large. At any rate, the Planning Commission rejected this investment recommendation on the ground that large scale grants are incompatible with the policy of economic reforms and, together with the Ministry of Urban Affairs and Employment (formerly Ministry of Urban Development), announced in 1993 the Centrally Sponsored Scheme for Infrastructure Development of Mega Cities (Mega City Scheme MCS), the first major post-liberalisation initiative for tackling the problems of urbanisation [Ministry of Information and Broadcasting, 1996, Pp. 668-69; Planning Commission, 1994, para 23.13]. Its salient features are cost recovery and replicability of projects. Under MCS, projects are divided into those (i) where no cost is to be recovered, like waste management, drainage, sanitation), (ii) where partial charges are to be recovered through user charges, like water supply, and (iii) where full cost is to be recovered, like housing, development of new adjacent areas, etc. The select five Mega Cities - Bangalore, Calcutta, Hyderabad, Madras and Mumbai identified their nodal agencies for implementation of the MCS and prepared their plans on the basis of this outline for the period covering the Eighth Five Year Plan (1992-97). Delhi, being financed under the National Capital Region programme, was excluded from the MCS.

As far as Mumbai is concerned, in the plan prepared by the Brihan Mumbai (then Bombay) Metropolitan Region Development Authority (BMRDA), an investment of Rs 403.4 crore is to be undertaken on projects of the first two types, i.e., some with no cost recovery and others with some cost recovery component, like bus service, water supply from Morbe dam, a diagnostic centre, bridges with tolls, urban renewal, street lighting, etc. Slum improvement is allocated just 0.5 per cent of this investment while area development/ housing 10.1 per cent [Chakravorty, 1996, 2566], notwithstanding the official records that in '1990 ... the number of families who live in hutments and *kachha* structures in unhygienic conditions was estimated to be 8.05 lakhs ... number of persons around 40 lakhs' [Afzalpurkar, 1995, p. 1], and that 'there is a shortage of 45,000 dwelling units per annum at present', 'the principal cause for aggravating problems of improvement of slums' [BMRDA, 1995, p. 280], and, further, notwithstanding the Maharashtra Chief Minister's recent revelation that Mumbai is the only city in the world where people die in house collapses [*Times of India*, 1996, p. 5]. Out of the three fundamental needs of humanity, food, clothes and shelter, it seems the first two have never posed nor pose at present any problem in the city. In spite of appalling poverty, never have there occurred in Mumbai any hunger deaths. On the contrary, there are records of hoards of people swarming in the city during the worst famines (1824-25, 1877, 1880-85 and 1897-99) in the country before Independence. For, nature was bountiful to the islands before (agriculture and fishing), and later Mumbai experienced 'commercial delirium of the sixties (1860s)' [Edwardes, 1901]. After the Industrial Revolution, Mumbai served as the engine of economic development of the country. Gopal Ganesh Agarkar rightly remarked on one occasion that the wealth of not merely of the Bombay presidency but of the whole country was accumulated in Mumbai [Natu and Deshpande, 1985]. But this very economic development 'pulled' millions to Mumbai and created the problem of shelter.

Shelter may be defined as the physical availability of a piece of ground with a dwelling unit furnished with basic amenities, like water supply and drainage, in order to provide protection from the nature's vagaries. Certainly, there are other connotations of the term, such as peaceful, healthy environment and freedom from the fear of being evicted. Such freedom is acquired through legal means in the form of a right of title to the shelter. The right may be fragmentary, as in the case of a rented house where the right-holder has a right to use it but not to sell it, or a freehold right in which case the owner has a right to dispose it of. The present paper traces the genesis and history of human settlements in Mumbai and their rights to land and shelter. It is prompted by the mammoth Slum Rehabilitation Project undertaken by the Government of Maharashtra for 40 lakh *actual* occupants having a photopass and/or appearing in the electoral roll of January 1, 1995, and staying in slums and pavements which are censused/declared and notified as 'Slum Rehabilitation Areas' in the past or hereafter under the Maharashtra Slum Areas (Improvement, Clearance and Redevelopment) Act, 1971 [*Development Control Regulation No. 33(10)*, Annexure A, appended to Notice under

Maharashtra Regional and Town Planning Act, 1966, No. DCR.1095/1209/CR-273/95/UD-11, dated August 27, 1996]. Appendix IV of the above *Regulation* confirms that under the Project every eligible occupant's family (numbering more than 8 lakh) will, in exchange for their present structure, receive free of cost a residential tenement having a carpet area of 20.90 square m (225 square feet), *in situ* and in the same plot, except where it is required for vital public purpose or it is hazardous. Further, wherever the slums are located on public lands of the government, BMC and the Maharashtra Housing and Area Development Authority (MHADA), such lands would be leased to Cooperative Housing Societies of tenement-holders on 30 years lease renewable for a further period of 30 years, at the lease-rent of Rs 1,001 for 4,000 square m of land or part thereof. This inquiry attempts to trace the volatile history of land and land rights in Mumbai, where such massive transfer of land rights to the marginalised is expected to take place in the near future.

EARLY LOCAL HISTORY OF MUMBAI

It is generally well-established that the present land mass of Mumbai comprised, at the beginning of the Christian era, seven islands- Mumbai, Colaba, Old Women's Island, Mazagaon, Mahim, Sion (Seemva), and Worli- which later joined together, but remained isolated from the sub-continent. However, the geological evolution of western coast indicates that still prior to seven isles, Mumbai formed a part of the Indian peninsula in the remote geological times. At the beginning of the tertiary era, the deccan plateau was subjected to volcanic activity, and subsequently to successive earth movements. As a result, faulting occurred along the present west coast of India and this part was dissociated from the mainland; in the course of time, the detached ridge of the western ghats was divided into seven islands, the biggest- Mumbai- of less than 16 square miles (approximately 45 square km), while the smallest- Old Women's Island- barely of a few acres; *Travels of Doctor Fryer* (1672-81) describes the smallest island as a 'little, low, barren island, of no other profit but to keep the Company's antelopes and other beasts of delight' [Warden, 1861, para 61]. These islands lay in two almost parallel rows of ridges with shallow lowland in the middle. The sea inundated this low lying part and they were separated from one another at high tide, while at low tide the entire region was mucky swamp [Dikshit, 1961]. Along with Salsette (*Sahasashtee*, meaning sixty-six villages of which *Sashti*, presently Thane, was the premier one), the city now forms a part of the present Brihan Mumbai (Bombay) Metropolitan Region (BMR), which stretches yet farther to encompass the following regions attached to the mainland: (i) Mumbai city district; (ii) Mumbai suburban district; (iii) part of Thane district, comprising (a) Thane, Kalyan, Bhiwandi and Ulhasnagar tehsils, and (b) part of Vasai tehsil; and (iv) part of Raigad district comprising (a) Uran tehsil, and (b) part of Panvel, Karjat, Khalapur, Pen and Alibag tehsils. The boundaries expand up to Vaitarana creek and Tansa river in the north, along Ulhas river up to the foothills of Sahyadri in the east, and up to Patalganga river in the south; to the west, of course, lies the Arabian Sea. These boundaries defined under Section 3(1) of the Maharashtra Regional and Town Planning Act, 1966 were notified through Notification (G.N., U.D., P.H. & H.D., No. RPB. 1067-M, dated June 8, 1967 [*Maharashtra Gazette*, Part I-B-D.S. p. 997]. They were once again extended with the setting up of the Bombay Metropolitan Region Development Authority (BMRDA) on March 1, 1975 under the Bombay Metropolitan Region Development Act, 1974. The geographical area of BMR is 4,355 square km and encloses 21 urban centres including Brihan Mumbai and 1,102 villages.

In the early years, a few fishermen and boatmen inhabited these islands which were neglected by almost all the rulers of Konkan area of which they were appendage, as people were reluctant to settle there on account of their inaccessibility either through roads or navigable rivers from the surrounding regions, the stiflingly humid climate, sultry creeks, inundation of large portions during high tides, and salty, marshy land with intermittent hills, where cultivation was hardly lucrative. Their significance in those days lay in their isolation which served as a shelter for fugitives. From the Mauryan edicts and inscriptions it appears that Mumbai must have been under the control of Emperor Ashoka during the period around 263-229. The Hindu dynasties that reigned over Mumbai and the Konkan territory are the Mauryas, Satvahanas, Kshtrapas, Kalachuris, Shatkarnis, Chalukyas, Rashtrakutas, Shilahars and Yadavas. The Shilahars (810-1200 A.D.) seem to be the first rulers to have taken some pains for the development of Mumbai. They belonged to a clan of excellent builders, and decided to build temples on the islands (Ambarnath and Walkeshwar), in order that along with pilgrims trade and industry and, subsequently, settlements would grow on the islands. Mahim (then *Mahikawati*) was developed as the regional capital by one of the rulers. But there are two opinions as to which ruler exactly- Chalukya prince Bhimdeo from the Solanki ancestry from Gujarat or Bimbdeo, the second son of Ramadeorai Yadav, the ruler of Deogiri (Daulatabad)? [Priyolakar, 1956]. Apparently, Gujarat as well as Maharashtra laid their claim on the development of Mumbai even in such remote period. No wonder, when linguistic state-reorganisation took place after Independence, both Gujarat and Maharashtra claimed to be the hinterland of Mumbai, the former commercial and the latter geographical, and desired to annex the city. Old Marathi saint literature, like *Bhakta-vijay* has a few references to marine trade on the western coast carried on through harbours, like Chaul, Dabhol, Goa and Bhatkal. Goods and wares were regularly transported on mules right up to Paithan and Mungi towns in Marathawada. The then rulers of the area might have intended to develop Mahim or Mumbai islands on those lines but, since these islands depended on sea-borne trade even for their basic requirements of food, it never happened that way. From the beginning of the fourteenth century, the Muslims came to power in north Konkan area- in 1318 Mubarak Shah I from Gujarat governed Mumbai for a few years, and then from 1348 Malik, the Gujarat King's Commander ruled the region for about a century. However it was the Portuguese who perceived the significance of the islands immediately after they landed in India, i.e., January 21, 1509 and launched a series of attacks to capture them. They could not succeed but, ultimately, Bahadur Shah, the Sultan from Gujarat, hardly realising their strategic advantage as a naval base to keep surveillance over the trading activities of the Europeans and also of pirates on the western coast, or the commercial importance of the fine harbour of Mumbai for both coastal and external trade, conferred the charge of the islands on the Portuguese in 1534.

Mumbai under the Portuguese Rule (1534-1661)

The Portuguese made several attempts to encourage people, especially affluent merchants, to settle on the islands. The land was distributed free to Portuguese officials and to those residents on the islands who assisted the Portuguese in their battles with the Muslims. Title rights to such lands were granted to them on certain conditions, such as they paid around four to ten per cent of the actual land revenue payable to the government, in return, they were under obligation to participate in the wars waged by the government (Crown) or aid their war-effort in some other way like finding trained militia. Thus, the feudal system, then prevalent in the European countries, was introduced in Mumbai, with the government retaining the right to military services from such feudal landholders (lords), called *Fazindars.*

The Portuguese plans to bolster human settlements in Mumbai did not materialise for two reasons. Firstly, as seen above, the revenue of the city was too meagre for the Portuguese to provide the settlers with necessary amenities, particularly civil supplies during the Monsoons when the islands were cut off for any communication or transport. For instance, in 1554, the entire isle of Mumbai (the area covering Girgaon-Bhuleshwar-Fort) was leased only for 1432 and a half Pardaos (approximately 0.50 paise) for ten years to Doctor Garcia-de-Oart, the official physician of the governor of Goa, for cultivating Indian medicinal plants, on which he carried out extensive research [Priyolakar, 1956, p. 25]. Whatever revenue government collected was utilised for fortification and surveillance purposes. Secondly, the adamant attempts of the Portuguese at proselytization discouraged people to come and settle on the islands. The Fransiscan missionaries were the first to arrive in Bombay in 1539, the Jesuits followed in 1548, while the preachers of the Saint Augustness' Monastery in 1572. Not only did they induce residents to conversion through indoctrinaire and through their laws which were discriminatory, with privileges for the converts, they also resorted to convert Hindu and Baudhha cave temples and places of worship into Christian churches and cathedrals. Moreover, idol-worship was prohibited on the islands under their control. Consequently, there was scarce growth of population or development of trade and commerce in Mumbai during the Portuguese administration of 130 years. Yet, the Portuguese were aware of the strategic military importance of Mumbai and of its potential to emerge as a naval base and, in that sense, were better informed than the Muslims.

Mumbai under the British Crown (1661-1668)

It was the British who were instrumental for the development of Mumbai and thus arose the claim that Mumbai is a colonial creation. They desired to control Mumbai with the thought of developing its harbour as a sea-port for marine trade. The resident Portuguese governor of Mumbai was aware of this possibility, but their revenues were allocated to aid construction of churches, instead of docks, under the orders from the Crown of Portugal. The British East India Company, in collusion with the Dutch, invaded Mumbai in 1626, with a design of joint suzerainty over Mumbai along with the Portuguese. They landed on the island but, for some reason, retreated forthwith. The Court of Directors of the Company thought it wiser either to buy the islands or to manoeuvre the cession of Mumbai through diplomatic channels, rather than through armed conflict and, accordingly, managed to get included into the treaty of marriage between the British King and the Portuguese Princess a clause about handing over Mumbai to England (Article 11) [Vaidya, 1931, Pp. 1-2]. The original residents of Mumbai, the fishermen and the boatmen, and the Indian immigrants from Deogiri, Paithan and also Gujarat figured nowhere in such machinations of the foreign powers and had no right to decide their fate.

As a result of the treaty, the island and harbour of Mumbai were ceded in full sovereignty to England by Portugal on June 25, 1661. However, the Portuguese evaded cession and the actual charge was handed over as late as on March 18, 1665. There was difference of opinion regarding the interpretation of the terms of the treaty- the Portuguese interpreted it as comprising only one Mumbai island of the seven islands and not its dependencies, while the British expected the inclusion of not only all the dependencies situated between Mumbai and Vasai but also the islands of Karanja and *Sashti* (Thane). The dispute not only caused great hardships to the British (Sir Abraham Shipman, Fleet Commander, and a greater part of his troops who had arrived along with the Duke of Marlborough in India to take the charge of Mumbai died and the Duke returned to England in despair) but also compelled Shipman's secretary, Cooke, to accede to a treaty with the Viceroy of Goa in November 1664 on terms, as the latter would grant. Since this particular treaty, known as Cooke's Convention, was signed and the island was taken possession of '*without the King's rights (to lands) being ascertained, or a statement given of the extent of them as transferred to the Crown of England*' [Warden, 1861, para 12], it turned out to be the bone of contention for a large number of title disputes of estates on the island for several years to come. Its non-ratification by both the countries led to further confusion and irregularities in matters of taxation of landed properties- whether the Company had the right to increase land-tax.

No doubt, Cook acceded to the Convention in a desperate situation, but the later events raised suspicion whether 'he had not examined *the rights to the lands, held of the Crown of Portugal by the* inhabitants, or had considered that the ascertaining of those rights (later) would become a source of emolument to himself' [Warden, 1861, para 18]. An inquiry into Cooke's conduct and proceedings, instituted in November 1666, exposed a number of malpractices indulged in by Cooke. It was found that, instead of paying the revenues into the government treasury, Cooke 'had exhorted 12,000 Xeraphins* from the inhabitants, and converted it to his own private use. ... some of the best estates in the island refused to pay rent, and produced titles which could not be disputed, though believed to be fictitious' [Warden, 1861, para 12]. Apparently, awarding valid titles (documentary evidence of possession) to landed properties was an illegal source of income for the awarding authorities of the government even in those faraway days!

Since the revenues of the islands were insignificant, in 1667-68 75,000 Xeraphins, i.e., £6,490 17s. 9d. [Warden, 1861, para 19], the King of England considered Mumbai an unprofitable and chargeable possession and leased it in perpetuity to the London East India Company on an annual rent of £10 in gold due on 30th September each year, by an instrument of *His Majesty's Royal Charter*, dated March 27, 1668. This was the first actual possession of the Company in India. It enabled the Company to carry on independently its operations on the Indian soil. The King granted the Company the port and island of Mumbai with all the rights, 'profits, and territories thereof, in as full manner as the King himself possessed them by virtue of the treaty with the King of Portugal.... (and one of the terms of the Charter was:) All subjects born in Bombay were to be accounted natural subjects of England' [Warden, 1861, para 14]. This link facilitated the realisation of the future designs of the Company to develop Mumbai as a commercial centre and integrated it with the world capital system. Mumbai was to function as an instrument of both, British trade monopoly as well as territorial imperialism and colonialism. The British had maintained their warehouses at Surat since 1612, yet they had to face competition from the other European powers and harassment and exactions by the customs officials of the Mughals. Finally, the fear of Surat being pillaged and plundered by the Marathas induced the Company to withdraw from Surat in 1712 and shift to Mumbai and develop it as a colonial city, a seat of trade. Of course, after the Industrial Revolution Mumbai emerged as a textile city, but that was entirely due to indigenous efforts and despite the hurdles created by the imperial government.

REIGN OF THE EAST INDIA COMPANY (1668-1858)

Of the several directives the Court of Directors of the East India Company issued for the administration of Mumbai, one issued in 1669-70 regarding the claims of the individuals to lands on the island decreed that all claims to lands acquired posterior to 1661 were to be held to have proceeded from an imperfect right to title and tenure. During 1669-70, two Courts of Judicature were formed to deal with disputes, the inferior for cases involving amount up to 200 Xeraphins, while the other, superior, for hearing all the

*an old Portuguese coin, exchanged at the rate thirteen Xeraphins for 22s. 6d.; the word is derived from Arabic *Xerifi* or *Ashrafi* remaining matters as well as appeals. Its decision was to be final. These Courts were to meet regularly once a week. The British legal system was thus formally ushered into India and a semblance of justice being done to the populace was brought about. But, the very person who set up these Courts, Gerald Aungier, the then Governor of Mumbai, had no compunction to evict fishermen and, that too, for protecting the landed property-holders. '(A)s the claims for rights to lands near the town had been numerous, he had removed the fishermen to some distance, and intended to build houses on the ground where their huts stood, but it would require time to adjust the foundations of the rights to lands before houses for the settlers and merchants would be erected' [Warden, 1861, para 23].[1]

Under the feudal system introduced by the Portuguese in Mumbai, the practice was that the native inhabitants paid no rent nor tax but rendered military service either personally or through substitutes; they were bound to do so by their land tenure, then common in every colony in India. However, the inhabitants of Mumbai paid one-fourth part of the profits of their lands as a quit-rent to claim exemption from military service. When it was proposed in 1671 to levy a general tax on agricultural land, a compact, known as Aungier's Convention, was agreed and signed on November 12, 1672 between Governor Aungier with his Council and 120 of the 'eminents of the Povo (people, parishioners or inhabitants) in behalf of the whole Povo of the isle. ... and confirmed on the 16th July 1674' [Vaidya, 1931, Pp. 8-9]. The people of the island were anxious to get their titles to their immovable properties distinctly determined by a regulation and thereby to put a final end to all claims, pretences, and law suits between them and the Company in such matters. For that they were willing to make a pecuniary compromise- 20,000 Xeraphins to be paid annually at three payments into the Company's treasury. For raising this sum, people were at liberty to appoint such persons as they think honest and fit for the proportionate valuation of all estates and lands and for collecting and paying the sum into the Company's treasury. Thus, the inhabitants had their possessions secured, except when required for building cities, towns and fortifications, when reasonable compensation was to be paid to the proprietors. However, the Convention did not distinguish between quit-rent paid in lieu of military service and pension (derived from *pancão*, a Portuguese term for payment made for the enjoyment of land, or a premium paid as compromise in the case of a doubtful tenure; however, according to some historians, pension, derived from Urdu *peshcush*, is a kind of agricultural tax on land computed at so much per wheel for irrigation). Although the inhabitants took it as payment for the defence of the isle, yet the Company specially reserved for itself all rights, privileges and immunities which formerly belonged to the Crown of Portugal of *foras* (quit-rent) and royal rents of whatever nature or condition. Thus, about a hundred principal landowners on the island were required to raise and maintain during 1676-77 a militia of 600 men.

During the period 1688 to mid-1690, Siddi Kasim invaded Mumbai and took possession of Mahim, Mazagaon and Sion. The British were besieged in the town and castle. Those who deserted the British or refused military aids during the invasion, in fact, forfeited the right to their land, as per the Convention. Yet, in order to make Mumbai the centre of the British trade in the western India and to raise the revenues for that purpose, their lands were restored on the ground that they had not actively assisted Siddi in the invasion and on payment of one-fourth part of the produce for the first year as a fine [Warden, 1861, para 55]; according to other records, however, one-fourth of the value of the estate had to be paid as fine for the restoration of the title [Vaidya, 1931, p. 10]. The Jesuit College at Bandora (Bandra) held extensive lands and also the title rights which they had to forfeit for assisting Siddi

Kasim during invasion. The invasion, war and the plague which followed depopulated the island and left many estates without tenants. Gentoo (Hindu) soldiers, placed on half pay, were assigned most of them, with the Company receiving half the produce.

From 1674 onwards, a considerable portion of the Company's land was alienated under orders of the Company's Court of Directors issued in 1668-69, 1679-80 and 1690-91, to invite people, merchants, particularly diamond merchants, and manufacturers for settling on the island and also for increasing population and cultivation. Yet there is no record of lands being allotted to new settlers under any specific leases since the conclusion of the Aungier's Convention until 1718. But the population did increase (Appendix Table). The new tenants presumably held their lands as feuds at the will of the lord under an implied obligation to render military service when required. Thus, the mode in which the Company had permitted individuals to occupy land had converted public property into private property and the Company had forfeited whatever right they might have possessed (on cession in 1661) to resume lands or to alter the tenure which custom had established.

Because of the paucity of funds for defence and other purposes like maintenance of a mint, post office, insurance office, etc., a progressive duty of 1s. to 2s.6d. was imposed on every house in Mumbai from 1688-89. In 1718, the feudal tenure came to an end when the pre-capitalist form of rent (military services of the tenants) were substituted by a tax (quit-rent) imposed on all inhabitants within the town walls (Fort- the fortified area where the Company's factory, warehouses and trading establishments were situated), in order to reimburse the Company a part of the expenses incurred in fortifying and securing the town. However, it is not clear how the introduction of the quit-rent in Fort area alone redeemed the Company's rights to military service from the tenants in every part of the island, specially reserved under Aungier's Convention. Possibly, the levy of this rent in the Fort was adequate for defence. Again, on what principle this tax was levied is not known but it had to be reduced to half in 1720 because of protests from the inhabitants and also because several of them built houses outside the town walls to avoid paying it. However it was extended to all houses within canon-shot of the town walls, to maintain the level of revenue. The quit-rent was levied 'in a manner entirely unascertained, whereby some people have been prejudiced and others favoured' [Warden, 1861, para 75]. As a result, the quit-rent was equalized (modified) in 1731, and an additional quit-rent of six *reas* (Re 1 = 400 *reas)* per square yard for lands acquired after 1731 was levied from all inhabitants- British and the indigenous citizens. The latter, the true right-holders of Mumbai, had to pay an additional ground rent of five *reas* per square yard, while still others with a doubtful title paid, additionally, pension. Attempts were made to prevent Indians from gaining a foothold in Fort. But the colonial rulers never succeeded in keeping the Parsee and Baniya merchants out. Still, there emerged an informal segregation- Indians in the northern while Europeans in the southern parts of the Fort, like Malabar Hill- 'a conscious residential separation along broad ethnic lines' [Kosambi, 1986]. Strangely, Indians owned land and constructed houses in the southern area, yet hardly any Indian resided there; most of the houses were rented to Europeans, and their Indian owners preferred to live in the northern parts along with their own communities. Even the Parsee Panchayat (a body governing the social conduct of the Parsees, the most progressive community then among the Indians) thought it 'anomalous ... to live in such an out of the way locality' [Farooqui, 1995, p. 2753]. Since 1731, the colonial rulers tried to establish the Crown ownership of the land then occupied and to prevent irregularity in the collection of quit and ground rent. Accordingly, leases for 41 years, renewable on paying a fine of half year's rent of the said property, were introduced in 1733. However, this system of lease was a total failure. The Collector's rent-rolls show that rent was collected at different rates on lands outside the town wall- 15, 30 and 45 *reas* per *single* yard- until 1792 when a uniform rate of 30 *reas* per *single* yard was introduced and in 1804-05 it was changed to 11 *reas* per square yard. *Single* Yard is a measure unknown today. Even in 1813 it was unknown to Dickinson, who rightly remarks that 'no two measurements in the old rent-roll can even in a remote degree be reconciled' [quoted from Vaidya, 1931, p. 12].

Also, in order to control the building activity within and without the town walls, two measures were taken: (i) in 1731 mensuration of the ground within the town walls was made with the help of Captain W. Saunderson, and it was resoled that all choosing to build within the town should get the approval and licence to do so by paying a licence fee of Rs 2 for stone and mortar houses covered with tiles and others covered with cadjans Re 1; and (ii) a regulation was brought in force in 1739. As a result, no house was allowed to be built within the distance of 400 yards from the town wall, also no house was allowed to be built or repaired within the walls (Fort), without permission of the government Engineer and Land Paymaster. From March 1754, it was necessary to enter the name of the person purchasing a house within the walls in the Collector's office before entering the premises. However, most of these measures proved futile, with the landholders disregarding the governmental orders and the government failing to take up follow-up action and exact at least penalty for the infringement. The 'salt batty lands' (reclaimed lands) were let to *Kunabis* (land tillers) on nominal rent but on condition of their improving these lands. In 1740, farming lands were let at 4 *reas* a *burga* (60 square yards) and in 1751 a system of letting batty lands to farmers, initially for seven years, was introduced. Under the system farmers were allowed to take *taka* (share of the produce) from the *Kunabis*, but held responsible to pay the rent to the Company. This system was abolished in 1800, owing to its disastrous effects on the Company's rights.

The main events in the land administration of Mumbai during the second half of the eighteenth century were (i) introduction of a tax of 10 per cent on the produce of all the landed estates on the island in 1758; (ii) vesting of the Mazagaon estate in the Company in 1758 through a judgement of the Mayor's Court, although the estate was originally granted by the Portuguese in perpetuity to the heirs of the landholder for his services; (iii) the Inam grant of extensive lands in Parel to the Wadia family in 1783 for their pioneering ship-building activities; and (iv) Proclamation of 1789 to renew the rights of the Company and to prevent the tenant farmers on batty lands from erecting buildings or structures of any sort.

The great fire of 1803 consumed about one-third of the town within the walls and a committee, known as Town Committee, was appointed to prepare a plan for rebuilding the town and to ascertain the right of possession of the property in the areas laid waste by the conflagration. However, its plan was successfully frustrated through legal means by the wealthy inhabitants whose estates were affected by the provision for new streets made in the plan. The Company was able to just take a portion of their ground for widening the existing streets. Further, the Company agreed to pay compensation for the losses sustained by fire, but not the full compensation at market rate which the inhabitants wanted. Nor was equal compensation paid uniformly. The records show that only the influential and wealthy landholders paying pension as well as those useful to the Company in some manner were fortunate to receive compensation, that too at varying rates depending upon their influence with the authorities. There was an Anglo-Baniya alliance, and less conflict between the colonial rulers and the indigenous moneyed classes. For, the Bombay Presidency (constituted in 1708) was a deficit establishment and money had to be transferred from Calcutta to support their civil and military activities on the western coast until about 1820s. The deficit for 1801-1802 was approximately Rs 90, 25,000. Recourse to local credit was inevitable and discounting Bengal bills of exchange was a major enterprise for the wealthy indigenous money-lenders. That is why the indigenous residents of Mumbai were almost always successful to some extent in manipulating the colonial decisions regarding taxes or restrictions on indigenously owned property, or enforcement of building regulations or, most important, verification of their titles to landed property (two significant instances discussed later). Enforcement of laws was not always possible for the British and there was connivance of illegality.

As a fall-out of the resistance of the Fort residents to improvement of the town destroyed in fire, the Company cleared in 1804 the Esplanade to the extent of 800 yards from the Fort and, further, resumed the 'salt batty grounds' for accommodation of the inhabitants displaced from the 800 yards limit. The Company's right to resume such lands as had title deeds registered in the Mayor's Court in as far back as 1775 was validated in a law-suit by the Court of Recorder. Yet it is observed in the judgement that in such cases of resumption where an adequate price has been *bona fide* paid, 'the unwary occupants may not have regular conveyance enabling them to maintain possession in a Court of Law, but they have to allege a tacit acquiescence, a presumptive right, which, in the eye of conscience and morality, gives them almost an equal claim ...' [Warden, 1861, para 161].[2]

In the light of the above decision, the then Advocate-General Thriepland recommended certain measures to assert the Company's rights all over the island, such as (i) to undertake 'a regular survey of the island followed by an examination of the several tenures'; (ii) to reduce to some uniformity 'the various kinds and denominations of rent which are now the source of confusion', as the differences in land upon which the distinctions were founded no longer existed; (iii) to increase the returns from the island; (iv) to replace as far as possible the tenancy-at-will, inconsistent with every principle of sound policy, 'by the introduction of leasehold tenures for a term of years'; (iv) to print receipts for the different kinds of the Company's rents in a particular form, with the body of the receipt having a clause sub-joined or prefixed in native character (vernacular script), explaining the type of land tenure, the restrictions on occupants, the Company's powers and rights, etc.; and (v) to declare, on every occasion of registration of a sale of land, that the Company's rights would not be infringed, and remain altogether unaffected by the sale. However, when the new form of receipts with insertion suggested by Thriepland was introduced, the receipts were rejected and, consequently, collection of rent was in arrears for so long a time that the government had to expunge the new clause.

When Munro the Collector of Land Revenue raised the rents on the 'salt batty lands' to the extent of one-third of the produce in 1813, the holders strongly resisted the move and paid nothing more than the existing rent. When their case was submitted for Advocate-General Macklin's opinion, he too agreed with Warden and pointed out that the evidence confirmed the fact that 'the native land-holders of Bombay of every denomination were originally invited to settle in the island under the idea that the land allotted to them was given in perpetuity. That this was at least an implicit, if not an express, contract appeared to him equally clear from the various transfers of property that had since then taken place with the knowledge of Government, amongst which were to be found many purchases by Government itself from the very same tenants who were denominated tenants-at-will' [Vaidya, 1931, p. 26]. Macklin, in fact, believed that the Company had no right even to increase the rent. The Company's Court of Directors accepted the opinion and directed in 1815 the then government of Mumbai to allow the possessors to consider themselves as owners in perpetuity, subject to the payment of their present rent and also subject to the burden of maintaining the vellards erected for their defence against the sea in thorough repairs. But these directions were not carried out and amendments were suggested to the arrangement: while issuing grants in perpetuity rents for the future should be fixed at the highest of the existing rates, i.e., 14 *reas* per *burga*, and a clause should be inserted stipulating that in the event of any portion being hereafter required for military or other public purposes, compensation would be paid to the owner for the value of the improvements like buildings, trees, wells, etc., and not of the soil itself. Moreover, the arrangement was to wait, until the survey of the island in progress was completed. In the meanwhile in 1814, a new system of granting lands under *sanad* was introduced, superseding the former 'allotments' and 'permits'. *Sanads* were clearly descriptive of the nature of the tenure and the conditions under which their grants were made. At the beginning, grantees under *sanads* were mere tenants-at-will, subject to eviction and also to raises in rent at the pleasure of the government. In 1823, there was modification in the *sanads*, by which the grantees received better protection. Under the modified *sanads*, the government had a right to evict only for a public purpose and that too, only after, paying just compensation for the buildings and other improvements made on the ground.

The Land Revenue (Bombay Town) Regulation of 1827

When the survey was completed in 1827, *Bombay Regulation*, No. XIX of 1827 was passed. It incorporated the principles on which the land-revenue was to be assessed and collected and conferred on the Company government legislative authority to levy certain taxes and fees and also to attach and sell by auction any land on which revenue was due equally with other property of the defaulter. Under the *Regulation*, it was necessary to give notice to the Collector of Bombay of all transfers of land subject to quit or ground rents, and failure to do so would incur penalty. Based on the provisions of this *Regulation*, the Bombay City Land Revenue Act was passed later in 1876.

A Rent Committee was appointed in February 1837. Its terms of reference included revision of the rates of building ground rent payable to the Company, assimilation of the diversity in them, and verification of the right of the cultivators of salt batty lands to dispose them of as building ground, without the governmental sanction. The Rent Committee recommended as follows: (i) the lands on the whole island should be divided into three types (a) building sites, held as freehold or private property, paying a tax, called 'Pension and Tax', at the rate of 3, 6 and 11 *reas* per square yard, depending on the locality where the site was situated, (b) sweet batty grounds rented for cultivation, paying *toka*, really, a rent in kind - a share of the produce equal to half the gross annual produce commuted into money at the market price of the day of payment, and (c) salt batty grounds reclaimed and rented for improvement and cultivation, paying *foras* (quit-rent) at the low rate of 4 to 9 *reas* per square *burga*; (ii) the Company should assert its right of ownership over the foras lands and actually resume the *foras* ground to the south of the Bellasis Road paying compensation at the rate of five years' *foras* plus gratis building sites in other parts of the island, in proportion to the lands held. In the case of lands lying to the north and east of Bellasis Road, the rate of payment of *foras* should be raised so as to approximate the *toka* rents, and also the holders should be debarred from using or disposing of any part of the land as building site without the prior sanction of the government. The government, however, considered the recommendation regarding the salt batty grounds inconsistent with the principles of mild governance [Vaidya, 1931, Pp. 29-32].

Since 1841, there was a decade long contest between the Company and the holders of the salt batty lands. In view of their undisturbed adverse possession for 20 to 60 years and more, they claimed their lands as their own, inheritable and held in perpetuity subject only to payment of nominal quit-rent. Hence, a memorial signed by 700 such holders was submitted to the government with the following demands (i) not to acquire any land occupied directly or derivatively through a succession of generations; (ii) to restore the lands so far restored; and (iii) not to demand any other than the ancient rate of taxation on *foras* or salt batty lands. The then Advocate-General Le Messurier held that the claim of the memorialists, if litigated, would succeed and that the government as the original landlord of the soil had no power to increase the rent received from the memorialists. Any increase would have to be by a way of a tax through a law enacted for the purpose. As a result, the government conceded the ownership rights to the holders of the salt batty grounds, except where the grounds were required for public purposes, like roads and tanks, through a legislation- the Foras Act, No. VI of 1851. Thus, the Company's rights in lands paying *foras* were extinguished from and after July 1, 1851. The main reason for the Company giving up its claims was, however, more political than legal, namely, to avoid unrest on the island. By the end of the eighteenth century, there was gradual transformation in the use of lands in Mumbai- the single land mass, that had by then formed out of the five largest islands of the original seven. More and more land was used for housing and dwelling units, with a decline in cultivated lands.

Again, in order to further the objective of developing Mumbai as a prime maritime port, the Company government passed in 1853 the Shore Nuisance (Bombay and Kolaba) Act. It empowered the government to remove any obstructions, encroachments, and impediments below the ordinary line of high-water at monsoon tides which affected, or were likely to affect the navigation of the port. Moreover, the government was not answerable for any damage caused while removing obstructions and encroachments, and the sale proceeds of the materials from the encroachments removed were to be forfeited.

From the end of the eighteenth century, both the commercial prosperity and population of Mumbai surged ahead due to various reasons: (i) The decline of Surat's unassailable status as the major centre for foreign trade, brought about by the silting of the river Tapti (on which Surat is situated), frequent raids by the Marathas, and weakening of the Mughal empire, helped the rise of Mumbai. (ii) The ship-building industry in Surat shifted to Mumbai in 1735 and developed extremely well. (iii) Exports of raw cotton to China from Mumbai rose as a result of lowering of duty on tea through the British Commutation Act of 1784. The increased tea imports from China were supported by the cotton exports. Nevertheless, not cotton but opium exports were responsible for Mumbai's commercial breakthrough. '(T)he rise of Bombay coincided with an 'opium miracle' [Farooqui, 1995]. The Drug Barons of Bombay, having invested large amounts of money in opium trade with China, circumvented the restrictions (placed by Bombay Regulation I of 1805, at the instance of the supreme government at Calcutta) on exports of opium from the western coast of India. The then Bombay government too did not favour these restrictions for loss of revenue. Both, the administrators and the elites had a vested interest in abolishing the restrictions, which were ultimately removed in 1831. (iv) When the Marathas (Peshwas) were conclusively defeated in 1817, Mumbai became the administrative capital of the western regions under the British rule. They acquired more and more lands until 1858 when the rule of the Company ended. By then the Bombay Presidency extended to Maharashtra, Gujarat, Sindh and later very soon Karnataka.

TRANSFER OF MUMBAI UNDER THE GOVERNMENT OF INDIA ACT, 1858

All the territories, including Mumbai, under the Company's rule until 1858 were transferred to the Crown trough the Proclamation of November 1, 1858. Immediately, Showell, the Collector of Mumbai, was asked to consider the advisability of raising rents on the island [Government Resolution, No. 3616 dated September 7, 1859]. In his report, No. 109, dated February 24, 1860, Showell discussed the landed rights of the government in detail. He came to similar conclusions, as drawn by Warden, that though the Company government had on occasions exercised its prerogative to raise rents, 'the practice has rather been to increase these rents only on some very pressing emergency. ... I do not think that the mode of adjusting them (rents) would be a matter of any perplexity, as nothing of a classification of soils and their productive powers is required as in the agricultural districts .... the 6 pie rate per square yard might be laid on ground occupied by buildings; ... ' [Vaidya, 1931, p. 37]. However, the *Census* taken on February 21, 1872 reports that 'in the Konkan nearly all the land is government (land); its *minimum* proportion being 93.96 in Bombay city' (emphasis added). The government land was 13,355 square acres (8,423 square acres arable, assessed and occupied while 4,923 unarrable and unassessed) as against 874 square acres of *Inam* lands out of the total 14,229 square acres stretch of the city. The assessed and occupied government lands brought a total revenue of Rs 86,857, i.e., Rs 11-a.10-p.8 per acre per annum, the highest in the whole of India under the Company's rule in those days [*Census*, 1875]. Thus, though minimum as compared to other districts in the Konkan, the government lands in the town and island of Mumbai appear to be substantial. But, it is not certain, for Showell alludes in his observations to land 'what is expressly *styled* Government land (emphasis added). But a large portion of the island comprises "private land" such as that paying Pension and Tax' [Vaidya, 1931, p. 38].

Showell suggested the application of a building ground rent. There were total 31,447 houses in Mumbai in 1872, of which 23,882 were of the better sort, and housed 75.94 per cent of the total 644,405 inhabitants, whereas mere 11.62 per cent of the total 16,228,774 population of the entire Bombay Presidency lived in houses of the better sort, which are defined in the *Census* as *pucka* houses- masonry, tiled, constructed of stone, burnt bricks, *chuna*, etc., as against *kutcha* houses- other than masonry, thatched, hovels, with mud-walls or sun-dried bricks, etc., which were designated in the *Census*, as houses of the inferior sort. Still, '(n)o absolute rule can be laid down as to what houses are of the better sort, and what of the inferior; ....' [*Census*, 1875, Table III, Compilation Tables].

During the 1860s, steps were taken to dismantle the ramparts on the island, and to finalise plans for construction of roads, drainage, water supply, etc., and also plans for appropriation of the space available for buildings. Some of the government land was disposed of on lease for 999 years. The lessees (lease-holders) were required to construct buildings 'in a substantial and workmanlike manner', within three years from the date of lease agreement, to get building plans approved by the government, to maintain the buildings in sound repairs, and to insure them against fire and other disasters.

The Bombay City Land Revenue Act of 1876

The preamble to this Act states the following objectives: to amend the law relating to the assessment and collection of the land revenue; to provide against encroachments upon public property; to ensure the survey boundary marks; and otherwise to improve the existing land revenue administration in the city of Bombay. The survey mentioned here is the Bombay City-Survey, 1865-1872, popularly known as the Laughton's Survey (discussed later). The Act repealed the Land Revenue (Bombay Town) Regulation of 1827, but adhered to its main principles. The Act was amended several (17) times, before it was repealed in 1966; yet its provisions form a part of the Maharashtra Land Revenue Code, 1966.

The revision of the assessment on the *toka* or sweet batty grounds was undertaken in 1879, as the rate of commutation (Rs 20 per *moora* = 20 seers) was not raised since 1837. The land on the island was used for diverse purposes, like growing rice, gardens, buildings, stone quarries, grazing grounds, and for earth to be removed for reclamation, also there were frequent changes in the use patterns. The then Collector of Mumbai, Arbuthnot, observes: 'It is impossible in Bombay to charge different rates for rice land, garden land, building land, grazing land, &c. The rice field of to-day is built on to-morrow and the most regular and equitable system appears to be to place one low uniform rate on all land as the Crown assessment, guaranteeing the rate in perpetuity or for 50 years, as Government may decide' [Vaidya, 1931, Pp. 41-43]. The scheme proposed by him and sanctioned by the government in August 1879 prescribed varying rates from one-third pie to one pie per square yard in different localities and the owners were left to do what they liked with their land. As a result of this revision, several revenue suits were filed and pursued up to the High Court. But the High Court decided the matter in favour of the government [*Shapoorji Jivanji* v. *The Collector of Bombay*, Indian Law Reports IX (*Bombay Series*) 483]. The government's right to increase the assessment over *toka* lands was upheld.

The government was always eager to take its share from the prosperity of the town and its citizens. Hence a committee, Leases Committee was appointed to consider and report on (i) the terms for which leases should be granted, and (ii) the principle on which the ground rent should be determined. The Committee's Report, submitted in February 1892, was divided into: (i) Disposal of occupancy rights- the Committee advised that when the value of the lands to be disposed of was not known, it should be auctioned, whereas larger and valuable lands should be given by asking for tenders. (ii) Fixing of ground rents- ground rent should be limited to two-thirds of the full value of the land and the remaining one-third should be realised in a lump sum as occupancy price. Any increase in rents during the term was disapproved by the Committee. (iii) Term of the lease- the Committee suggested a 99 years' term. (iv) Renewal of the lease- one renewal was recommended in the case of 50 years' building lease. (v) Treatment of improvements- stipulations for maintaining the improvements (structures) in good repair and vacating them on expiry should be limited to 99 years' leases, but not in the case of 50 years' lease-holders who should be allowed to remove their improvements (structures). And (vi) architectural stipulation- the government lease-hold land should be classified into two types: (a) important sites requiring special style of building, e.g., those on the Esplanade, Marine Lines, etc., and (b) other sites ruled under the municipal building regulations. From June 1893, these recommendations were implemented with the modification that the amount of annual rent per square yard was neither to be less than one-third nor more than two-thirds of the estimated value. It was expected to give a good rental and also to have adequate incentive to bidding for lands. It formed the basis of the land revenue policy of the government for a long time.

The Bombay Act III of 1888

In 1792, the epidemic of plague depopulated the city of Mumbai to a great extent. After the disaster, an Act of (British) Parliament was passed in 1797 to provide for the first time Justices of the Peace for the three cities in India, Bombay (Mumbai), Calcutta and Madras (Chennai). They were assigned the task of maintaining the streets clean and were authorised to collect tax for the purpose. The local history of Mumbai is replete with such instances of fire-shooting. Certainly, there was no question of over-urbanization or scarcity of land in those days, when this colonial city was just being anchored, developed and founded by the British to emerge as the future Manchester of the East. Yet, the Census Report of 1901 refers to plague as 'the annual hardy' which took a heavy toll of life and caused large-scale temporary migration intermittently during the eighteenth century.

In 1865, a body corporate with perpetual succession, common seal, power to hold land, etc., was created by the Bombay Act II of 1865. It was the first municipal corporation of Mumbai. The Act of 1865 was amended in 1872 to increase the strength of corporators to 64, out of them 32 elected by land tax-payers, 16 elected by the Justices of the Peace, and the remaining 16 nominated by the government. The City of Bombay Municipal Act, Bombay Act III of 1888, i.e., the present Brihan Mumbai (Bombay) Municipal Corporation (BMC) Act, was passed to provide for introduction of building bye-laws-stipulations and rules- for constructing buildings and providing sanitary facilities. The Act was amended several times since then. The tenants who paid rent not less than Rs 10 were allowed to vote by the amendment of 1922. Thus, the local government in Mumbai acquired some democratic character.

The distribution of buildings according to their functional use was changed between 1881 and 1911. In 1881 the vast majority of buildings of the city (88 per cent) were used for residential purposes while in 1911 the figure declined to 59 per cent [Kosambi, 1986, p. 84]. The chawls- the poorest form of multi family housing, which provided 'warehousing, rather than housing'- consisted usually of single rooms, of 100 square feet each [Dalal, 1930]. The BMC Act introduced for the first time certain building regulations, to check congestion and unruly growth of the city.

In 1914, in view of the buildings on government lands being defaced by objectionable signs, it was decided that all leases should contain a clause requiring all sign boards, sky signs, advertisements, hoardings, etc., to be approved by the government. From 1918 all leases of government of lands required that the plans of any building to be constructed on such lands should be approved by the Consulting Architect to the government and not the BMC alone.

After the World War I, there came a land-boom in Mumbai 1919, because of the great advancement of trade and industries during the war. Land and houses in Mumbai were in great demand. Hence, the government planned following schemes: 1. Reclamation of Back Bay, 2. Construction of low-cost dwellings for the weaker sections (lower classes), 3. Opening up of the suburbs for the middle classes, and 4. Opening of large areas for setting up satellite industrial towns. The rate of ground rent was also raised in 1920 from 4 per cent to 6 per cent of the value of the land but it was again reduced to 5 per cent in 1925.

The Bombay City Improvement Trust

The Bombay City Improvement Trust was formed under the City of Bombay Improvement Act, 1898. The Collector, the Municipal Commissioner and the General-Officer in-charge of Command of the Bombay Brigade were ex-officio trustees. Originally, two classes of government lands were vested in the Trust: (i) lands which the Trust was free to develop into buildings and estates forthwith, and (ii) lands for which the prior authorization from the government was required; they were further categorised into those used for building purposes, and those to be maintained as open spaces for gardens and grounds. However, 'it remains a sad fact that while thousands of sanitary rooms constructed at heavy cost are lying vacant, a substantial section of the population of the city is huddled together in dark ill-ventilated and insanitary tenements. The Municipality is pursuing the policy of closing down such tenements or getting them remodelled ..., but here also, it has to content against the vested interests' laments the then Municipal Commissioner, Dalal [Dalal, 1930].

Reclamation of the Back Bay, already proposed in 1863 but without any action taken until 1897, was assigned to the Trust along with the reclamation rights. It reclaimed 90,000 square yards at Colaba. In 1912 the government of India helped with finances to submit proposals for further reclamations after investigations and preparation of estimates. The Bombay government appointed a committee to advise in the matter. The committee believed that further reclamation is practicable and should be undertaken immediately to relieve the pressure on land in the city and thereby to bring down the skyrocketing rents and also to improve the insanitary conditions on the northern part of Fort.

However, another committee in 1913-14 recommended that a small area of about 100 acres should be reclaimed for the expansion of the existing public institutions. Ultimately the government submitted an estimate for the reclamation of 220 acres of Back Bay. In December 1917, a syndicate formed by the leading businessmen of Mumbai asked the government to float a company for the purpose. In 1918 the reclamation rights of the Bombay City Improvement Trust came to an end. By then the government contemplated the reclamation of 1,145 acres of land, with an estimated cost of Rs 30 per square yard. The net proceeds from sale or lease of the reclaimed land were estimated at Rs 100 per square yard. The scheme was sanctioned on May 4, 1920. To undertake and execute this scheme, a Development Department was formally constituted on November 18, 1920 and the Bombay City Improvement Trust was amalgamated with the then Bombay Municipality in 1933.

Land Revenue Surveys (1670-71 to 1915-18)

The first survey of the island was attempted in 1670-71, when Harman Blake was appointed as Engineer and Surveyor-General of Bombay. But this survey was left incomplete because of the diversity of the land tenures on the island. Recommendations were made to undertake (i) a survey of uncultivated land on the island in 1679-80 for letting it out, (ii) a survey of all the lands for the purpose of registration in 1710, and (iii) a general survey for checking unauthorized encroachments on the Company's lands in 1747. Again these surveys were left incomplete. In 1772, an exact and accurate survey of the whole island was to be undertaken under Lieut. Turner. It was to cost Rs 3,912 and take 18 months. No mention of the survey being undertaken is, however, found in the records. Surveying and recording the various tenurial systems of land-cultivation and of titles to rights in land in Mumbai posed formidable problems, like the complicated uncodified laws of inheritance, separate for the different communities in Mumbai- Hindus, Muslims, Parsees and the Portuguese Christians. To make matters worse, the temples, mosques, *agyaris* and churches, as well as other places of worship held large tracts of land on diverse terms and conditions under grants from various past rulers.

The first survey to be completed was the 1811-1827 survey, known as Dickinson's survey. It was started under Lieut. Hawkins, initially, to ascertain the number of coconut, brab and other trees in each oart* and the name of the proprietors thereof. Later, the survey was extended to define the boundaries and the extent of the Company's property and of the inhabitants in general and to specify the nature of the tenures of land-holding. Captain Dickinson undertook the work of the survey as Superintendent of the Survey in 1813 and continued for many years. Finally, it was completed under Captain Tate in 1827 and the total cost of the survey was Rs 1,63,000. Dickinson had completed the survey of the Fort area and submitted in 1813 his report and recommendations that, although the Company had an indisputable right to resume quit-rent and

*a coconut garden, used especially in Western India; derived from Portuguese *(h)orta*- a garden.

ground rent lands, a compromise should be entered into with the proprietors and leases should be granted to them for 42 and 63 years on condition of their paying rent in the range of 20 to 36 reas per square yard. For the pension and tax lands, he proposed an impost of 8 reas per square yard. Warden, while reviewing Dickinson's survey report, observed: 'Admitting however, for the sake of argument, that the whole of the lands of Bombay appertained of right to the Crown either at the date of Aungier's convention in 1720, or even at any later period, still I am of opinion that the mode in which the Government has been in the practice of permitting individuals to occupy ground, or, in other words, that the custom of the manor has, upon every principle of equity, converted the public into private property,- lease into copy-hold tenures, and that the Company have forfeited whatever right they might have possessed to resume lands, or to alter the tenure which custom has established' [Warden, 1861, para 69]. Thus Warden believed that the right of property should be declared to vest in perpetuity in the possessors. Warden acknowledged that the Company had a right to increase quit- and ground rents, but advised to be content with moderate rents as an acknowledgement of sovereignty, and to fix such rents permanently on principles just and equitable to both, the Company and the individual. He further recommended that government lands should be made available for the increasing population, and that a small increase in the excise would realize more revenue than any augmentation in the rent on land [Warden, 1861, para 236].

In 1844, a system of surveying every holding on transfer from one person to another was introduced, in order to settle problems of encroachment. This necessitated a revisional survey of the island which was undertaken departmentally during 1857-59. However it could not be incorporated in the revenue survey, because of some shortcomings. Hence, another survey- Laughton's Survey- was undertaken during 1865-72. The area of the island as determined by this Survey was 220 square miles, 105 acres and 4,149 square yards and the cost of the survey was Rs 3,13,062-a.3-p.10.

A Cadastral Survey of the island of Mumbai was undertaken in 1914 and completed in 1919. For that purpose, the Bombay City Survey Act, 1915 was passed. The word 'cadastral' is derived from the Latin *capitastrum*, meaning a map and a register of the quantity, value and ownership of land or property in a country. After this survey, the government started from April 1, 1919 a permanent office- the Bombay City Survey and Land Records Office- for the maintenance of the survey (Government Resolution No. 4271, Revenue Department, dated April 28, 1919). The Office consisted of two branches Survey and Records, and was placed under the Settlement Commissioner and Director of Land Records. The functions of the Record branch included (i) maintenance of the registers showing all the changes in ownership of holdings by inheritance, sale, etc., (ii) checking and verifying plans attached to conveyances of private individuals, and (iii) supplying copies of extracts of plans or registers to the public on payment of the usual fees.

This is but a brief sketch of the status of rights to land in Mumbai up to the day of Independence. Land, urban or agricultural, has been the cause of innumerable disputes in the court and, in the history of cases of murders, there seems to be preponderance of land having provided the animus. Apparently, the history of Mumbai is the history of search for better land use policies. No wonder, the issue is as alive today as in the past.

NOTES

1. The plight of the politically and economically weak all over the world is no better today than that of the fishermen in Bombay more than three centuries before. The Afro-Americans were equally ruthlessly evicted in Atlanta for the Olympic Games held there, while others were left untouched. Forceful eviction and displacement, and the discrimination invariably practised in such exercises, are almost daily occurrences in one or the other cities of India. The question of forceful eviction was debated at length during Habitat II. However, Habitat II failed to recognise shelter (housing) as a separate human right; the official US position- that it is a component of the right to an adequate standard of living- was accepted. Nor could the governments be persuaded to acknowledge ensuring housing rights to all as one of their fundamental obligation.

2. More than 150 years later, in the landmark *Olga Telis* judgement [*All India Reporter 1986 Supreme Court 180*] regarding the clearing of encroachment by pavement-dwellers in Mumbai the Supreme Court expressed similar sympathies for the evicted, but ultimately came to the same conclusion that removal of encroachments on footpaths could not be regarded as unfair, unreasonable or unjust. Hence, the state (here the BMC) had a right to evict the pavement-dwellers, but only after following the due procedure of law. None will deny the state this right to evict an occupant for public purposes, but the courts should hold, and have in some instances held, such eviction not merely a grievous hardship to the occupant (as the Recorder's Court reluctantly held in the above case in 1804) but an open and down-right injury for which the state is liable to pay compensation.

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APPENDIX TABLE

Year	Population
1661	10,000
1681	60,000
1780	1,00,000
1814	1,80,000
1836	2,36,000
1872	6,44,405
1881	7,73,196
1891	8,21,764
1901	9,27,994
1911	11,48,757
1921	13,80,448
1931	13,97,812
1941	18,01,356
1951	29,94,444

Sources: (i) Edwardes, S.M., 1901; (ii) Government of Maharashtra, 1994.

APPENDIX

Extracts from the *Report of the Landed Tenures of Bombay-Dated 20th of August 1814, Selections from the Records of the Bombay Government, No. LXIV- New Series*, by F. Warden, Government of Bombay, Bombay, 1861.

FIFTH DIVISION : POLICY BY WHICH THE ISLAND HAS BEEN GOVERNED REVIEWED

Fifth - I now proceed to review the effects of the policy by which this island has been governed.

190. The increase of population the decisive test of prosperity. That of Bombay estimated by that criterion

'The most decisive mark of the prosperity of any country is the increase of the number of its inhabitants'. To judge by this unerring criterion of the wealth and prosperity of Bombay, the wisdom by which the island has been governed will readily be admitted even by the celebrated author of the *Wealth of Nations*, whose opinions are so hostile to the principles by which the colonies in the East have been managed by the Company.

191. State of the population at the date of the transfer; Increase in Fryer's time; Decrease in 1715; The present population

At the date of the transfer of the island from the King to the Company, the population was estimated at ten thousand souls, - 'the out-casts of all sects'. Fryer computed it at the time he visited Bombay at 60,000 souls, - 'most of them fugitives and vagabonds'. A letter from the Reverend Mr. Cobbe, the first clergyman appointed to Bombay, to the Bishop of London, dated the 5th of October 1715, reckons the number of inhabitants with the English at 16,000 only. The permanent population may now be taken at 180,000 souls. The small space within the Fort alone contains at this period as many inhabitants as were in the whole island in the time of Portuguese. The floating population I calculate at 60,000, making a total of 240,000 souls.

192. The extent of the island is about sixteen square miles; taking the permanent population of 180,000 souls, we have 11,250 inhabitants to every square mile, - an almost incredible population. In England the computations fall short of 200 to every square mile; and by Mr. Revitt's report of the 25th June 1796, the population of Salsette averages 212 to the square mile.

193. Causes of the decrease in 1715 explained

The rapid increase in the population between the date of the transfer of the island to the British and of Fryer's account may be attributed to the encouragement afforded to settlers, and to the moderation and justice of a British administration; and the decrease which appears in 1716 may also be satisfactorily explained by a reference to the lamentable state of the island a few years prior to 1716, arising from the opposition made by the Portuguese, and the obstructions they threw in the way of its being supplied with necessaries from Salsette and Bassein, and from the doubtful basis on which the British influence was founded at that period.

194. Independently of the embarrassed state of affairs in 1702-3, from the prospect of a civil war in the Mogul Empire on the death of Aurangzebe, which exposed the Europeans to constant alarms, Bombay was from these causes constantly menaced with invasion by the Siddee and the Marathas; the safety pf the island was threatened also by the Portuguese, who besides obstructing the transport of provisions required by the garrison and inhabitants, were giving secret assistance to the Marathas; and as if these difficulties had not been sufficient to create alarm, the plague broke out in the island, carried off some hundreds of the natives, and reduced the Europeans to the small number of seventy-six men. This calamity was followed by a storm which destroyed the produce of the island, and wrecked the greatest part of the shipping by which it was protected.

195. The rapid increase of the population since 1715

These events and causes were sufficient to operate a diminution in the number of the inhabitants at the date of the last quoted authority, and to retard the increase for some years. If therefore we compare the present population of Bombay with that in 1715, as given by Mr. Cobbe, the accuracy of which, for reasons above assigned, may be relied upon, no country in the world probably can exhibit so rapid and positive an increase of prosperity in the same period of time.

196. Increased ten-fold

The population of England and Wales has somewhat more than doubled in one hundred years. In 1710 it was about 524,000 and had been decreasing. In 1811 it was about 10,488,000, and rapidly increasing. The population of Bombay has increased more than ten-fold in a century. In 1716 it was estimated at 16,000 souls; in 1814 it is reckoned at 180,000, and increasing.

197. Comparison of the Revenues; Rs 10,42,148 at 2s. 6d. the rupee, is £130,268-10s; Other proofs of prosperity noticed.

The revenues of the island at the date of the cession to the Crown of England amounted to £2,833. In 1667-68 they were estimated at £6,490. In 1694-95 they were reduced to 17,000 (£1470) xeraphins. In the year 1812-13 they amounted to £130,268-10s. But the prosperous state of the island will appear in a more prominent light by estimating the wealth of individuals, and by contemplating the many valuable estates with which the island is so richly studded.

198. Value of buildings within the Fort

The buildings within the walls of the Fort, including the barracks, the arsenal, and the docks, may be valued at one crore and five lacks of rupees. Compare this picture with that afforded by Fryer. The houses in the town are low, and thatched with oleos of the coco trees; all but a few the Portuguese left, and some few the Company have built. The custom-house and warehouses are tiled or plastered, and instead of glass use panes of oyster-shells for their windows. If, in addition to these local improvements, we estimate the importance of Bombay in a national point of view in reference to the resources which it has afforded towards the extension and consolidation of the British Empire in India; to the means of promoting the vend of the manufactures of the mother country for upwards of a century and a half in every quarter of India, throughout Persia and Arabia; to the aid which it has afforded in upholding her military reputation, and in contributing to her naval power and resources, we cannot too highly extol the liberal policy which has acquired and cherished those advantages, and in viewing the commanding situation of this possession, either in a commercial or in a political light, on the security of which the permanency of our Eastern Empire mainly depends, we cannot be too cautious in preserving unimpaired the resources of the island by encouraging and conciliating not only its own subjects, but those of the surrounding country; to convert the floating population into permanent residents that Bombay, and ultimately the adjacent Island of Salsette, may continue what it has hitherto proved - an asylum for those who seek for refuge and protection from the oppression of their own arbitrary governments.

199. 1748- 15th March; Paragraph 48; Orders of the Court relative to the improvement of the Island

The Court of Directors have from the earliest period entertained an opinion that the Island of Bombay might be rendered an advantageous settlement, and have therefore repeatedly enjoined the exercise of a mild and good government to encourage people from all other parts to come and reside under their protection; the impartial administration of justice has been anxiously urged, and that every facility might be afforded to the new inhabitants to build themselves habitations.

200. 1703-4th June; Paragraph 38 and 39; 1708-20th April; Paragraphs 59 to 67; 1709-10-24th March

The Government has been directed to encourage speculators to stop the breaches where the sea overflowed the island, by allowing them to hold the land they recover for a term of years free of rent, *reserving only a small quit-rent to the Honorable Company*, and that they would grudge no tolerable expense to render the island healthful, for the promotion of which they would be contented that their rents be diminished by cutting some trees down; that Bombay be declared a free port; to suffer none to engross all or any commodities imported, or to do anything else that may discourage merchants frequenting the port, or inhabitants that reside on the island; that the lands be surveyed and registered, and everyone's property ascertained; to construct a dry dock, &c.

201. 1755- 26th March: In reply to the letter from the Government of the 1st December 1753, reporting. 'We never omit any occasion that offers to encourage substantial merchants to reside on the island under your honor's protection; but we beg leave to observe to you that the Indians in general are so superstitious and bigotted to their native country, that they will suffer almost any indignities and oppressions, rather than quit the place of their birth, notwithstanding, which we have the pleasure to inform your honor at the same time, that the number of inhabitants are greatly increased, insomuch that the town is so crowded, that the people are murmuring for, to have it enlarged, and that some very considerable shroffs from Aurangabad and Poona have opened shops here to the great advantage of the trade of the place'.

In their later instructions the Court remarked that it was very agreeable to them to observe that, notwithstanding the superstitious attachment of the Indians to the place of their nativity, yet that the number of the inhabitants were greatly increased, and that some very substantial people had settled in Bombay to the great advantage of the island; and as it was their earnest desire that as many people as possible, especially those of circumstance, be encouraged to settle at Bombay, therefore they strongly recommended it to Government to use the *most prudent, equitable,* and *encouraging methods* for that purpose, and in particular 'we direct that *you suffer them to build houses wherever it shall be convenient to them,* so as not to incommode the defence of the place, &c., and in general that they have all the reasonable privileges that can possibly be given them; and as a freedom in trade was the most probable method and inducement for increasing the number of inhabitants, and encourage a general resort to the island, you are hereby directed to suffer all persons to buy and sell publicly or privately, as they themselves shall choose; to deal freely and without restraint with whoever they shall think proper; and if any of our servants shall prevent, or endeavor to prevent, such a freedom of trade on any pretence whatsoever, they will incur our highest displeasure; and the more effectually to prevent all combinations, monopolies, and attempts upon the freedom of trade, you are to affix up in all the most public places, in the usual languages, publications for the notice of all persons of these our intentions that they may be entirely free from apprehensions of being hindered, imposed upon, or oppressed by the Governor, the Members of the Council, our inferior servants, or any other persons whatsoever'.

202. Measures necessary to secure and promote these advantages

No measure is so calculated to secure the permanency of these advantages on an island like Bombay as the establishment of a moderate land tax. Above all, it is indispensable to the increase of its population scrupulously to avoid the resumption of lands under whatever defective titles they may have hitherto been held; to declare the property to be permanently vested in the present possessors; to fix the tax derivable from that property permanently, and to establish a scale of rent for lands which may be leased in future, in order that the whole of the demands of the State, which each individual is bound to pay, may be certain and not arbitrary, - not liable to variation and increase at the will of the Government.

203. The late orders of the Court on the permanent settlement of the rents adverted to

The recent order of the Court may appear adverse to a permanent settlement of the land rents. These orders, however, I conceive are intended to apply more immediately to the provinces; in any event, they only prohibit a too premature proceeding in fixing the rents in perpetuity, before an ascertainment of the utmost extent to which the productive resources of the country can be carried. The experience of nearly two centuries ought to be sufficient to enable us to determine on the amount at which the land tax should be permanently fixed, particularly on building-ground, and on an island like Bombay. I fear that, unless the maximum of tax to which landholders shall be ultimately subject be not declared on the promulgation of the determination which the Government may now adopt, individuals will be deterred from vesting their capital in any further improvement as a dependency, as well in respect to the amount of rent as the permanency of tenures, upon the will and pleasure of the ruling authority.

204. The improvements dated from 1758

In tracing the progress of improvement in the town, or the increase in private buildings, the greatest portion of the property will be found to have been created since the year 1758*. The quantity of ground paying rent by measurement is 287,468 square yards; of that quantity the property paying pension and tax by measurement is 75,046 square yards leaving 212,422 square yards, which, as not being subject to the payment of the tax of two shillings in the pound established in 1758, may be considered to have been created since that, which is a great amelioration in a short space of time, and is to be attributed principally to the completion of the line of fortifications, which of course made the inhabitants anxious to reside within the walls of the Fort where they could be best protected.

205. Great extension of buildings as far as the third milestone

Since, however, the removal of the old Mandvee customhouse to Musjid Bunder, an increase of substantial buildings, extending very nearly to three miles from the Fort, has appeared within these ten years in a ratio exceeding the improvement noticed in the preceding paragraph. This spirit of vesting capital in land has arisen as much, in my opinion, from the mode in which individuals have been permitted to occupy lands, and the lowness of the ground rent, as from the decrease in the rate of interest, or from the difficulties which have of late years been experienced in the more advantageous employment of money.

The decline of ground may be dated from this year.

DOCUMENTATION

The purpose of this section is to make available to the readers official documents such as reports of committees, commissions, working groups, task forces, etc., appointed by various ministries, departments, and agencies of central and state governments which are not readily accessible either because they are old, or because of the usual problems of acquiring governmental publications, or because they were printed but not published, or because they were not printed and remained in mimeographed form. It will be difficult and probably not worthwhile to publish the documents entirely. We shall publish only such parts of them as we think will interest our readers. The readers are requested to send their suggestions regarding official documents or parts thereof for inclusion in this section.

In the present section we publish:

> Report of The Committee on Controls and Subsidies, 1979, (Chairman: Vadilal Dagli) Government of India, Ministry of Finance (Department of Economic Affairs), Chapter 2 and Chapter 11.

REPORT OF THE COMMITTEE ON CONTROLS AND SUBSIDIES, 1979

CHAPTER 2

HISTORY OF CONTROLS AND SUBSIDIES

2.1 Controls Before the Era of Planning

2.1.1 The present system of economic controls in India dates back to the Second World War. There have been isolated examples of 'controls' (as commonly understood) earlier also. Under the Cotton Cloth Act of 1918, the price, production and distribution of 'standard cloth' was sought to be controlled. More significantly, the Sugar-cane Act of 1934 sought to control not only the price of sugar-cane (for sugar factories) but also the area of purchase of sugar-cane by different factories, and the then provincial Governments of U.P. and Bihar helped in informal price regulation by the Indian Sugar Mills Association by decreeing that only member factories could buy cane for factory crushing. There was official regulation of jute acreage from time to time in Bengal during the thirties of the present century, with a view to preventing overproduction of raw jute. Under the Indian Tea Control Act, 1938, there was control, even prior to the war, over the export of tea, and control over extension of cultivation of tea in respect of the then British Indian Provinces. But controls in their present form and manner, as also in their pervasiveness and impact, commenced with the promulgation of the Defence of India Rules (under the Defence of India Act) on September 3, 1939 after the outbreak of the Second World War. Part XII of the Defence of India Rules related to control over essential supplies. Besides, there were controls on trading, on transport, shipping and aircraft, and there were a number of restrictions on the purchase of foreign exchange, restrictions on payments, etc. Rule 81 under the DIR made a blanket provision 'for regulating or prohibiting the production, treatment, keeping, storage, movement, transport, distribution, disposal, acquisition, use or consumption of articles or things of any description whatsoever'. Under Rule 84, Government assumed power 'to prohibit or restrict the import or export of all goods or goods of any specified description from or to any specified person or class of persons'.

2.1.2 In May 1940, import restrictions were imposed for the first time on the import of consumer goods and the control was later gradually extended to almost all commodities by the end of January 1942. The Iron and Steel (Control of Distribution) Order was issued in July 1941, to control the use of steel and to conserve it for the war effort.

2.1.3 Among foodgrains, wheat was the first important item brought under control. In order to keep prices within reasonable limits, to meet the requirement of large supplies of wheat for the British armed forces, the Government of India issued a Notification in December 1941, fixing the maximum wholesale prices for wheat in different markets of the country. The Foodgrains Control Order was promulgated in May 1942 and provided for the issue of licences by the Provincial Governments to persons involved in the purchase, sale or storage for sale of foodgrains in wholesale quantity. The order covered wheat and wheat products, rice in the husk (paddy), rice husked, maize, jowar, bajra, gram, barley, ragi, arhar, masur, kodra, and korra. In December 1942, a full-fledged Food Department was constituted with a view to integrating all the activities regarding the purchase, distribution and movement of foodgrains on an all-India basis. Food rationing, which had been introduced to cover 13 cities in 1943 was extended to 103 cities and towns by February 1944, and 771 towns and larger rural areas by October 1946. Statutory control over wholesale prices of foodgrains was imposed in early 1944.

2.1.4 In May 1943, control over capital issues was promulgated - later continued under the Capital Issues (Control) Act of 1947 - to avoid the misuse or misdirection of the limited funds available for investment.

2.1.5 The intensification of the war had its impact on the prices of industrial goods. In May 1943, the Government of India established the Department of Industries and Civil Supplies which introduced a comprehensive system of control over the production and distribution of cotton textiles. Under the Cotton Cloth and Yarn (Control) Order issued in June 1943, every phase of the activities of the cotton textile industry was brought under official control. By July 1944, almost all the important commodities had been brought under one control or the other. In June 1945 when the war ended, the Textile Industry

(Control of Production) Order was issued to ensure rationalisation and standardisation of cloth production by the textile mills. The Colliery Control Order was promulgated in December 1945, bringing under control the production of coal and disposal of coal stocks as well as the price of coal, the regulation of production and distribution being the responsibility of the newly created office of the Coal Commissioner. Price control on paper which was instituted in regard to Government purchases of paper in 1942, was extended over the production, distribution and price of paper, by a series of Orders issued over 1944-1945.

2.1.6 Some controls- even during this period - emanated not from the war shortages but in order to protect domestic producers. The Coffee Market Expansion Ordinance of 1940, and the Coffee Market Expansion Act of 1942 arose from the desire to save the coffee plantations from collapse arising from the loss of the coffee market in Europe and an unprecedented slump in coffee prices.

2.1.7 To safeguard against the lapse of the Defence of India Act and Rules, on October 1, 1946, the British Parliament passed the India (Central Government and Legislature) Act, 1946, empowering the Indian Legislature to legislate for controls in respect of certain commodities. This was followed by the Essential Supplies (Temporary Powers) Ordinance (followed by an Act) effective from October 1946 which provided for continuance of controls on specified commodities. The commodities covered initially were foodstuffs, cotton and woollen textiles, paper, petroleum and petroleum products, spare parts of mechanically propelled vehicles, coal, iron and steel, and mica. It was also provided that food-crops will cover sugar-cane, foodstuffs would include edible oilseeds and oils, and paper would include newsprint. The Act was later amended to bring in more commodities under control.

2.1.8 The system of rationing of rice and wheat, which had been introduced in 1943 to cover major urban centres, had gradually been extended by August 1947 to cover areas with a population of 171 million. As would be seen later, such claims relate essentially to the theoretical coverage of the rationing system, indicating the population of areas in which fair price shops would have been opened; they do not indicate number of people who actually benefitted from the system.

2.1.9 In February 1946, the Government appointed a Commodities Prices Advisory Board to advice as to the formulation and administration of an appropriate and consistent price policy. In October 1946, Government appointed a Planning Advisory Board. The Commodities Prices Advisory Board had been arguing against the scrapping of controls and rationing in the context of the latent inflation then existing in the country, and the desire to usher in an era of planned development. Meanwhile, Mahatma Gandhi had been warning the country against the consequences of controls. To quote from his writings and statements at this juncture-

> 'Control gives rise to fraud, suppression of truth, intensification of the black market and to artificial scarcity. Above all, it unmans the people and deprives them of initiative, it undoes the teaching of self-help they have been learning for a generation. It makes them spoon-fed'.[1]

2.1.10 In 1947, the Government dissolved the Commodities Prices Advisory Board, and appointed the Foodgrains Policy Committee. The latter recommended the scrapping of rationing. On receipt of the report, the Government took a series of measures towards the end of 1947 to eliminate rationing gradually. Controls on cotton yarn and cloth as well as on raw cotton were also removed.

2.1.11 Meanwhile, the period between the end of the war and Independence saw some liberalisation of imports. The new policy on import trade control introduced in July 1947 freed the import of food, capital goods, and certain raw materials required by industries as well as certain essential consumer goods. There was also a list of restricted items and list of prohibited items, the banned list

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1. Quoted in *Mahatma - Life of M.K. Gandhi*, Vol. 8, Pp. 208-209, by Vithalbhai K. Jhaveri and D.G. Tendulkar, Bombay, January 1954.

being made up of luxury items numbering over 200. The distinction between imports from the sterling area and the general currency area was by and large removed (except for a differential tariff). A noteworthy feature of the new import control system was a change-over to a system of quantum licensing, based on exchange ceilings allowed for the import of specific commodities. There was also a series of enactments to provide the legal basis for the continuance of the controls which were still on the anvil, the most important of these legislative enactments (during 1947) being the Foreign Exchange Regulation Act, the Imports and Exports (Control) Act, the Capital Issues (Continuance of Control) Act, the Railways (Transport of Goods) Act, the Control of Shipping Act, and the Rubber (Production and Marketing) Act.

2.1.12 The attempt at decontrol in 1947 was shortlived. Even towards the end of 1947, opinion had begun to change. There was deterioration in the balance of payments, and restrictions were also imposed by the British Government on the withdrawal of the sterling balances. Prices began to rise. The wholesale price index (base: year ended August 1939 = 100) which stood at 290.5 in January 1947 and no more than 294.2 in June 1947, increased to 314.2 by December 1947 and 340.7 by March 1948, and further to 382.2 by June 1948 - an increase of nearly 30 per cent over the year.

2.1.13 The rapidly deteriorating economic situation led to a re-thinking in regard to policy. Because of the alarming rise in prices after decontrol, the Government reimposed controls from July 1948 onwards, first on cotton cloth, then on raw cotton, and thereafter, on foodgrains. The ex-mill prices for cloth and yarn were fixed and floor and ceiling prices for raw cotton were announced. In September 1948, control over prices and procurement of major foodgrains was re-introduced. The surplus areas were cordoned off, and controls were again clamped on foodgrains prices, with resumption of procurement and distribution of foodgrains. In July 1949, raw cotton, cottonseed and soft coke were brought under the ambit of the Essential Supplies Act. In September 1949, the Government issued an Order freezing sugar stocks and banning the futures trading in sugar, so as to check rising sugar prices. Immediately after the devaluation of the rupee in September 1949, the Government announced a programme, covering control over the pattern of foreign trade, prevention of speculative price increases by legislative and administration measures, and reduction in the retail prices of essential consumer goods.

2.2 Controls Under Planning

2.2.1 The control system since around 1950 had two objectives: the longer term objective of channelling the resources of the economy in accordance with Plan priorities to be hereafter called 'promotional' controls; and the short term objective of achieving relative price stability in periods of acute imbalance between supply and demand, to be designed as 'corrective' controls. Even though some controls have been deployed to achieve both objectives, long term control measures have been instituted primarily to achieve the first objective, while many controls imposed from time to time have been geared to meeting certain short term exigencies.

2.2.2 For the above reason, the history of controls over the last twenty eight years (five Plan periods plus three annual plan years), may be roughly divided into two broad periods, namely, from Independence - and more particularly from the initiation of planning in 1951 - until the devaluation of the rupee in June 1966; and thence until the end of 1978. Within this period, there are several sub-periods, arising from the unfolding of the economic situation, and the need for sharp adjustments in policies as well as in 'corrective' controls. For the purposes of examination of controls in following broad periods:

(i) The period between mid 1950 and mid 1957. This period could be further subdivided between (a) mid 1959 to mid 1953, when there were serious inflationary pressures in the economy, arising from prices inflation abroad, and (b) mid 1953 to mid 1957, when there was relative ease in the matter of food supply, and the pressure of demand for imports had not yet sparked off a foreign exchange crisis.

(ii) The decade between mid 1957 and mid 1966, when following upon a crisis in the balance of payments, diverse control measures were instituted. The period could be further sub-divided into (a) mid 1957 to end 1962, when despite the foreign exchange crisis, there was a booming economy following increased investment; and (b) early 1963 to mid 1966 when there were two distinct trends: first, large scale PL 480 imports which instilled a degree of complacency as to foodgrains production; and secondly, inflationary trends arising from the large defence expenditure incurred, following the Chinese attack on the northern borders in October 1962, which led to pressure on the balance of payments and increasing complexities in the export/import system.

(iii) The years between the devaluation of the rupee and mid 1978. This period can be further sub-divided into four sub-periods, namely, (a) between the devaluation of the rupee in June 1966 and mid 1969 when 14 major commercial banks were nationalised and Government had in its hands the Report of the Industrial Licensing Policy Inquiry Committee (ILPIC), both in July 1969. During this period, i.e., between devaluation of the rupee and mid 1969, many controls on industry were relaxed but the food situation required an intensification of controls despite accentuated food aid; (b) between July 1969 and the oil price hike of November 1973, when there was an accentuation of controls on industry as also a major shift in economic policy towards increased control over key sectors of the economy heralded by the nationalisation of 14 major commercial banks in July 1969, a reversal of liberal balance of payments policy and intensification of import substitution, coupled with experiments with relaxation of food controls but ending up with the take-over of the wholesale trade in wheat in April 1973; (c) between the end of 1973 and the end of 1975, when the sharp increase in oil prices led to future tightening of controls on balance of payments grounds, but with a somewhat mixed picture in regard to controls involving some relaxation of controls on industry and at the same time a wave of nationalisation of industries, of the take-over of sick units, and of increased canalisation of foreign trade, together with increased controls in the matter of movement and distribution of foodgrains and agricultural raw materials; and finally, (d) early 1976 to 1978, when there has been a steady trend towards the relaxation of controls, both on the food front and on industrial products, following a general adequacy of supply in relation to effective demand and a comfortable situation on the foreign exchange front.

2.2.3 For the purposes of an overview of the unfolding of controls in the economy, controls are studied in the following paragraphs, in terms of controls over industry, encompassing investment controls, controls over production, controls over distribution and price, and over stock holding; controls over foodgrains and other agricultural products with special reference to controls over movement and prices as well as on distribution and stock holding; general controls affecting all sectors as, for instance, controls over export and import imposed for balance of payments reasons; controls instituted with multiple objectives of policy like the Company Law; and finally, various miscellaneous controls like gold control, control over urban property etc.

2.2.4 In what follows, the chronological history of all the controls instituted in respect of the above categories has not been elaborated. The attempt rather has been to indicate the broad nature and pattern of controls instituted from time to time, with a view of drawing lessons from past experience.

2.2.5 Since Independence, the thrust of economic policy has been to direct the available resources to priority sectors and to control and regulate economic activity in line with certain stated objectives of policy. The Industrial Policy Resolution of 1948 laid down the future pattern of industrialisation in the country, with a number of key industries being reserved for the State.

While legislation was introduced to give effect to this policy in 1949, the Industries (Development and Regulation) Act, seeking to direct investment through a licensing system was finally passed in 1951, and made effective from 1952. Meanwhile, the policy on foreign capital was enunciated in a Statement made in Parliament by Prime Minister Nehru in November 1949. A new Factories Act was passed in 1948 requiring registration of and regulating all factories employing 10 or more workers and using power, or 20 or more workers without power. The Mines and Minerals (Regulation and Development) Act was passed in 1948, followed by Mineral Concession Rules issued thereunder in 1949, in order to regulate the grant of prospecting licences and mining leases, with an eye to conservation and economic exploitation of minerals. In 1949, the Drugs (Control) Ordinance was promulgated - to be replaced later by Drugs (Control) Act, 1959 to check any increase in drug prices. The Indian Mines Act was passed in 1952 to lay down working conditions, and safety requirements. These constituted only some of the major legislative enactments affecting investment and production.

2.2.6 The launching of the First Five Year Plan from April 1951 formalised the use of controls and the regulation of the economy for attaining the objectives of the Plan. The Industries (Development and Regulation) Act was the first major control of this nature, licensing being attuned to the changing objectives of policy in the light of the developing situation. The First Five Year Plan spelt out the philosophy and the Government policy in regard to controls, in the following words:

> 'To some extent, overall controls through fiscal, monetary and commercial policy can influence the allocation of resources, but physical controls are also necessary .... Controls on production and on movement and physical allocations to consumers become inescapable. Controls, in a word, are the means by which Government maintains a balance between various sectional interests ....
>
> 'Most of the opposition to controls comes, however, from dissatisfaction with the working of particular controls. It must be recognised that controls ineffectively or inefficiently administered may do harm rather than good.... It is also vital to the success of controls to make the necessary adjustments in their working from time to time .... whatever changes are made must accord with the objectives in view ....
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> 'The difficulties of administering an extensive system of controls in an economy organised by and large in small units cannot be underrated.... Effectiveness of controls ... can be ensured only through control at strategic points and through encouraging producers and consumers organisations...'[2]

2.3 Controls Over Industry, 1951-1966

2.3.1 The main instrument of control in regard to the direction of investment has been the Industries (Development and Regulation) Act of 1951 which came into force from May 1952, requiring a licence to be obtained for setting up a new large scale industrial undertaking, or for the expansion of an existing one, or for the manufacture of a new article. The exemption limits for licensing purposes have been modified from time to time. The original Act covered all investments of Rs 25 lakh or more in any one of the industries listed in a schedule attached to the Act. The purpose of the licensing mechanism was to regulate the creation of capacity in line with plan targets so as to avoid over-investment (and therefore waste of capital) in any industry; to introduce a better regional balance in the creation of industrial capacity; and to diversify and to broad base the ownership pattern and entrepreneurial activity in the industrial economy.

2.3.2 A major landmark in the evolution of industrial policy and control over investment was the Industrial Policy Resolution, which stated that the industrial policy 'must[3] .. be governed by .... principles and directions' given in the Directive

2. Government of India, Planning Commission: *The First Five Year Plan*, 1952, Pp. 42-43.
3. Quoted from Industrial Policy Resolution dated 30th April, 1956.

Principles of State Policy, which 'were given a more precise direction when Parliament accepted in December, 1954, the socialist pattern of society as the objective of social and economic policy'. The Industrial Policy Resolution brought in, *inter alia*, a three-fold classification of Industries, namely, those reserved for the public sector, those where the public sector was to play an increasing role, and those open to the private sector. The Industrial Policy Resolution also emphasised the role of the co-operative sector, and of the growth of the small scale sector, in an attempt to bring about socialist pattern of society, in the framework of a 'mixed economy'. Industrial licensing policy has generally followed the framework of policy outlined in the Industrial Policy Resolution of 1956.

2.3.3 Numerous amendments to the IDR Act have been introduced over the years, and numerous changes made in the application of the industrial licensing policy since its inception in 1952. Apart from formal amendments to the Act, the scope and coverage of the licensing provisions of the Act have been partially stayed (or moderated) or intensified from time to time, by Government Notification, the latest exemptions from licensing provisions of the Act having been approved only very recently, following the report of an inter-Ministerial Committee.[4]

2.3.4 From the early sixties, voices have been raised to state that the development plans as implemented by Government were leading to an accentuation of the inequalities in income and wealth. The Committee on Distribution of Income and Levels of Living[5] which was set up under the Chairmanship of Prof. P.C. Mahalanobis in 1960 by the Planning Commission, reported in February 1964, and pointed to the increasing disparity in the distribution of income and wealth in the economy. The Monopolies Inquiry Commission Report[6] submitted to Government in October 1965, found that there had been a growth of monopolistic control over industry, as a result of the functioning of the industrial licensing system, and recommended separate legislation to control monopolies. Meanwhile, R.K. Hazari[7] found that the licensing system had actually led to a disproportionate growth of the assets of a few Large Houses. The action taken on these proposals falls into a study of the next period, namely, mid 1966 to end 1975.

2.3.5 As far as other controls - mainly of a 'corrective' nature - on industrial products are concerned, the outbreak of the Korean war in June 1950, spurred a boom in prices of industrial raw materials, as a result of which measures to tighten price control were introduced, and the Essential Supplies (Temporary Powers) Act was amended to make the punishment in case of hoarding more severe. By a resolution of Parliament in August 1950, Government assumed powers to legislature in respect of two subjects falling in the State List, namely, trade and commerce; and production, supply and distribution of goods. In September 1950, the Supply and Prices of Goods Ordinance was promulgated (replaced by an Act in December 1950) empowering the Government to fix maximum prices and the maximum quantities of certain commodities which could be sold or held. The items covered included both intermediate goods like non-ferrous metals, raw rubber, sulphur, caustic soda, and soda ash, and a number of consumer goods like bicycles, bicycle tyres and tubes, milk food and electric bulbs. In order to achieve a greater measure of success in regard to sugar control, Government brought within the purview of control the prices, production and distribution of gur and khandsari. Further, transactions in raw cotton and raw jute were regulated. The Cotton Control Order of September 1950, and the Raw Jute (Central Jute Board and Miscellaneous Provisions) Ordinance of December 1950 prohibited free purchase of cotton and jute, respectively, by the mills, to cover their requirements. In December 1950, Government took powers to levy export duties on commodities, as and when necessary, to meet the situation arising from the Korean war boom.

2.3.6 That the policies were essentially short

4. *Report of the Study Group on Industrial Regulations and Procedures*, Ministry of Industry, February, 1978.
5. Government of India, *Report of the Committee on Distribution of Income and Levels of Living*, 1964.
6. Government of India, *Report of the Monopolies Inquiry Commission*, 1966.
7. R.K. Hazari: *The Corporate Private Sector: Concentration, Ownership and Control*, 1966.

term, and intended to meet emergent situations, is seen from the fact that in December 1950, Government decided to abolish the statutory rationing of sugar. Controls on paper (both in regard to production and prices) were also withdrawn. The control over newsprint, withdrawn in 1949, was however re-instituted in early 1951.

2.3.7 The period upto the mid-sixties was marked by fairly free and easy industrial licensing, and led - in retrospect - to significant capacity being created for a wide variety of industries, in particular, many capital goods industries, though the system also did lead to a concentration of economic power in a few hands.

2.3.8 Insofar as other essential articles of consumption are concerned, following a slackening of demand and rapid decline in prices after the post Korean war boom was over, the control over cotton textiles under the Cotton Textiles (Control) Order of 1948 was relaxed. The percentage of coarse and medium cloth which mills were to be allowed to sell freely was raised and Government removed, in stages, the price control on most of the popular varieties of cloth, though control over yarn prices was maintained. The licensing system for cotton trading was simplified. Government also removed the control over the prices, movement, and distribution of sugar for the 1952-53 sugar season. Distribution control over certain categories of iron and steel was removed. While controls were also lifted from prices of a number of consumer goods, certain new measures of control were introduced. In December, 1952, the production of dhoties by mills was pegged in the interest of the handloom sector. This marked the beginning of the policy of reservation of certain fields of production for the decentralised sector in the interest of employment.

2.3.9 As far as commodity controls are concerned - in the matter of industrial products - a major power taken by Government - on the lines of the Essential Supplies (Temporary Powers) Ordinance issued in 1946 under the Defence of India Rules, 1939 - was the Essential Commodities Act in 1955, when the validity of the Essential Supplies (Temporary Powers) Act of 1946 finally expired. Originally, ten commodities and commodity groups were declared as 'essential', to which an eleventh item was added later. The Government assumed wide powers of control over the production, supply, distribution and stockholding of any item declared as essential, as also powers to declare any other item - not listed in the Act - as 'essential', for the purposes of control over any aspect indicated above.

2.3.10 With a view to encouraging decentralisation of industries and reducing disparities in levels of development between different regions, Government introduced in June 1956, uniform prices for all controlled varieties of steel as well as pig iron at all rail-head destinations in the country. The principle of pooled freight, and therefore, of equalisation of consumer prices (at rail-heads) throughout the country was also accepted for the cement industry, and uniform prices of cement were announced in July 1956. This was a major new development in regard to supplies of basic raw materials leading to the equalisation of prices of these important inputs for industry throughout the country, and making for a new spurt of growth of such industries away from the centres of production of steel and cement. State trading was also introduced in the economy formally, with the constitution of the State Trading Corporation (STC) in May 1956. Although food import had, even earlier, been only permitted on Government account, the emergence of the STC broadened the area of trade by Government agencies. Around 1856-57, with increased Plan outlay and with growing imbalance between supply and demand, there started a general increase in prices of many essential items like coal, pig iron, steel and cement.

2.3.11 There was an accentuation of all controls in the early sixties, after the Chinese aggression in October 1962. At that time, priority was naturally given to the problem of controlling prices, because considerable funds had to be allocated to higher expenditure on defence while maintaining the tempo of development expenditure. Government adopted a series of measures and, in particular, additional powers were taken to control the stocks of commodities and to regulate their distribution and prices.

2.3.12 The Essential Articles (Price Control) Order, 1963, was issued under the Defence of India Rules, with a view to curbing profiteering through unwarranted price increases. The specific items in which effort to control industrial product prices was to be concentrated were cotton textiles, woolen fabrics, drugs, and medicines. The stamping of prices on cloth was re-instituted, and selling margins at the wholesale and retail levels laid down. The production of coarse, and medium varieties of cloth was to be stepped up; and it was laid down that at least 10 per cent of the output of mill cloth would be distributed through consumer stores and fair price shops, at reasonable prices. Powers were also taken under the Woollen Textiles (Production and Distribution Control) Order, 1962, to control the production of wool tops, woolen cloth and woolen yarn. Permission of Textile Commissioner was also required for the acquisition or installation of any power operated spindle for the manufacture of woolen yarn.

2.3.13 Under the Essential Articles (Price Control) Order, maximum increases permissible in prices of certain consumer articles like kerosene, vanaspati, washing soap, and printing and writing paper were also laid down, the dealers being required to display their prices. Changes were also introduced in the matter of sugar prices and supplies, and of cotton prices. In regard to the former, the Sugar (Control) Order of 1963 empowered the Centre not only to fix prices of sugar but also to fix quotas for the States and to regulate movements of sugar. In regard to raw cotton, various restrictions were placed from October 1962 on the movement of cotton, on the purchases (and stocks) of cotton (above past consumption levels), and on forward trading in unginned cotton (kapas).

2.4 Controls Over Foodgrains and Other Agricultural Items, 1951-66

2.4.1 Rule 81(2) under the DIR (issued under the Defence of India Act of 1939), had given the Central Government wide powers to regulate the production, transport, storage and distribution of any item to be specified. As noted earlier, with a short break in 1947-48, these controls had continued, and these powers were widely used for controlling the movement and distribution of foodgrains as well as the purchase, sale and stocking of agricultural raw materials like cotton and jute.

2.4.2 The supply of food to the urban population at reasonable prices has been one of the major objectives of public policy, ever since the Second World War until today. As noted earlier, the decontrol of food (and other) prices in 1947 did not last long. In fact, the problem posed by partition of the country, and the famine conditions in 1951, led to a gradual enlargement of the public distribution system mainly in urban areas, and to increased import of foodgrains, the sale of which to the States was subsidised by the Centre. In 1952, the Foodgrains (Licensing and Procurement) Order was passed, and 'fair-price shops' were opened to prevent an undue rise in prices consequent on the relaxation of controls.

2.4.3 The year 1953-54 saw a lively debate in regard to food controls and rationing. Following a satisfactory monsoon, there was pressure for decontrol of foodgrains, while there was another school of thought in favour of price control, rationing and buffer stocking, as an instrument of planning. Eventually, prices were decontrolled, and there was considerable dehoarding by the farm population, leading to a decline in food prices (instead of an increase as had been feared earlier). The division of the country into 'food zones' (for purposes of movement of wheat) was given up. However, the trend of prices was soon reversed, and food prices started rising from the middle of 1955. The Foodgrains Enquiry Committee recommended in 1957, the need for price stabilisation, controls over trade of foodgrains and its 'progressive socialisation'. As a result, there was a return to controls over food supply, and four different types of control measures were adopted by Government from time to time, to keep food prices and distribution under control:

(i) movement restrictions;
(ii) price control;
(iii) procurement, licensing and distribution control; and
(iv) miscellaneous orders, e.g., regarding stocking, etc.

2.4.4 The controls were buttressed by large scale import of food on Government account, so as to meet the requirement of public distribution system. The two measures promulgated in 1957 were (i) Inter-Zonal Wheat Movement Control Order, and (ii) Rice (Southern Zone) Movement Control Order. The basic objectives of movement control were-

(a) to segregate the surplus and the deficit zones with a view to help procurement operations in the surplus areas, and also to prevent some of the metropolitan areas (like Bombay ans Calcutta) with a concentration of purchasing power from sucking away a disproportionate part of the marketable surplus, so as to ensure its equitable distribution; and
(b) to rationalise and minimise transport and avoid cross movement.

2.4.5 The control over foodgrains was relaxed significantly in the early sixties with the negotiation of a long term PL 480 Agreement with the USA towards the end of 1959 for the supply of 18 million tonnes of foodgrains over a period of years, for underwriting the Second Plan and for building up a buffer stock. The Agreement did succeed in holding back prices of wheat in particular, but in the context of a general increase in prices which commenced after the Chinese attack of October 1962, this also encouraged complacency in regard to long term food supplies, and also discouraged the production of food crops for market sales.

2.5 Control Over Trade and Exchange, 1951-66

2.5.1 The war-time controls on trade and exchange got gradually relaxed after 1947, though restrictions on imports had to be continued immediately after the war owing to the sterling balances of the country being blocked and subjected to controlled releases by the U.K. Government. In early fifties, there was progressive relaxation of import control, though the control system was retained in order to use available foreign exchange resources for development.

2.5.2 The foreign exchange crisis in 1957-58, led to the abolition of Open General Licence for import in July 1957, to a tightening of the import trade control policy, and the linking of imports to external credits as a result of tied aid. A scheme of compulsory exports was also introduced, commencing with sugar, in June 1958. It is from around this time that import control started being used extensively for the purpose of promoting import substitution.

2.5.3 One of the offshoots of this policy, tried particularly from 1959-60 until the devaluation of the rupee in June 1966, was the linking of import licensing to export performance. This policy developed in scope, content, and importance as the years passed. Import policy at this time assumed increasing tightness, and the critical foreign exchange position gave a direct stimulus to the policy of import substitution, the policy being to increasingly ban or restrict imports where indigenous substitutes were, or were claimed to be available. Though there was a machinery for review of such claims by way of interdepartmental committees, as well as detailed scrutiny by the then 'Development Wing' (currently the Directorate General of Technical Development of the Ministry of Industry), the general atmosphere within the Government as well as in the country was to give the benefit of doubt to claimants of indigenous production capacity rather than to the users of imported components and other materials.

2.5.4 It was also around this time that the focus of attention on the work of the Tariff Commission - which had been constituted in 1952, in lieu of the Tariff Board set up in 1945 - shifted gradually from studies and recommendations as to tariff protection required by industry, to cost/price enquiries directed at fixing appropriate ex-factory prices of industrial products.[8]

2.5.5 Another major new development in the trade and exchange control system around this time arose from the growing importance of trade with rupee payment area countries commencing with the first Rupee Payments Agreement with the USSR in November 1958 and the use, increasingly, of tied import licensing (either tied to a specified bilateral credit or to purchase from countries with bilateral trade and payment agreements). The institution of tied licensing gradually deteriorated to a blanket earmarking of a part of the import entitlement of each 'Actual User' for purchase of a certain part of his requirements from the rupee payment area countries, or linked to a specified credit tied to a donor country. The system developed in a somewhat arbitrary manner in that the percentage of import tied to different sources changed from time to time depending on the availability of credits without reference to whether the required imports were at all available in the country or countries specified in the import licences, or if available, at what price. For instance, for several years, a certain specified percentage of the value of import licences issued in favour of all small scale industries was tied to purchases from the rupee payment area countries, and another part was tied to purchases from the U.K. (under the U.K. credit). Thus apart from the detailed scrutiny of import applications imposed on the DGTD and other sponsoring authorities - in regard to the determination of the import entitlement of each manufacturer - there gradually evolved an arbitrary and *ad hoc* control in regard to the source of imports which began to affect the efficiency and cost of production of the industrial sector.

2.5.6 The step-up of the defence efforts commencing from 1963 - which made for an additional draft on the Central Government budget for 1963-64 of more than two per cent of the national product - raising the amount of net defence expenditure from Rs 437 crore in 1962-63 to Rs 729 crore in 1963-64, against a national income of Rs 14,700 crore in 1962-63, without any reduction in the level of development expenditure - led to the commencement of an inflationary spiral, and the emergence of foreign exchange difficulties. Indian exports started becoming increasingly uncompetitive in the world markets.

2.5.7 Exchange control was also significantly tightened during 1962-63, foreign travel being permitted only on the basis of exchange permits issued by the Reserve Bank of India from July 1962. In December 1962, restrictions on Indian nationals holding assets abroad were tightened.

2.5.8 Between 1962-63 and 1965-66, the balance of payments came under increasing strain as prices started moving up. In November 1965, the National Defence Remittance Scheme was introduced, with facility to convert part of inward remittances into import entitlements which were saleable. These developments made for new complexities in the system of import licensing, and transfer of import entitlements (against exports).

2.5.9 A major landmark in the evaluation of control policy was Gold Control initiated in January 1963 under the Defence of India Rules, which purported to ban the manufacture of new gold ornaments of higher than 14 carat gold content. The objectives of gold control were, first, to wean people away from the gold habit, and secondly, to check smuggling of gold. It was hoped that by this means, not only would the savings of the people get directed to more productive channels, but the smuggling of gold into the country which constituted a major drain on the balance of payments, would also be brought under control. Later in the year, in September 1963, an amendment was introduced to permit individual goldsmiths to manufacture gold ornaments of higher than 14 carat purity, only so long as they did so by melting down existing ornaments of higher than 14 carat gold content. It

8. This is only to highlight the shift in emphasis in the work of the Tariff Commission. The Tariff Commission had been entrusted with price enquiries even earlier, and continued to be entrusted with studies pertaining to the level of tariff justified on grounds of protection of infant industries. But with increasing quantitative import restrictions the role of tariffs as a protective mechanism was gradually eroded, and quantitative import restrictions became a major policy instrument for encouraging indigenous manufacture of industrial products. In 1973, the Tariff Commission was formally abolished and its tasks (of price enquiries) concentrated in the Bureau of Industrial Costs and Prices (BICP) set up in 1970.

may be added that the substance of gold control was negated by the amendment introduced in September 1963.

2.6 Other Controls upto the Mid-sixties

2.6.1 The passing of the Indian Companies Act of 1956 was a major step purporting to control the activities and functioning of the corporate sector. The Act has been amended from time to time, but even in its original form, it was fairly comprehensive and laid down various norms governing the functioning of all companies, and required permission to be taken from the Company Law Board - which was set up in the Department of Company Affairs - in regard to matters such as the appointment of whole time Directors. The Government also acquired powers to investigate into the affairs of companies under certain circumstances, and to appoint Government directors in the interest of share holders, as and when necessary.

2.7 Controls Over Industry Since Mid-sixties

2.7.1 With the devaluation of the rupee in June 1966, a number of changes were introduced in the control system. With a massive inflow of external assistance, import policy was significantly liberalised. There was also considerable liberalisation of industrial licensing policy, to permit fuller utilisation of capacity already created. Several industries were 'delicensed' - in the sense that the licensing requirements for creation of new capacity were kept in abeyance - and higher installed capacity in excess of licensed capacity was regularised. Facility of diversification was also freely given to a number of engineering industries. The import entitlements for actual users were significantly stepped up, so as to achieve higher industrial production. A policy of removal of price and distribution controls on industrial products was initiated and, in view of increases in the cost of production, price increases were allowed for a number of industries.

2.7.2 Control and regulation, however, kept coming back to meet the exigencies of the situation and to meet specific supply bottlenecks. Even though the item relates to an agricultural raw material, it is relevant here to note that in October-November 1966, a ban was imposed on the movement of indigenous cotton (except the exportable variety of short staple Bengali Deshi cotton). Mills were also ordered not to keep more than two months stocks of cotton at any time, and to observe, from December 1966, an extra holiday every week, in order to ensure adequate supply of cotton to keep all the mills going. It was also decided to requisition cotton for supplying mills unable to get it at ceiling prices. There was also partial decontrol of sugar prices - following a sharp reduction in the area and output of cane, and of cane available to sugar factories- and for the 1967-68 sugar year, it was announced that only 60 per cent of the mill output of sugar would be subject to price and distribution control. This was the beginning of the system of dual pricing of sugar: 'levy' sugar to be sold at the direction of Government at a stipulated price and supplied through ration shops, with the balance of sugar being allowed to be sold freely by the factories at market price.

2.7.3 The process of liberalisation of industrial controls continued for some items, and reversed for other, depending on the supply situation. In July, 1967, price and distribution controls on coal (except metallurgical coal required by the steel plants) were removed. In May 1968, paper prices were decontrolled. The percentage of cloth production outside the purview of control was raised from 60 to 75. On the other hand, control over the price and distribution of cement was reintroduced in January 1968. Prices of raw rubber were fixed on the basis of the recommendations of the Tariff Commission.

2.7.4 Meanwhile, as noted earlier in para 2.3.4, a debate had ensued after the report of the Monopolies Commission and the Hazari report in 1966, in regard to the need to control the growth of monopoly and the concentration of economic power in a few hands. The Report of the Industrial Licensing Policy Enquiry Committee (ILPIC)[9] in July 1969 pointed to not only several defects of licensing policy, e.g., the pre-emption of capacity by Large Houses but also to the disproportionate

9. Government of India: *Report of the Industrial Licensing Policy Inquiry Committee*, 1969.

amount of financial assistance from the public financial institutions which had gone to these Large Houses. Meanwhile, following the report of the Monopolies Commission, the Monopolies and Restrictive Trade Practices Act was passed in 1969; and following the ILPIC report, a number of restrictions were placed on the Large Houses, in industrial licensing policy announced in February 1970.

2.7.5 The early seventies saw a tightening of various control measures. Apart from the debate concerning monopolies, there was a definite shift in economic policy towards Government acquiring 'commanding heights' in the economy. Reference has already been made to the nationalisation of 14 major commercial banks in the country. Following this, in 1972, the management of 214 coking coal mines and 12 coke oven plants was taken over by Government, and handed over to the newly constituted Bharat Coking Coal Company. This was followed by the take-over and subsequent nationalisation of all coal mines, including non coking coal mines. Meanwhile, as far as industrial licensing is concerned, the Industrial Licensing Policy Statement of February 1973 clarified policy in this regard, insofar as Large Houses and foreign firms were concerned, both these being allowed to participate in a limited range of heavy-investment or sophisticated industries, listed in Appendix I to the Policy Statement.

2.7.6 A major administrative innovation and simplification introduced at this time was the setting up of the Secretariat for Industrial Approvals (SIA) in November 1973, which sought:

(a) the centralisation of all approvals - for industrial licenses, capital goods import licenses, and foreign collaboration terms under the SIA; and
(b) the laying down of strict time limits for different authorities for commenting on the applications, the process being made simultaneous rather than sequential.

2.7.7 Partly as a result of the above, and partly by increased exemptions granted in the matter of investment below a certain value for purposes of industrial licensing, delays in consideration of applications for industrial licenses were significantly reduced.

2.7.8 Around this time, a large number of industries were also specifically reserved for development in the Small Scale Sector. Industrial licensing policy has continued to be governed since then substantially by the policies announced in February 1973, except that the emphasis on small scale, cottage and village industry production has been further accentuated in recent years, with an increasing number of industries being reserved for production in the decentralised sector.

2.7.9 Some of the control measures adopted during this period showed the lack of adequate preparation. For example, Government assumed control over the distribution of cotton yarn in February 1973, in order to ensure the availability of yarn at reasonable prices to handloom weavers, but the scheme had to be given up in a couple of months, in April 1973, as the scheme did not work.

2.8 Control Over Foodgrains Since the Mid-sixties

2.8.1 While there was a liberalisation of controls generally after the devaluation of the rupee in June 1966, the situation on the agricultural front was quite different. On the food front, the two successive drought years of 1965-66 and 1966-67 led to an intensification of controls. Substantial imports of wheat and other foodgrains were arranged against external aid, and foodgrains sold from the public distribution system reached a peak figure of 14 million tonnes in 1966, followed by 13 million tonnes in 1967. Movement restrictions were intensified, and statutory rationing as well as 'modified rationing' - i.e. distribution from fair price shops - was extended to cover an increasing segment of the population.

2.8.2 During 1967-68, with a favourable monsoon and increased foodgrains production, there was an impetus for the easing of restrictions on movements, which was extended to all coarse grains. The statutory price control on raw cotton, which had continued - except for a brief interruption in 1948 - since 1943, was lifted from September 1967, and restrictions on purchases and stock holding by the mills as well as on movement of cotton were removed. Only a 'support price' for cotton was announced.

2.8.3 From 1968-69, there was a gradual change in the general approach and atmosphere in regard to controls. In respect of agricultural products, control over movement got gradually relaxed with improved output, and emphasis was placed on procurement at more remunerative prices. The Agricultural Prices Commission had already been constituted in 1965, with a view to fixing minimum prices of agricultural products, and the focus of policy shifted gradually to the fixing of reasonable 'support' prices for agricultural products, on the basis of the recommendations of the APC. The other plank of policy was the build-up of adequate buffer stocks such as would ensure stability of supplies and of prices. The Cotton Corporation of India and Jute Corporation of India were constituted in September 1970 and April 1971, respectively, so as to build up a buffer stock of raw cotton and raw jute. It may be added, however, that as of writing, neither the Cotton Corporation nor the Jute Corporation has really achieved the objectives for which they were constituted.

2.8.4 The food situation continued to show fairly unstable conditions of supply. During 1970-71, the output of foodgrains reached what was then a record level of 108 million tonnes, and stocks of foodgrains with Government reached the then peak level of 8.6 million tonnes of July 1971. It is noteworthy that despite a policy decision in regard to the build-up of a buffer stock of foodgrains, Government found these food stocks to be burdensome. The *Economic Survey* for 1971-72 has this to say on the subject -

> 'Currently there are a number of problems ancillary to the increased production of foodgrains in the country. The requirement of storage and transport have increased to such an extent that considerable strain is placed on the existing machinery. The other *important aspect of increasing production of foodgrains impinges upon the monetary sector of the economy*, in as much as the demand for funds for procurement operations has increased sharply .... Equally important is the consequence of the likely increase in the burden of food subsidy on the Union Government's budget'.[10] (Our emphasis).

2.8.5 The anticipation of a sustained increase in foodgrains output were belied, and the production of foodgrains declined to 105 million tonnes in 1971-72, and further, to 97 million tonnes in 1972-73. When food prices started rising towards the close of 1971-72 the Food Corporation of India started, from January 1972, open market sales of wheat from its stock to contain prices. By mid 1972, however, this policy had to be abandoned. Prices kept increasing, and imports - at considerably higher than internal prices - had to be arranged, in order to meet the requirements of the public distribution system. It was at this time that a decision was taken to take-over the wholesale trade in wheat, which was to become operative from the next *rabi* season, i.e., form April 1973. The Food Corporation of India, the State Co-operative Marketing Federations and the State Food and Civil Supplies Departments were declared as the sole procurement agencies at the wholesale level. Inter-zonal movement of wheat was restricted, and the surplus and deficit wheat zones isolated, by the Wheat and Wheat Products (Movement Control) Order of 1973.

2.8.6 With the deterioration in the food supply situation in 1971-72 and more particularly in 1972-73, the machinery for rationing (both formal and informal) was strengthened. The number of fair price shops increased from 1.21 lakh in December 1971 to 1.86 lakh in December 1972.

2.8.7 The take-over of the wholesale trade in wheat never got off the ground, and Government monopoly in the procurement of rice, which had been talked of earlier, was not instituted. Monopoly procurement of wheat was abandoned for the 1974 *rabi* season.

10. Government of India, *Economic Survey, 1971-72*, Pp. 2-3.

2.9 Trade, Exchange and Other Controls Since Mid-sixties

2.9.1 The policy of import liberalisation introduced in June 1966 did not last very long, because import liberalisation failed to bring about any noticeable growth in overall industrial production, in the background of a recession in demand which stemmed from a steadily declining rate of public outlay under the Plan. From 1968-69 onwards an increasing number of products came under the total import ban in the interest of indigenous production. With domestic costs increasingly getting out of line as a result of this policy, the policy of subsidisation of exports again returned, the subsidies being given not only as cash compensatory support but also by way of import licences linked to export performance which carried a premium owing to their scarcity value, in a regime of tight import control.

2.9.2 The policy of import substitution in respect of manufactured articles was significantly intensified from around 1969 onwards, and a deliberate policy was adopted - in the matter of import licensing - in favour of a steady substitution of imported raw materials, components and spares by a reduction in the consumption of imported raw materials per unit of output. There was also a tightening up in the matter of the phased programme of indigenous manufacture to achieve greater indigenous content in the shortest possible time. At the same time, there commenced more rigorous scrutiny of all Capital Goods import applications to ensure that plant and equipment manufactured within the country was (were) not permitted to be imported. Simultaneously, exporting units were given priority in the matter of import licensing of raw materials, components and spares.

2.9.3 While the Minerals and Metals Trading Corporation - which had been separated from the STC in October 1963 - had already commenced exports of several minerals, the canalised export of specified minerals by the MMTC, was taken up as a matter of policy for the first time after October 1963. The policy of canalisation on import was to get increasingly intensified in the late sixties and early seventies. Numerous reasons were advanced for the increasing canalisation of imports ranging from the desire to check over-invoicing of imports and under-invoicing of exports, to take advantage of the economies of bulk import, to make imported raw materials available more freely to small scale industries, and to use the bargaining capacity arising from large imports for promoting exports of difficult items. In retrospect, while bulk imports did help in securing foreign exchange savings and stability of supplies for certain bulkable items, there were also complaints of uneconomic purchases being made, as also of irregular supply at high prices even to small scale units. The extensive canalisation of the import of raw materials, at times, of diverse qualities required by different producers (as, for instance, in the matter of alloy steel), as also the nominal canalisation of a number of items, like the exports of shoes, generally increased rather than reduced costs. Increasingly, the canalisation of foreign trade began to constitute a new form of control over industry and trade.

2.9.4 The rather extensive amendment of the Foreign Exchange Regulation Act (FERA) in June 1973 is another landmark in the regulation of the economy. The policy in regard to foreign investment had so far been governed by Prime Minister Nehru's statement on the subject, made in Parliament in November 1949. Guidelines had, of course, been issued from time to time, indicating, in the main, the direction in which the import of technology - also under strict scrutiny from the angles of need and of availability of indigenous technology - was to be allowed. In terms of FERA, the policy on foreign investments underwent a notable change. All existing foreign companies were required to apply, under FERA, for permission to continue in business, and were to be freshly screened with reference to priorities and extent of foreign ownership. Under FERA, no foreign firm was to be allowed to have more than 74 per cent foreign equity. This extent of foreign equity was to be permitted only to companies in the Appendix I industries, as per the Industrial Licensing Policy Statement of February 1973, or those which were engaged in export of their output. Firms substantially of such category or in acknowledged fields of sophisticated technology, were permitted to keep 51 per cent foreign equity. All the rest were required to dilute to not less than 60 per cent Indian ownership. At the same time, revised illustrative lists were circulated in regard to areas in which foreign technical knowledge and foreign collaboration were to be permitted, these lists having been drawn up with the assistance of the technical authorities, defining areas in which indigenous technological expertise had been generally deficient.

2.10 Controls Since the Mid-seventies

2.10.1 The scene on the 'controls' front has changed significantly since the mid-seventies. Before indicating the actual developments in regard to controls, the background of overall economic developments becomes relevant.

2.10.2 Three distinct developments in the mid-seventies had a profound effect on not only the control regime, but also on the popular approach to the control regime which had been in operation. These three developments were:

(a) The steep increase in all prices throughout the world, following the oil price hike of November 1973, resulted in a sharp escalation in the cost of new projects which, in a matter of few years, increased several-fold. This raised a major problem in regard to pricing of products of capital intensive industries, where the burden of capital cost is substantial part of the product cost. At the same time, as world inflation increased at a rate faster than the rise of prices in India, Indian exports became increasingly more competitive in the world market.

(b) The favourable monsoons from 1975-76 onwards, together with the results of measures adopted earlier to increase food output - through increased input of water, fertilisers and high yielding varieties of seeds - led to an unexpectedly large build-up in the buffer stock of foodgrains.

(c) The increasing inward remittances sent in by Indians going abroad, particularly for projects and other construction work in the oil-rich countries of the Middle-East, made for a sudden easing of the balance of payments situation, and led to an increase in the foreign exchange reserves of the country from Rs 611 crore at the end of March 1975 to Rs 5,082 crore at the end of January, 1979.

2.10.3 The other major development which occurred on the food front has been a fundamental change in the approach, from one of price control of agricultural products to one of price support and buffer stock operations. In respect of foodgrains, Government stocks suddenly increased from 4.9 million tonnes as of the end of June 1975 to 17.6 million tonnes at the end of June 1976. Currently, as of January 1979 food stocks are roughly of the same order, or marginally higher, and expected to increase substantially after 1979 *rabi* crop has been harvested. The control regime in foodgrains has therefore got readjusted to a regime of buffer stock operations. There has emerged, as a result, a debate on the size, extent, composition and location of buffer stocks, on who should pay for the cost of buffer stocking, and related issues. The off-take from the public distribution system had also declined, in spite of an increase in the theoretical 'coverage' of the system. Apart from Bombay, Calcutta and the Durgapur-Asansol industrial belt and also, in part, the State of Kerala, the importance of ration shops and fair price shops has come down sharply, these shops exerting what is essentially a moderating influence on private shops. Even in Kerala, there has been a substantial reduction in the offtake of foodgrains from the public distribution system. Notwithstanding the easy availability of foodgrains outside of fair price shops, however, the number of such shops has been on the increase, and the population covered by statutory rationing has also not declined. The supply of foodgrains from these shops at subsidised prices has also helped the urban working classes and others who have preferred to buy their food requirements from fair price shops rather than the open market.

2.10.4 A major development particularly from around 1975 or so, has been the significant change in the balance of payments outlook, with a rapid and sharp increase in foreign exchange reserves since 1976-77. There has as a result been a sea change in outlook on import policy. Import policy has been progressively liberalised, and the import procedures have also been drastically simplified, all import items not specifically banned or restricted being freely importable. In fact, the attempt now is to find suitable imports calculated to help the development effort without undue hurt to domestic production capability, rather than to find ways and means to curb imports. There has also been a general relaxation of exchange control, of travel regulations, and of procedures connected with exchange transactions.

2.10.5 Indeed, there has, since 1975, been under way of a steady effort to dismantle controls, and a large number of controls were removed during the past four years, namely, over 1975 to 1978. To give a few examples, during 1975, the 'informal' control over the distribution of indigenous copper and zinc was withdrawn; the Cement (Conservation and Regulation of Use) Order was rescinded; a number of clauses of the Iron and Steel (Control) Order were held in abeyance; and control on the movement of coke other than hard coke was withdrawn. In 1976, the control orders on the distribution and sale of cars and scooters were withdrawn (control being kept only on the sale of one make of scooters which was later withdrawn in January 1978). The Control Orders on viscose staple fibre and on prices of Synthetic Rubber were also withdrawn in 1976. In 1977, wheat and rice zones were abolished in April and September, respectively. The Cotton Textile (Export Control) Order of 1949 was also withdrawn. In December 1977, a new industrial policy was announced and in 1978, a new textile policy was also announced. Further, in 1978, the Refined Groundnut Oil (Regulation of Refining and Price) Control Order was rescinded and, more importantly, sugar was fully decontrolled in August 1978 when the Levy Sugar Supply (Control) Order was rescinded. The exemption limit for purposes of industrial licensing was raised from Rs 1 crore to Rs 3 crore. In 1979, the Order relating to stock holding limits of sugar and khandsari by recognised dealers, was withdrawn. There has been a reduction in the number of items 'canalised' for import, both 1977-78 and in 1978-79. However, a number of new controls have been introduced and a number of past controls have been modified.

2.10.6 Two further developments that may be noted in a study of the evolution of the control system are -

(a) The increasing emphasis being attached to organising a strong and wide network of public distribution. In this connection, an announcement has been made by the Government of India in early 1979 after a meeting with the Chief Ministers of all States, held on January 5, 1979, that the public distribution system would be strengthened so as to reach the benefits of supplies of essential commodities at reasonable prices to the people in all parts of the country, even in distant and far-flung areas, and also that the range of commodities to be sold from such fair price shops would be increased suitably so as to make the operation economically viable.

(b) There has also developed increasing administrative control over the price and distribution of many key products in lieu of statutory or formal control. For instance, even though there is no statutory control over the prices of coal and of steel - which, in the normal course, would be based on thorough going cost enquiries, normal for items proposed for price control - there is an unwritten bar to any increase in coal and steel prices as indeed in the price of any important item produced by a public sector enterprise, without formal approval of the Union Cabinet. There are other types of administrative control, and such a procedure is necessarily more arbitrary than formal price control based on independent cost investigations.

2.11 Selective Credit Control

2.11.1 The history of selective credit control is briefly indicated here for the entire period since Independence, as it could form an alternative to 'corrective' physical controls. The Reserve Bank of India has powers of regulation of bank credit for specific purposes - or selective credit control as it has come to be called - under the Banking Regulation Act of 1949. The need for such control was felt as a result of the speculative build-up in commodity markets, an experience shared by many other countries in the world.

2.11.2 There have generally been three stages in the evolution of selective credit control, as briefly indicated below:

(i) 1949-56: when the Reserve Bank did not exercise any formal powers but merely advised banks to adopt a cautious approach in their lending activities, as deemed necessary.

(ii) 1956-69: Selective credit control was formally introduced in May 1956, when banks were asked to increase the margin against credit limits for paddy and rice. Between 1956 and 1969, various types of selective credit control were extended to other foodgrains, sugar and gur, raw jute, jute goods, oilseeds and vegetable oils (including vanaspati), cotton and kapas (including cotton yarn), as also in respect of clean advances and advances against shares.

(iii) 1970 onwards: Until 1969, the instrument of selective credit control affected only the availability of credit, by way of minimum margins and ceilings on credit. A differentiation by way of the cost of credit was introduced in January 1970.

2.11.3 Selective credit controls have been directed mainly in the matter of stocking of agricultural produce, and have varied from time to time in accordance with seasonal changes and shortages/surpluses in supply. Briefly, while these control measures have had the effect of reducing bank advances for the items concerned, the controls cannot be said to have succeeded in regulating either prices or supplies, because of the play of large non-banking funds in the stocking of these commodities. The play of speculative forces in respect of items subject to selective credit control has revealed the strength of the 'parallel economy' in the country, and has, *inter alia*, brought out the futility of attempting piecemeal controls without a package of measures calculated to bring a balance between supply and demand.

2.12 Subsidies

2.12.1 Subsidies have a long history. Drought and famine relief, and *taccavi* loans to farmers (on concessional terms) as well as relief in land revenue in case of crop failure have been a traditional feature of the Indian revenue system. A major development in the programme of subsidisation was the grant of relief and rehabilitation finance for refugee resettlement after partition of the country in 1947. Subsidised industrial housing was started with the initiation of the Five Year Plans. The growth of subsidies other than these two historical forms of subsidy is briefly indicated below.

2.12.2 Subsidies can take different forms. One could distinguish between open or overt subsidies paid directly to the beneficiaries; and covert subsidisation, e.g., by way of a calculated loss incurred in providing a commodity or a service. A common form of such covert subsidisation is the loss incurred by the transport authorities on suburban and urban passenger transport respectively. One could also distinguish between subsidies met out of the exchequer directly, and subsidies which are paid by one part of the community to another, without any burden on the fiscal system, e.g., through a dual price policy. Thirdly, tax concessions or concessional interest rates involve a subsidy for the beneficiaries of the concessions. The former involves a budgetary subsidy, whereas the latter is only sometimes financed out of the budget. The usual method of granting an interest subsidy is cross subsidisation of one set of borrowers by other borrowers, who are required to pay a higher rate of interest.

2.12.3 The Committee is concerned essentially with overt subsidies which involve a burden on the public exchequer. To that extent, the Committee's study of subsidies would relate to those which are of the nature of 'negative taxes'. Where there is a cross subsidisation of one section of the community by another, e.g. through the dual price system, there are no budgetary implications.

2.12.4 Even though the scheme of differential rate of interest (DRI) does not always involve a budgetary outgo, the supply of concessional finance to certain sectors is buttressed by a budgetary subsidy to the lending agency. The DRI scheme thus becomes relevant from the point of view of the Committee's study.

2.12.5 Fiscal incentives to some producers - by way of devices like the tax holiday for new investment, the development rebate/investment allowance, special deductions in the case of companies engaged in 'priority industries', and capital subsidies for locating industrial units in notified backward areas - have been given from time to time. The tax holiday scheme was first introduced in 1949. The intention was to enable new undertakings to improve their net profitability in the initial years after start-up. A development rebate was introduced for all new industrial undertakings in 1955-56, though later the development rebate/investment allowance was limited to a more selective group of industries defined as 'priority industries'. The subsidisation of khadi commenced in 1954-55 and has been extended later, though to a smaller extent, to handloom and to a few selected village industries. The National Small Industries Corporation started a 'hire purchase' scheme at a concessional rate of interest met out of the budget, from May 1970. A scheme of price preference in Government purchases for small scale industries, at the rate of 15 per cent, was started in 1956-57. The facility of a capital grant to industries set up in notified backward areas - at 15 per cent upto a maximum grant of Rs 15 lakh, was initiated (through a somewhat modified form) in August 1971.

2.12.6 A few subsidies have grown in size and importance lately, so much as that only three of them, namely, food subsidies (at Rs 560 crore), subsidies on fertilisers (at Rs 448 crore) and subsidies on exports (at Rs 335 crore), today account for some 70 per cent of the aggregate budgetary subsidies in 1979-80 (Budget Estimate) (B.E.)

2.12.7 Although food subsidies were first given from as far back as 1950-51, when the Centre supplied imported foodgrains to the States at a concessional price, food subsidies have really grown in magnitude from the early 1970s. As late as 1971-72, the total food subsidy paid out of the Central budget was no more than Rs 47 crore. By 1978-79, food subsidy had grown more than 10 times to Rs 570 crore (Revised Estimate) (R.E.).

2.12.8 Fertiliser subsidy - as a direct outgo from the budget - commenced only from 1976-77, even though imported fertilisers were subsidised earlier by the pooling of prices of such fertilisers with indigenously manufactured fertilisers, the controlled price of which had been kept low. As of today, there are four components of the fertiliser subsidy; on indigenously produced nitrogenous fertilisers, indigenously produced phosphatic fertilisers, imported fertilisers, and on the freight on fertilisers, the retail price of which is kept uniform throughout the country.

2.12.9 The subsidisation of export has a somewhat long and complex history. The scheme of the tying of import licences with exports, which commenced in the late 1050s and early 1960s, did not involve a direct budgetary outgo, but involved a cross subsidisation by manufacturers requiring imported raw materials, of exporters who were granted import licences in excess of their own requirements. The scheme was given up after the devaluation of the rupee in June 1966. However, even though devaluation was intended to correct the imbalance in domestic costs arising from an artificially high rate of exchange, very soon export incentives in a direct form had to be re-introduced in order to encourage the export of new products, particularly of manufactured items and engineering goods, as also to take note of the disadvantage in freight rates on exports as compared to freight rates from other countries of the world. Currently, exporters have the following facilities, though not all of them can be deemed to be subsidised; drawback of duty paid by exporters on materials used in export production; cash compensatory support given to various items of export at a percentage of the f.o.b. value of exports; 'import replenishment' licences in respect of imported inputs required for export production; 'export packing credit' at a concessional rate; support in lieu of high freight rates incurred; and a 133.5 per cent deduction for tax purposes in respect of promotional expenditures incurred for export.

2.12.10 Apart from the three major subsidies, namely, on food, fertilisers and export, there are a large number of other subsidies given from the budget. As would be seen later, in Chapter 11 on Subsidies, not all these payments are really of the nature of subsidies. Equally, there are a number of other payments which are really of the nature of subsidies, but are not shown as such, and are hidden under various other entries in the budget. In any case, losses of public sector undertakings - incurred as a part of deliberate policy to keep down prices of essential items - are a covert subsidy, and are not recorded as subsidies in the budget, but shown as loans to the undertakings.

2.12.11 The interest subsidy arising from losses of public sector undertakings dates back to early years of the establishment of public sector enterprise in certain key and basic industries. Where the losses of these undertakings are covered up by budgetary loans, most of these undertakings are understandably not able to pay the interest on such loans. The interest on these loans is given to these undertakings as a subsidy.

2.12.12 Apart from the losses incurred by some of the major undertakings of the Government, the power rates of State Electricity Boards have traditionally involved a subsidisation of the consumers through a system of electricity tariffs which has not met the full cost of generation and transmission of electricity, for most consumers. There has also been a subsidy involved in the provision of irrigation water, in the supply of milk to urban consumers by State operated dairy farms, and in the provision of urban transportation.

2.12.13 Apart from the above, both the Central Government and the States provide additional subsidies to manufacturers for setting up new industrial undertakings, the former, in backward areas, and the latter as a promotional measure. Expenditure undertaken for the creation of infrastructure facilities through industrial estates can, of course, be looked at as developmental outlay; but in addition to concessional rent and other facilities for factory sheds, etc., there have been numerous other tax and other concessions, particularly by way of remission of the sales tax by a long term (usually, 18 years) loan at a highly concessional rate of interest to new undertakings equal to the sales tax payable by them.

2.12.14 Of late, apart from the subsidy provided to backward areas, by way of a capital grant to new units in notified backward areas, the Government of India has also evolved a scheme for a transport subsidy to hilly areas. Certain types of transport - as for instance rail-cum-sea movement of coal, or shipping to the Andaman and Nicobar islands - have for long enjoyed a subsidy. Of late, the transport subsidy has been extended to transportation of certain items like cement, to all district headquarters not served by the Railways, and of fertilisers.

2.12.15 Shipping companies have also been granted a budgetary subsidy in respect of interest on the acquisition of ships - on commercial deferred payments terms - from abroad.

2.12.16 A recent example of an important subsidy given not out of the public exchequer but through the financial institutions is the Soft Loan Scheme of finance introduced for the rehabilitation, modernisation and diversification of five important large scale industries, namely, cotton textiles, jute, sugar, cement and certain selected engineering industries. The scheme was initiated in 1976. Initially, the funds so provided by the IDBI were supposed to be refinanced by the Government of India by the grant of concessional funds, but subsequently, the scheme became part of the total programme of lending by the three major term lending institutions, namely, IDBI, the ICICI and the IFCI.

2.12.17 Even prior to this, following the report of a committee on Differential Interest Rates[11] in 1971, a scheme of supply of loans by commercial banks at concessional interest rates to vulnerable sections of the population, was drawn up. Under the DRI scheme as it was called, the nationalised banks have been advancing funds to the economically weaker sections of the population at 4 per cent interest. However, until very recently, the banks were lending upto a maximum of 0.5 per cent of their total advances at this interest under the DRI scheme, and the banks have been requested only in the last few months to raise the percentage of such loans to 1 per cent of their

11. *Report of the Committee on Differential Interest Rates*: Reserve Bank of India, 1971.

total advances.

2.12.18 As noted earlier, there are a number of budgetary subsidies which are not so treated in the budget, but are treated as part of developmental outlay. Such expenditures first commenced with the budget for 1969-70. Of late, there has been an increase in such outlay, under various rural development programmes - all covered in the 1979-80 budget under the Integrated Rural Development Scheme - encompassing the grants to the Small Farmers Development Agency (SFDA), the Marginal Farmers and Agricultural Labourers Programme (MFAL), the Drought Prone Areas Programme (DPAP), and extending also to tribal, hilly areas, backward classes, etc. This evinces a new thrust in public policy, directing subsidies to the really vulnerable sections of the population.

CHAPTER 11

SUBSIDIES

11.1 Introduction

11.1.1 The subsidies given by the Centre have assumed considerable importance of late. Subsidies have increased from less than Rs 100 crore in 1971-72 to more than Rs 1,712 crore in 1979-80 (Budget Estimate).[1] According to the Draft Plan[2] overt budgetary subsidies during the Plan period (1978-83) are likely to be as much as Rs 7,399 crore, or say Rs 7,400 crore. At that level, these would be 57 per cent of the estimated amount of additional resources to be mobilised (at Rs 13,000 crore) during the Plan. There are also many implicit subsidies given in one form or another at the production, pricing and distribution stages to various public sector undertakings and public utilities. The latter are particularly important for the States, as the covert subsidy granted in the operation of public utilities like electricity, irrigation water, urban transport and urban milk supply scheme is substantial.

11.1.2 The approach of the Committee to the problem of subsidies has already been indicated in Chapter 4 on Approach. There is need for a thorough review periodically of the costs and benefits of all subsidies, since they have a tendency to be sticky, and also to snowball. In general, subsidies should be given to support low-income consumption, small and marginal rural production and labour intensive small unit, industrial production. Subsidies which do not serve these purposes, should be phased out.

11.1.3 Since subsidies are essentially a form of negative tax, they can affect both the direction and level of consumption and investment in a significant way. In a developing economy, where the market system has not yet developed properly, and where the distribution of income is extremely uneven and skewed, the forces of supply and demand cannot be allowed to operate unfettered. In this background, subsidies are a powerful instrument in the armoury of the Government for exercising control over the functioning of the economy.

11.1.4 The greatest advantage of subsidies lies in the tangibility of the costs as well as the measurability of the impact, which makes these superior to other instruments of policy. The possibility of their misuse or sub-optimal use and their continuance indefinitely - as a result of the pressure of vested interests - are their greatest disadvantage. As a result, subsidies could generate complacency and inefficiency, and lead to a general raising of the cost structure.

11.1.5 The relevance of subsidies has to be seen in the light of their objectives, which are briefly the following:

(a) First. a subsidy could attempt to shift the allocation of resources along desired directions. For instance, an export subsidy would alter the 'effective exchange rate' in respect of the subsidised product, and thereby make the export activity more attractive *vis-a-vis* the domestic market. The benefit of such a subsidy has to be seen with reference to its cost.

1. This figure does not appear in the Budget as the total subsidy. There could be different interpretations in regard to different items being designated as subsidies though it has been argued later that a very substantial part of such payments is not of the nature of subsidy.

2. Draft Five Year Plan (1978-83); pp. 57-58.

(b) Secondly, one could subsidise the use of a particular input in the production process. The subsidy on fertilisers is an example. Apart from inducing greater use of fertilisers, a subsidy on fertilisers would also lead to an intersectoral income re-distribution.

(c) Thirdly, a subsidy may be given purely for reasons of the need to influence income distribution. This would include the cost of operating the public distribution system catering to the needs of low-income groups or the subsidy on certain varieties of edible oils and on controlled cloth. The need for such subsidies is generally recognised. The two fold problems here are, first, to ensure that the benefits of the subsidy accrue to the target group; and secondly, to avoid the subsidisation of inefficiency in the distribution system.

(d) Fourthly, a subsidy may be given in the interest of employment. This type of subsidy has been given in the past to maintain employment in the decentralised sector, and has been suggested in lieu of capital subsidies as a means promoting activity.

(e) Fifthly, the objective of price stabilisation and of stability of supply may also justify the grant of a subsidy. It would be seen later in Chapter 12 on Foodgrains that the cost of maintaining a buffer stock of foodgrains would involve a subsidy which has to be necessarily met from the budget. But then such a subsidy can provide both consumer protection against shortfalls in supply in the event of a failure of the monsoon, and also prevent a steep decline in the income of the farming community in years of bumper harvest, and thus stabilise the domestic market. It would also protect the interests of the weaker sections of society in years of scarcity.

(f) Sixthly, public sector enterprises have to meet a multiplicity of objectives which result in losses which have to be subsidised from the Government budget. These losses could of course emerge due to operational inefficiency; or they could arise due to a deliberate pricing policy adopted by the Government in order to keep down the prices of certain essential items to avoid a cumulative increase in prices. There are also instances of deliberate investment decisions in certain areas, for strategic reasons, in order to ensure a minimum supply of a strategic product. Again, certain subsidies, e.g., losses in respect of irrigation water supplies to farmers, or rates for urban or suburban transport, may reflect a conscious decision to subsidise the users of these public utilities. While covert subsidisation may be justifiable in some cases, it is important to -

(i) realise that an unrealistic pricing policy implies a subsidy to the consumers of the product; and

(ii) keep track of the beneficiaries of such subsidies and the costs of such subsidies.

(g) Seventhly, owing to the existing disparities between resource allocation and infrastructure facilities among different regions, a subsidy could be (and has in the past been) given to encourage the development of backward regions. This takes note of the reality that resources (particularly labour), are not perfectly mobile, and, therefore, the Government has to induce the flow of capital and other resources into these regions. While such subsidies have been traditionally given on the investment undertaken in backward areas, an alternative way to subsidise new forms of economic activity in backward areas would be to relate the subsidy payment to employment generated. Price equalisation for key items throughout the country involves a similar subsidy, though it does not necessarily involve any outgo from the Government budget.

(h) Finally, subsidies could also be disbursed with a view to provide greater equality of opportunities, for the development of certain backward communities or classes of people (such as Scheduled Castes/Scheduled Tribes).

11.1.6 The provision of subsidies raises several important issues, e.g., to what extent the subsidies actually reach the ultimate beneficiaries; how these are related to various forms of control and regulations; what the 'linkages' in the disbursement of these subsidies are; and what factors, if any, reduce their effectiveness.

11.1.7 Controls themselves imply 'indirect' subsidies to certain sectors or sections of the population. For instance, investment and production controls tend to confer a near monopolistic position to existing producers, while price control provides a subsidy to the consumers lucky enough to get the product at controlled prices. While the effects of direct subsidies are easy to identify, the effects of indirect or implicit subsidies (arising from controls) cannot always be identified.

11.2 Level of Extant Subsidies

11.2.1 Annex 11.1 (not printed here) presents data on the important Central Government subsidies from 1971-72 to 1979-80 (B.E.). Annex 11.2 (not printed here) presents detailed figures of subsidies - of Rs 4 lakh and above each - as per the Central Government budget, for the years 1976-77 to 1979-80. It would be seen that subsidies have grown rapidly in recent years.

11.2.2 It would be seen that food subsidy, fertiliser subsidy, and cash assistance for export promotion together account for as much as Rs 1,343 crore, or as much as 70 per cent of the total budgetary subsidy of Rs 1,712 crore in 1979-80. Of these, the first and third, and interest subsidy to public sector undertakings have been a regular feature of budgetary subsidies during this decade. Since 1976-77, fertiliser subsidy has also assumed an important position, although the import of fertilisers has been subsidised in the past also. The subsidy on fertilisers has grown to be the second most important subsidy in magnitude, next only to food subsidy.

11.2.3 Export subsidies are discussed in Chapter 8 on Import and Export; food subsidies in Chapter 12 on Foodgrains; the subsidy on raw cotton, controlled varieties of cloth, handloom and khadi in Chapter 15 on Textiles; and the subsidy on fertilisers in Chapter 17 on Fertilisers. The conclusions from these chapters have been briefly indicated in the summary of findings and recommendations (not printed here). There would be no detailed discussion on these four subsidy items in this chapter. The important issues discussed in the following paragraphs concern-

(i) Interest subsidy given to public sector undertakings.
(ii) Certain other large value subsidies as per Annex 11.2.
(iii) Some of the large developmental outlays as per Annex 11.3, which may be deemed to be of the nature of subsidies.
(iv) Losses of Central Government undertakings as per Annex 11.4.
(v) Losses of State Government undertakings.

11.2.4 A point of some importance which may be highlighted arises from the budgetary classification of expenditures which are really of the nature of subsidies, but which are not shown as subsidies but are hidden in other transactions, which is often misleading. The following illustrations are worthy of note:-

(a) As would be explained in greater detail in Chapter 17 on Fertilisers (not printed here), the subsidy on imported fertilisers is not shown in the budget directly as a subsidy, and has to be deduced from the Demands for Grants of the Ministry of Agriculture and Irrigation, from outlay on purchases of fertilisers read with recoveries from the sale of fertilisers.
(b) There are a number of items in the Demands for Grants of the different Ministries which are shown as 'Subsidies', which are really not of the nature of subsidies but of developmental outlays. For example, 'Assistance for production of Breeder Foundation/certified seed of pulses', or 'Subsidy to National Seeds Corporation under Intensive Jute Distribution Programme', or again 'Subsidy to Market Committee - Scheme for Development of Regulatory Markets' should not be designated as subsidies. Nor should the grant of Rs 20.7 crore to State Governments (in each

of the years 1978-79 and 1979-80) for the Malaria eradication programme, be treated as a subsidy. A perusal of Annex 11.3 (not printed here) would bring out many other such outlays classified as subsidies which are not really so.

(c) Likewise, there are many Grants-in-aid which are really subsidies, and many others which are grants for developmental purposes. A perusal of Annex 11.5 (not printed here) would indicate this. Grants to the Indian Dairy Corporation for Operation Flood programme operates directly as a subsidy to the Corporation, and the losses of the State Government's dairy schemes are to that extent understandable. On the other hand, many grants-in-aid may be deemed to be of the nature of developmental outlays, e.g., grants for the development of the co-operative movement, or grants for research to the Seed Corporation.

11.3 The Pattern of Subsidies

11.3.1 It would be desirable at this stage to bring up the findings of the Committee on subsidies on foodgrains, on fertilisers, on exports, and on controlled cloth, handloom and khadi, all of which have been discussed in the respective chapters on these items, before drawing broad general conclusions in regard to the pattern of subsidies and on their nature and extent.

11.3.2 It has been found that in respect of foodgrains, there are two elements in the subsidy, one for the maintenance of buffer stocks and the other for food distribution. The Committee feels that the former is a legitimate charge on the budget. As for the latter, the Committee feels that a subsidy on food distribution should be paid only to the extent that such distribution caters to the requirements of the weaker sections of the population. The present coverage of fair price shops is inadequate for this purpose. The Committee also feels that the subsidy in public distribution should be only on meeting the requirements of essential items of consumption of those below the poverty line.

11.3.3 As far as the subsidy on fertilisers is concerned, there used to be three elements in the subsidy, with a fourth one added recently, in the 1979-80 budget. First, a subsidy is paid today in respect of imported fertilisers. The Committee finds that this subsidy arises because of inefficient handling and is not due entirely to the higher cost of imported fertilisers. The higher than necessary cost of handling is not easily seen due to the manner of treatment of the subsidy in the budget, as well as in the summary accounts of the Food Corporation of India. This subsidy can be eliminated. Secondly, the largest element of subsidy on fertilisers arises from the subsidy on indigenous nitrogenous fertilisers, in respect of which the average cost of production within the country substantially exceeds the pooled average ex-factory price in the build-up of the retail price. For reasons indicated in Chapter 17 on Fertilisers, the Committee feels that such a subsidy should be gradually phased out, say, over a period of three years, and should be replaced by higher subsidisation of fertiliser consumption by the small and weaker farmers under the Integrated Rural Development Scheme, by increasing the extent of outright grant available under that Scheme to the small and marginal farmer. The third element in the fertiliser subsidy is given on indigenous phosphatic fertilisers which in the opinion of the Committee, is justified over a short period of, say, three years as a promotional measure, in order to encourage the use of more balanced fertiliser mix. A fourth element in fertiliser subsidy introduced in 1979-80 budget, namely, freight subsidy on fertilisers, is a part of the total problem of pricing of fertilisers, and should be phased out by appropriate increase in the price of fertilisers in three years.

11.3.4 The Committee feels that there is a case for a larger subsidy than available as of today for encouraging the use of organic fertilisers, which can be done by increasing the subsidy on gobar gas and on compost pits in rural areas as well as on utilisation of urban wastes for purposes of composting.

11.3.5 As far as export subsidies are concerned, the Committee would suggest that these be limited to (a) the cumulative burden of indirect taxes in the cost of production of export items; and (b) the promotional expenditures and market development and to the neutralisation of freight disadvantage in respect of new and distant markets. The Committee would also recommend the continuance of the present subsidy on interest on working capital used in the production of export items - currently available in the form of 'export packing credit', so as to offset similar concessions granted by other countries. Another facility given to exporters is the system of drawback of duties paid by the exporter-manufacturers in the process of production, which should continue. The Committee also feels that there should be stability in regard to these policies over a period, and that the policy should have a tenure of three years, to enable export production programmes to be drawn up on a sustained basis.

11.3.6 Finally, as far as the present set of subsidies on textiles is concerned, the Committee feels that there is no justification for any subsidy on imported cotton; the subsidy on controlled varieties of cloth would be justified if proper arrangements are made for the distribution of controlled cloth among the really vulnerable sections of the population; and finally, the subsidy on handlooms for production of controlled varieties of cloth would subserve two basic objectives at the same time, namely, income support to the handloom weaver and subsidisation of the consumption of poorer people who generally use the coarse varieties of handloom dhotis and sarees. For the rest, the distribution of controlled cloth has to be carefully monitored so that the subsidy does in fact reach the target group.

11.3.7 The Committee would like to reiterate the need for increasing the extent of subsidy at present given to the weaker sections of the population in the rural areas by increasing the percentage of assistance and, therefore, the quantum of assistance in the form of grant. This is given under different schemes for Small and Marginal Farmers and Agricultural Labourers, to backward and hilly regions, to tribal people, and under various schemes incorporated into the Integrated Rural Development Scheme (Programme) or under programmes recently initiated by a number of State Governments under the Antyodaya Programme. The Committee feels that any additional outlay on this account would be a justified charge on the Central budget.

11.3.8 The Committee would also recommend that the present extent of assistance made available to different State and local authorities in the event of natural calamities should be significantly increased. Different parts of the country are subject to recurrent natural calamities like cyclones, floods, droughts, earthquakes, avalanches, etc., and the devastation caused by these natural calamities involves a capital loss to the poorest sections, in addition to loss of production, income and employment, for which the Committee feels the present allocation to be wholly inadequate. Indeed, to the extent that such natural disasters are a regular occurrence in some parts of the country or the other, the Committee feels that a much larger allocation should be available for meeting such national disasters and situations of capital losses as a legitimate burden on the tax payer in the whole country to give succor to the needs of the affected population. A minimum amount of 1 per cent of the Central and State Government budgets should be so earmarked as relief against natural calamities.

11.4 Interest Subsidy

11.4.1 Interest subsidies from the budget are of two kinds: subsidisation of any sector through the grant of concessional rates of interest; and subsidies to public sector undertakings which are unable to pay the interest on loans granted earlier by Government

11.4.2 The Soft Loan Scheme initiated by the Industrial Development Bank of India in 1976, for modernisation, replacement and rehabilitation of five selected industries, also involves a subsidy, though as at present operated, there is no budgetary outgo on this account. Comments, nonetheless, have been briefly made on the operation of the scheme for the textile industry, in Chapter 15 on Textiles. Some general comments have also been made on this connection in Chapter 26 on Credit Control. The Committee would only wish to comment here that interest subsidies generally have the perverse effect of encouraging capital intensive technology. They are not justified except for sectors like shipping and for export packing credit, inasmuch as the credit in the latter case is for working capital requirements - where the sectors enjoying interest subsidy have to compete with foreign parties enjoying similar, and sometimes even greater concessions.

11.4.3 The covert subsidy implicit in the scheme of differential rates of interest (DRI) operated by commercial banks has been discussed later in Chapter 26 on Credit Control (not printed here).

11.4.4 A budgetary subsidy involving interest subsidy pertains to the Khadi and Village Industries Commission, which borrows from Government at 7.5 per cent and lends the credit required by village artisans at zero interest to the khadi industry and at 4 per cent to village industries, the loss being reimbursed as a subsidy to the KVIC. The budget provision for 1979-80 for this subsidy is Rs 15 crore. Similar subsidies are granted to a number of other agencies, the largest item being the grant to the Shipping Development Fund Committee, to meet the difference between the rate of interest payable for the acquisition of ships on commercial credit terms, and the rate charged from the shipping companies. These are clear subsidies; and these are all given with deliberation as a matter of policy, and are clearly shown as such.

11.4.5 Interest subsidies are also given to various public sector undertakings from time to time, and these payments raise a number of issues which need to be pondered over. The largest recipients of such 'interest subsidies', and the maximum amount obtained by them as interest subsidy over the past years, have been the Steel Authority of India Limited in respect of interest on loans given for/to Bokaro and Durgapur (Rs 68 crore in 1977-78); Indian Iron and Steel Company (Rs 4 crore in 1977-78); National Mineral Development Corporation (Rs 12 crore in 1978-79); Heavy Engineering Corporation (Rs 4 crore in 1977-78); and the Indian Drugs and Pharmaceuticals Limited (Rs 6 crore in 1979-80).

11.4.6 The interest subsidy to the above public sector corporations stems from a mistaken approach. For Bokaro, the interest subsidy arose from the interest due on borrowed capital during the construction period. The normal business practice is to capitalise such interest payments. An alternative would be to increase the equity. But for other (existing) projects like Durgapur Steel Plant or the NMDC or the HEC, the *modus operandi* has been as follows: In certain years, the cash losses of these undertakings have been financed by loans from the Central Government budget. Where the undertakings are not able to meet the interest payments due on these loans in subsequent years, an interest subsidy is paid to these undertakings.

11.4.7 It will be seen in Chapter 19 on Steel (not printed here) that the steel industry has been subject to a tight administrative control over prices. Steel prices have not, on occasion, been equal even to the cost of production. There have of course also arisen teething problems, and capacity utilisation has been sub-optimal. It is frequently argued, therefore, that the losses of steel industry have been due to inefficiency. Nonetheless, the pricing policy of steel has been such that a plat like Bhilai would have incurred losses even with 90 per cent capacity utilisation. It would also be seen in Chapter 19 that in the early seventies, when the prices of steel should have been raised, what was raised was the excise duty on steel and not the steel price. To control the product price to an unrealistically low level without a cost study by an independent authority like the Tariff Commission or the BICP, to finance the current losses of the undertaking by way of a loan when the excise duty is being raised simultaneously, and thereafter to designate the interest due on these loans as a subsidy, is not a sound procedure. The subsidy in this case is the direct outcome of the control on steel prices. The covert nature of the subsidy also hides the extent of the subsidy to the consumers of steel, which would have come out clearly if the entire loan to cover the loss were to be shown as a subsidy.

11.4.8 The Committee feels that where prices of a product are to be kept low as a matter of policy, it would be desirable to designate the entire amount required for meeting current losses as a subsidy, rather than merely the interest payment due on the amount required to be lent to cover the cash losses. Such an outright subsidy would then be seen at once as a subsidy to the consumer, so that the attention of the Parliament and of the public can be focussed on the problem. To designate the interest payment as a subsidy does not bring out the true nature of the problem, since the impression created is one of inefficient operation of the undertaking which is unable to meet even its interest liability. Also to saddle the manufacturing unit with a continuing burden of loan given to meet cash losses, is also not good for morale.

11.4.9 It may, of course, happen that an enterprise is in strictly temporary difficulties, either for reasons of sudden demand recession, or for other reasons. Not all undertakings face the problems faced by the steel industry, and for many, there is no price control on the products. In such circumstances, it would be justifiable to give a loan to the enterprise so as to allow it to recover, the loan to be repaid in better times. The loan in such cases is best obtained from the banking sector. Where the capital of the company has been eroded by losses, and the undertaking is unable to obtain commercial bank credit, an outright subsidy or an increase in subsidy rather than a loan is again desirable so that the attention of Parliament and of the public is focussed on the undertaking, and a conscious decision can be taken on the long term plans for its modernisation, diversification and viability. Indeed, since there does exist a separate budget head - subsidy to sick industries - which is not used to any significant extent, the Committee feels that units which need a clear subsidy for some time should be financed out of such clear-cut subsidies. The allocation under this head is today quite small, and hides the nature and the depth of the problem.

Subsidy to BGML

11.4.10 A special example of losses incurred by a public sector undertaking, owing to a distorted price policy, is Bharat Gold Mines Limited (BGML). Until October 1976, this company was required to hand over its entire gold output to the Government at the previous IMF price of Rs 84.80 per 10 grammes, when the market price was around Rs 550 per 10 grammes. This was substantially below both, the international and the domestic price of gold. The revenue deficit of the company, i.e., the difference between the cost of production and the sales realisation, was subsidised by Government. This subsidy has been as follows:

Year	(Rs Crore)
1972-73	4.25
1973-74	4.00
1974-75	6.35
1975-76	5.57
1976-77	6.27
1977-78	10.50
1978-79	10.30
1979-80	9.90

It may be noted that the subscribed capital of the company was only Rs 11.70 crore, and cumulative losses would by now have wiped out the capital several times over, owing to the pricing formula. In fact, the pricing formula for the BGML was such that the larger the output, the greater would be the loss.

11.4.11 The policy was reviewed by the Government in 1976-77, and again in 1977-78. The latest procedure is that the price to be paid by the Government for gold to the BGML would continue to Rs 84.80 per 10 grammes, but that BGML would be paid a subsidy equal to the difference between the RBI's average gold auction price *minus* a certain servicing cost and the official gold price (at Rs 84.80 per 10 grammes). In the absence of RBI gold sales, the price would be equal to the BGML's cost of production plus a 12 per cent return on capital, subject to -

(a) a minimum price equal to the average international price in the preceding month, and
(b) a maximum price equal to the average international price in the previous month *plus* 25 per cent.

Thus, while the BGML runs up a heavy cash loss it receives a subsidy to make up the mythical loss. To the outside public, it appears as if another public sector undertaking runs at an enormous loss, requiring a subsidy of nearly Rs 10 crore every year, nearly equal to its capital. With the current international gold price hovering at around \$290 per ounce (December 1978), the designation of the difference between this price and \$42 per ounce as a subsidy is clearly a misnomer, particularly when the Government and the RBI have been selling gold to the public at more than the international price.

Subsidy to State Electricity Boards on Aluminium

11.4.12 The subsidy to State Electricity Boards in respect of aluminium has been taken off recently. This matter has been referred to briefly in Chapter 20 on Nonferrous Metal, and reflects a roundabout and inefficient system of price control. Briefly, the subsidy arose in 1975, when a dual pricing system for aluminium was evolved. For 50 per cent of the output - in the form of electrical conductor grade aluminium - the price was to be equal to cash cost excluding depreciation. This aluminium was intended for the manufacture of conductors, required for the power transmission programme of State Electricity Boards. The balance of the commercial grade aluminium was free of price control. In order to prevent leakages, an additional excise duty was levied on conductor grade aluminium, raising the market price of such aluminium to the level of commercial grade aluminium. State Electricity Boards were later paid a subsidy of Rs 3,130 per tonne of aluminium, on the basis of the aluminium content of conductors purchased by them for power programme. In essence, the effect was that all other consumers of aluminium had to subsidise the aluminium required for the power transmission programme, and this was achieved through a complex system of taxes and subsidies. It is not clear why the State Electricity Board could not be subsidised directly from the budget for their transmission programme. Whatever the justification of the intended subsidy it could have been given directly *via* the budget, provided that the subsidy were deemed to be really necessary. However, as indicated earlier, the subsidy has been removed, and the policy on aluminium pricing changed recently. The example is cited here only as an instance of a highly complex price control-cum-subsidy scheme; the objective could have been served by a simple direct subsidy to the State Electricity Boards.

11.4.13 There are some other subsidies given by the Central Government, on which brief comments may be made. There is subsidy on coal - Rs 5 crore budgeted for 1979-80 which is paid for the higher freight by the rail-cum-sea route. This has been given partly in order to keep the coastal shipping trade going, as a matter of policy, and partly also to relieve the bottleneck in rail transport that is likely to arise in the absence of coastal movement of coal. This is a direct subsidy, unconnected with the covert subsidy of some Rs 140 crore per year at present rates, arising from the uneconomic pricing of coal - which is referred to in Chapter 18 on Coal (not printed here). Together with freight subsidy for Andaman and Nicobar islands and for Haj pilgrims, the freight subsidy on rail-cum-coastal movement of coal subserves an accepted objective of policy by way of maintaining a coastal fleet. Another incidental advantage is that pressure on internal transport is thereby avoided.

11.4.14 The Committee would recommend extension and enlargement of the transport subsidy to cover the minimum essential needs of the hilly, backward and far-flung regions. The transport subsidy given to hilly areas is, as of today, so limited in scope and coverage and so complex in the matter of disbursement that barely a few lakh of rupees have been disbursed by the Ministry of Industry in a few years.

11.4.15 The Committee would like to refer in this connection to a memorandum received from the Government of Himachal Pradesh, giving the total cost of subsidisation of the transport cost - to each 'taluka' - of all essential articles including salt, sugar, kerosene oil and soft coke. According to the Himachal Pradesh Government memorandum, the total cost of such subsidisation, affecting an estimated population of 37 lakh, would be no more than Rs 80 lakh per annum. For covering the entire population in hilly areas-prorating subsidy - the amount required may be no more than, say, Rs 8 crore, or at the outside, Rs 10 crore. The Committee would strongly recommend such a subsidy to help the people in the hilly and far-flung regions of the country, so as to drew them into the main stream of the country's economic activity.

11.4.16 A subsidy is also given for the setting up of new units in backward areas. The budgeted amount for 1979-80 is Rs 10 crore, though the Revised Estimate for 1978-79 is Rs 14 crore.

11.4.17 The Committee has received divergent recommendations on this subsidy from different States, and the Committee would like in this connection to mention the views of the most backward States: first, that the really backward areas deserve a higher subsidy than 15 per cent of capital expenditure or a maximum of Rs 15 lakh as granted at present and secondly, that there should be no competitive concession given by the developed States as the backward States do not have the resources to match the concessions granted by the developed States. The Committee agrees with both the above points. The Committee has been informed that even in a developed country like the UK, the subsidy given for relocating industries in the new 'developed areas' has been as much as 50 per cent of the cost of relocation.

11.4.18 The Committee would make two observations in this connection. The Committee is convinced that a subsidy on employment would be a better way to subsidise new activity, and to promote the development of backward areas. The Committee has been informed that there are numerous practical difficulties in the way of operating any such subsidy system. For one thing, there are no such clear-cut, objective criteria such as investment in physical assets, in operating such a system. Then again, employment may fluctuate. But this, to the Committee, is an added justification for an employment subsidy. Data on employment have to be maintained for purposes of the Factories Act and the Payment of Wages Act. It should, therefore, be possible to disburse the subsidy, with appropriate cross checks by way of output - and excise duty paid thereon.

11.4.19 The second point that the Committee would recommend in this connection is a 'sliding scale' in respect of backward areas subsidy to meet the needs of the most backward regions of the country.

11.4.20 Another subsidy in the budget concerns the subsidy to the HUDCO (Rs 3.6 crore in 1979-80). The Committee feels this subsidy is too small to make any impact. Although housing subsidy has a long history, the progress of public expenditure on housing for the poor has been tardy. The enormity of the requirement of new housing, particularly for the vulnerable sections of the population, has been indicated earlier, in Chapter 10 on Housing and Construction Activity (not printed here). The Committee recommends that urban housing for the poor requires a larger subsidy than given so far, which could be disbursed as interest subsidy on capital invested, to as many organisations and institutions as may be able to undertake a bold housing programme.

11.4.21 There is a budgetary subsidy to State Governments to reimburse them for loss of the sales tax on supply of aviation fuel to international airlines. This is essentially a fiscal support to State Governments, and is not a subsidy; and should not be designated as such. The transfer of resources to States cannot be deemed to be a subsidy, except where a subsidy is to be given specifically for a designated group of beneficiaries through the State Governments, as for instance under the Marginal Farmers and Agricultural Labourers Scheme, and various other schemes intended for the rural poor, now reconstituted under the Integrated Rural Development Scheme.

11.4.22 The only other significant subsidy, so designated, is the amount earmarked for and given to victims of cyclones, floods, drought and other natural calamities. The provision for this has been reduced from Rs 40 crore (R.E. for 1978-79) to Rs 10 crore (B.E. for 1979-80). This is totally inadequate, considering the magnitude of capital loss suffered every year, not counting the loss of production and income. The Committee has already recommended the earmarking of 1 per cent of the Central and State budgets for this purpose every year.

11.5 Losses of Public Sector Undertakings

11.5.1 It would be seen from Annex 11.4 (not printed here) that cash losses of Central Government undertakings in 1977-78 - the latest year for which the accounts of the undertakings[3] are available - were Rs 398.44 crore. In other words, something like Rs 400 crore would need to be added to the budgeted figure of approximately Rs 1,560 crore of losses, making the Central Government losses alone as much as around Rs 2,000 crore per year.

11.5.2 Latest data for all undertakings are not available, and it is therefore not possible to give the total magnitude of the losses of all losing Central Government undertakings. But the losses of Coal India alone have now increased to Rs 140 crore during 1978-79.

11.5.3 The views of the Committee in regard to the losses incurred by public sector undertakings have already been indicated, and may be briefly summed up below:

(a) The pricing policy of public sector undertakings, particularly where they are monopoly producers, should be such as would give a reasonable return on capital, assuming reasonable norms of efficiency and of capacity utilisation. Where it is desired to keep down the price of a key item in order to keep down the general price level, Government should give a direct price subsidy rather than make the undertaking suffer losses.

(b) If this is done, the 'interest subsidy' at present being given to such undertakings in respect of loans given earlier to cover past cash losses, would become unnecessary.

(c) Loans to 'sick' undertakings (e.g., sick mills taken over by Government) are again futile except so far as productive loans for diversification /modernisation are concerned. Loans to cover losses should be designated as subsidies so as to focus public attention on the status and functioning of these sick units.

11.5.4 As an expert group4 has aptly put it -

> 'Experience shows that some subsidies become excessive simply through inertia and drift, or government's aversion from altering prices for many years, despite the effects of inflation and devaluation on costs. Subsidiès could then become quite disproportionate'.

It is for this reason that it is suggested that a system of overt subsidisation should be followed in all such cases, so as to focus the attention of the public and of Parliament to the nature and extent of such subsidies.

11.6 Subsidies Given at the State Level

11.6.1 The same principles would generally apply in respect of State undertakings and operations such as electricity supply, irrigation, public transport, urban milk supply and similar activities.

11.6.2 The Seventh Finance Commission has brought out the extent of such subsidies. But insofar as these operations are concerned, quite apart from heavy subsidisation involved, there also arises the problem of defaults, arrears and inefficient collections. These make for a substantial difference between the accounts and the reality, a very large part of receivables being of the nature of bad debts.

11.6.3 Some of the figures given in the Seventh Finance Commission report are revealing. For irrigation, for instance, the total investment as on 31-3-1979 is stated to be Rs 6,347 crore. The arrears in 1978-79 are given as Rs 59 crore against the demand raised in 1978-79 at Rs 103 crore. That is, arrears are as much as 57 per cent of the demand. The Commission has estimated gross receipts during 1979-80 to 1983-84 at Rs 894

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3. See, Bureau of Public Enterprise, Ministry of Finance, New Delhi: *Annual Report on the Working of Industrial and Commercial Undertakings in 1977-78*; Manager of Publications, Delhi, 1979.

4. *Report of the Working Group on Prices and Costs; Seminar on Investment and Return Criteria in Public Enterprises*; Asia and Pacific Development Administration Centre, Kuala Lumpur, August 1977.

crore, and working expenses for irrigation at Rs 705 crore and for flood control at Rs 139 crore. Leaving out the latter, the gross return from irrigation schemes in the five years period would be Rs 189 crore, or an annual rate of Rs 38 crore. Assuming no increase in the capital, the interest on Rs 6,347 crore @ 9 per cent would be Rs 571 crore per annum. The deficit on interest would thus be as much as Rs 533 crore annually, not projecting any increase in capital.

11.6.4 The net deficit on minor irrigation schemes during 1978-79 is given by the Finance Commission as Rs 66 crore.

11.6.5 The Electricity Boards are stated to have an investment, as on 31-3-1979, of Rs 7,370 crore. The net return, for each year over 1979-80 to 1983-84, after deducting excise duty and electricity duty, is estimated at Rs 220 crore. In order to allow for excise and electricity duty, the return on capital may be calculated say, at 6 per cent. On an investment of Rs 7,370 crore, the interest works out to Rs 440 crore annually, giving a deficit of Rs 220 crore per annum.

11.6.6 The losses of the losing State road transport undertakings in 1976-77 - the latest year for which figures are given in the Seventh Finance Commission report- work out to Rs 28 crore.

11.6.7 The share capital of State public enterprises as on 31-3-1979 is given at Rs 976 crore. The net profit after tax is given as *minus* Rs 13 crore (i.e., a net loss of Rs 13 crore) in 1975-76 and as Rs 3 crore in 1976-77.

11.6.8 The States' share in the capital of co-operative societies, similarly, as of 31-3-1979, is given in the Seventh Finance Commission report at Rs 892 crore. The rate of return on States' share in the capital of co-operative societies in 1976-77 is given at 1.15 per cent only, and the interest received from Government loans to co-operative societies at 5.96 per cent.

11.6.9 Leaving out the co-operatives - as a form of organisation to be encouraged - the return from State Government undertakings would be seen to be way below a return equal to even the concessional rate of Government loans to public sector undertakings at 9 per cent.

11.6.10 Adding up the above overt subsidies given by State Governments, as given in the Seventh Finance Commission Report[5], the annual amount of subsidisation by State Governments would be seen to be of the order of Rs 1,000 crore. This does not include direct subsidies given by the State Governments.

11.6.11 It is, of course, legitimate for Government to subsidise certain activities. The point that the Committee would wish to reiterate is -

(a) that subsidies are best given directly, in an overt manner, so that the extent of subsidisation can be publicly known and debated, and inefficiency in operation reduced; and
(b) that it is important to consider who benefits from the subsidies so that subsidies which do not support the income and consumption of the weaker sections of the population or do not help to support tiny unit decentralised production, can be phased out.

5. *Report of the Seventh Finance Commission, 1978*, Appendices and Annexures, Pp. 41-98.

REVIEW ARTICLE*

STATE AND THE POOR

Abhay Pethe

Introduction

Development Economics, which had suffered a temporary eclipse, is back in fashion. This has meant that the number of books written in this area have once again gone up with a gusto. The book under review is a case in point. It is an excellent book by a well known scholar. One of the characteristics of a truly good contribution has always been recognised to be the capacity for the work to operate at various levels. This book satisfies this attribute in ample measure.

The process of progress in a social science - unlike in the case of natural sciences - does not proceed by sedimentation. As Dennis Robertson so perceptively observed some time ago, that here the high brow opinion is like a hunted hare, sure to come back to you in due course. The sterility of the current tools to explain current puzzles leads us to look back to the old masters who are reinterpreted with new relevance. In a similar vein, the crucial relevance of history in social enquiry has been beyond argument. That this has led, in fact, to nothing more than merely a wordy homage, is besides the point. What can history teach us then, that is of use in understanding of contemporary reality? After all, it is true that development experiences for different economies are grounded in specifics which are a product of historico-socio-political milieu. Yet, viewed in general terms, there are common elements in their dynamics. Indeed, the variety is rather superficial. Viewed from another angle, development is a lonely experience. There must come moments in the history of every economy, when it is easy for the policy makers and the ground level agents to throw up their hands in despair, at apparently insurmountable difficulties. It is here, that stories and anecdotes from others' histories impart an inspiring feeling of *deja vu*. Of course, the accompanying environments would have changed (with the passage of time, if nothing else). But, abstracting from the specifics, one can interpret and learn from the experience if one has in place, a conceptual framework within which to operate. Finally, history is a great leveler, in that it makes fools out of the best of us, which is simultaneously a sobering and a comforting thought.

Let me now turn, briefly, to the nature and the role of the state. Traditionally, such a discussion begins by citing two extreme positions. One, the so-called liberal position and other, the so-called collectivist position. Between these two polar situations is a continuum of positions. Indeed one's position on the scale is determined by the ideological position that one adopts in the realm of political philosophy. In the neighbourhood of the liberal position is the 'minimalist' state arguments which question the 'moral right' of any kind, barring the most extravagant form of violation of individual liberty. Some of the exponents in this line question the feasibility of the state being able to bring about macro good. Indeed, even the more modern versions rather unwillingly acknowledge the need for state intervention as some form of necessary evil. At the other extreme is the well known Marxist position, with its suspicion of private initiative (so far as socially desirable outcome is concerned). The state here is burdened with a whole host of activities and has to replace the market, almost in toto. In between, are the rationalisations that may be grouped under the headings of public choice theory, or transactions cost analysis with its overlap with the information (asymmetric) theories. The nature and the role of the state as conceived by these various schools are largely conditioned by their respective positions about the absolute versus the contingent nature of economic categories and, obviously, this also determines the consequent role that the state may be called upon to perform. A consensus has started emerging, however, so that the chasm between the protagonists in the debate has considerably narrowed down. The real disagreement now is really about the emphasis, which is a sure sign of maturing of the whole debate. Rather than

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* *The State and the Poor: Public Policy and Political Development in India and the United States*, by John Echeverri-Gent, Vistaar Publishers, New Delhi, Indian Edition 1995; Pp. xxxi+312, Price: Rs 550.

either being a completely neutral umpire on one hand, or, being an organ completely determined by (and hence projecting) the class interests of the capitalists, the state is now cast as an agent player whose interests are determined as a resultant of the diverse interests in the economy, but which also has some interest quite independent of these. This, of course, entails a great deal of importance to the real political process.

In concluding this introduction let me get in a word on development. Now, development is simultaneously a state of affairs as well as a process. One implicit consequence of looking at the process aspect is the realisation that development policy must deal, not so much with the setting and meeting some target macro variables, but rather with the creation of enabling institutional structures endowed with viable and self enforcing rules. The presumption being that these institutions (and their structure) create a parametric environment within which a free play - at the micro level - of rational agents brings about a desired outcome at the macro-level. Thus, it has been finally recognised, that setting physical targets is the easier part of getting the developmental process underway. That, after all, development ultimately deals with the human mind and that changing the human mind cannot be brought about overnight. Rather, it is through the creation of certain material setup that one can hope to provide a populace with a system with just the right balance between penalties and incentives, so that with everyone striving towards one's own objective, the collective as a whole rather unwittingly attains the larger macro goal.

The Book

As I have already mentioned the book under review would be worthy of commendation even if it were merely a record of case studies. What makes it even more so is the fact that it provides a theoretical and a conceptual framework within which the cases can be interpreted and compared. Let us begin at the beginning.

A preface has been described as a part of the book that is 'written last, put first and read the least', signifying its unimportance. Not so in this case, for here, the author sets out the ground rules and important concepts that underlie much that follows. Of course, it (the preface) is written specially for the Indian edition. It begins with the meaning and elaboration of the concepts of 'social structure, agency and contingency', as amply adumbrated by Anthony Giddens, which help in evaluating policy implementation and illuminating state-society relations. For Giddens, structures are 'recursively organised sets of rules and resources' (p. x). Rules have both cognitive and normative consequences, they are 'codes of signification' which inform the meaning of social acts. Rules thus prescribe generalisable procedures applied in the enactment of life and they play a formative role in the creation of social institutions, as well as sanctioning and legitimising alternative strategies. It has to be noted that structures are 'recursively organised' by human activity rather than by some given exogenous configuration. Giddens coined the neologism, 'structuration' to describe the process by which structure affects social relations. 'Structure has no existence independent of the knowledge that agents have about what they do in their day-to-day activity' (p. xi). The eclecticism of Gidden's concept is particularly appealing. His inclusion of resources allows him to incorporate Marxist and other materialists' insights without having him entrapped by their epiphenomenal hypotheses. The dualism of individual and society is captured in the duality of agency and structure. By highlighting the fact that structure is both the medium and the outcome of human agency, Gidden's concept of duality of structure cogently provides human agency with a central role in reproducing both, structure and social systems. For example, agrarian structure shapes the implementation of rural poverty programmes but, apart from other things, the extent to which the poor are mobilised determines the level of success, which may differ as between two identical agrarian structures. This imparts a kind of fluid solidity to the concept of structuration as against the alternative vacuous concepts. It also implies that whilst all social life is contingent, social change is conjunctural, which further implies that policies cannot be implemented as one pleases (at least, one cannot be certain of outcomes). This will undoubtedly constrain the potency of the policy maker/theorist in making tall claims, but the resulting sobriety will do good in helping us to recognise in a mature way the inherent limitation of what we as social scientists can realistically do. While the work of Giddens informs the chapters of the book, it does not over-jargonise the terminology actually used. The preface ends with a useful résumé of an update on what is happening in the context of anti-poverty programmes in rural India including a look at the relevant literature. The central theme is clearly set out: public policy shapes political development. Thus, information is vital for increasing accountability of state officials.

Interdisciplinary Approach to Institutions

It is standard, at least for economists and some other social scientists, to imply that state agencies would operate rationally if they were to be insulated from political pressures. This has also implied that political conflict inevitably has been detrimental to effective public policy. This book examines these issues by elaborating a new institutional frame, within a multi- disciplinary setup.

Three disciplinary traditions have served as important channels for developing versions of the new institutionalism: economic approaches to institutions, particularly transactions cost and agency theory, macrocomparative analysis in sociology and political science, and the study of institutions in organisation theory. Economic approach, for better or for worse, endows institutions with a quality of efficiency. The way modern theory operates is by using the concepts of bounded rationality, information asymmetries and transactions costs. In spite of these explicitly recognised problems, economists continue, on the whole, to treat preferences as being exogenous to strategic actions by agents. At least in their formal models, economists make no allowance for the role of culture in shaping understandings and objectives and, ultimately, producing different forms of rationality. In short, the economists' approach does not allow for adequate conceptual tools to explain preference formation and change. It has been recognised, of late, that endogenising belief structures of agents is of utmost necessity for relevant theorising. For, that is one way to get in culture. In theoretical literature there has been some headway made in this direction in the context of modern sunspot models and rationalisation of 'sub-optimal' equilibria that may be stable. Culture affects the ways in which the objective function is specified. It also determines the *feasibility* of instruments available to the agents. Further, it also affects the way agents *learn*. Of course, the question of learning in any relevant way has largely been ignored by mainstream economists.

The macrocomparative tradition provides a better understanding of institutional constraints and thus improves on the micro foundations of the economist. The major critique here is that it concentrates on politics of policy formation and hence is concerned with top-down perspective, rather than the other way.

At the micro level, approaches to institutions developed by organisation theorists have until recently tended to view individual rationality, less as a strategic pursuit of self interest and more as reference to cultural norms that shape alternate strategies. At the macro level, they view the process of institutionalism as shaped primarily from cultural 'logic of appropriateness', even when the results are divergent from the economic rationality couched in efficiency terms. This book attempts to advance the organisation theorists' perspective by exploring the creative tension between cultural sources of rationality and the view of rationality as a pursuit of self interest. Yet, as I have already mentioned, the big question about the origin and evolution of cultural norms is as yet answered only at a preliminary level and much needs to be done.

The Conceptual Frame

The state and society interact through a process of policy implementation. This process is deemed to have three aspects. These are the rational process perspective, the conflictual process perspective and the organisational environment perspective. Of course, the activities of the policy implementation agencies is embedded in the societal context which, in turn, is realised in the historically evolving institutions.

The Rational Process Perspective (RPP) is most crucially concerned with the planning and monitoring aspects. The Conflictual Process Perspective (CPP) is concerned with modelling the endemic conflicts that arise between different agencies. The Organisational Environment Perspective (OEP) is concerned with the apparatus of the policy implementing agencies.

It is within the frame provided by these three perspectives that the three case studies are set forth and interpreted, using the comparative strategy. Each of the case studies examined in this book is concerned with the implementation of rural anti-poverty programmes. The first deals with the Resettlement Administration (RA) and the Farm Security Administration (FSA) during the New Deal in the USA. The other two deal with the Indian cases, viz., the Employment Guarantee Scheme (EGS) in Maharashtra and the National Rural Employment Programme (NREP) in West Bengal. Important structural parallels are drawn and interesting differences are noted. The common challenge, not surprisingly, is of finding means of delivering benefits, circumventing the distortions in implementation by social elites. The FSA and RA were directed towards the South (59 per cent), and the Southern economy has been analysed in the paradigm of colonial economy which, in fact, India was. Casteism and racism provide another parallel for the study.

The method used for analysis and data collection was obvious. In the case of the USA, archival material was used, whilst in the Indian case, the interview method was supplemented by administration of questionnaires. The central paradox that emerges is that so long as the poor remain poor, their interests will take a back seat and, so long as this happens, they will continue to remain poor. This paradox or vicious circle may be resolved through Public Policy by creating incentives for the political mobilisation of the poor.

The RPP takes into account the conflict among members of an organisation by applying 'agency theory' which investigates how authorities can utilise monitoring systems and incentives to control the opportunistic behaviour of subordinates. Of course, there are limitations pointed out by others including political scientists, in that, many crucial variables are dropped from the economists' models. In spite of the skepticism about the rationality of government bureaucracy, implementation *is* rational, not in any absolute sense but in the sense that it is characterised by a process of dynamic rationality in which authorities progressively fashion implementation, so that it corresponds more closely to policy objectives.

The CPP explicitly recognises that agencies are collectives with diverse interests. A rational strategy of division of labour spawns conflict endemically since it requires that agents with varied skills and experience and, hence, engendering different outlooks be recruited. Thus, even while maintaining 'rationality' as interpreted by different members, the organisational structure breeds conflict whose politics one needs to focus on.

The OEP is inspired by different currents, but the so-called resource dependence model is perhaps the most important. It studies how the implementation is shaped by economic, political and information resources. Also, it explains how this is conditioned by institutionalised rules which facilitate some action and constrain others. Elites in the private sector control economic resources through their discretion over investment and the organisation of the economy, so that their co-operation is sometimes absolutely essential. On the other hand, state officials are powerful too, in the economic as well as the political sense, since they are in a position to distribute resources to strengthen their support base. The private sector as well as the state agencies share the information resources.

Thus, the conceptual framework is ultimately provided by the confluence of rational, conflictual and organisational perspectives. What actually happens clearly depends on the resultant of the interplay of the forces emanating from these processes. The RPP has clearly got to be defined rather more broadly than it usually is by the economists. There cannot be a presumption of a given objective function or indeed that of an automatic algorithmic solution. Both these aspects belong to a dynamical category. The first aspect has to be understood in a historico-evolutionary mode, shaped or constrained by cultural norms which inform all behaviour in the context of human societies. The second has to do with 'learning' and is more diagnostically tractable.

Now, existence of conflict is ubiquitous in large or small measure. To recognise its existence is one thing, but to feel the need to incorporate it in the theoretico-conceptual structure presumes that one recognises its essential existence and attributes a power to it as an electromotive force in the progression of society. This reflects a particular paradigmatic style of usually the more radical variety.

Given all this, the organisational perspective deals with the 'apparatus' that helps in the realisation of the two other processes. It is to do with having in place, institutional substructures, so that a given job may be accomplished by the agents in the most efficient way possible. It also implies that the leakages due to various sources such as, information deficiency, conflict of interest, functional overlap and resource scarcity may be minimised. Finally, one important thing has to be noted and that is the constraining effect of institutional rules on government agencies. As public sector organisations, they are more vulnerable to popular evaluation, for, the difficulty of government work is not only that it must be done well but the public has to be convinced that it is being done well. Ultimately, enabling and constraining agency, power distribution and autonomy by themselves guarantee nothing. How they enmesh and co-ordinate, that is the moot question. Having provided a longish résumé of the preliminaries and conceptual frame, interspersed with my comments, let me now turn to the case studies.

Rational Success, Political Failure

This case study refers to the rural benefit programme in the context of the New Deal. United States is considered the epitome of a liberal *laissez faire* state, embodying the 'magic of market place'. The history of the agricultural sector, which is currently deemed to be the most competitive internationally, contradicts this view. The economic and technological viability has resulted from a history of extensive state intervention and protection. This chapter explores the intervention during the critical depression era. Agricultural Adjustment Administration as a response to dislocation due to the Great Depression is without precedent. The RPP shows how the Farm Security Administration (FSA) was refashioned to be effective and the CPP indicates why after success it was discontinued! The OEP illuminates important factors that shaped the outcome of conflict over the FSA.

Until the fiscal year 1943, the agencies possessed autonomy to alter objectives and innovate in functioning, etc. The Resettlement Administration (RA) was created to resettle rural and urban low income families, initiate and administer projects to conserve national resources and finance loans to farmers to buy farm land and equipment. The FSA replaced the RA a little later. It was a restricted programme basically meant to rehabilitate rural households and to complete the projects started earlier. The establishment of the RA can be viewed as an exercise in dynamic rationality. The RA consolidated diverse array of rural programmes and brought them under one roof so as to reduce administrative overlap, thereby reducing inefficiency and transactions costs. There was considerable resistance at the top (from Tugwell who was the man in-charge) to first aid programme as the real purpose was seen to be to effect the 'cure of a deeper malady'. They wanted to get out of the loan business and not make it too attractive. This has a familiar ring for Indians with their experience of their 'loan melas' and the *ad-hoc* political write-offs that have resulted in not inconsiderable loss for the banks. Implementation experience showed rural poverty to be a multifaceted problem. This meant that the programmes became more comprehensive in scope. It was realised that health and general well being of the family was a necessary pre-requisite for a loan to be used productively. We in India (of course much later in time) have learnt this and have in place Integrated Rural Development Programme (IRDP), Integrated Child Development Services (ICDS) scheme, etc. Also, only now in the context of urban poverty, the Reserve Bank of India (RBI) seems to be waking up to the necessity of a composite loan concept. Monitoring and evaluation led to sometimes counterproductive results, e.g., the indicator of loan recovery led loans to be given to the relatively better off rather than the most needy. Here again the Indian experience has a reflection in several sectors including that of development banking. Finally, as with our experience of staffing the Regional Rural Banks (RRBs), one FSA study noted that though the staff was adequately trained, they lacked a proper understanding of the rural scene, which thus made them insensitive to their clients' problems. Despite all these problems, the RA and FSA were remarkably successful in terms of the extent of loan disbursement and the coverage. The RA and FSA also helped in increasing the net worth and incomes of the borrowers. Large scale cooperative associations were established for multipurpose schemes. Though they only made a limited dent on rural poverty, they did manage to increase agricultural production and productivity. All these achievements have to be seen against the background of the situation prevailing when Roosevelt administration decided to launch these programmes. Approximately seven million people lived in farm-operating households with an estimated annual income of less than US$ 600. One study had estimated that about 13 million people were living in equivalent of rural slums. Many errors were committed during the early implementation of rehabilitation programmes. Nevertheless by learning whilst doing and bringing about changes, a programme was created that combined credit, planning and supervision. It is true that extension service was treated with considerable suspicion and perhaps with good reason, yet, it is undeniable that much good was delivered. Considering all this, the conclusion is inescapable, that any satisfactory explanation of the FSA's fate (in that it was discontinued) must go beyond the RPP. Indeed, it has to be sought within the CPP and the fact that its policies antagonised the southern elites and the Congressional opponents of the New Deal. Thus, autonomy in this case proved to be a liability in that it allowed an attack on the privileged position. Attack on the FSA might not have been so aggressive if the politicians, who made the decision, had been obligated to represent constituency where Afro-american or poor whites actively voted. The historical experience of US appears to offer a pessimistic lesson for the developing countries: 'rural elites cannot be dislodged ... without massive social dislocation' (p. 87). On the other hand, it must be realised that in the context of actual dialectic played out in historical time, much good did come about and only when the contradictions emerged strongly that something had to give **[to be given up?]**. The conjuncture could have transformed itself quite easily in a diametrically opposite result. Also, it points to the role that positive mobilisation of the rural down- trodden on the political plane must play if one wants a different result.

Making Employment an Entitlement: The Case of Maharashtra

The novel scheme of Employment Guarantee Scheme (EGS) in Maharashtra, entitles any adult residing in the countryside of the state to a job and fulfils this guarantee by creating a system of public works designed to promote rural development. This public works programme must provide work for 6,00,000 workers dispersed throughout the state. The theoretical basis must be sought in the Keynesian framework. Of course, whereas in the original Keynesian argument the emphasis was on income generation and via the multiplier (and hopefully later through the accelerator) to shift the entire economy to a higher plane, the argument here is creation of jobs alone. The hope of course is that these jobs are productive in the sense that they result in the creation of productive assets, such as the small infrastructure assets which would facilitate (crowd in) further development. Thus, the EGS attempts to alleviate poverty by providing employment and it promotes rural development by creating productive infrastructure assets. The minimum wage set is of a nature that it is not very attractive. Given that these projects are implemented by local machinery, it inevitably gives the power of patronage to the local politician and administrator and does provide opportunities of corruption, in the same stroke, it does facilitate mobilisation of the rural poor and forces the politicians and the bureaucrats to be more sensitive to the needs of the poor constituents.

Now a look at the scenario of the political economy of the state reveals that the average food production per hectare is 35 per cent below the national average, the increase in productivity too has been slower. Only 12.2 per cent of the land is irrigated as against the national average of 34.5 per cent. This for a state which boasts of being one of the more progressive ones! Since the 1950s, there has been a process of de-urbanisation of political leadership but it cannot fully explain as to why Maharashtra has gone in for this entitlement when others haven't, in spite of the fact that it is guaranteed by the Indian constitution. Perhaps the reason is to be found in the fact that being a more industrially advanced state, it can afford such a programme better. Also, strategic rationality would imply that it was felt that the urbanisation problems would pinch less if the process of rural-urban shift were to be curbed somewhat. This would ensure an 'enlightened' support from the urban sector. By creating an abundant source of patronage, the EGS favours the interests of the rural politicians even though it apparently conflicts with the interests of their most powerful supporters, viz., the landed elite. In fact, by providing employment during slack season and at a 'reservation' level, the burden on elite cultivators to look after their workers is also reduced. The EGS thus provides something for everybody!

The administration comprises of a complex of seven different agencies from the state level down to the districts and even lower. The Commissioner of Revenue Department and the District Collector exercise the ultimate authority over all the EGS projects. The EGS makes preferences of workers the important factor in determining the location and size of the projects. The demand can be volatile and that can be troublesome, since stopping a big project halfway can be very inefficient. It must be said to the credit of the government that it has continually tried to innovate and improve commitment. Of course, the desirable complementary investment (such as construction of wells, land development, etc.) has often been lacking, so that there has been 'a limited developmental impact of the (EGS) projects' (p. 102). The RPP shows that the matrix structure of administration tries to create checks and balances within the system and to take care of the various problems that creep into the system due to indolent and indisciplined attitude of the workers. There are problems also at the supervisory and muster assistants' level. Here the question is one of incentive compatibility. Given the corruptible nature of supervisory staff, even the 'gang' approach at greater numbers leads to a lot of free riding. At the higher level of officials too the motivation to be involved in the EGS type of work is low. The reasons are twofold. First, they do not particularly like the prospect of facing the ground level workers and two, being away from the office and in the field, leads to a lack of influence and a reduction in their chances of further promotion. Though there is corruption in the EGS projects, to be sure, given the transparency, it would still compare favourably with other kinds of government projects. Whilst there is something to be said from a balance point of view for creating matrix structure, from the conflictual angle, it is not very good news. The technical and the revenue departments are continually at loggerheads, leading to alienation of the officials. A clear cut hierarchical system with delimitation of scope and authority is perhaps more efficient way of setting up the implementation machinery. Instead of making the technical departments the key agencies, the expertise should have been transferred to the panchayats. Governments have shown a reluctance to do so. Whilst at the level of principle, they are for decentralisation, actually losing control would make them uneasy.

The distribution of benefits from the EGS has favoured medium and large cultivators in so far as the assets created under the EGS largely benefit these groups. The primary study by the author showed that the conflict between landed interests and workers occurred less often in underdeveloped areas as compared to the developed ones (p. 117). The manual labour requirement has turned out to be a good screening for targeting the poor. Also, gender inequalities have been favourably affected. In participating households the average contribution by females was 56 per cent as compared to 18 per cent in case of non-participating ones. On the whole, even on parameters such as seasonal fluctuations and spatial distribution, the EGS emerges rather well. Thus, all in all though there is scope for corruption and enhancement of ruling party asset creation, the one great positive feature is from the OEP point of view: the political capability of the underprivileged groups is enhanced. Let us now turn to the other case study, viz., that of the NREP in West Bengal.

Politics Takes Command

The case of West Bengal provides a distinctive context for our study of the NREP. Let us recall a question that I put earlier on, viz., does public participation help in increasing the effectiveness of programmes directed towards rural poverty?. One's answer obviously depends on whether one believes in the 'Greater Responsiveness Hypothesis' or on the 'Elite Domination Hypothesis' or indeed on the 'Political Patronage Hypothesis'. If the first then obviously it is positive, if second then a negative and for third it depends on the two opposing forces. Anyway, looking at the ground reality, one straightway notices that the land distribution in the state of West Bengal is far more egalitarian as compared to the rest of India. This is not surprising when the strong communist roots here are taken into account as also the fact that ever since 1977 the Communist Party of India (Marxist) or CPI(M) has been ruling the state uninterruptedly. The CPI(M) has penetrated the countryside without being co-opted by the landed masses. Along with the Bharatiya Janata Party (BJP) (at least till recently), it was the rare cadre-based party which had the advantage of being disciplined, was pragmatic and had a coherent and ideological commitment. Using the Central Plan Assistance, the NREP was launched, like the EGS for employment generation and asset creation. The difference was that here, a bottoms-up approach was adopted. Empowerment of the panchayat was given a new meaning and it was not retained merely as an advisory body. The local government officials were placed under Panchayats and their capacity to levy taxes was increased. In actual terms, 80 per cent of the funding control was with the Gram-Panchayats and only 20 per cent at the Zilla Parishad levels.

The analysis presented in the book is based on an intensive study of Midnapore District. The sample for the field study was meticulously selected and interview method was used. The officials such as Block Development officer (BDO) and the staff involved in the NREP as well as local politicians and public at large were interviewed. The RPP contends that there is a dynamic rationality displayed in this case, in that periodic adjustments were made to make the programme more effective. There was no foolishness in the selection of the projects, they were realistically designed. True, that there was some favouritism in allocation of jobs and fruits of the projects, but that is something to be expected in the context of real politic! What is noteworthy is that decisions are less individual and more collective, especially after the empowerment of the panchayats, and they are able to supply their needs to the BDO's office. One of the criticisms levelled has been that, rather than completing and maintaining the projects started, there was a hurry to start newer ones. This is a generic feature of all public works programmes in India and is not specific to the NREP. Perhaps, given the disbursement process involving different groups and locations, it is to be expected. Another characteristic has been that since there are delays in the actual arrival of funds, as under all other governmental schemes, there is a tendency to keep the projects small which necessarily implies that the economies of scale will not be reaped. The more serious problem is that because of the localisation of the process, no real monitoring is possible as far as the correspondence between the financial and physical targets is achieved. This is especially problematic because many a time the lines between officials and party workers get blurred and that creates situations of corruption by way of a collusion between the local politician and the bureaucrat without a popular mandate.

The CPP shows that two types of conflict are important in shaping the NREP implementation. Conflicts between individual values and policy objectives are a source of considerable conflict and corruption. Policy objectives also come into conflict with the organisational interests of political parties. Shifting authority to the panchayats has increased the power of the political parties greatly, especially the CPI(M) which controls many of them.

The control of the rural elites was indeed reduced by altering the opportunity structure for public participation. Political parties have been allowed to participate since 1978. This has proved to be a useful innovation from the OEP angle. Earlier panchayat elections were a farce, in that the members were chosen by the elite prior to the elections. With devolution of authority of development to the panchayats, an MLA must often go to the Zilla Parishad and even to the Gram Panchayat to initiate a project. Thus, there is a disincentive for the MLAs to behave in a stereotypical fashion and visit their district only at the election time. The organisational environment modification has led to a positive change of the linkages between state and society. Thus, though in the case of implementation of the NREP, politics seems to have taken command the result is not altogether negative.

In Conclusion

The combination of organisational theory and political economy has provided a very useful analytical framework, not only for understanding the implementation of policy but also suggesting several practical modifications for the pursuit of meaningful public policy.

The framework of the three process perspectives has been used to analyse the three cases. Each perspective provides important insights but by itself is insufficient to give a holistic picture of the policy outcomes. For that a fusion is required. Each perspective in turn shapes implementation and constraints others. In general, the perception of social needs provides the stimulus for institutional development and policy initiatives, whilst rationality and institutionalised rules establish constraints that condition policy responses. They do so, within the confines of cultural environment, by shaping the 'logic of appropriateness' and shaping the procedures and structures of state institutions involved in determining policy response.

One more general conclusion that may be drawn from this work is that autonomy from political institutions by itself does not do much. The need is to balance autonomy with mechanisms that make state agencies responsive to social needs. In poverty alleviation programmes, these mechanisms particularly require political resources. One of the avowed purposes of this book is to create an environment so that public officials will be forced to lend more transparency to the information and their operations. Personally, I believe that, even with the powerful effort that the book embodies, that is a bit too far fetched to expect and much more in the nature of action research is the least that may be called for.

In the context of globalisation and liberalisation that has overtaken our fancy, the book is a strong reminder that, in certain conditions and in certain areas, the situation is too far removed from the 'steady state' which is required for free play to succeed. There is a real need in such cases for direct intervention which is intelligently pursued, along the lines suggested in this book. Further, there is no need for any apology in the pursuance of such a course.

In closing, I may note that every effort must be judged on the basis of not only the actual performance but also on the basis of the level of difficulty attempted. The attempt to model the emerging reality in terms of the three aspects, viz., the process perspectives, and to see how they 'dissolve' or merge in the evolving situation, is indeed a brave one and thus rather praiseworthy. The latter effort requires not only theoretical rigour but also a capacity to 'read' the ground reality and to tune the various policy parameters continually, with the hope that at the end of such an intricate exercise there may be a glimmer of success. This is a comment on the inherent complexity of the subject matter. The enormity of the task here is daunting for anyone but the most lion-hearted. For not only attempting it but also attaining a very high degree of success, the author deserves very high praise indeed.

Rao, C.H. Hanumantha and Hans Linnemann, (Eds.), *Economic Reforms and Poverty Alleviation in India*, in the Series entitled *Indo-Dutch Studies on Development Alternatives-17*, Sage Publications, New Delhi, 1996. Pp. 271, Price: Rs 350.

This is an Indo-Dutch Study on Development Alternatives, based on papers and an address presented at a Seminar on 'Structural Adjustment and Poverty in India' organised by the Dutch branch of the Indo-Dutch Programme on Alternatives in Development. It contains eight papers plus an illuminating introduction by the editors. The contributors are Pieter A. van Stuijvenberg: 'Structural Adjustment in India - What About Poverty Alleviation?', Rolph van der Hoeven: 'Structural Adjustment and Poverty: Review of Experiences in the 1980s', Vijay Joshi: 'India's Transition: Progress, Problems and Prospects', S. P. Gupta: 'Recent Economic Reforms in India and Their Impact on the Poor and Vulnerable Sections of Society', Rohini Nayyar: 'New Initiatives for Poverty Alleviation in Rural India', Amitabh Kundu: 'New Economic Policy and Urban Poverty in India', Seeta Prabhu: 'The Impact of Structural Adjustment on Social Sector Expenditure : Evidence from Indian States', and Kaushik Basu: 'India's Structural Adjustment and the Need for Institutional Reform'.

These papers address themselves to the major issues and consequences of the ongoing economic reforms for poverty in India. The analysis is made in the relevant theoretical framework and in the light of the experiences of several countries in Latin America, Africa and Asia. The general conclusion seems to be that although the reform programme has been successful in some other areas it has not been so with regard to poverty alleviation. S. P. Gupta concludes with the help of NSS data that rural unemployment has increased since 1990-91 and the number of poor has risen significantly in both rural and urban areas, representing a reversal of recent trend. There has been a decline in real wages and a fall in the consumption share of the lower deciles. The increase in the number of poor has been larger in rural areas. This is in sharp contrast with countries in Latin America and Africa where reform has affected more severely the urban poor than the rural poor.

Kundu, on the other hand, finds a significant growth in the employment of children and women in urban areas which is more likely to be a sign of poverty induced employment. Since casual employment at relatively low wage is common among women, he feels that underemployment and poverty induced employment to be the main problem in urban areas.

Rohini Nayyar argues that inflation has worsened poverty in rural areas and lower outlays in agriculture, irrigation and social sector expenditures had adverse effects on the rural poor. Consumption of food from the PDS by the poor seems to have declined because of a sharp increase in prices due to reduction in subsidy.

Why did this happen? The genesis of the reform programme lay in the crisis of 1991. This was due mainly to the fiscal profligacy of the government in the eighties which spilled into balance of payments and created inflationary problems. A fiscal deficit of 8.4 per cent of GDP during 1990-91, due to subsidies, defence expenditures and growing interest payments on past debt, was financed largely by borrowing from the Reserve Bank of India and by forcing government owned commercial banks to subscribe to public loans. This generated a sharp rise in money supply and fuelled inflationary pressures.

In addition to domestic funding, foreign borrowing was also relied upon to finance domestic expenditure. As a result the already large current account deficit widened further to 3.4 per cent of GDP. The break-up of Eastern Europe and the consequent sharp decline in exports further aggravated the balance of payments problem and led to a heavy reliance on commercial borrowing. Thus India's debt servicing ratio increased from 9.1 per cent in 1980 to 26.3 per cent by 1989-90. The Gulf crisis in 1991 which led to a decline in exports to the Middle East and a sharp increase in oil prices led to a loss of confidence and, consequently, an outflow of NRI deposits of US $310 million per month. In July 1991 India's foreign exchange reserves fell to less than US $1 billion which were just enough to finance two weeks' imports.

To counter this, short term stabilisation measures to correct the balance of payments situation and control inflation were adopted in mid 1991; severe restrictions were placed on imports and a devaluation of the rupee by 20 per cent was made in order to stimulate exports; export subsidies were abolished but tradeable import entitlements were given to exporters in order to sustain their export performance. To restore fiscal balance, cuts were made in both investment and current spending.

Structural adjustment measures were also taken to improve the efficiency of supply in the medium and long terms in the shape of liberalisation efforts in the area of foreign and domestic trade and the financial system. Import restrictions were gradually eliminated and customs tariffs were reduced over a period from 300 per cent to 50 per cent in March 1995, in order to lead to efficient industrialisation and greater ability to export. These cuts obviously helped to reduce industry's costs. The number of items subject to export restrictions was also reduced. Tradeable EXIM Scrips and, subsequently, dual exchange rates were replaced by a single exchange rate in March 1993 and full convertibility on current account was established. Exporters were given adequate export credits at internationally competitive rates of interest.

The liberalisation of domestic trade was sought to be achieved through drastic industrial deregulation. The New Industrial Policy abolished industrial licensing on all but eight products and gradually opened up a large number of industries for private sector investments (e.g. power, telecommunications, transport, steel, oil and banking). Restrictions under the Monopolies and Restrictive Trade Practices (MRTP) Act were relaxed and restrictions on the size and location of industrial units were also reduced.

An attempt was also made to reduce the number and dispersion of excise duties, abolish commodity specific and user specific exemption and move towards a unified value added tax system, in the hope that this would raise tax revenues with minimal market distortions. Non-tax revenue also was low because of inefficiency and inadequate cost recovery by public sector enterprises (PSEs). In order to improve their commercial viability, PSEs were told that their losses would not be automatically funded by the budget. Select enterprises would be privatised by sale of their equity up to 49 per cent and loss making enterprises were to be referred to the Board for Industrial and Financial Reconstruction (BIFR) for rehabilitation or liquidation. Simultaneously, rules and procedures for foreign investment were simplified to attract foreign capital in priority industries so that Indian companies would have better access to capital, technology and markets.

To facilitate these changes, there was a parallel reform of the financial sector - autonomy of banks and financial institutions with regard to internal operations with greater accountability. International capital adequacy norms were to be followed with a view to improving profitability, and administrative intervention for concessional lending was to be eliminated.

Since a decline in public expenditure, so necessary to restore the fiscal balance, would lead also to cuts in allocations for rural development and social sector programmes and affect the living standards of the poor during the transition period, complimentary social measures were thought of to ensure equitable distribution of both the gains and costs of economic reform. In spite of fiscal austerity the government committed itself during the Eighth Plan to increased expenditure on clearly tangled social sector programmes and on rural development. Employment creation and human capital development in rural India through both Poverty Alleviation Programmes (PAP) and social services such as primary health care, elementary education and rural water-supply-cum-sanitation were to be expanded and broadened. In addition government decided in February 1992 to set up a National Reserve Fund to provide assistance to workers, who would become redundant as a result of the adjustment programme, for retraining or redeployment. It had three components: a National Renewal Grant Fund which compensates workers who retire voluntarily; an Employment Generation Fund for grants for retraining and redevelopment; and an insurance scheme for employees. This was to be a permanent social safety net for those temporarily affected by the structural adjustment programme.

The programme achieved immediate success in certain areas. The balance of payments improved considerably due to a sharp decline in imports and a later upward swing in exports. The adoption of the structural adjustment programme and the removal of many restrictions on foreign investment led to a large inflow of capital as well as non-resident Indian deposits, and foreign exchange reserves which could barely cover two weeks' imports in 1991 rose to a level enough to cover nine months' imports by 1994. Since the severe import compression had an adverse impact on industrial production, it was gradually relaxed but did not lead to any unduly adverse effect on the balance of payments because of greatly improved export performance.

It was with regard to the fiscal balance that the performance has been unsatisfactory. Although the fiscal deficit was brought down from 8.4 per cent of GDP in 1990-91 to 5.7 per cent of GDP in 1992-93, the result was achieved by cutting down capital expenditure, particularly on infrastructure and social services. Hardly an effort was made to cut down current expenditure on administration, defence, subsidies and interest charges which were a result of past profligacy and which led to a large revenue deficit. The result was that borrowed funds which reflected the society's saving continued to be used to finance unproductive expenditure rather than investment. This had two consequences: an increasing inability to generate employment, particularly in rural areas, and a diminishing capability to undertake poverty alleviating action. Secondly, increasing interest charges arising from growing public debt made it even more difficult to reduce the revenue deficit and therefore the fiscal deficit.

The situation could have been redeemed if expenditure on subsidies - food and fertiliser - could have been reduced. It is generally accepted that food subsidy provided in the public distribution system (PDS) benefits the non-poor to a large extent and, among the poor, benefits the urban poor rather than the rural poor who probably need it more. It is argued that a better way of providing the intended benefit, viz., food security, would be through specific targeting rather than a universal public distribution system. In view of the administrative complexity of such a system nothing much has been done to reduce the volume of subsidy. A fertiliser subsidy also benefits the well-off farmer who is able to dispose off his surplus produce at rising procurement prices and thus receive a double benefit. This also has not been tackled ostensibly for fear that production of food and other items would decline due to a decline in the use of higher priced fertilisers.

Similarly, expenditure could be reduced if government were not to make good losses of public enterprises. These arise on account of inefficiency, poor management, improper pricing and political and bureaucratic interference. Fears of losing an instrument of political and bureaucratic patronage and resistance from trade unions come in the way of privatising or closing down loss making enterprises, and prevent raising resources and reducing public debt in this way.

Irrigation, state electricity and transport enterprises are very large loss-makers. The main reason is improper pricing which does not cover costs. Also these are overmanned because of wrong notions of generating employment. Again political considerations prevent state governments from adopting proper pricing practices, as the beneficiaries are vocal upper decile farmers, so far as water and electricity are concerned.

The reform programme also involved a restructuring of the tax system - an across the board reduction of import duties in order to facilitate growth and exports, a reorganisation of the excise regime including a move towards modified value added tax (modvat), and a reduction in personal and corporate income tax rates in order to check evasion, ensure better compliance and raise more revenue. These measures take time to be fully effective so that revenues did not grow quickly enough to match the need for resources. This had two important consequences. The dependence on the Reserve Bank and the banking system was quite heavy. Secondly, since a substantial proportion of these revenues was distributed to the states their resources also failed to grow. Also, as Seeta Prabhu points out, the poorer states, which received large volumes of central assistance, suffered even more because of smaller central assistance due to an inadequacy of revenues at the centre. This led to a severe cut on spending on social services like health, education, sanitation, water supply, etc., as the states provide the bulk of these services. Thus, rural areas and the poor in those areas bore a large burden of the structural adjustment programme.

Poverty alleviation therefore requires greater capital expenditure in infrastructure, particularly rural infrastructure. It also requires a check on inflation which means a better fiscal balance through larger revenues and reduction in unproductive expenditure. Now that a certain degree of tax reform has taken place, the next step is to reduce unnecessary concessions to tax payers, tax agricultural income and improve tax administration, so that there occurs a more than a twofold increase in revenues. Similarly, in place of central excises and sales taxes a complete Value Added Tax (VAT) system should be introduced, so that revenues increase through reduced complexity. This should enable the state to place less reliance on debt servicing which is threatening to disrupt the entire fiscal system. This can also be achieved by privatising loss-making and sick enterprises which will confer a double benefit: the resources saved from not having to make good losses can be used for more productive purposes; and the proceeds from privatisation can be used for reducing debt so that the burden of interest charges in the revenue budget is that much reduced. To succeed, such privatisation has to be genuine and not with strings attached, so that private investors will be attracted. Otherwise, it may only lead to a diversion of resources from a captive financial system into the coffers of government.

The second way in which more resources will become available for greater capital expenditure is by way of eliminating subsidies and instituting an economic pricing system for services sold by government. Water rates have to reflect irrigation costs, electricity tariffs, the continuously rising generation and distribution costs, and railway and bus fares, the rising costs of fuel, equipment and personnel. Cross subsidisation should be eliminated so that the distortions do not take place. Similarly food, fertiliser and petroleum product prices should reflect their economic costs. There is a general feeling among politicians that by selling these services below cost they are in some way doing good to the poor. Firstly, except for food none of these are consumed by the poor. Thus the beneficiaries are the non-poor who can afford to pay more. Failure to recover costs today affects current working and growth over time, as is happening in electricity and transport today. Removing the distortion in the prices of these inputs will have an important indirect consequence, viz., a tendency away from using these expensive inputs towards a greater use of cheaper inputs such as labour which will be beneficial both, internally and externally. Ultimately, it is better to give a person an income through employment than devise subsidy schemes which he cannot avail of because he has no income. Only in food, perhaps, is there a case for subsiding the rural poor. Although it is fashionable to suggest that better targeting the really rural poor should be done in the PDS, there are studies which indicate that the cost of administering such a system would be higher than that of a universal system, and that a targeting system is always in danger of leaving out the really poor from its coverage. Nevertheless, efforts should be made to reform the PDS to exclude the non-poor and cover the really poor.

Can all these changes be brought about so that the economic reform programme proceeds towards finishing its remaining tasks? Till now it has brought about changes which did not affect very much adversely the interests of any well organised group. But further reform will affect several strong and vocal groups and is bound to meet stiff resistance. Unless there is great conviction about the desirability of these reforms and, as the editors point out, the political will to enforce them, the programme cannot go forward in any significant manner. It also needs great social cohesion so that benefits and costs are equally distributed amongst different sections of society. The book was published when the Congress Government was still in power and one could entertain a faint hope that such political will would be displayed, albeit haltingly. It is too much to hope that it will be shown now, when a coalition of 13 parties rules at the centre and when the Railway Minister looks upon the railways as a job-creating agency, when the communist Home Minister is opposed to privatisation because his constituents will lose their jobs, when the Finance Minister does not wish to risk raising petroleum product prices for political reasons even when the petroleum pool account is going to rock violently his fiscal boat, when the Prime Minister wants to give water and electricity free to 'poor' farmers, and when a constituent party Chief Minister faces bankruptcy in his state because of a populist food policy, and so on. One of the Dutch contributors refers approvingly to India's vibrant democracy, vigorous and alert media and the large number of equity-oriented economists as the saving graces of the Indian polity. One wonders whether this is really so given the increasing venality of politicians and bureaucrats, given the proclivity of people to send to different legislatures an increasingly large number of social undesirables, and given the chronic inability to administer efficiently and honestly programmes which could have prevented 40 per cent of the population from being below the poverty line and the largest number of people in the world from being illiterate. Indian democracy seems capable of only punishing errant legislators at the end of their term but has yet to learn how to extract good governance from them when they hold office.

The book should be read for an eminently sensible account of what needs to be done in the immediate future to solve the country's urgent problems. The illumination, however, leads to an overwhelming sense of helplessness because of the face of country's social and political reality.

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Kurien, C.T., *Rethinking Economics: Reflections Based on a Study of the Indian Economy*, Sage Publication, New Delhi, 1996, Pp. 272, Price: Rs 335.

In reviewing Kurien's earlier book *The Economy: An Interpretative Introduction* (1992), I wrote: 'The book opens with a promise but ends with little fulfilment of it. The author's instincts are right but they are effectively smothered by his ideological preoccupations. The result is a major disappointment' [*Journal of Indian School of Political Economy*, April-June 1993, Pp. 384-85]. The same may be said about the new book.

In his preface Kurien writes: 'This work is an exploration into the relationship between economic problems and economic theories. There is likely to be general agreement that the role of economic theories is to analyse economic problems and to be of aid to economic policies. But from time to time there have been instances where the very nature of economic theory has prevented it from performing this role. Why does this happen and what needs to be done to make economics as a branch of knowledge more responsive to real-life problems is the theme of this book' (p. 6). He adds: 'In this work, addressed mainly to professional economists, I discuss why it is necessary for economics to change the nature of discourse. ... As I see it, the source of the malaise can be traced to the conceptualisation of the economy that the pioneers of neoclassical economics put forward in their attempt to shape economics as a science similar to Newtonian physics' (p. 7). This is 'ill-suited for perceiving and analysing real-life economic problems because it assumes away the essential features of real-life economies. I attempt an alternative conceptualisation of the economy more in tune with the working of real life economies, particularly those like the Indian economy. ... If I am right, the logical culmination is a restructuring of economics as a tool for studying economic problems. However, I do not undertake the task ...' (p. 7).

I am sorry for Kurien. One reads with admiration and appreciation his long intellectual exploration of the theme as narrated in chapter I. One also is impressed by his deep scholarship and persistent efforts over a long period to grapple with a difficult subject which involved a great deal of swimming against the current. And yet the effort stops just short of the Rubicon, not because he himself modestly does not undertake the alternative conceptualisation of the economy more in tune with the working real-life economies, but because he furnishes an incomplete groundwork for finding the road ahead.

His critique of the neoclassical theory is impeccable but is limited only to its unrealistic conceptualisation. If that is corrected then every thing will be alright, is what he seems to say. Unfortunately that is not true. Even if the ideal of Newtonian physics is given up by economics, so long as it continues to move within the mould of the Newtonian analytical methodology it will come a cropper. Not only neoclassical economics but classical, Marxian and socialist economics also belabours under the same handicap. All other social sciences also suffer from the same malady.

The methodology of scientific enquiry created by the Newtonian Age was based on the three principles of reduction- search for the basic elements to which the universe can be reduced, causality (deterministic) and mechanism (the mechanical nature of all worldly processes). This was accepted and adopted by all the sciences, natural and social. Later, because of the development of quantum and relativity theories, physics got out of the Newtonian mould many decades ago but biology has done so only in the last couple of decades. The social sciences have not even woken up to that reality.

Kurien is no exception. For changing the nature of the discourse in economics, he searches for the basic elements that make up the economy and looks for a theory 'to explore the hidden interconnections, and thus to provide some coherence to the fragments that are the usual manifestations of practical knowledge' (p. 250).

If the nature of discourse has to change, and there can be no two opinions about it, it cannot be about only the economic aspect of the economy embedded in social relations. It has to be multidisciplinary. Kurien's own analysis cries out for such an approach. That is not possible with a Newtonian methodology whose built-in characteristic is not integration but specialisation and still more specialisation which surely takes the analysis more and more away from real-life conditions. The whole methodology has to change, overcoming the shortcomings of the Newtonian methodology. This is already happening. The development of systems analysis and that of the gestalt approach are steps in that direction. Not that these are perfect or complete as yet. But they indicate the correct direction. Kurien does not seem to be aware of these developments. If he were, I am sure, we would have got from him a more creative and satisfactory response to his own query.

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Roy, Tirthankar (Ed.), *Cloth and Commerce: Textiles in Colonial India*, Sage Publications, New Delhi, 1996, Pp. 338, Price: Rs 425.

This is a collection of nine essays published in the *Indian Economic and Social History Review* between 1974 and 1994 bearing on the theme of the impact of European commerce on the Indian textile industry from the middle of the seventeenth century to the early twentieth century. Four papers deal with the period before 1800 and the remaining with the period after.

The traditional account of the history of Indian textile industry in the period of after 1800 both by nationalists and Marxist writers is one of destruction of the Indian textile industry in the face of imports of machine-made textiles from Lancashire and how before 1800 India had a flourishing textile industry which exported textiles to Europe in large quantities. The colonial destruction of the Indian textile industry was supposed to have led to 'deindustrialisation' of India, a popular theme in the economic history of India. Until recently, this was the accepted gospel. But when Indian and other economic historians began to dig and explore the existing data at the micro and regional levels to study the problem, they began to suggest conclusions quite different from the traditional ones. This is not unexpected in historical research. It happened quite extensively in the study of the Industrial Revolution in England and the perspective continues to change even today. It is very heartening to see the beginning of the same thing happening in regard to Indian economic history. There is a vast territory to be explored. Hopefully, this will be attempted with greater vigour in the years to come.

The period covered by these essays divides itself into two parts, before 1800 and after. In the first period, the Indian textile industry began to be exposed to the European markets with increased exports to them and in the second the British machine-made textiles began successfully to compete, replacing Indian exports with increasing imports into India. The problems facing the historian investigators studying the two periods are exactly opposite of one another. In the first, the researcher is faced with the question whether the additional demand for textiles because of the new exports to Europe led to an expansion and growth of the Indian textile industry and whether this led to a degree of prosperity or better living standards or wages for the textile workers? In the second period, the problem is whether the Indian industry was 'destroyed' or survived and/or expanded adapting itself to the increasing competition of machine-made goods from England and with what consequences?

Before the opening of the European market, the four great cloth exporting regions in India were Punjab, Gujarat, the south eastern coast and Bengal. The industry in the north was more urbanised than in the south eastern coast or Bengal. Punjab traded with central Asia and the Middle East, Gujarat had ties with Red Sea ports, and Coromandel with South East Asia. Bengal had its markets in upper India. With the opening of the European trade, the regional configuration did not change.

Available evidence suggests that the expansion of demand for exports to the European markets led to the expansion of production. A part of the expansion in output is possibly attributable to surplus labour. But this raises a host of questions that need further exploration. There is enough evidence to conclude that whatever expansion took place did not make the average weaver remarkably better off than before. Was there a surplus of labour in the industry? A difficult question to answer and one which needs further research. 'At the height of its development, the export market represented a mere growth in transactions but with an ill-defined, arbitrary, even chaotic system of rights and regulations' (p. 21).

The period after 1800 is better documented. The import of cloth did not destroy weaving but induced complex adaptation. 'Deindustrialisation' does not seem to be the word to describe it. An initial decline in handweaving did happen and was more severe in the east (Bengal and Bihar). The trend reversed itself in many weaving regions, as growth in production and/or capacity from the end of the century would suggest. This turnaround seems to be a form of diversification whether towards coarse, non-cotton, or a range of cloths. This would require further research.

As remarked earlier these tentative findings raise more questions than they answer but that is the pattern of historical research, which is a process not a result, a movement not a position. While the findings in the book are provocative and appetising, one hopes that they will continue to be analysed further without minding whether these findings will hold or have to be modified or abandoned.

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Harriss-White, Barbara, *A Political Economy of Agricultural Markets in South India: Masters of The Countryside*, Sage Publications, New Delhi, 1996, Pp. 425, Price: Rs 395.

The book is based on a study conducted in Coimbatore district (Avinashi and Palladam taluks) of Tamil Nadu during November 1979 to January 1981. Why it took 15 years to present findings of this study is not explained by the author. The project was funded by the Overseas Development Administration, United Kingdom.

The book seeks to examine the technological and logistical systems defining agricultural markets and analyse the linkages of markets with land, labour and money. The study is based on interviews held with 506 farming households and 149 'firms' consisting of brokers, wholesalers and processors. Five commodity groups were selected. They were millets, rice, groundnuts, tobacco and cotton.

The author believes that '... the contribution of "old" political economy to an understanding of exchange relations and agricultural marketing in India throws a powerful challenge to conventional research on the economics of agricultural markets. Other markets are likely to affect their behaviour, in particular the markets for money, labour and land. One commodity market cannot be assumed to be independent of others in diversified production systems. Markets are not only to be conceptualised as mechanisms for allocatively efficient production decisions whose allocative inefficiency is the only problem. They are also channels for intersectoral resource transfer. In order to better understand why a given marketing system has evolved in its particular way, its analysis needs contextualisation in production relations, and in its internal disposition of power' (p. 50).

The author presents her findings and their critical evaluation in ten chapters. The first chapter, from where the above quotation is taken, presents the case for a political economy of markets, institutions and policy reforms. The second chapter discusses field methods and data; the next three chapters examine the agrarian structure, exchange relations, marketed surplus and the market systems. The sixth chapter examines the role of capital and money and the seventh that of labour and social construction of market systems. The land of merchants and their control over production is dealt with in the eighth chapter. The ninth chapter is entitled 'State Regulation, Economic Crime and Bureaucratic Corruption : Accumulation and its Politics'. According to the author, this chapter 'was thrust on us by the field experience' (p. 53). The last chapter provides the conclusions.

Before this review goes further, a word about the sub-title. 'The sub-title, *Masters of the Countryside*, is retrieved from a discussion of rural power structures by Lenin. ... and is used here well after the definitive dissolution of the

Leninist/Stalinist political project. It would not be sensible to throw a lively methodological baby, born from the study of the political economy of peasant societies, out with stale political bath water. With respect to Russia, Lenin concluded that it was the nascent class of rich peasants and agrarian capitalists who were masters of the countryside. He also conceded, however, that their geographical distance from the site of production could mask the real power, even over the *rich* peasantry, of absentee landlords, or what he called 'usurers' and so on - power which was exercised in *circulation* and *marketing* as well as over *production*' (emphasis added by the reviewer) (Pp. 15-16).

Who are the 'Masters of the Countryside' in the countryside of the Avinashi and Palladam taluks of the Coimbatore district of Tamil Nadu of India? Are they among agriculturists or non-agriculturists in these regions? Are they among moneylenders or politicians? The author does not investigate into such questions. She can only say something about the trading class which she has studied. But her observations, like '(t)he largest and most profitable firms are unhitching themselves from their landed base. Moneylending by traders was never an important feature of product marketing ... loan repayment is not tied (non-contractually) to the supply of the entire marketed surplus' (p. 312) or '(a)grocommercial magnates control agroindustrial production rather than agricultural production' (p. 320) do not suggest that they are the 'Masters'.

And yet, she concludes, '... the masters of the countryside are not absentee landlords but the powerful and wealthy elite of traders who control property relations in exchange and marketing' (p. 323). These property relations which are controlled seem to be of two types : one, those discriminating 'through prices against small producers' (p. 323) and those exploiting small traders by the elite traders. '... there exists more solid evidence for the functional usefulness of poverty-induced petty trade for the commercial masters of the countryside, protected for the most part from the challenge of petty production by their exploitation of scale economies. The exception - tobacco processing - proves the rule' (p. 323).

According to the reviewer, the addition of the sub-title is rather more for the glamour than for any serious purpose. The study is certainly not oriented to identify 'Masters of the Countryside' and describe their sinister or not-so-sinister activities. It is one thing to say that large traders have more control over markets and commodity flows, more investments, more storage capacity and so on, as compared to small traders. But, it is entirely another, and wrong, thing to say that, because of this, the larger traders are the 'Masters of the Countryside'.

This is as far as the sub-title is concerned. The main title is also equally misleading. The book does not deal with South India. It deals with two taluks in one district in one of the four States of South India. Similarly, it does not deal with the entire agricultural marketing in South India. A number of important crops like sugarcane are missing from this analysis. The conclusions of this study may not be representing even the State of Tamil Nadu. The author has acknowledged this indirectly, when she, in a separate section in the last Chapter, has discussed the contrasts between study findings of North Arcot and Coimbatore regions of Tamil Nadu (Pp. 326-327).

As far as the core content of the book is concerned, it is based on the cross-sectional data collected through interviews with traders. The information from farmers consists mainly of production, land holding, yields, and marketed surplus. The author finds that the relative marketable surplus is positively related to the output of the concerned crop, for all commodities and in both the taluks; it is not so related with the holding size. Wherever it is significantly related with holding size, (tobacco in Pothampalaiyam and ragi and cotton in Vanjipalaiyam), the association is negative (Pp. 107-109).

The activities of merchants have been classified by the author in terms of property rights transfers (buying, selling, brokerage, trading), physical activities (production, storage, transport, processing) and financial facilitation (finance of production, finance of trade) (p. 132). The author finds that 'there are no mercantile firms ... which do nothing but buy and sell, and there are 5 per cent which neither buy nor sell, being pure brokering organisations' (p. 132). There are several combinations of these activities performed by the sample functionaries. Given the scale of operations, number of functionaries, risks involved in concentrating on only one activity, this looks quite logical. But the author 'expected firms to be strongly patterned in their activities and that these patterns would correspond to the local terms by which intermediaries and their firms are classified and known. But the activity patterns in sampled firms completely confound our expectations' (p. 134). The author describes in great details the combinations of these activities but, unfortunately, does not explain why these combinations, in fact, take place. There is also little evidence to indicate whether there is commodity specialisation among the sampled firms or whether some of them also deal with more than one commodity (in the functions related to marketing, processing or transport).

The author lists various cases of bankruptcy in merchant firms (Pp. 175-176). There seemed to be both management factors as also factors related to marketing (inadequate supplies, state regulations, crop failures, climatic factors, like rains or uninterrupted sunshines, and unpredicted market behaviour) responsible for these failures. The author's conclusion that 'price movements do not seem an important source of risk to traders' (p. 176), although emphasised in italics by the author, is not substantiated by providing any figures. In fact, no analysis of prices, arrivals, etc., over time is attempted to support or challenge the traders' responses. Since there are regulated markets, offices of the State Trading Corporation and of Cotton Corporation of India in the study areas, a good deal of information could have been collected, scrutinised and used with advantage. Why the author has not done is very difficult to understand.

Another serious shortcoming of this study is the neglect of varietal differences in commodities. As we all know, Indian agricultural market is characterised by preponderance of varieties for each commodity. Each group of variety (if not each variety) has a different market segment and is guided by its own supply and demand conditions. This is true for all the five commodities that the author has tried to study. (In fact, millets is not one commodity but a group of commodities, each having different varieties).

The author seems to be aware of the existence of so many varieties and their market segments. At one place she cites an example of 'Sorghum from Orissa' which fetched retail prices '25 per cent higher than local Sorghum of exactly the same type, an example of the development of 'brand loyalty' and fixed preferences' (p. 186). At another place she cites the Department of Statistics as a source mentioning '120 varieties of rice traded in Tamil Nadu' (p. 186). All this puts a heavy burden on researcher who tries to measure exploitation. The seasonality in prices, for example, is aggravated by the presence of moisture in groundnut, when it is marketed immediately after the harvest. The lack of local transport, marketing in small lots, marketing of ungraded produce, all these dampen the prices that producers receive; but they need not always lead to exploitation, since, because of them, the traders are also likely to incur more costs. This is not to say that exploitation does not take place. It should only mean that it cannot be reflected in mere comparisons between average prices or between minimum and maximum prices. In this context, the author acknowledges as follows: 'From combination of laboratory and marketplace research carried out in Andhra Pradesh to the north by ICRISAT, we know that cryptic quality characters which cannot be assessed by eye (protein, oil contents, etc.) but which are of relevance to nutrition are also faithfully reflected in market prices - through the operation of proxy criteria which remain obscure' (p. 186). Her own research, however, does not go into these aspects.

In addition to the differences due to varieties and qualities, the commodities, themselves, offer different types of markets. The consumption of millets, for example, is localised and limited; groundnut on the other hand is influenced even by international markets. Cotton market is influenced by several vertical (upto clothes) and horizontal (covering cotton seed oil) processing activities. Naturally, elements of market structure (like price formation, entry into trade, profitability, commodity-flows, supply arrangements, wealth generation, risks, investments, etc.) differ from one commodity to another. Thus, the conclusions like 'Price bases vary from Bombay (groundnuts and cotton) through Erode in the locality (millets) to various locations in Kerala (rice and tobacco)' (Pp. 325-326) makes sense when these complexities are related to them. The author is aware of them when she mentions the 'great variety and space-time specificity in the way each crop market is constructed and performs' (p. 326), but she does not exercise enough rigour to examine them in detail. Several aspects of capital, money, labour, organisational structure, investments into allied activities, etc., would be explained if she related them to the individual product markets, their price behaviour and associated risks.

It is, probably, because of this lacuna that her policy prescriptions do not sound convincing. She is bewildered by the institutional and organisational complexities and the failures of the Government and Regulated Markets. She concludes, rather hesitantly, 'The marketing systems analysed here, if deregulated, would not suddenly, or soon, exist in a *tabula rasa* state of compliant almost-perfect competition ... Unless deregulation were accompanied by the rise of countervailing social forces representing at one and the same time not merely a potential for 'control' over market behaviour but also rivalrous forces in the struggle for resources distributed through the marketing system, then the structures of power and control comprising marketing systems will work inexorably in their own interests' (p. 344).

Whatever these social forces are, one cannot wait for them to emerge from nowhere. There could be better, and more practical, measures. One is, for example, initiating the process of standardisation of varieties, grades, etc. The introduction of hybrid and improved seeds has already started this process; if it reaches all regions and covers all crops, the markets will widen, price comparisons will become more meaningful and price and market information dissemination services can be better organised. The agricultural exports and processing could also assist accelerating this process. The second measure could be encouraging Commodity Marketing Boards. With standard daily quotations, organised trading and, if necessary, forward trading, these Boards could serve as a common trading platform, the information of transactions, then, becoming no one's monopoly.

With all the time the author and her study team had, such methodological lapses could have been avoided and the presentation made more compact, lucid and analytical. The book under review contains wealth of information; there is no doubt that it is painstakingly collected. There is, however, a lurking doubt in the reviewer's mind that conclusions were reached much before this information was analysed. The presentation naturally suffered.

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Saberwal, Satish *Roots of Crisis: Interpreting Contemporary Indian Society*, Sage Publications, New Delhi, 1996, Pp. 199, Price: Rs 155.

The theme of India being in a crisis was the subject of two books lately reviewed in this journal. One was by Prof. Kohli [JISPE, 1993, 1994] and the other edited by Upendra Baxi and Bhiku Parikh [JISPE, 1995]. In reviewing the latter book, this reviewer had observed that that book by itself did not give us a feeling of a crisis, since the problems of the society were being handled well and, if some of those problems were getting worse some were getting better also. However, Satish Saberwal in this book testifies that 'scholars in diverse disciplines and academic locations are now coming to share a judgement that we in India are in fact in very serious difficulties' (p. 36). Saberwal is not referring to economic difficulties or to the instability created by election results but to the social disorder exemplified by battles between students and bus-drivers, between villagers and the police, communal clashes and disorderly behaviour on the roads, in buses, at airports (Pp. 30-34). He asks the question as to why this disorder; and his answer is that it is because of the inability, not of a particular leader or political party, but of the whole society to adapt itself to the working of the new institutions which the British rulers brought with them and with which we have got to get adapted, if we have to manage the mega-society which has replaced the village societies of the past. There should be no dispute about this part of Saberwal's analysis; but Saberwal goes further and tries to show how the western institutions were a natural growth in the Christian world and how our historical context is completely incompatible with them. Saberwal has drawn on a host of historians whom he calls, using an anthropologist's term, his 'key informants'. That makes his presentation overwhelming, but one can still have doubts about his hypothesis. The first glaring point is that while he has allowed a span of about 2000 years for judging Europe, he has allowed a span of only 50 for judging India. In the case of Europe, Saberwal traces a continuity of tradition from the Roman political framework and Greek thought and says that between the passing of Rome and the rise of strong kingships by the thirteenth century, 'the Church provided Europe with *political insurance* of a quite exceptional order' (p. 116, emphasis his). He admits that during these centuries there were cataclysmic disruptions (p. 110). He refers, though only in passing, to the Hundred Years War (15th century) and the explosive Arab Expansion (which penetrated deep into Europe). He refers to the '(l)arge-scale persecution and burning of witches' (p. 152). He could have, but has not referred to the inquisitions also. He has mentioned Hitler's pogroms and the two world-wars of this century. He could have, but again has not referred to the biggest disruption of the present century, namely, the communist revolution which kept the democratic West in a state of dread for more than two decades after the second world-war. The only reason why Saberwal admires Europe is that '(w)henever the dust settled, after conflicts and all the warfare, there remained the central tendency to turn to the familiar institutions and laws and to their core impulses ...' (Pp. 113-117).

As against this span of 2000 years, what does Saberwal allow for the Indian case? Not even 50 years. There is no way that the period of our Independence struggle can be called a crisis. In 1947, as Saberwal has himself noted, 'optimistic exuberance filled the air ...' (p. 143). It is around 1970 that people began to talk of a crisis. Apart from what political commentators like Rajni Kothari wrote, a Marathi poet, Suresh Bhat, wrote his famous song: Dawn was approaching and yet, suddenly, it turned into dark midnight; Vijay Tendulkar wrote a historical play *Ghashiram Kotwal* which, according to commentator Deepak Ghare, represented the insensitivity and oppressiveness of the Indian state of the 1970s; Badal Sircar's play *Micchil* (translated in Hindi as *Juloos* and adapted in English as *Procession*), which became popular, depicted what was perceived as the apathy, anomie and directionlessness pervading the Indian society. This sense of crisis is thus just 25 years old.

Passing judgements about two societies with such an unequal time-frame is a quasi-essentialist way of looking at things: saying that the European society has exhibited one sort of a continuous underlying trait for 2000 years and that the Indian society has exhibited another sort of a continuous underlying state. This sort of judgement is iniquitous in another way also - while ghastly wars and inquisitions and pogroms are accommodated in a historical evaluation, mere street-fights and disorderly behaviour in public places is considered enough to raise a cry of crisis, just because dust has not yet settled over them.

Ronald Inden has firmly rejected an essentialist construction of western and eastern societies [Inden, 1990]. Even without his penetrating historical studies, there are several well-known counterparts in India to some of the prominent features of the European society noted by Saberwal. For the Roman Empire we have the Ashokan Empire; for the Roman political thought we have Kautilya's Arthashastra. For the 'men of vision' of the Christian Church and the organisation of monasteries, we have *Adi Sankaracharya* and his *Peethas* established in the four corners of India. For the Greek logic we have our own *Tarkashâstra* discussing the same form of syllogism as 'Socrates is a man; All men are mortal; therefore Socrates is mortal', and also discussing rigourous definitions of 'cause' and 'effect'.

There is no doubt that European and Indian societies developed on different lines. But Saberwal's 'theoretical perspective' amounts to the positing of a quasi-essential difference in the beginning, which only flowered in the later centuries. If, like Ronald Inden, we reject this qausi-essentialist perception we ought to look for some contingent factors as the starting points. For example, it has been suggested by some [McNeill, 1979] that the very absence of a structured society in the barbaric tribes of Europe led to a more egalitarian and pragmatic development of their thought and institutions, just as the brotherhood concept in Islam has been attributed to the tribal roots of that religion. As to the success of the barbaric tribes, Voltaire's 'view, later developed by Gibbon, (was) that the rapid conquest of

(Roman) paganism by Christianity had disintegrated Rome from within and prepared it to fall an easy victim to the invading and immigrating barbarians' [Durant, 1953, p. 222]. This view, contrary to what Saberwal has said, makes the Christian Church indirectly responsible even for *decline* of Europe into the Dark Age, which lasted for a thousand years. The main point is that the Church cannot be given too great a credit, and that we must search for contingent factors. He has himself characterised this story, the story of Europe, as 'long, complex and often confusing' (p. 113). It is hazardous to draw up a simplified and neatly differentiated model of it, and even unnecessary, if our purpose is to understand *our* problems.

In his chapter on communalism, Saberwal says that tendentious historiography, separation of electorates (in the pre-Independence period) and competition for jobs, which have been identified by other authors as the causes of communalism, are not the root-causes, since communal identities have first to be in place before conflicts of interests can take a communal colour. He therefore dwells a a lot on the *separativeness* of religious tradition. He has not however adequately explained how *antagonisms* arise. These latter arise because of conflicts of interests and are certainly aggravated by tendentious historiography.

The state has a major role to play in overcoming our problems, by bringing about economic development and distributive justice and by holding the nation together till the various (new) institutions of the nation get firmly rooted in the people. Until we achieve that there is going to be some pain and some bursts of disorder. To expect a painless progress is unrealistic and to characterise that pain as crisis would be self-defeating.

Whatever the short-comings in Saberwal's analysis, he has very clearly understood that the 'Indian academia and intellectual circles generally' have also a responsibility to bear. In the Appendix to Chapter 7 of this book, he has given a very good prescription specifically for them, which is (i) that they need to change their present stance of attacking the state and of holding that 'all good men and women have to resist the state and its machinations' (p. 158); (ii) that they should realise that it would be self-defeating if we overload the state-structures with excess of conflict; and (iii) that it is necessary to generate enough understanding of the essential prerequisites, if these structures are to function and to remain functional through maintenance and renewal.

A very good prescription indeed!

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Kothari, V.N., *Growth Employment And Education : Selected Economic Papers of V.N. Kothari*, Published on behalf of the Felicitation Committee, M.S. University of Baroda, Baroda, 1995; Pp. 195, (Price not mentioned).

This book is the first volume of a planned two-volume publication of some selected papers authored by V.N. Kothari, as his felicitation on his retirement as Professor and Head of the Department of Economics, M.S. University of Baroda. These papers date from 1957 to 1992 and are mostly in the nature of theoretical discussions of various models or propositions or economic situations of those times.

Some of the topics discussed in this book have died a natural death, for example 'Cooperative Farming' or 'Land Army'. (The latter topic has been discussed under the more academic titles: 'Disguised Savings Potential' and 'Reformulation of the Consumption Goods Multiplier').

In the case of some topics, the data which Kothari has used is now quite old. For example, 'Returns to Education' is based on a 3 per cent random sample survey of the tenements situated in Greater Bombay of 1955-56; while 'Disparities in Relative Earnings among Different Countries' is based on the Bombay city data of 1956-57. The importance of these papers lies in the very critical analysis which each topic has been subjected to. Under such analysis it transpires that the models put forward by even, eminent authors like Arthur Lewis, S.J. Patel, C.N. Vakil, P.R. Brahmanand, etc., are flawed, due to one reason or the other.

There are some topics which are alive even to day and it would be useful to see what Kothari has to say about them.

The paper on 'Growth and Employment' recognises the inadequacy of 'Growth' in solving the problems of unemployment and poverty. It then discusses specific strategies for the development of the rural sector. The strategy, suggested in 1977, is the use of the ample food stocks and foreign exchange (forex) reserves available at that time. However, in advocating this strategy even the ever-watchful Kothari seems to have faltered. He says: 'Excess stocks of foodgrains can make their way into the economy only through a fall in their relative prices. Price support operations inevitably make this process inflationary. We cannot hope to build up stocks through bank credit, have them liquidated through created purchasing power and yet avoid inflationary pressures' (Pp. 15-16). This way of presentation makes us believe that the same stock of foodgrains is held for a while and later liquidated, ending in a zero-inventory situation. The correct way of presenting the situation is that stocks are held at a certain level and additions to or withdrawals from this stock are part of the constant process of inventory management. It is true that food-stocks are at present more than that required as an insurance against bad years, but that is the result of a deliberate policy of price-support, which serves two objectives: (i) increase in food-production, and (ii) transfer of more purchasing power to the rural sector. Kothari himself wants the rural sector to have such purchasing power so that employment in non-agricultural sector can be sustained (p. 13). In the same paper, Kothari advocates a higher rate of interest on the savings accounts of farmers so that they are induced to sell away their stocks for money which can be spent on non-agricultural goods, leading to more employment (p. 13). This is a clear case of double counting of benefits. If the farmer spends his money, he will support employment but not get interest. If he chooses interest, he will not be supporting employment. Apart from counting a benefit twice, Kothari also ignores the policy objectives of the price-support policy.

In discussing the unemployment problem, Kothari points out: 'The average productivity per worker in the organised sector is probably more than four times the productivity per worker in the unorganised sector.... There is naturally great pressure to get into the organised sector' (p. 168). He therefore stresses the importance of expanding employment in the organised sector. As regards the agricultural sector, he finds from the Seventh Plan documents that the productivity per worker in this sector is stated to decline, though the Gross Value Added (GVA) and employment in terms of Standard Person Year (SPY) is stated to increase (p. 117). He considers this serious, which does not seem warranted. In a static mode of production, increased employment must lead to diminishing marginal returns, pulling down the average. So long as there is some relief to individuals who were earlier unemployed and also an increase in the gross product, there should be no cause for worry.

In dealing with the linkage between education and employment, Kothari brings out the fact that returns on the investment in primary and middle school education are very high as compared to college education. He is, therefore, in favour of funds being diverted from higher to lower stages of education. However, while writing about education policy, he says 'doing away with higher education would be inviting chaos because modem education is at least one major factor in the direction of meritocracy and rationality' (p. 176). It is clear that Kothari wants to tread a middle path. He also advocates a middle path on the question of financing medical and engineering education. He sees the dangers in private colleges taking over this education (Pp. 184-193). He also sees the inequity of public financing of this education since the benefit of it goes entirely to individuals and, that too, to those who come from the higher strata of society (p. 178). He therefore recommends the trying of a 'full-cost fee principle ... combined with (a system of) loans, ...' (p. 182). The validity of these arguments has already been recognised by the educational authorities and tuition fees in medical and engineering colleges have recently been sharply raised. It is however surprising that Kothari has characterised vocationalisation of education as a fallacy on the grounds that '(v)ocational skills are too specific and education is unsuited to impart such skills' (p. 176). One would say that vocations as diverse as dress making, watch repairing, electrical wiring, etc., do call for considerable know-how and, therefore, some formal education.

In conclusion, while one must appreciate Kothari's thoroughgoing analysis, one must be watchful and apply one's own critique before accepting conclusions derived therefrom.

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Jharta, Bhawana, *Women and Politics in India*, Deep & Deep Publications, New Delhi, 1996, Pp. xiv+242, Price: Rs 310.

On the threshold of the twenty first century, India is making a heroic effort to involve its women in the decision-making process in the country's politics in a massive way. After amending the Constitution to secure at the local government levels reservation of seats in the representative bodies to the extent of 30 per cent of their total strength, the debate is on to carry the same principle forward to cover the state legislatures and the Parliament. Though women have been elected to all these bodies in the past their numbers have been very small as is only to be expected in a traditionally male-dominated society. With a statutory reservation of seats for women in elective bodies, the traditional scheme is bound to be shaken up and a greater share given to women in the exercise of power as a matter of right.

In the *Panchayati Raj* institutions at the Village, Block and District levels in the rural areas and in various municipal bodies in the urban areas, the experience of the last three years has shown that given the opportunity women can contribute to the making of policy and its effective implementation in spite of their traditional passive role in public affairs. Their initial shyness has given place to a keen desire to learn the intricacies of political life and to prove their ability for political leadership. Voluntary organisations have come forward to train women to participate effectively in the democratic system. At first, it was feared that women would not come forward in such large numbers as to fill all reserved seats in the local bodies. It was estimated that nearly eight lakh women would have to come forward for the purpose in the whole country. Apart from their lack of confidence in contesting elections there were various social constraints confining their activities to their families and farms. But it has been shown by experience that women are learning fast and there is no dearth of candidates to participate in local elections. Of course, there is in operation the *Bibi-Bahu-Beti* syndrome to a certain extent where men step down in favour of their wives, daughters-in-law, daughters, etc., in the constituencies reserved for women under the new laws. They continue to exercise authority ignoring the fact that they were no longer the elected representatives of the voters. In Rajasthan, for instance, a new word was coined to indicate the husband of an elected woman *Sarpanch* who assumed for himself the right to speak on behalf of his wife as the *Sarpanch-Pati*. However this must be regarded as a passing phase in the further liberalisation of the old norms.

The experience of the last three years indicates that wherever the panchayats are headed by women or there are 'women-only' panchayats, the pattern of policy priorities shows a distinct trend. Drinking water, construction of wells, installation of water pumps, construction of roads, appointment of teachers, closing of liquor shops, providing play-grounds and building toilets are some of the topics on which women have taken decisions. In spite of little experience and no exposure to public life, women seem to be working diligently and responsibly. This has in fact given rise to considerable enthusiasm for political participation of women in India, covering an array of actions and activities like, casting a vote, campaigning for elections, organising groups, contesting elections, holding elective offices, etc.

Women's political participation is very important because it leads to acquisition and exercise of political power. This provides an opportunity to them to influence the decision-making process and policies to amend the existing laws and situations whenever they are disadvantageous and to bring about necessary social change. Constitutional guarantees and reservations to seats to panchayats has not only increased the number of women participating in the political process, but has also tended to restrict them to the reserved constituencies only. Whenever women were elected in the open constituencies, they were often ostracised and prevented from participating in the panchayat as elected members.

Many studies have been conducted in respect of women's participation in politics at various levels. Bhawana Jharta's book claims to analyse and evaluate the role and impact of family background and education on women's participation in politics in the State of Himachal Pradesh. The book is divided into six chapters. The first introductory chapter lays down the broad framework of the book including the methodology followed for the empirical research. The sample consists of activists, who are members of an organised group whether of a political party or of an interest group, and the non-activists for the purpose of comparison. The second chapter explains the scope and the ambit of political participation of women. This chapter provides a large number of quotations from the works of various authors and establishes certain hypotheses to be tested by an empirical study. A historical review of the status of women and their political participation in India is covered in the third chapter. The report and the analysis of the empirical research regarding the impact of family and education, respectively, on women political activists is given in the next two chapters. The concluding chapter gives a summary of the work including some suggestions for improving women's participation in politics.

The empirical study consists of analysing the responses of 140 activists and an equal number of non-activists (the control group) to various questions related to the impact of family background and educational attainments, respectively. There is nowhere an explanation of how the sample of 140 has been selected and how representative it is for the whole State of Himachal Pradesh with a female population of over 25 lakh, roughly 50 per cent of whom would be eligible to exercise the franchise. In regard to the impact of both, family and education, on women political activists, all that the author has done is to enumerate the positive and negative responses of the sample of 140 activists and non-activists to such items as membership of political parties, status in the party if any, membership of the voluntary organisations, political awareness, participation in political discussion, participation in conventional and non-conventional activities, their efficacy, approach to various persons for solving problems, active interest in public affairs and views on the role of women in society and related questions. The relationship between marital status, number of children, age, family structure, political background of other members of the family, economic status of the family and many of the above items has been similarly tabulated. As many as 70 tables have been given in the book to represent the empirical research. One wonders if all this effort really leads to any valid conclusions of a representative character, even in respect of the State of Himachal Pradesh, not to speak of India as a whole. The working of percentages under each of the items is only an arithmetical exercise giving the impression of a scientific basis to the statements made. But the whole effort appears to be like an inverted pyramid very precariously balanced on a very narrow foundation. While this may undoubtedly show considerable industry on the part of the author, it does not seem to add much to the body of knowledge on the subject.

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Dhawan, B.D. *Groundwater Depletion, Land Degradation and Irrigated Agriculture in India*, in Series entitled *Studies in Economic Development and Planning, No. 60*, Commonwealth Publishers, New Delhi, 1996, Pp. xii+(4)+196, Price: Rs 300.

Saleth, R. Maria, *Water Institutions in India, Economics, Law, and Policy*, in Series entitled *Studies in Economic Development and Planning, No. 63*, Commonwealth Publishers, New Delhi, 1996, Pp. (xii)+293, Price: Rs 480.

Development of irrigation in India gave rise to more problems than it solved. The controversies ranged from the choice of the site of dam, the measurement of the impact of irrigation to over-exploitation, water logging, salinity. In the academic debates on irrigation, minor irrigation (groundwater irrigation) received lesser attention than the surface (canal) irrigation. Only from the mid-eighties the issues pertaining to groundwater irrigation featured prominently. There is an erroneous impression which gets created due to the growth of public investment in irrigation that major irrigation (surface irrigation) covers larger area and it is the most widely spread source of irrigation. But, as the bulk of investment in creating irrigation facility through groundwater comes from private sources, this does not get included in the public investment figures. Though the prominent source of irrigation, groundwater irrigation attracted attention only against the background of canal irrigation. However, a number of issues came up for debate involving groundwater irrigation after mid-eighties. These included: efficiency of groundwater irrigation as against canal irrigation, equity in access to source of irrigation, major *vis-a-vis* minor irrigation, investment and water-use efficiency in the context of pricing groundwater irrigation, over-exploitation (more explosively called mining) of groundwater, depletion of water table, well interference [interference by a well in respect of water table of adjoining well(s)], water markets and water-sharing institutions, water pricing, groundwater extraction methods, energy consumption in groundwater extraction, over-use of water, land degradation - salinity, salt-water ingress, etc. The issues covered a wide canvass and these were at times confounded by the misuse of concepts, data or methods of analysis. The present review addresses to some of these issues with reference to two books, one by B.D. Dhawan and the other by Maria Saleth. It is interesting that both the books come from one institution i.e., Institute of Economic Growth, New Delhi. Dhawan is known to all of us as the foremost irrigation economist, and Saleth has been consistently writing about water institutions. Incidentally, both of them address to two different problems but there is a sort of continuity in their arguments which can be traced out.

Receding water table or depletion of groundwater has occupied the centre stage among the issues relating to groundwater. Among a few misconceptions prevailing in the field of groundwater irrigation is that regarding the 'stock and flow' aspect of groundwater. Dhawan brings out the difference between 'stock and 'flow' and refers to the fact that the depletion rate is a dynamic or comparative static concept. It is essential to underscore the seasonality and climate responsiveness of groundwater. Hence, while addressing the question of depletion of groundwater, it is essential to take into account an increasing trend in the 'rainfall corrected depth' to the water table. There is a possibility of intermixing the methods of measurement of water table. The usual official method of measurement is the depth to water below ground level (bgl) and the other is the height of water-column in the well. The most frequent method of measurement is the depth to water table bgl. But there is a chance of this getting influenced by terrain in micro-level comparisons. The data for the purpose of analysing depletion of groundwater are available from different sources. The Central Groundwater Board (CGWB), Groundwater Estimation Committee Report, 1984, State Groundwater Survey and Development Agency, and the Ministry of Water Resources give the data on groundwater. The procedures of collecting the data are more or less similar across the agencies and they collect these data from 'observation/sample wells'. In addition to these, the satellite imageries give information about sub-surface geological situations, and based on these imageries data can be interpreted. It is not necessary that all these sources of data will lead to the same interpretation.

For a sufficiently long time a consensus prevailed among agricultural economists that there is a progressive lowering of water table and the rate of depletion of groundwater is quite high. Dhawan takes up the analysis of this hypothesis about fast depletion of groundwater. As the first task the concepts of stock *vis-a-vis* flow aspects of groundwater have to be clearly distinguished. The data on groundwater resources are not available as a time series for the country or for any state, and as the recharge is quite responsive to climatic conditions, one cannot draw conclusions based on comparison of any two points of time. The Central Groundwater Board and National Bank for Agriculture and Rural Development (NABARD) chose to classify the blocks (community development blocks- essentially an administrative unit) in the country into 'dark' 'gray' and 'white', depending on the level of groundwater exploitation. Apart from the fact that movement of water below the earth's surface is not guided by the borders of an administrative block or taluka, the groundwater draft should be reduced by an allowance of recharge created by its own use. Further, even a simple text of hydro-geology brings out clearly that there are movements of groundwater depending on the type of aquifer and recharge zones. These points are clearly brought out by Dhawan.

While analysing the depletion hypothesis and after clarifying the concepts, he turns to the three approaches used in measurement of depletion, namely, the area approach, volumetric approach and water table approach. The area approach involves accounting of the share of the ultimate irrigation potential exploited. The volumetric approach is based on the computations of precipitation, run-off, evapo-transpiration and recharge as against the total draft. It goes without saying that quite a few assumptions are involved in arriving at these estimates as those about the ultimate irrigation potential. These data are provided by CGWB. The approach based on depth to water table inherently involved greater clarity. But the number of observation wells change over years, possibly introducing some sort of non-comparability. It seems that all the three approaches have their own weaknesses but among these, Dhawan prefers the volumetric approach. The highest depletion of water table observed from the volumetric data is in the Indus basin and especially in Punjab and Haryana. But when the author reaches to the analysis of the data at district level he notes over-exploitation in nine districts. However, concluding the discussion on depletion of groundwater Dhawan remarks as follows: 'Official Statistics indicate a rather confusing picture of groundwater exploitation in India' (Dhawan, p. 35). It is worth noting here that in the age of information boom we even lack the basic information to conclude decisively on such a crucial aspect which is quite painful.

While analysing the process of over-exploitation of groundwater, Dhawan prefers to take examples of a few interesting States. Initially, the over-exploitation due to a change in crop pattern is investigated taking a case of paddy cultivation in Punjab. Paddy cultivation is preferred by the farmers of Punjab because of firm price, dependability of tubewell water and suitable technology apart from a good export potential. The flat power tariff has also fueled the increase in area under paddy cultivation. Over-exploitation of groundwater in Tamil Nadu was taken up for analysis. The chapter on this brought out the case of Coimbtore and Nagapatnam districts but a detailed analysis of the causes of over-exploitation is taken up only in the chapter on Gujarat and Punjab.

An analysis of the causes of increasing depth to water table is taken up here. Pooled time series - cross section equations are used to explain the variations in the depth to water table. Apart from the estimation problems, Dhawan uses the quadratic form of rainfall for segregating the impact of rainfall. The coefficient for the quadratic term is most of the times positive but statistically not significant thereby demonstrating futility of its inclusion as a variable. Surprisingly, the equations on page 83 which include water released in canal as an additional variable, show that increase in the release of water in canal also increases the depth to water table. I agree with the author that 'the results (in this context) need further investigation' (Dhawan, p. 83). The fact, that rainfall emerges with significant sign, points to the dependence of water table on recharge. In India very little attention is given to the fast depletion of recharge zones. In fact, the issue of the depletion of groundwater table should be approached more from the viewpoint of draft or of the recharge zone. It becomes essential to look into the trends of recharge, which are declining despite the incorporated rainfall correction. Apart from this, the rate of depletion has to be interpreted after standardising it by the rate of increase in the density of wells. Again we do not have reliable time series data on density of wells. In fact, this is easily available in land records but not required to be published in *Season and Crop Reports*.

Well irrigation is primarily a private investment activity and once the investment is made the opportunity cost of using water is negligible. In other words, in the absence of any regulatory institutions dealing with the use of water for well irrigation, the over-exploitation becomes an inevitable consequence. Saleth's study on Water Institutions in India investigates this crucial aspect. The book touches the economic aspects, law and policy towards such water institutions. Analysing the critical gaps in water economy, Saleth categorises them into irrigation, utilisation, incentive, financial and policy or institutional gaps. Among important findings of the analysis of the gaps, it is argued that a proper incentive structure (to bridge the difference between the real economic value of water and the value emerging under the conditions of its irrational use) created with the help of a legal, administratively feasible institutional system, can help to initiate economic use of water. Water zoning as well as water markets have their own weaknesses and cannot assure the real economic value of water.

Pricing of water has been discussed quite often and it is religiously argued by different commissions and committees that the water rates need to be periodically revised. The verbal testimony from the state budget documents may give the impression that the State Governments do not lack the intention to effect periodic revision of water rates. All the same, the fact remains that the resolve on revision is rarely implemented. There are enough instances to show that attempts to increase water rates have met with stiff resistance. Vaidyanathan Committee suggested wide ranging irrigation sector reforms especially involving an institutional framework. While commenting on groundwater situation Vaidyanathan recently wrote that 'The rights of individual exploitation of groundwater in an aquifer needs to be restricted both for economic reasons and for preventing inequitable distribution. The rights on groundwater should be that of use and not of ownership' [Vaidyanathan, 1996]. Saleth has been arguing this for quite some time.

Among the important issues which have occupied attention of researchers, the influence of water lifting devices on groundwater use has attracted larger attention. Saleth has contributed substantially to this debate earlier and he devoted three chapters to the issues encompassing lift irrigation economy, power tariff and groundwater use, and the rental markets of irrigation pumpsets. There are regional patterns in the lift irrigation by ownership and types. The medium farmers dominated in electric and diesel operated lift devices whereas the small farmers still operate with the traditional devices. An interesting finding of Saleth's study is: 'Despite the massive rural electrification programme, the lift irrigation economy as a whole appears to rely more on diesel pumps than on electric pumps both for primary and stand-by irrigation' (Saleth, p. 91). In the light of this conclusion one has to consider seriously the link between power tariff and over-exploitation of groundwater, and also to reconsider the Central Statistical Organisation's change in computing cost of diesel/electricity for agricultural sector during mid-eighties.

Power tariff and groundwater exploitation relationship is discussed abundantly in the literature. The arguments in favour of power tariff as a policy instrument for regulating groundwater use does not receive any support from Saleth's analysis. It is true that the decision of water use is not so much dependent on diesel or electricity cost as it depends on farmers' perception of increment in the value added per unit of water. Similar logic applies to the decision to rent the pumpsets. Farm size, farm assets and additional yield obtained seem to be the major considerations in this decision process. This practice is more prevalent in the Indo-Gangetic belt. Further concentrating on the same region, Saleth works out the factors behind groundwater buying decisions with the help of a Logit Model. Interestingly, the results of the elaborate Logit exercise for Bihar, Haryana, Punjab, Uttar Pradesh and West Bengal point to the fact that total rainfall, farm size, fertility (based on anna estimate), area under canal irrigation are the important determinants. The variable indicating the economic conditions of groundwater market represented by water payments in Rs/acre has been consistently insignificant. This also gives credence to the analysis presented by Saleth in the chapter on groundwater markets on India. He addresses specifically to the questions relating to legality of groundwater markets, their emergence only in fragile resource regions, efficiency, equity, and to the question whether they really function as water markets or as rental markets for pumpsets. Saleth argues that the groundwater markets are extra legal, do not cater to ethical aspect of equity, act as an instrument of rent seeking, cause widespread depletion and work more as rental markets for water lifting devices. The debate needs further intensification with widespread evidence.

In the place of water markets and also in order to contain the depletion of groundwater it became essential to design legally-based and farmer-managed water rights system. Saleth works this out in the last two chapters of his book. The model bill of 1992 suggests a water permit system which may not be administratively easy and socio-politically foolproof. Saleth works out a water rights system and especially outlines the issues governing such a system. Still a good amount of work would be needed before analysing the proposals about any such system. Major focus of such a system has to be the administrative feasibility, legal compatibility, equity, socio-political acceptability and the capacity to influence resource use structure.

Land degradation is closely connected with water, especially when it comes to waterlogging, salinity or salt water ingress. These are the immediate environmental fall-outs of over-exploitation of groundwater. Dhawan addresses almost half of his book to the analysis of the phenomenon, problems and solutions to water-logging and salinity. The analysis of the problems of waterlogging and salinity again is handicapped by the non-availability of the information base. An estimated area of about 111 million hectares out of 175 million hectares land is marked as water eroded area. But the range of such available estimates is rather too large to rely on any of them. The chapters dealing with this problem in Dhawan's book are based on seminars, workshops and some research studies conducted in this area of interest. Dhawan prefers to focus on the cause of waterlogging and salinity, its coverage as revealed by various agencies and consequences. A large number of studies especially covering the irrigated command area of various irrigation projects across states and the scientific evidence from agricultural universities are put together. But the findings are at variance with each other and are basically guided by locational factors. Another chapter is devoted to the returns from investments in drainage for reclamation. The study group of the Ministry of Water estimated the investment of an order of Rs 6,000 crore to reclaim an area of about 6 million hectares. An elaborate analysis carried out suggests that the net output contribution (net of costs of cultivation) might be around Rs 1,000 crore. These computations, however, do not include the economic value of reclaimed land and the flow of income from such lands over time. In any case, reclamation becomes essential as a precursor to arresting the phenomenon.

The issues pertaining to groundwater irrigation have mainly emerged from mid-eighties. These became important especially when NABARD started lending for groundwater, and viability of investment became a crucial factor. The possibility of getting to a framework for combating problems involved does not seem to be emerging in the near future. Some sporadic examples of successful water sharing institutions, suggestions about balanced irrigation development or emerging water markets are not going to meet the challenges. The focus and direction are partially blurred due to the heterogeneous sources of data, their questionable reliability, many of which not satisfying the needs of researchers in the field. Agencies working on the problems as well as the Ministry of Water Resources do not participate in authenticating and confirming the sources of information. In such a situation, it becomes necessary that a legal institutional framework is drafted for regulating the use/mis-use of groundwater. I understand that efforts are in progress for this and we can wait for the results. Both the books have their share in enriching the understanding of the researches working in the area. As such, the books are going to be immensely useful. I am sure these will serve as milestones for research workers as well as administrators working in the field of groundwater irrigation economics.

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BOOKS RECEIVED

Currently, a large number of books are being published on Indian economic, political and social problems and developments. We give below a list of books we have received with a request for a review. For want of editorial resources, it is not possible to review all of them though many deserve a critical review. Interested readers are requested to write to the editor indicating which of the following books he would like to review or write a full review article on. We shall be glad to do the needful. Readers are also welcome to review books recently published, but not appearing in the following list. As the contributors to this Journal are aware, all contributions published here are adequately remunerated.

Athreya, Venkatesh B. and Sheela Rani Chunkath, *Literacy and Empowerment*, Sage Publications, New Delhi, 1996; Pp. 299, Price: Rs 295.

This is an account of a total literacy campaign undertaken in one of the least developed districts, Pudukkotai, in Tamil Nadu. It was, by most criteria, highly successful. The account, jointly written by an academic economist-cum-literacy activist and an officer in the Indian Administrative Service, directly involved in policy formulation and implementation, is preceded by a section tracing the evolution of strategies for mass literacy in the modern world in general and India and Tamil Nadu in particular. The next section offers an account of the campaign. Central to the campaign were combined efforts of activists, the committed, supportive administration, participation of women as learners, instructors, trainers and organising activists, and empowerment of women through related developmental initiatives during the campaign, such as managing stone quarries or producing and marketing artificial gems. The last section raises issues critical to the success of the campaign, for example, adequate human and material resources, especially, volunteers, relevance of the programmes to learners' needs and their involvement, as well as involvement of the community at large, structural flexibility of the programmes, spirit of team work, emphasis on dialectical two-way learning, rather than on designated targets, and role of women.

Bhaumik, Sankar Kumar, *Tenancy Relations and Agrarian Development: A Study of West Bengal*, Sage Publications, New Delhi, 1993; Pp. 204, Price: Rs 235.

The book is an in-depth study of the nature and role of share tenancy in Bengal. It profiles the historical developments and processes which encouraged the evolution and spread of share-crop tenancy in colonial Bengal. Its exploitative character and the theoretical and empirical issues pertaining to it- its efficacy from economic point of view- are examined. The structure and functioning of the tenancy system in the post-Independence period, particularly after the Left Front's coming into power, are analysed by using the National Sample Survey data, in order to examine the impact of tenancy legislation which was intended to protect the sharecroppers adequately against eviction and exploitation through subinfeudation, rack-renting, *veth begar*, etc. The success of the tenancy reform legislation including measures, like Operation Barga, is evaluated not only in terms of their achievement in resetting the terms and conditions of tenancy contracts in the sharecroppers' favour but also their contribution to improving allocation efficiency of resources and agricultural productivity as well as to agrarian development.

Bora, R.S., *Himalayan Migration: A Study of the Hill Region of Uttar Pradesh*, in Institute of Economic Growth Series, entitled *Studies in Economic Development and Planning, No. 62*, Series Editor, S.N. Mishra, Sage Publications, New Delhi, 1996; Pp. 195.

This monograph, a doctoral thesis, is of immediate relevance in view of the current agitation for a separate state of Uttarakhand. It focuses on the large-scale male out-migration from the Hill Region of Uttar Pradesh, which is traditionally prone to population movements to various other parts of the country, also one of the poorest and least developed areas. The aspects of out-migration delineated include its nature, extent, pattern, the push and pull factors responsible for it, its socio-economic repercussions on the migrants, also on the households and areas from which they migrate, in addition to the cost-benefit analysis of the out-migration.

Carmen, Raff, *Autonomous Development-Humanizing Landscape: An Excursion into Radical Thinking and Practice,* Sage Publications, New Delhi, 1996; Pp. 244, Price: Rs 295.

Development is defined here as 'an act of creation', with the human capability to create knowledge- again and again, and together with others- lying at its core. In order to accept this conception of development, it is necessary to decolonize the mind, i.e., to get over a carefully cultivated mystification and a dangerous self-delusion that the materially and technologically better-off, the so-called developed people, have the solution to the problems of the three-fifths of the world's poor, powerless, ignorant and illiterate. The volume sets itself to this task.

The first four chapters examine such aspects of twentieth-century developmentalism as the interventionist process for acculturation of non-white peoples to the West and Western values and the ownership and commoditization of knowledge under the hegemonic rule of the scientific paradigm. The next four chapters, discuss autonomy in the political sphere (ownership and control), in the cultural sphere (literacy and the media), in the organisational sphere (management literacy), and in the economic sphere (self-reliance), on which autonomous human agency rests. The last two chapters concentrate on the interventionist rationale, the foundation of all activities of governments and NGOs, and assert that the right to intervene, based on the power of money, is nothing but 'new colonialism'. All cultural, social, educational, ethical and other values, viewed by the mainstream orthodox development economics as obstacles to 'progress', are redefined in positive terms. The volume brings together again in a proper holistic perspective what has been artificially disaggregated by development theory, on account of its considering itself more as part of the objective sciences than of the humanities. No doubt, economic growth is the only engine which can pull the countless millions from their poverty trap; yet the unthinking, limitless over-consumption by the overdeveloped dominant elites perpetuates this entrapment and makes it even worse- structural adjustments notwithstanding. Hence, true development, according to the author, consists in humanization, which both the rich and the poor need.

Chattopadhyay, Manabendu, Pradip Maiti and Mihir Rakshit (Eds.), *Planning and Economic Policy in India: Evaluation and Lessons for the Future,* Sage Publications, New Delhi, 1996; Pp. 215.

The papers in this volume, presented at the conference on Planning and Economic Policy in India held as a part of Prof. P.C. Mahalanobis Birth Centenary Celebrations, may be broadly grouped under two categories- (i) those assessing the overall planning process in the last four decades, and (ii) those focussing on empirical findings relating to growth and poverty, determinants of industrial production, and the impact of the current stabilisation programme on fiscal deficit, inflation and growth. Although it is emphasised that the economic rationale of the Mahalanobis policy package adopted in the Second and Third Five Year Plans was in tune with the widely held views of the development economists in the fifties, the overall verdict of the volume on the planning exercise is quite unfavorable. Important demerits of the plan strategies identified in the volume are: (i) an inward looking trade strategy and the use of domestic availability criterion in granting import licenses promoted both static and dynamic inefficiency; (ii) the country's resources were not allocated to her best advantage; (iii) lack of domestic and foreign competition reduced the drive towards cost reduction and Research and Development effort; (iv) bureaucratic control and the system of licensing fostered rent-seeking activities at the expense of innovation and productive enterprise; (v) poor working of public sector enterprises, responsible for running basic and capital goods industries and for providing infrastructural facilities, led to a technology gap, growing inefficiency in production and rise in the incremental capital-output ratio; and (vi) the high capital-labour ratio in the protected industries resulted in low growth in employment. The roots of the debt crisis in the early 1990s are traced to these demerits. Also, explicit policy recommendations are made in all the papers. The empirical findings in papers from the second category are of great relevance in framing economic policies at both aggregative and sectoral levels and delineate on the scope and limits of public intervention in the process of current economic reforms.

Chelliah, Raja J., *Towards Sustainable Growth: Essays in Fiscal and Financial Sector Reforms in India*, Oxford University Press, Delhi, 1996; Pp. xvi+220, Price: Rs 375.

This is a collection of essays, in fact, lectures on economic reform and on fiscal and financial policies, delivered by the author since 1991. Being associated with the formulation of economic policies particularly since 1982, the author is in a better position to trace the evolution of the entire reform agenda and present comprehensively its logic and basis. Most essays in the volume deal with financial issues and the role of the government- central as well as state, financial problems in the context of economic reform, the role of financial policies in the reform process, fiscal situation with special emphasis on controlling the fiscal deficit, interstate differences in economic conditions, state-level reforms and effective regional planning. The underlying themes analysed in detail are efficiency, macro economic stability, viable external payments position and the responsibility of the government in ensuring an equitable distribution of the benefits of growth.

Chew, Sing C. and Robert A. Denemark (Eds.), *The Underdevelopment of Development, Essays in Honour of Andre Gunder Frank*, Sage Publications, New Delhi, 1996; Pp. xv+427.

This collection discusses the thematic of development- the most cherished goal in the contemporary world from the local to the global levels- on the backdrop of Gunder Frank's alternative conception of development to the mainstream conceptualizations. The contributions, including Frank's, analyse the current *welt-anschaung* on socio-economic 'development'- how, since the European Enlightenment, development is deemed inevitable, positive, progressive and beneficial, and what are the requisites for, as well as obstacles to, development, like levels of financial investment necessary for 'take-off' or transformation in the socio-political-psychological conceptions and values. In depth elucidated is Frank's idiom- 'the development of underdevelopment'- identifying the demerits of this world-view, how it ignores the global and historical perspectives, even the pervasive effects of colonialism in most of the underdeveloped areas; why it should claim Europe to have a developmental past whereas the underdeveloped regions to lack all but a rudimentary history, when Europe was once typified by the same underdeveloped conditions that exist in the underdeveloped world today; how it separates the intimately related social, economic and political development; how it fails to recognise the exploitation inherent in such development- the direct relationship between the 'externally' generated exploitation and the exploitative social, political and economic structures within; and how modern underdevelopment is the outcome of development rather than of leftover traditionalism. In contrast, Frank's discourse on unidisciplinary social science, coupled with a macro level, holistic approach giving primacy to a historical social system is presented. Frank visualises independent, self-sustaining development with the totality of social action, a process of social change and economic transformation enhancing human welfare, but not at the cost of nature. Further, development is discerned as occurring trans-nationally and trans-historically, a cyclical global dynamic by which some regions/peoples temporarily assume leading 'developed' positions while others are underdeveloped as a result. Finally, light is thrown on such issues as the crisis of the world economy in the 1980s, and its impacts - the debt issue and the subsequent structural adjustment programme introduced in the Third World by the International Monetary Fund and the World Bank, their role in setting developmental and, to some extent, national fiscal and economic policies for debt-depressed nations and, thus, the further narrowing of their developmental choices.

D. Radha Devi, S.R. Rastogi and Robert D. Retherford, *Unmet Need for Family Planning in Uttar Pradesh*, National Family Health Survey Subject Reports, Number 1, May 1996, International Institute of Population Sciences, Mumbai, 1996; Pp. 25.

This Report addresses to the problems of Family Planning in Uttar Pradesh, the country's most populous state. During 1981-91 its population grew by 25 per cent, largely as a result of high fertility- the highest in India. The reason, an unmet need for contraception, as per India's 1992-93 National Family Health Survey. This unmet need is analysed here with a view to help policy-makers. The major findings are: (i) 55 per cent of all unmet need is due to unmet need for spacing child-birth, with demand for temporary contraceptives exceeding supply, and (ii) unmet need varies according to women's socio-economic characteristics, the percentage of total unmet need being especially high among rural women, illiterate couples, Muslim and scheduled-tribe women. Finally, the Report underscores the need for increased efforts to persuade women to accept family planning methods.

Dandekar, Kumudini, *The Elderly in India*, Sage Publications, New Delhi, 1996; Pp. 229.

This pioneering work explores the conditions of the elderly in India. The National Sample Survey (NSS) data relating to 50,000 households, supported by first-hand portraits of the inmates of old-age homes in Maharashtra are utilised for the purpose. The problems faced by the country's senior citizens, old-age homes- their geographical spread and functioning- and regional variations between the rural and the urban old are expatiated in terms of their health problems and financial constraints. In addition, reliefs that a welfare state like India could offer to its elderly citizens and their financial feasibility are appraised. The conclusion is: old-age homes may be viable in urban areas, for the problems of the urban old are mainly poverty, housing shortage and often harsh conflict between the generations. On the other hand, in rural areas, where about three-fourths of India's old reside, old-age pensions appear to be the solution, not only because the rural old are well-integrated with their social milieu and averse to institutional living but also because pension scheme is a cheaper alternative.

Dandekar, V.M., *The Indian Economy: 1947-92*, Vol. II, *Population, Poverty and Employment*, Sage Publications, New Delhi, 1996; Pp. 405.

In this second volume of a three-volume study of the Indian economy, the author revises, updates and puts together his entire writings on population, poverty and employment, three apparently disparate subjects, yet population, the author maintains, underlies the twin phenomena of poverty and employment. Health and education, the quantitative and qualitative aspects of population, respectively, are discussed in terms of fertility, mortality and literacy rates. The evolution of India's population policies are viewed as protracted deliberations by numerous committees which have failed to reduce the birthrate sufficiently to compensate for the decline in death-rate. The low literacy level is attributed to the disproportionate allocation of resources to higher education at the cost of primary education, resulting in rise in educated unemployment and brain drain. The section on poverty delineates on the *Agricultural Labour Enquiry, 1950-51*, which saw poverty and unemployment as the twin facets of the same problem, and also on the ongoing debate on the definition and measurement of the poor in the country. The last section on man power and unemployment analyses (i) the propagation and protection of *khadi*, (ii) significance of labour time disposition- hours of work and days per week- as compared to income earned during that time; and (iii) 'support price' for labour for the realisation of the 'Right to Work' as a fundamental right, i.e., to offer wage labour to all those willing to take it up on explicit terms and conditions. To finance such employment, it is urged, support prices for agricultural products and subsidies on food and fertilisers should be reduced. For, in the ultimate analysis, the poorest of the poor would prefer a minimum purchasing power, rather than subsidized food.

Debroy, Bibek, *Beyond the Uruguay Round: The Indian Perspective on GATT*, Response Books (Sage Publications), New Delhi, 1996; Pp. 225.

In the author's own depiction of this book, this is 'a concise reader-friendly book on GATT giving the Indian perspective' (Preface). It looks beyond the General Agreement on Tariffs and Trade/ World Trade Organisation (GATT/WTO) Agreement. For, it takes India's signing the Agreement at the Uruguay Round and her membership of the WTO as *fait accompli*, and delineates on the benefits of being an original member of the WTO, as a result of being a founder member of GATT, in contrast to the predicament China finds itself. A rough sketch of the global economic setting in which the Uruguay Round negotiations took place is provided before an overview of the Uruguay Round accord. The structure of the WTO itself and the text of the WTO Agreement are examined in the remaining chapters. Analysis of such articles of the text as are of special significance to India concludes with reference to implications for India, e.g., textiles and garments, agricultural exports, trade-related investment measures in the context of India's unilateral economic reform programme, etc. The much debated social clause pertaining to environment, human rights and labour standards, though not a part of the extant WTO Agreement, is also discussed.

Dubhashi, P.R., *Economic Thought of the Twentieth Century and Other Essays*, Concept Publishing Company, New Delhi, Pp. 277, Price: Rs 400.

The 36 papers in this volume deal with the major economic themes of the twentieth-century, chiefly of the first half. The papers are written during the last forty years or so and are not updated, yet they are of interest to all those concerned with the basic thinking regarding the economic system and economic ideology and the changes that have taken place in them during that period. The subjects delineated upon are divided into six parts and comprise the choice between the then contending ideologies- capitalism and socialism, demise of the socialist system, Keynesian Economics, development planning both at the macro and micro levels, management of development and the World Bank prescriptions, administered prices, role of the government in the New World Economic Order, the New Economic Policy, poverty, trickle-down theory, development and environment, quality of life, and so on.

Jalal, Ayesha, *Democracy and Authoritarianism in South Asia: A Comparative and Historical Perspective*, in *Contemporary South Asia* Series, Cambridge University Press, Cambridge, 1995; Pp. xiii+295.

This study draws the implications of the new interpretations and re-assessments of the transition from colonial rule in South Asia and of the factors leading to the partition of India. The conceptual framework for this study is provided by the twin dialectics of centralism and regionalism on the one hand, and of all-India (secular) nationalism and religious communalism on the other. Straddling the 1947 divide, these themes allow for a comparative analysis of the post-1947 state structures and political developments in India and Pakistan and, after 1971 in Bangladesh, in the light of their common historical legacy of layered sovereignties and the institutional legacy of the colonial era. The principal concern of the comparative analysis being the interplay between democratic politics and authoritarian states, the study elucidates how India's formal democracy necessitated non-secular, caste and community-based political mobilization just as Pakistan's controlled elections perpetuated the dominance of localized clan-based social and political networks owing little to Islam. It is illustrated how Indian secularism and Pakistani Islam both proved vacuous ideologies, pursued to affirm and strengthen the authoritarianism, whether overt or covert, which flows from the colonial administrative centralization and the accompanying ideology of monolithic and indivisible sovereignty.

Krishna, Sumi, *Environmental Politics, People's Lives and Development Choices*, Sage Publications, Pvt. Ltd., New Delhi; Pp. 303.

The book throws light on the environmental debate in India, particularly how ineffective environmentalism is, in spite of its many shades of *green*, in dealing with complex problems, such as population growth, technological choices, and conflicting claims on the use of resources. As a movement, it is confined to stopping specific government projects and policies, refining environmental regulations and generating new ecological vocabulary. Several ideological assumptions underlying environmentalism, like an ecologically harmonious past, are challenged for being loaded with fuzziness, contradictions and distortion in their approaches and strategies. The volume stresses some important aspects of environmentalism, such as people also being a part of the environment, and the environment providing the resource base for development. The book, divided into three parts, contains a prelude which emphasises this human factor in environment-development discourse. Part 1 analyses the three broad environmental approaches to development- popular, managerial and progressive- distinguished by their positions on the acid question: Is development the cause of or the cure for environmental ills? The strengths and weaknesses of these approaches are analysed in the empirical context of specific problems of development of the forests and forest people in Bastar, Madhya Pradesh, and also in the light of major strategies- institutional management, revival of tradition, role of the caste system and of women in nurturing bio-diversity, and community participation, especially, people's movements, such as the Chipko Movement. Part 2 examines the linkages between population, environment and technology, particularly intensive agricultural technology and big dams. How the concept of sustainable development incorporates the criterion of equity is examined in detail, chiefly in the context of contemporary controversies about economic reforms, biotechnology and intellectual property, global heritage and national sovereignty, community rights over resources, and North-South transfers of technology and funding. Part 3, comprising only the concluding chapter, analyses the environmentalist preoccupation with symbols rather than structures, their limited approach to many interlinked inequities of gender, caste and class, their indifference to the decentralised institutions, like panchayats, and their ignorance about how to create 'value-orientation' and mobilise all people, not merely those whose existence is imminently threatened.

Mehta, Jashwant B., *Quest for a Better Democratic Alternative*, Forum for a Better Democratic Alternative, Bombay, 1994, 1995; xii+212+(iii), Price: Rs 125.

This paperback analyses the current political system in the light of political systems of other mature democracies, and points out its several drawbacks, such as very expensive elections, dubious means of election funding, political parties, absence of any in-built mechanism to compel legislators to attend to legislative work, instability of governments at the state and central levels, criminalization of politics, loss of people's faith in the system, etc. Also, a better democratic alternative is outlined, for readers to assess it.

Nair, K.R.G. (Ed.), *Regional Disparities in India: Papers Presented at the All India Conference on Regional Disparities in India at New Delhi, April 1979*, Second Revised and Enlarged Edition, Agricole Publishing Academy, New Delhi, 1986; Pp. xv+192.

The volume comprises research papers which discuss regional disparities in the standards of living of the people within a country, and the factors responsible for them- economic, geographical and climatic, and also historical, social and political. The necessity of deliberate policy measures to prevent such disparities is stressed in view of the dangers of imbalanced regional advancement, particularly in India, where there is considerable linguistic and cultural homogeneity in each state, coupled with equally acute heterogeneity among states. The first paper argues that owing to short-sighted fears of disintegration of the nation, spatial planning and decentralised decision-making have not been introduced in the Indian planning process in thirty years of planning. Other papers discuss regional disparities in income, both agricultural income and wages, in employment, and in educational development. Also, institutional finance as well as the role of the Finance Commission are expounded in the volume.

Narayana, N.S.S. and Anindya Sen (Eds), *Poverty, Environment and Economic Development: Festschrift for Kirit S. Parikh on the Occasion of His 60th Birthday*, Interline Publishing, Pvt. Ltd., Bangalore, 1995; Pp. (46)+353; Price: Rs 600.

Diverse policy issues relating to economic development are discussed in this volume, such as food insecurity- its global aspects and India's food policy, transformation in the World Bank's thinking on poverty and development, the experiences of the Republics within the former Soviet Union in establishing markets, international barriers to migration, social security, income inequality during the process of development, environmental issues of integrating environmental policies with economic analysis, economic effects of greenhouse emission restrictions, and trade policy instruments, like tariff, quota, trade sanction or embargo, for achieving environmental objectives and, finally, certain theoretical concepts to analyse specific problems, including environmental ones.

National Resource Centre on Child Labour, V.V. Giri National Labour Institute, NOIDA, 1996;.

National Resource Centre on Child Labour, (i) *Child Labour: A Report of Workshops for District Collectors and Project Directors*, Pp. (viii)+125+(1), (ii) *Towards Eliminating Child Labour: A Report of Workshop of District Collectors and District Heads*, Pp. ii+165, and (iii) New Concept Information Systems (Eds.), *Child Labour, Challenge and Response: A Status on Indian Initiatives towards the Elimination of Child Labour*, Pp. 27, V.V. Giri National Labour Institute, NOIDA, 1996.

The first publication presents account of four workshops, one national and three regional, held for implementing the Prime Minister's assurance that an estimated two million working children would be withdrawn from hazardous employments by 2000 A.D. It documents the deliberations of the workshops on three major issues, namely, generating awareness at grass-roots level, comprehensive door-to-door survey for identifying children working in hazardous employments, and operationalising of the district project societies for withdrawal of these children and their rehabilitation through education. It is prepared as a Manual for district collectors and project directors in formulating and implementing their various projects and schemes.

The second publication gives account of the national workshop, held for District Collectors from the child labour endemic districts in 11 states, to impart professional expertise in operationalising the location-specific National Child Labour Projects for rehabilitation of children working in hazardous employments. Besides the proceedings and papers of the workshop, it comprises a few useful government documents.

The third publication presents the problem of child labour in India in a nutshell: State-wise, area-wise (rural-urban), occupation-wise, gender-wise distribution of child labour, proportion of child labour to total labour force, the legislative and other measures taken for the elimination of child labour, etc., are summarised in brief.

School of Social Scientists, (Pub), *Extrication of State and Home Rule from Government*, in the series, *Ruminator: An Occasional Paper (Ruminator 15)*, School of Social Scientists, Chitturpu, 1995; Pp. xxx+360.

The School of Social Scientists, publishers of this volume, sponsors an Order of Social Scientists, who are unconventional, missionary social scientists opting to dedicate themselves to the moulding of the society through the creation of the required infrastructures. The volume discusses the roots of social disorder and the remedy for it. It is asserted that for tilting the existing power structure, no governmental policy, however novel and progressive, can be implemented in its real spirit without its beneficiaries participating actively in its implementation. In addition, the volume comprises five other papers : 'The Dynamics of the United Nations', 'Paternal Authority Countering Force to Political Authority', 'Integration of Labour and Capital', 'Transmigration of Agricultural Labour and Capital among Sovereign Countries', and 'The Anatomy of Human Aspiration: The Mechanics of Moulding a Social Scientist into a Missionary'.

Shah, Maya (Ed.), *Essays on Economic Policy, Methodology and Human Resources*, Ed. by Maya Shah, M.S. University of Baroda, Baroda, 1995; Pp. xi+277.

This is the second of the two volumes brought out to felicitate Professor V.N. Kothari. It comprises 17 essays on so varied fields of interest that the Editor found it difficult grouping them in any particular scheme. Instead, she arranged them in a certain sequence. Some of the essays are purely theoretical, such as 'On the Nature of Inference and Explanation in Economics', while others study different aspects of Indian economy in the context of economic reforms, like 'India's New Economic Policy'. A few address to issues relating to a general theory in Indian context, such as 'An Indian General Theory of the 19th Century' and 'Financial Development and Economic Growth in India'. Some discuss a concept not only in the Indian but also in the international context, for instance, 'Structural Adjustment: Issues and Experiences'.

Shah, Tushaar, *Catalysing Co-operation: Design of Self-governing Organisations*, Sage Publications, New Delhi, 1996; Pp. 315.

This book examines the question whether cooperatives can become a mainstream organisational alternative, particularly in today's liberalised competition under the new economic regime of the World Trade Organisation (WTO), having succeeded so far as an exception, rather than a rule, not only in India but also throughout the developing world. It is contended that the internal dynamic of successful cooperatives lies, not in the impact of exceptional inputs, like good leaders, super-performing managers, favourable social conditions and group homogeneity, but in their having unending drive to strive for the achievement of purposes, real and central to their members. It secures allegiance of their members to the organisation. Three distinctive behavioural tendencies- to self-create and self-propagate, to self-preserve, and to self-improve- if present in a cooperative, lead to a high level of drive, which depends on *design*. To support the criticality of design to the success of a cooperative, in fact, any organisation, three case studies are included.

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FORMAT

All text, including block quotations, footnotes, and table headings, should be double-spaced and typed on one side. Use medium-weight, opaque, bond paper. All pages should be of the same size, preferably 8-1/2" x 11", and unbound. Leave a minimum left-hand margin of one and a half inches, and a minimum right-hand margin of one inch. Number all pages, including footnotes and/or references, consecutively.

SUMMARY

In every paper, there should be a summary strictly not exceeding 100 words.

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If a paper is divided into major sections, the introductory section needs no heading. Subsequent sections should be given titles typed in capital letters and placed at the centre of the page. Do not use roman numerals. If there are sub-sections, the sub-titles should be underlined and placed justified with the left margin.

QUOTATIONS

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FOOTNOTES AND REFERENCES

All footnotes and references should be at the end, first footnotes, then references. In the text, footnotes should be numbered consecutively by superscripts following the punctuation. Reference citations in the text should be enclosed in square brackets, as follows: [Author, 1965, p. 9]. References listed at the end should be arranged alphabetically by author and should include the following information: for articles - author, year of publication, title, name of journal (underlined), volume and issue number; and for books - author, year of publication, title (underlined), and publisher, in the following format. We convert underlining into italics.

Maital, S., 1973; 'Public Goods and Income Distribution', *Econometrica*, Vol. XLI, May, 1973.

Chakravarty, S. 1987; *Development Planning: The Indian Experience*, Clarendon Press, Oxford, 1987.

If a Reference is cited in a Note, the Note may use the shortened reference form:

4. For a critique of recent industrial policy proposals, see Marshall [Marshall, 1983, Pp. 281-98].

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All tables, graphs, figures, and illustrations should be numbered and amply spaced on separate sheets of paper indicating in a marginal note in the text where such material is to be incorporated. Mathematical equations should be typed on separate lines and numbered consecutively at left margin, using Arabic numerals in parentheses. Use Greek letters only when essential. The word *per cent*, not the symbol %, should be used in the text and the tables.

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