9. A SUMMARY OF THE EMPIRICAL EVIDENCE
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The concept of a region to be used in the context of industrially homogeneous regions of the State is defined in Chapter-1. The structure of industrial economy of the State is highlighted in Chapter-2. It is further examined in the context of the categorised regions of the State.

The statistical clustering method of delineating industrially homogeneous regions in the State, as developed in Chapter-3, shows how different districts of the State could be grouped together under the broad coverage of industrial homogeneity in terms of different levels of industrial development therein. As such, three categories of regions are formed: the backward, developing and developed regions of the State. Within the developed region of the State, four sub-regions, which could be considered as individual entities are examined separately. The backward region consists of 10 districts, the developing region consists of 5 districts, whereas the developed region comprises of 4 districts such as Ahmedabad, Rajkot, Baroda and Surat. They are categorised as sub-regions of the developed region of the State.

1/ using the details made available from the records of Bureau of Economics and Statistics, Chief Inspector of Factories, and other development corporations of the State.
The cost-output relations of three digit level industry groups in each of the categorised regions of the State are examined in Chapter-4. The short-run average cost behaviours of different industry groups across space are examined. It is commonly noticed that the relations between the output levels and average and marginal costs have been as theoretically expected. The total cost functions under three variants - linear, quadratic and cubic are estimated using cross-section industry groupwise firm level details of total cost and output to verify the known theoretical cost-output relations. The total cost functions are also estimated for aggregate industries covered under census, sample and combined census and sample sectors of the economy both at the State and regional levels.

These total cost functions broadly indicate the possible total cost variations with the corresponding changes in the scale of output. The threshold costs, as shown by the values of a in linear, quadratic and cubic total cost functions, more or less, vary proportionately with the changes in the scale of output. These fixed costs seem to have decreasing significance with changes in the output levels. The corresponding low values of the coefficients of respective output levels suggest, on the whole, a tendency of increasing the cost at a decreasing rate. The higher values of $R^2$ suggest cases of multicollinearity. Almost similar picture is found.
in the case of total cost functions estimated for aggregate industries at the regional levels.

The average cost per rupee of output, as worked out using firm level details of total cost and output levels (in value terms), is related with the changing scale of output in three-digit level industry groups at the regional level. The average cost-output relations in different industry groups are examined in a comparative regional frame. The short-run average costs in these industry groups are following the usual course of gradually falling and then marginally increasing with the corresponding changes in the scale of output. The poor values of $R^2$ are another indication of almost nil influence of changing output levels on the variations in the average costs. The output elasticities w.r.t. average cost are not statistically significant throughout all the industry groups in different regions of the state. Besides the negative signs taken by coefficients of output levels (as per changing scale) in quadratic and cubic average cost functions take usual courses as taken by theoretical average costs functions.

Shapes of the average and marginal costs curves of different industry groups across space are estimated. This is done on the basis of the firmwise estimates of probable shapes of average and marginal cost curves in each of these three-digit level industry groups at the regional level.
Cost advantages are examined in a regional comparative frame. Industry group-wise average and marginal costs per rupee of output under the changing scale of output are estimated using parameters of linear, quadratic and cubic total cost functions of different industry groups at the regional level. This exercise provides statistical details of average and marginal costs per rupee of output which could be compared across space under each industry group. A tentative generalisation with regard to the existing cost advantages for each industry group in the categorised regions of the State is made on the basis of this exercise.

The estimates of four variants of Cobb-Douglas production function of different industry groups at a fairly disaggregated level in the regional set up of the State economy as given in Chapter-5 provide details regarding the factor use pattern. Besides the elasticities of substitution between capital and labour in different industry groups are examined through estimating CES production function. This shows the direction of change in relative factor shares in the existing production process.

The production technologies of different industry groups in the categorised regions of the State are found in conformity with the prevailing economic characteristics among them. For example, labour being the major factor input in the industries of the backward region, its elasticity w.r.t. output is found
positive and significant. Very few industry groups in the backward and developing regions were having positive and significant output elasticities w.r.t. capital. On the other hand, both capital and labour are found to have equal predominance in the production process in the developed region of the State. As such, the output elasticities w.r.t. labour are relatively high compared to those w.r.t. capital in majority of the industry groups.

The estimates of CES production function has shown that inelastic, unitary and elastic substitutions between capital and labour are prevailing in different industry groups. This shows the existing pattern of factor substitutability among them. Besides the inter-industry variations in the elasticity of substitution have specifically shown the range of variation in labour productivity among them. Industry groups having \( \alpha > 1 \) have registered relatively largest increase in labour productivity and vice-versa.

The aggregate estimates of all the industry groups show that constant returns to scale prevails in small, medium and large size industry groups in the State. Large number of industry groups, however, do not have statistically significant values of returns to scale. Only 11 industry group were having statistically significant values of returns to scale. The findings that most of the industry groups were operating at constant returns to scale, more or less,
generalise the prevalent pattern of production technology at large. The present findings corroborate the earlier findings. Besides the cross-section studies of different countries both for individual industries as well as for industries as a whole, at different periods of time, have also revealed, in common, that they were mostly operating at constant returns to scale technologies.

The relative importance of factor inputs, their productivities and shares in different industry groups at the State level are examined in Chapter-6. In the case of large size industry groups, the relative importance of capital was negative throughout. Nearly one-third of the large size industry groups had negative indices of both capital and labour. This means that the corresponding industry groups were not attaching due importance to capital as well as labour. At the same time, some industry groups had positive indices of $\beta_2$. This means that labour was considered relatively more important in determining a given level of output in corresponding industry groups. Even in the case of small and medium size industry groups, the negative indices of $\beta_1$ indicated that capital was relatively less important in all the industry groups. Most of the industry groups had shown positive indices of $\beta_2$, meaning thereby that labour was playing an important role in determining a given level of output in these industry groups. This corroborates the fact that most of these industry
groups are labour-intensive. The findings of this exercise corrobate the earlier findings regarding the relative significance of capital and labour examined through industry groupwise estimates of Cobb-Douglas production functions.

Having examined the relative importance of the factor inputs in the two-factor system of Cobb-Douglas production function, their respective productivities are analysed. The capital and labour productivities, as analysed in different industry groups at the State level, have given an interesting feature of the prevailing production technologies in different industry groups in the context of the size constraint.

Two hypotheses regarding the levels of capital and labour productivities are verified. The capital productivity tends to increase in the corresponding industry groups having made technological advances and operating at greater economies of scale. This presumption was not valid in the case of large size industry groups. The first hypothesis was partly accepted on the ground that the firms operating with superior production technologies in some of the large size industry groups were having relatively high capital productivity. In the case of small and/or medium size industry groups the capital productivity was largely varying between 0.31 and 0.50. High capital productivity had a close association with firms operating with superior production technologies. The variation in capital productivity ratios were significant between two categories of firms in a large number of industry groups covered under census sector of the State economy.
In the case of labour productivity, it has been found (with the available statistics) that it was increasing in labour-intensive than in capital-intensive industry groups. These findings partly supported the hypothesis that high labour productivity is associated more with large size and capital-intensive than labour-intensive industry groups. Besides, it was found that this hypothesis was more valid in the case of large size industry groups, which were capital-intensive in character as well as operating with improved production technologies. In the case of small and/or medium size industry groups, it was noticed that labour productivity was varying between Rs.1,001 and Rs.5,000 in both the categories of firms of most of the industry groups. Most of the firms of these industry groups were using labour-intensive production technologies reflecting low labour productivity.

After having examined the productivities of these factor inputs, the shares received by them in different industry groups are analysed. Two hypotheses regarding the levels of shares of factor inputs and size and efficiency of industry groups were empirically verified. Returns to capital were varying between 0.31 and 0.70 in the first category of firms of more than 50 per cent of the large size industry groups. These industry groups were, however, not capital-intensive.
A pattern of medium-high returns to capital was observed in some of the small and/or medium size industry groups. Despite the fact that small and/or medium size industry groups have low and/or medium returns to capital, very few industry groups were having low returns to capital i.e. below 0.30. The second hypothesis that returns to capital are not so high in small and/or medium size industry groups though operating with superior production technologies, was accepted. In general, it was noticed that most of the industry groups had relatively attractive returns to capital.

In particular, returns to capital were relatively more in the large size industry groups operating with superior production technologies, than that in small and/or medium size industry groups though operating with superior production technologies. Thus, both the hypotheses were accepted, so far as large size industry groups were concerned. With the findings of medium-high returns to capital in the case of first category of firms of a large number of small and/or medium size industry groups, the second hypotheses was not accepted.

Returns to labour were above 0.30 in more than 75 per cent of the large size industry groups in the State. Both capital and labour productivities were relatively high in the large size industry
groups. With the findings of medium-high returns to labour, the first hypothesis did not hold true. High returns to labour were also found in the case of second category of firms of some of the large size industry groups. It was found that large number of small and/or medium size industry groups had relatively high labour productivity, more specifically so in the case of those which introduced superior production technologies. Both the hypotheses were supported here without being broadly examined individually in terms of size consideration. Large size industry groups in general do not have high returns to labour in as much as small and/or medium size industry groups do not have high returns to capital, despite operating with superior production technologies.

The industrial activity, as referred to above, is examined at a disaggregated level in the regional set up of the State economy. The salient features of the existing industry structure are examined in a comparative regional framework in Chapter-7, using industrial employment as the index of industrial development in each of the categorised regions. Thus, regionwise employment composition, decomposition of employment growth, factory size and the corresponding concentration, location quotients, coefficient of localisation, coefficient of specialisation, shift in employment, shift ratio, extent and spread of industrial linkages and relative industry growth by industry groups are analysed.
The study of employment composition (per cent) at two different points of time of different industry groups in each of the categorised regions of the State points out the direction of employment growth therein. It was much certain that all the industry groups did not have equal significance in all the three regions of the State for the simple reason that each region was having a bunch of leading industry groups accounting for more than 70 per cent of the total industrial employment. For example, in the backward region, industry groups such as gins and presses (310), miscellaneous food preparations (209), spinning, weaving and finishing of textiles (231), and manufacture and repairs of rail and road equipments (382) accounted for more than 75 per cent of the total industrial employment during 1960 and 1969. These were basic industry groups in the backward region employing relatively large proportion of the total industrial employment therein. The same industry groups, however, were not accounting for similarly large proportion of the total industrial employment in other regions of the State.

It was noticed that some industries could provide the largest proportions of the total industrial employment in each of these regions; whereas others though providing relatively ...
employment in 1969 (compared to 1960) could not absorb similarly in aggregate. Further, it was also found that very few industry groups could gain in terms of providing large employment in 1969 compared to 1960. Majority of the industry groups, on the whole, could make only marginal change in employment composition in 1969 over 1960.

The size-wise growth of different industry groups in terms of employment was also examined. Very few small size industry groups were employing as much as 76 per cent of the total workers employed in this category of factory units in the State. A different picture had altogether emerged in the case of medium size industry groups at the State level. Here too, only 8 industry groups were employing as much as 65 per cent of the total workers engaged in this category of industry groups at the State level. And only one large size industry group: spinning, weaving and finishing of textiles was accounting for as much as 59 per cent of the total industrial employment covered under this category of industry groups at the State level. Besides it was found that very few industry groups, irrespective of size differences, were providing relatively large proportion of the total industrial employment in the State in 1969.

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1/ Small, medium and large size.
Having analysed the employment composition of different industry groups in each of the categorised regions, the factors which could influence the observed rate of growth in each group (during the reference period) were examined. An exercise examining the decomposition of employment growth in different industry groups of these regions, considered three main factors such as industry effect, state effect, and region's share effect as responsible for the observed rate of employment growth in each industry group. This decomposition exercise is worked out in terms of percentage points.

More than half of the industry groups of the industrial region had negative industry effect, which partly explained the reasons behind a decline in the industrial employment in some of the industry groups of this region. Besides negative region's share effect was equally pronounced in more than half of the industry groups of this region. The negative region's share effect was counterbalanced by a strong positive industry effect in a few of these industry groups. It was noticed in the case of the developing region that as many as 25 industry groups had registered a positive employment growth during the reference period.

Most of the industry groups, in fact, could register quite a significant growth in industrial employment during the
reference period. Less than one-third of the industry groups in the developed region had registered a decline in employment during the reference period. This decline was due primarily to a strong negative industry effect at the State level. It was found that a given industry in the region was benefiting, more or less, by a strong positive industry effect, counteracting with a positive region's share effect.

A study pertaining to the factory size and concentration in these regions was providing a little more insight in evaluating the tendency of allowing certain level of concentration of some industry groups in the region. More than 60 per cent of the total number of factories in 1950 and 1969 were medium size units; but the same accounted for not providing large proportion of the total employment in the State. Large size factory units instead, were providing more than 80 per cent of the aggregate industrial employment in the State. The per factory employment throughout different size groups of workers was almost the same both in 1950 and 1969. More than 50 per cent of the total number of factories in the backward region were small and medium size factories. But they were providing around 10 per cent of the aggregate industrial employment in the region. Even in the case of the developing region, as many as 80 per cent of the total number of factories were small and medium size ones. Here too, they did not account for large proportion of the total industrial employment in the region.
It is generally noticed that a shift in employment took place in the region during the reference period. This shift may be positive or negative. The idea here is that of finding out the level of development of an industry relative during the intervening period. This shift in regional industrial employment is noticed in the categorized regions of the State. Less than 50 per cent of the industry groups of the backward region experienced a negative shift in employment during the reference period. The actual employment in each of these industry groups in 1969 was less than the estimated employment. The backward region, therefore, was in a position to provide conducive factors to help them reach an expected employment growth.

Very few industry groups of the developing region failed to match with their respective State level employment growth. A large number of industry groups in this region had grown more compared to their respective anticipated growth in 1969. Most of the industry groups of the developed region failed to match with their respective State level employment growth. Negative shifts in employment were found in the case of a large number of industry groups of this region. The positive region's share effect was more than nullified by a strong negative industry effect in the case of a number of industry groups.

1/ The estimated employment in a given industry group is worked out on the basis of the rate at which it was growing at the State level during the reference period.
Having analysed the positive and negative shifts in employment in different industry groups of the above referred three categorised regions of the State, shift ratios of different industry groups at the State level were examined. These ratios have pointed out the extent to which different industry groups are growing over a period of time.

The regional concentration of different industry groups was also analysed and compared across different regions through examining the coefficient of localisation. Only five industry groups were having coefficients of localisation above 0.5000. It was varying between 0.1001 and 0.3000 in the case of as many as 21 industry groups (at the State level). It was varying between 0.5001 and 0.7500 in the case of only three industry groups: tobacco manufacture (220), ship building (361), and professional and scientific measurements and controlling instruments (391). These industry groups were concentrated in one region of the State. Only two industry groups: man-made textile goods (except wearing apparel) (244) and cement (334) were having coefficient of localisation varying between 0.7501 and 0.1000. Industry groups having coefficient of localisation below 0.1001 could easily be shifted from one location to another. The probable candidates for industrial diversification were those industry groups having coefficient of localisation below 0.5000.
Coefficients of specialisation were then analysed for comparing the regional industrial structure. These coefficients pointed out the extent to which the regional distribution of employment by industry groups was deviating from such distribution at the State level. The values of coefficient of specialisation had gone up in the case of the backward and developing regions of the State in 1969 compared to 1960. These values were, however, below 0.40, which indicated that the industry-mix both in the backward as well as the developing regions was, to some extent, at par with that at the State level. This corroborates other findings, in the sense that quite a number of industry groups have come into existence in these regions by 1969. In the case of the developed region too, the industry-mix both in 1960 and '969 were similar to that at the State level. Values of coefficient of specialisation were below 0.17 both in 1960 and 1969.

Each region, as referred to above, becomes specialised in one respect or the other in terms of rapid development of some of its basic/core industries. In order to know the industry structure as consisting of export-based industry groups in the region, the location quotients of each of the industry groups were analysed. Slightly less than half of the industry groups of the backward region were having LQ >1. These industry groups
formed the economic base of this backward region. Some of them were export-based industry groups even in 1960. As many as 28 industry groups of the developing region were export-based. The developing region was having relatively greater industrial specialisation compared to that found in the backward region. Large number of industry groups of the developed region had \( LQ < 1 \). No specific reason could be ascribed for this.

Knowing the fact that a region grows, more or less, as per the types of industrial linkages developed over a period of time, a study pertaining to this has been made for assessing future course of regional industrial development. Fusing the categorised values of location quotient of two-digit level industry groups with the 1969 Input-Output Table of Gujarat, both forward and backward linkages were found in the categorised regions under the given input-output reference frame for the State. Out of 441 cells (of 21 x 21 industry-sectors) of the Input-Output Table, only 230 cells were filled-in leaving 211 cells empty.

The regional industrial linkage potentials were categorised as complete, high, medium, low and nil. The frequency distribution of linkage specialisation in these regions showed that the proportion of realised high linkage potentials was predominant in all the three regions of the State. Only backward region was having one nil industrial linkage potential, whereas the developing and the developed regions did not have any. The backward region was having relatively more number of realised low industrial linkage potentials,
while the developing region was having relatively more number of realised complete linkage potentials and the developed region was having relatively more number of realised medium linkage potentials. Both high and medium linkage potentials were more in the developed region. But very small proportion of completely realised industrial linkage potentials were found in this region.

In addition to this, the exercise showing the industry groupwise realised linkage potentials in different regions was also carried out. Considering the existing economic characteristics of each of these regions, the extent and spread of realised industrial linkage potentials categorised as above, were found in different industry groups. This measure of categorised industrial linkage potentials pointed out the types of development efforts needed for developing different regions of the State.

Besides, the pattern of industrial linkages developed particularly in the small and/or medium size factory units in different regions were examined from the details made available from the industrial estates in the State. Factory units in the backward region of the State were procuring nearly 75 per cent of their total input requirements from within the State (including from within the region) as well as other states of the country. Almost similar pattern of backward linkages was noticed in the developed region. However, relatively more dependence on other
states for input procurement was noticed. The corresponding factory units in this region were having relatively less interdependence with other industry groups within the region. In the case of the developed region, only one-third of the total input used to be procured from (other industry groups) within the region as well as the State. Thus as much as 61 per cent of the total input were procured from other states of the country.

The output disposal pattern in small and medium size factory units at the regional level, particularly in the backward region revealed that relatively large proportion of their total output was sold within the State (including the region to which they belonged). Similar pattern was not found in the case of both the developing and the developed regions of the State. It was found that more than 50 per cent of their total output was sold outside the State. This had resulted in development of forward linkages in the corresponding factory units of this region.

The observed rates of growth of different industry groups at the regional and State levels are different. In order to examine the relative growth of different industry groups at the regional level, the simple rates of growth of employment were worked out for examining the levels of employment growth. Quite a large number of industry groups at the State level had registered more than 100 per cent of growth in employment in 1969. Almost similar pattern
of employment growth was found at the regional level. The relative growth of different industry groups in the region is graphically presented. It is found from these figures that as many as 7 industry groups had lagged behind the overall state level employment growth both in the backward region as well as in aggregate at the State level. As many as 8 industry groups of this region had grown relatively more compared to their counterparts at the State level.

In the case of the developing region, as many as 5 industry groups had grown relatively more compared to their counterparts at the State level. Another 12 industry groups were slow growing in this region. The relative employment growth of different industry groups was much above that at the State level in the developed region. As many as 13 industry groups had registered exceedingly high levels of employment growth in 1969 in this region.

A regional industrial growth strategy has been suggested in chapter-8 after making comparative assessment of the existing industrial structure in the categorized regions of the State. The regional planner has to be specific with regard to suggesting the regional industrial growth strategy considering the prevailing economic characteristics of the corresponding regions. And this is being done considering the resource endowments, together with the industrial development prospects, and the types of basic and service industries existing in the region concerned. The resource mapping has, therefore, been done and their optimal utilisation at
The state level is examined. The mapping is done of minerals, fuel and other energy.

The state is endowed with a number of mineral deposits. The last two decades presented a mineral boom in the state. Minerals like fluorspar, bauxite, lead, and zinc have been discovered. These minerals are utilised in a number of industry groups. As such, mineral supplies in different industry groups from within the state have made certain the rapid development of mineral-based industries in different regions of the state. The state has also been fortunate in having rich-oil finds. With the coming up of Indian Petrochemical Corporation, quite a number of down-stream industry projects have come into existence. The petrochemical industrial complex has been coming up very rapidly. Along with meeting the fuel requirement of a number of industry groups, this petrochemical industrial complex is likely to provide necessary input to different industry groups.

In the case of electric power generation too, the state has made significant efforts. There would not be any power shortage in the state in near future, although it will take a long time for attaining a stage of self-sufficiency with regard to power generation. Considering the availability of necessary infrastructure, necessary climate has been created for the rapid expansion and development of different industry groups in the state.
The development prospects of the backward and the developing regions are more highlighted. The available statistics of factory units spread across this backward region have revealed that the dormant industrial development potentials existing in the region could profitably be tapped. A number of mineral-based industries could be developed in this backward region. Besides, some sort of trade links between the backward region and other regions of the State are prerequisites to start with. The types of the inter-linkages developing in due course of time in such region would help the existing industry groups to develop rapidly.

The backward region may have to start labour-intensive and capital-light industries in the initial phase. Gradually some types of medium-high capital-intensive factory units could be established to catch up the pace of rapid industrial development. A huge intake of both skilled labour and capital, however, is necessary for removing the backward characteristics from this region. The backward and the developing regions are sufficiently provided with necessary infrastructure by the State level developmental institutions. Industrial estates have been developed in almost all the districts covered under these regions. Thus, small and medium size factory units could be attracted.
Particularly in the case of the developing region, the development prospects are relatively high in the sense that most of the industry groups have been in the process of rapid development. The types of the backward and forward linkages developed in different industry groups of this region show their promising future. These industry groups need a little push in some of making available to them a secured demand for different types of products they are manufacturing. The extent to which their interdependencies with other industry groups outside the region is developing indicates their future course of growth. Most of these industry groups have, more or less, reached a stage of self-supporting growth.

Having established the fact that a given set of basic/core industries in a region act as catalyst, a sorting of different industry groups, categorized as labour-intensive, capital-intensive, and capital-light industries should be made so as to provide a listing of such industries to different regions. Since in the backward region, labour-intensive and capital-light industries should be advocated so as to make use of the available resource endowments profitably, a listing of labour-intensive and capital-light industries may be given as follows:

Industry groups such as rice-milling (205.2), salt (205.3), tobacco and snuff (220), footwear (241), wearing apparel (243),
van-endle textile goods (246), saw-milling (259.1), leather (291),
leather goods (292), bricks and tiles (391.1), matches (390.3),
and fountain-pan (399.4) are more labour-intensive. They are also
capital-intensive industries. The surplus agricultural labour could
be effectively absorbed and the regional output could be increased
thereby.

Low-wage capital-intensive industries, on the other hand, are
recommended after some time, when the backward region is ready enough to
support such industries. Mention may be made of industry groups
such as solible oils and fats (209.4), beverages (2.7), tobacco (2.4),
soaps (319.5), drugs and pharmaceuticals (319.6), some basic metal
industries (34), non-electrical machinery (360), electrical machin-
ery (370), and transport equipments (38).

Along with the development of the above referred industry
groups, some service industries are also coming into existence. And
the settlement structure being sufficiently large enough caters the
service requirements of these industries. The growing demand from
them are being met out of the increased products manufactured by
these industry groups. This helps to steadily improve the economic
condition of the backward region.
Considering relatively better economic characteristics of the developing region in the State a mixed type of industry groups are suggested. These industry groups are labour-intensive as well as capital-intensive in nature. This means that quite a number of operational activities though being carried out by a large number of workers, the same are coupled with superior production technologies. The industry groups which could be suggested here are cigarettes (220.3), cotton textiles (231), artificial leather (239.2), plywood (250.2), furniture and fixtures (260), printing and publishing (280), plastic moulded goods (311.5), sewing and knitting machines (360.5), jute and textile machinery (360.6), telephones (370.2), and electric motors (370.9). These are medium-high capital-intensive industry groups. The fixed-capital requirement per labour in these industry groups is within Rs.8000/- (approximately).

In the case of the developed region, the existing industry structure is both capital-intensive as well as labour-intensive. The type of the industry structure usually found in this region is that of more capital-intensive industry groups. The most capital-intensive industries which could be established in this region may be basic chemicals and fertilisers (311), synthetic resins and plastics (311.5), man-made fibres (319.6).
The fixed-capital requirement per labour exceeds Rs. 40,000 in these industries. In the case of petroleum refining, synthetic resins and plastics, the per-labour requirement of fixed capital exceeds even Rs. 80,000.

Next in order come the industry groups: pulp and paper (271), tyres and tubes (300.1), heavy chemicals (311), cement (334), non-ferrous basic metal products (342), and metal products (350). These are highly capital-intensive industries.

Other medium-high capital-intensive industries: rubber and rubber products (300), soaps (319.5), glycerine (319.6), sheet and plate glass (332), iron and steel castings (341.4), iron and steel forgings (341.5), machine tools (360.4), electric lamps (370.2), electrical cables and wires (370.7), railway locomotives (383), automobiles (389), precision apparatus (391), photographic and optical goods (392.1), and watches and clocks (393) could also be established in this region.

At the end, regional industrial growth strategy, particularly in the context of developing the backward region in the State is tentatively outlined. Having identified the extremely backward area in the backward region, an attempt is...
made, somehow, to develop the existing settlement structure through establishing some agro-based industry groups. The average size of such settlement in this area increases over a passage of time. This helps the firms to reap all the advantages of larger settlements.

With the changing economic environment of the backward region, varied types of manufacturing units come into existence providing more jobs both directly as well as indirectly, to the existing surplus labour-force through developing service industries. The chain effect of industrial development in such area spreads rapidly and the backward region gradually develops, leading to further up the industrial development in the adjoining regions through developing industrial linkages. Thus the growth area policy extended over to other areas which are semi-developed in the backward and/or developing regions in the State focuses all attempts towards spreading regional development programme rather than concentrating efforts towards enlarging only the settlement structures therein.

Two approaches are suggested for selecting the extremely backward areas. The first is a passive approach, whereas the second one is a positive approach. In the case of the first approach, areas which are large and growing fast are selected, whereas...
which otherwise would not have developed or developed slowly are selected in the case of the second positive approach. The second approach is rather difficult in the sense that there lies some difficulty in developing such areas where no trace of industrial development is ever found. The second approach needs, therefore, more efforts and time. In both these approaches, however, there is a consideration of having some sort of a centre/area which primarily can support industrial activity at or near the selected growth area. The growth area policy, as long term regional development policy envisages an expansion of the existing settlement pattern and provide a structure which is large enough to sustain a more rapid regional economic development.