CHAPTER III

ANCILLARIES—ANALYSIS OF DEVELOPMENTAL PROBLEMS AT MACRO AND MICRO LEVELS
Of late, the pattern in manufacturing industries is increasingly to buy a high proportion of components and parts of a product from specialist suppliers so that the manufacturer becomes, in effect, an assembler.

It cannot be denied that the decision of the firm to 'make' the components itself is profitable so long as the unit does not exceed its permissible size as determined by its production function. But the trend today is more towards the vertical disintegration of industries so as to encourage the development of ancillaries, for, there are certain obvious advantages associated with the process of vertical disintegration.

In the process of vertical disintegration, the large unit is relieved of the burden of producing every part and component which can conveniently be manufactured by the small ancillary units. It is a well-known fact
that a firm assembling finished products relies to a considerable extent on ancillary industries for the supply of numerous parts, components and sub-assemblies needed for the assembly of a complete product. An automobile consists of over 2500 major components, a telephone of 240 individual parts and a vacuum cleaner of 750 parts; it would be usually uneconomical for a single unit, however technically and financially sound, to undertake all the different operations involved and to fabricate the items needed. The parent unit need not make heavy investments on the production of parts and components; the capital thus saved can be invested elsewhere.

Diversification

The parent unit can concentrate on the end product and it would be worthwhile for large units to concentrate more and more on such of those items that require higher manufacturing skills and expensive machinery and go in for the procurement of other items for the small units. Further, they can diversify their production lines. The fact that Hindustan Machine Tools Ltd., Bangalore, has continuously diversified its production lines from an ordinary H-22 lathe to
the production of high grade and high speed turret lathe, after the establishment of an Ancillary Industrial Estate, bears testimony to the fact that diversification is possible due to vertical diversification. Likewise, Bharat Electronics Ltd. has envisaged a crash programme to diversify its production lines after the establishment of a 'captive' industrial estate under its aegis.

Reduction of the risks of fluctuating demand

The large unit can reduce the risk of future fluctuations in demand by shifting it to some extent to the supplier of components. As the task of producing components is shifted to ancillaries, the risk is widely spread. Thus the ancillaries can act as a cushion in times of recession.

Exploiting the skill and functional specialisation

The parent unit can also exploit the special skill which the ancillary units have in the manufacture of particular components. Thus in 'buying', one gets the benefits of 'break-up' specialisation of the product, whereas if the large unit makes the component itself, it will probably be a side-line
operation in its plant. It should be recognised that in course of time, the 'buying plant' could also become a specialist, but the difference is that the outside supplier has already attained that status. Further, a specialist firm supplying semi-manufactures is able to combine the individual requirements of its customers for particular specifications and so may be able to achieve economies of large output for each of a considerable variety and size. The final output of anyone of its customers is frequently too small to enable that customer to gain similar economies for an equal variety of components if it were to make them for itself. Specialisation of processes thus goes hand in hand with variety in final product and interdependent firms linked across the markets are often able to offer this variety at lower costs than they could if each firm carried out every process for itself. The point of substance is that while the heavy industries, by and large, have come into being, they themselves may have to depend vitally on the development of small industries with a degree of technical competence which might even match such competence available in the bigger industries.
Today, parts are made so accurately in developed countries that an assembly man in an automobile plant can pick up any one of millions of engine valves, simply slip it into any valve sleeve of any engine block coming down the line and immediately forget about it. No individual fitting, no filing or scraping are required. The parts have already been fitted much more accurately than they could possibly be fitted by hand. Thus the ancillary-parent relationship makes possible a functional specialisation at each level.

Saving in stocks

The saving in stocks is the characteristic advantage of vertical disintegration. The costs of carrying stocks are lower and capital can be turned over more rapidly when firms 'buy' components than when they 'make' components. Timely delivery of components will solve most of the problems of storage of unfinished goods, idle inventory etc. It may be stated that in the West, particularly in the U.S.A., the supply of ancillary items to large units is so streamlined and efficient that in some cases at least they are not required to hold more
than one or two days' inventory of certain components. I would have found it hard to believe this, till I saw it myself in some of the industrial estates in Japan.

Research and product development

Furthermore, since the manufacture of components is likely to be a subordinate position in the parent units regular line of business, there may not be a strong inducement to keep up with technological changes relating to the particular component. On the contrary, the ancillary units making the component as a part of its regular line are likely to devote time for research and product development.

Flexibility in the industrial structure

The dispersion of production of components over a large number of relatively small manufacturing units located in the vicinity of large-scale establishments will, apart from lowering costs, give flexibility to the industrial structure as a whole. This is so because large vertically integrated concerns have a tendency to go in for specialised equipment, whereas the equipment of small-scale ancillary units is
generally more flexible-use oriented, thus enabling them to make a change over from one line of production to another with relatively little difficulty. In a country where acute shortage of capital is a perpetual problem, the advantage of not locking up capital is too specific and rigid a form cannot be over-emphasised. Ancillary industries' role is vital in making up the shortage of capital on the part of large industries and also in helping them to avoid the 'immobilisation of capital' in times of depression. It may be recalled that the structural flexibility of the Japanese economy during the Great Depression of 1931 as well as the immediate post-war period is to be attributed in no small measure to the highly dispersed nature of her manufacturing activity.

Utilising excess capacity of ancillaries

The process of vertical disintegration also helps the large units enormously when they suffer from shortages of capacity. When shortages occur in the capacity of large units and becomes a permanent feature, the

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large units will normally consider an expansion of own plants and equipment unless there are reasons which make this impossible; one such reason may be the existence of government policies forbidding the expansion of certain types of plants or making such expansion difficult or costly. Many companies in this position are held back by external restrictions—the lack of an industrial development certificate for expansion on site, or simply a shortage of skilled labour or direct labour. In such circumstances, the large units suffering from shortage of capacity, can utilise the excess capacity available with the small ancillary units. Rush of work can be shifted to other plants. A good reason for relying on ancillary units even if there is a regular shortage of capacity may be that the shortage is of a seasonal nature, especially if the ancillary units can be found and are suffering from excess capacity during the same seasons.

**The term 'excess capacity' has different meanings in different situations and I shall not elaborate them here. For the present analysis, the relevant meaning is the kind of idleness that can be exploited profitably by adding new products. Excess capacity can be cyclical, seasonal, or long-run; it can be anything from a 'shut down' that leaves a whole town unemployed to the discovery that a presently**
Flexibility in the quality of product

Another advantage of 'buying' from ancillaries instead of making in own plant is the increased flexibility that this policy permits in respect of the quality of the product being purchased. It is a relatively simple matter to change suppliers as quality specifications change. On the other hand, if the company is making the part, it is not so simple to alter its production facilities to permit a change in the quality characteristics of the component. Further, the manufacturer can shift one machine model to another model without additional cost. If he makes the components and tries to shift from one model to another, he is compelled to bear considerable expense, for altering the assembly facilities. If to this expense, is added the cost of retooling an entire plant that makes parts, the expense becomes almost prohibitive.

Avoidance of over-expansion

The parent units can also avoid the over-expansion of production facilities especially during periods of forced production. Such over-expansion wasted by-product has unsuspected profit potentials. Whatever be the reason for this excess capacity, it creates opportunities for increasing profits by expanding the product line.
can create serious over-capacity, if the demand is temporary. Expanding to meet an abnormal demand may subject an industry or the entire economy to heavy fixed charges at a future date when all the facilities are not needed.

Fastest method of increasing output

The policy of buying may also ensure the fastest method of increasing output. It is a procedure that often enables the manufacturer to use man-power where it is already located instead of shifting that man-power into his own plant. It enables him to use engineering and management skills already existing as a functional unit instead of developing new units. It may avoid the need for new plant and equipment on the part of the buyer since, he, in effect, borrows existing facilities. These factors explain why sub-contracting is one of the fastest means of accelerating output. Thus the parent units are enabled to accept a large quantity of orders, including those whose fulfilment is urgently required.

Interchangeability in manufacture

The ancillary units or 'component suppliers' also facilitate the interchangeability in manufacture.
and thus contribute to mass production. The outstanding fact about the machine tool is that by producing an endless number of identical parts, it makes possible what is known as 'interchangeable manufacture'. Thus one headstock may serve for lathes of various lengths and the same hydraulic feed system may be employed on several sizes of lathes. The ancillary units facilitate this interchangeability in manufacture which, in turn, makes possible mass production.

The ancillary units also help the large units if the quantity of components and parts required is so large, that to make them, would interfere with production of the regular line of product.

Utilisation of patented production methods

The policy of sub-contracting also enables the large units to use the patents and production methods of certain components over which the supplier has control. It is possible that the outside supplier might have developed and established patents and production methods of certain components.
Advantage of tapering integration in
meeting irregular and non-recurring demand

In some cases the demand by a large unit, for certain components, may not be regular and recurring. To manufacture such components, the large unit would have to maintain a temporary unit of production. In such a case 'buying' instead of 'making' relieves firms from a large part of the task of setting up, running and disbanding a temporary unit of production.

Value analysis

The process of vertical disintegration is also related to the value analysis. The two are actually closely related and complementary. The main thrust of value analysis is directed towards the detection of cost saving opportunities. In the process of vertical disintegration, these opportunities may be benefits of which the suppliers or feeder units are not aware. The process of vertical disintegration may not always be an accompaniment of value analysis. It may result from recommendations arising out of value analysis and it may not. But like value analysis, the process
of vertical disintegration or ancillary-parent relationship may result in substantial cost savings to the large units.

Cost benefit

The greatest advantage of the ancillary-parent relationship is that the cost of production at the ancillary level is less on account of lower overhead charges and wage bills. The variable factor in determining economical size is mainly the overhead cost per unit produced. The difference between the prime costs of manufacture would vary little between the largest factories and the smallest. Material prices are becoming even more controlled and standardised. Prime labour costs are largely controlled by the performance of the machine and they will identically behave in small units as in large. With overhead, the situation is just different. "At the backyard manufacturers' size, the overhead efficiency is often very high because the management is generally comprised by an 'owner-foreman'; working conditions are spartan and administration is of kitchen-table variety."

Lower overhead costs accrue to the small units because of the use of cheaper equipments, cheap labour, low cost of buildings and finally low cost supervision and administration. Moreover, the small units do not usually give more fringe benefits to the labourers than do large units. In addition, the small units frequently avoid social contributions, specially those of the 'status symbol' kind.

Thus because of lower overheads and a larger volume of production, an ancillary unit produces the required components more economically, thus helping to keep the manufacturing costs of the main industry at a low level. It should however be noted that a unit in the ancillary sector may be large-scale or small-scale. The cost benefit resulting from the ancillary parent-relationship, we have just discussed, can be realised only if the unit concerned is a small-scale ancillary unit.

Dual role

Apart from its key role in producing economically priced components and parts, the ancillary units perform yet another service which is no less important viz. the maintenance of the machines by supplying components required for replacement. This is particularly true of an automobile ancillary industry.
The importance of an industry which plays such a dual role needs little emphasis.

Merits for Ancillaries

The main advantages to the small ancillary units engaged in sub-contracting are normally that they receive a regular flow of raw materials, have an assured market for their products and obtain assistance, guidance and sometimes also financial aid from their parent units. In some cases, the ancillary units are allowed to use the trade marks of their parent concerns and thus their reputation in the market gets enhanced; they come in contact with large reputed concerns. The assistance of the parent unit consists principally of technical advice and loan for equipment. The parent unit furnishes financial assistance by extending its good offices or providing its guarantee for securing loans; occasionally it also grants loans directly to the ancillary units for such purposes as investing in production facilities or replenishing working capital. The most characteristic advantage of ancillary-parent relationship to the ancillaries is that of assured market. It becomes extremely difficult for small firms to get large government or semi-government
work orders in view of the large follow up required in distant government offices. The large units take up these orders and pass on a part of them to small units. "Thus there is a very fair possibility of saving most of the burden otherwise faced by the small ancillary units in marketing."* Similarly they get rid of the trouble involved in the supply of raw materials. The fact that they are free from these two cases mentioned above—marketing and supply of raw materials—means in most cases alleviation from financial worries.**

Demerits of ancillary-parent relationship

The development of ancillary units is not an unmixed blessing and quite often we tend to observe that the large units would hesitate to place implicit faith in the small ancillary units—specially because of their shortcomings such as lack of skill, inconsistency in quality, managerial inability and irregularity of deliveries.

The quality and price of an industrial product partly depends on the quality and price of components and parts that go into its production. If the

** Ibid
Ancillary items are not of required quality, it will be reflected in the quality of the final product. Instances are not rare when the imports of certain components have been completely banned by the Government and although the indigenous supplies are not of an acceptable quality, the manufacturers have been compelled to use the available inferior components. Obviously, individual parts must be accurately made if the whole unit of assembled parts is to work at all. Besides, the most accurately these parts made, the more easily and economically can they be put together. Ease of assembly is what makes the system of main production successful. Furthermore, the more accurately these parts are made, the more smoothly they will operate; and the more smoothly moving parts operate, the longer they will last.

Timely supplies from the ancillary units of good quality components at fair prices are very important. Instances are not rare when the manufacturers were unable to assemble a complete product due to the delayed supply of bought-out components. Such delays in the supply of components will affect even the financial position of the parent units, besides posing problems of storage of unfinished products, idle inventory, etc.
Another defect of the ancillary-parent relationship is the danger associated with the illegal 'collusion' among the ancillary units, especially when there are but one or two ancillary units available to the parent unit. Though one cannot be sure that the suppliers will act monopolistically, still a parent unit may not have much confidence that the ancillary units will supply at a reasonable price. Thus the parent unit is somewhat at the mercy of the ancillary unit with respect to the assurance of supply of components during periods of shortage. It may be added that more ancillary units are desirable to induce competition, but competition will be almost eliminated when there is a restricted supply of raw materials. Obviously, this gives an opportunity to the ancillary producers to charge high prices.

Furthermore, the disconcerting fact is that at least in the case of a few ancillary items, the indigenous prices are substantially higher than those of their imported counterparts—in some cases more than 200% above landed cost. We hear this complaint from our automobile manufacturers quite often.

Another defect of this system is that the ancillary firm offers its labourers no long-term
security because it does not have it itself. If the economy slackens, demand for its services can fall rapidly. Not too infrequently, an ancillary unit is just a 'parasite' on the parent unit. In periods of market fluctuations, the small ancillary units are exposed to the risk that the parent unit may reduce or withhold orders. A parent unit normally tends to use the small ancillary units as a safety-valve or buffer against business changes and impose drastic contractual conditions, especially regarding prices, with the result the ancillary units are actually at the mercy of the parent units. The prices of components are fixed unrealistically irrespective of benefit and cost considerations and ancillary units are meted out a raw deal.

Ancillary-parent relationship does not necessarily guarantee the independence to small ancillary units. Once the small ancillary units are shut out from the markets of products and raw materials and thus reduced to a dependent position, suffer as a matter of course, from unreasonable haggling, price-cutting, return of goods and other various hazards. There is also the problem of delayed payments so that during a credit squeeze, the parent firms may pass on the squeeze by paying ancillary units through promissory notes payable after three or four months, which are privately discounted at large margins.
Another defect that is readily apparent in this relationship is that the ancillary units may have to work to very close tolerances and rigid specifications; delivery schedules may be tight and critical, demanding long hours of work and considerable overtime work for labourers and hard use of equipment.

It cannot be said that the development of ancillary industries will always serve the country's interests. For example, quite a few large firms may set up 'satellite' ancillary units which may in actually be sister or subsidiary concerns of the large firms; these may be brought into existence merely for the purpose of tax evasion. Needless to say, the development of such pseudo-ancillaries is neither desirable (because it robs the public exchequer of its proper dues), nor economic (because it hinders the smooth flow of small savings into productivity activity and perpetuates the inequality of wealth and concentration of economic power).

However, the ancillary industries do have a role to play. The argument that lack of quality and skill on the part of the ancillary units forces parent units not to farm-out components, does not always hold good. Their reluctance to farm-out may be due to professional pride on the one hand or to ignorance on the other. There are some factors which the large units do not discern and to
which others may give insufficient weight. It is often overlooked that if an ancillary unit is not making the desired quality, it may indicate that it has not had requests for such quality. Most ancillary units will undertake to produce to high quality specifications if they have reasonable assurances that the demand is sound and likely to be a recurring one. Perhaps the specifications drawn up by the parent units might be more exacting than necessary for the proper operation or the expected life of the item; alternatively, the tolerances might be more rigid than the commonly accepted commercial standards for the item. The lack of the desired quality on the part of the suppliers might be a temporary phenomenon. This is especially likely if the item is for a new product and even more likely if the new product is being made by a new unit. There may be a legitimate reason why suppliers are not able to furnish items to specifications.

The criticism that an ancillary unit is necessarily an evil since it is just a 'parasite' on the parent unit is nonsense. Taking work from a number of companies, an ancillary unit can balance the peaks and troughs of demand. All the same, in periods of shortage of capacity, an ancillary unit is not likely to take on a company's work unless it was receiving something during leaner times. Thus an ancillary unit need not be a 'parasite' on parent units.
With regard to the other defects of this ancillary-parent relationship, viz. price-cutting and imposition of rigid contractual conditions by the parent units, they can be removed by passing a suitable legislation. Most of the defects of this system are not insurmountable. It is exactly here that the example of Japan is worthy of emulation. Most of the defects of this system in Japan are removed by passing of the 'Anti-Monopoly Act' and a law for the 'Prevention of delayed payments to sub-contractors' by the Government, under which rigid contractual obligations are not allowed to be incorporated in the formal contract between the parent and ancillary units and the payment to ancillary units should be made within a week of the delivery. In India, a similar legislation has been proposed to extend statutory protection to small-scale ancillary units. This aspect is separately discussed in a later chapter.

The manifold advantages of the relationship enumerated earlier seem to far outbalance the shortcomings. A favourable environment can be created by some organisational measures which encourage the small units to improve their quality and punctuality in delivery schedules.

It should, however, be noted that the advantages of this system are limited to a case where ancillaries are given a definite role in the Industrial Structure as in Japan. In such a case, the advantages both to the parent unit and to the ancillary are mutual. When once
it is conceded that the large and small sectors have to play a complementary role, the argument as to who depends more on whom is irrelevant and meaningless. The role of ancillaries should be well defined. The moment this concept breaks down and the large scale unit purchases its requirements by tender in the open market, then the development of ancillaries can only be haphazard and the theory that the cost of production of components by small specialised units is less on account of lower overhead costs, will no longer hold good; it would then make a rubbish of the whole theory of advantages of ancillary industries. If parent units make a complaint that their cost of production is high because the ancillaries have raised their prices, then it only points out a serious drawback in the organisation structure of ancillaries and parent units. Ancillary industries development presupposes the development of small-scale units, although all small-scale units are not ancillaries (and even vice versa). Therefore, in the absence of a well-defined role of ancillaries and 'parental assistance', their development would hinge on the development of the small-scale sector, with all the handicaps regarding purchase of raw material, sale of finished goods, difficulties of getting capital, difficulties of organisation, etc., which the small-scale sector faces today. Therefore, the benefits under ancillary-parent relationship are likely to be mutual if one helps the other i.e. if parent units
extend their assistance to ancillaries and ancillaries try to bring down the cost and improve the quality of components.

Expert Group Meeting on Sub-contracting

In this connection, it is worth mentioning the measure of promotion, regulation and protection of sub-contracting in developing countries as were discussed by the 'Expert group meeting on the role and promotion of sub-contracting in industrial development' held in Paris (October 6 to 12, 1969—convened by United Nations Industrial Development Organisation).

The participants discussed the problem of compulsory sub-contracting and were in agreement that the government action should be very flexible. Although it is necessary to take measures which would not put the sub-contractor in a position of inferiority and would not impose excessive constraints on the contractors, it is essential that sub-contracting relationships should not be made rigid by legislation. In addition, it is doubtful that mere legislation could lead to an expansion of the volume of sub-contracting. However, some participants were of the view that some pressure could be applied on large industry in certain cases; for example, government orders may provide that a given percentage of the value of the orders should be sub-contracted. Thus, in the United States, the rules
of the Small Business Administration are that 20% of the contracts which it administers should be channelled towards small-scale and medium-sized enterprises. Systems of licences for the establishment of industries or for import of materials could also be used towards that end. The establishment of bodies bringing together those who participate to the rational organisation of sub-contracting could also be useful in this connection.

There was an exchange of views on the problem of the influence of taxation on sub-contracting. It was generally recognised that the system of tax on value added, hampered sub-contracting in the least and could even facilitate it in some cases. It was noted that most of the countries which are still using a system of indirect taxation resulting in cumulative imposition, had to modify the law through special measures of implementation, so that it would not penalise too much sub-contracting operations.

The Group went on to discuss the influence of accelerated depreciation allowances on new equipment and machinery. It was recognised that the Government may use this as a powerful instrument to induce enterprises to acquire producers' goods. However, this measure has only an indirect influence on sub-contracting relationships. A similar remark may be made regarding the effects of a reduction from import duties on machinery needed by contractors and sub-contractors.
In general, most of the measures of promotion of small-scale industry benefit sub-contractors as well as non-sub-contractors. This is the case in particular with measures of financing at liberal conditions for the procurement of machinery and for working capital. Several participants stressed the need to allocate scarce raw materials to sub-contractors with the same priority as for the contractors.

As regards measures for protecting sub-contractors against abusive practices on the part of contractors, the participants were of the view that arbitration should be the responsibility of professional bodies rather than that of public jurisdictional authorities. Sub-contracting is essentially a professional problem and conflicts should be solved among professionals. An effective assistance could be given to sub-contractors by providing them with typical sub-contracting schemes, on the grounds that a well-prepared order offers one of the best possible protections in that field. Several countries have already evolved model contracts and procedures of professional arbitration.

The problem of the influence of anti-trust legislation on sub-contracting may be very important for developing countries which endeavour to protect local industry.
If, in a given activity, there is only one production unit of relatively large size, it may enjoy a monopoly position which may hamper economic development and, in particular, hamper the development of sub-contracting.

There was a consensus that the Government's intervention should be aimed at creating environmental conditions which would foster the development of sub-contracting and that it should define the rules whereby a balance between large enterprises and small and medium-sized ones could be maintained.
HISTORICAL REVIEW OF ANCILLARY DEVELOPMENT IN INDIA

The development of industries in India on a planned and systematic basis commenced with the Industrial Policy Resolution in 1948. The Resolution was revised in 1956 to give a fillip to the development of industries on a decentralised basis. In both these resolutions, the role of small industries as a significant factor in economic development was emphasised. Actual development of small-scale industries was accelerated during the period 1951-56.

History of ancillary development in India

During the Second World War, largely based on technical and entrepreneurial skill available in the country, a number of engineering workshops were established in India to meet civil and defence needs. Production of components, parts and sub-assemblies by small enterprises as ancillary development units to major assembling plants really commenced during this period. The entrepreneurial skill at that time was provided by the retired government and railway engineers and in particular cases even by the skilled workers. Due to pressing economic necessity, small-scale industries were fostered as feeder units to larger undertakings immediately after the Second World War. Workers from several fields came forward and joined hands with other enterprising personnel and established small industrial units. Units thus started in a humble way gradually expanded and their production operations got diversified, though in small
workshops located in congested areas. Stimulated by the natural increase in the demand, units had to expand out of proportion resulting in further congestion and haphazard growth. There was little planning which normally is absolutely essential for healthy functioning of the industrial units. But these units, even in the adverse circumstances, continued to produce the requirements of the larger enterprises as per agreed specifications.

Ancillary development in early days was mostly confined to the units which had personal contacts with the larger units. Therefore, the ancillary units were either the ex-factory workers, relatives or otherwise known to the parent firms. The contracts were simple and based on the word of mouth agreements. The length of the ancillary development and its continuity depended upon the maintenance of good relationships with each other. Till the good relations continued, the ancillary units used to get their orders.

Prices were fixed through direct negotiations. The large industries being always quality conscious, provided technical assistance and inspection facilities wherever the situation warranted. In the beginning, large-scale industries were developing ancillaries of simpler items. Later on, when the ancillary units achieved a level of perfection in the production processes, even some sophisticated items were farmed out.
Some of the larger firms even resorted to invitation of tenders so that they get the best products at the cheapest prices. However, this led to the advent of middle jobbers who used to bid for the tenders and get the orders through their personal contacts.

Self-contained large industries

After Independence, in India a good number of large enterprises under receipt of required licences by the Government cropped up one after the other at a stage when the concept of small industry was much in its infancy. People of the country (both planners and executors) in the name of industry could then conceive only of industries which involved large investment, intricate mechanisation, specialisation in the work and employment of a great multitude of workers. Several reasons can be attributed to this, important among which is the lack of knowledge in the industrial field. All these large-scale industries in trades, such as, locomotives, automobiles, aircraft, iron and steel, cement, textile and the like, were established investing enormous capital and also with some sort of foreign collaboration, either in the form of turn-key job, capital of design or technical know-how, with the result that most of them get a self-contained footing. Most of these large-scale units were equipped to produce the components, sub-assemblies and the end products all by themselves. To a large extent, a good number of them depended on imported materials in sizeable quantities.
The concept of ancillary development was completely missing, then.

Focus on ancillary development

With the development of small industries in India, the role that developing the ancillary small-scale units could play in strengthening the large-scale units also became clearer. Concerted measures were initiated to develop small units to serve as ancillary development units to large-scale manufacturers.

In 1956, the Tariff Commission had recommended for an organised industrial growth of ancillary industry in the country to meet the needs of the main vehicle manufacturers as also for the replacement needs of vehicles on roads. Development of ancillary units makes it possible to take advantage of the economic concentration and specialisation and to maintain the efficiency in the industrial growth throughout the spectrum. It achieves dispersed industrial growth without having to forgo the economies of scale.

The harmonious growth of large and small industries enabled the latter to improve their level of technology and performance. The large industries have a wealth of know-how and expertise which they acquire through their product development and manufacturing process. In the
case of sophisticated items, this know-how is usually fortified by a technical collaboration agreement with firms in advanced countries. Small firms do not have the same fund of knowledge and experience and also the resources to develop new techniques. Large industries also are in a better position to help small industries by suggesting and selecting the proper type of raw material and machinery for them. This is especially true in the case of those small industries which supply bulk of their products to larger industries.

It was, therefore, recognised that there was need to co-ordinate further development in both small and large-scale sectors simultaneously. It was essential to have a more comprehensive view of the requirements of the community, the contribution which the small-scale sector could make in relation to large-scale industries and the extent to which the process involved and the various stages of production could be decentralised. It was at this stage that the faith in ancillary development was infused. To gear up the technical background of small units with a view to enabling them to take up the manufacturing programmes effectively, The Small Scale Industries Development Organisation, Government of India, set up a network of field agencies on a nation-wide basis. The National Small Industries Corporation came forward to supply both imported and indigenous machines for the industry on hire-purchase basis.
Active measures for ancillary development

The Standing Committee of the Small Scale Industries Board constituted a sub-committee under the chairmanship of the Development Commissioner, Small Scale Industries, in the year 1958. This was named as Ancillary Industries Committee which was formed with a view to examine various ways and means for the development of small-scale industries as ancillaries to large industries. This sub-committee suggested a number of steps to provide a strong impetus to large-scale units for utilising the services of the small units and farm out ancillary development work.

In order to nurture the growth of the ancillaries, positive programmes for their development were entrusted to the Small Industries Development Organisation in 1960 on the recommendations of the Standing Committee of the Small Scale Industries Board which is an apex body charged with the responsibility of formulating various developmental programmes for the sustained development of small industries.

The verticalisation of industrial growth in the large-scale sector and also to a marginal extent in the small-scale sector was no doubt improving the specialisation in their respective fields, but it was unable to bring about a more co-ordinated approach towards the
common objective of improving the socio-economic status of the country. It was realised that the small-scale sector of industry could rightly be considered as the backbone for the economic prosperity of this country, as it has shown similar identity in other developed nations of the world.

Regional sub-committee

In January 1963, the Ancillary Industries Committee at Development Commissioner's level convened a meeting when it was decided to form Regional Ancillary Industries Committees with the following terms of reference:

(i) Preparation of lists of parts, components and sub-assemblies required by those large-scale industries which are directly connected with the Defence Establishments;

(ii) Preparation of lists of parts, components and sub-assemblies required by other large-scale industries; and

(iii) Suggesting items of production to be demarcated for exclusive undertaking by small-scale sector so as to fit with large and small-scale industries.

Such Regional Committees were set up in Bombay, Calcutta, Delhi, Bangalore, Madras, Madhya Pradesh, Bihar and Gujarat.
State Ancillary Committee

The development of ancillary industries is a continuous process and as such it would be desirable that each state should constitute a State Ancillary Industries Committee. It was suggested that the State Ancillary Committees should be formed under the chairmanship of the Director of Industries with the Director, Small Industries Service Institute, functioning as Member-Secretary and this Committee should formulate ways and means for the promotion of small-scale ancillary industries.

Views of Estimates Committee on ancillary development

Early in 1966, the Estimates Committee of Parliament which went into this matter of ancillary industries and industrial estates, made the following observations:

"The Committee are particularly distressed to note the very slow and insignificant progress made in fostering ancillaries by public sector undertakings which might well have given a lead in demonstrating the usefulness of ancillary arrangements and set an example to their counterparts in the private sector ... The Committee urge that intensive effort should be made by public undertakings to farm out their parts and components to ancillary units...."

The Ministry of Industry in March 1966 forwarded the conclusions of a Committee for the development of ancillary
industries for public sector undertakings and suggested agencies for taking action. This Committee suggested that a study should be made by competent technical persons to see what items in the factories can be developed by ancillary units in and around that undertaking, and which are the items which can be off-loaded profitably to the proposed industrial estate with a view to augmenting the existing resources of such units to give an increased output. It was also stated that for future undertakings, it should be specifically seen as to what parts and components could be developed and manufactured by ancillary units in the small or large-scale sector. Functional industrial estate was suggested for this purpose and it was also recommended that private units should be encouraged to follow this idea.

Role of public sector

In 1969, the Cabinet Secretariat took up this matter after an inspection of the ancillary units attached to the H.M.T., Bangalore and the ancillary unit attached to Messrs. Enfield India Ltd., Madras. On August 11, 1969, the Department of Industrial Development was asked that a paper should be prepared showing with reference to the 16 industries already identified for the development of ancillaries, as to what work has been done so far. The paper should indicate, inter alia, whether any quantitative appraisal has been made of the volume of production that can be undertaken in the ancillary sector in each one
of these 16 industries. A number of suggestions for accelerating the programme of ancillary industries, made by the Development Commissioner (Small Scale Industries), were also brought to their notice. The suggestions included:

(i) All public undertakings should indicate what provisions they are making for the purchase of components from ancillary and feeder industries before they seek licence for their production capacity.

(ii) All undertakings in public sector should set up ancillary industrial estates.

(iii) Scarce raw materials and imported raw materials and inescapable components of sub-assemblies should be supplied by undertakings for the small-scale ancillary units whenever possible.

(iv) It will be advantageous if long term purchase arrangements are made with small scale units to give them a sense of security, thus encouraging them to develop new items.

Previously, there has been a grey area in ancillary industry development. Because of the war emergency in 1962 and again in 1965 and 1971, the problem of getting components, parts, tools and sub-assemblies manufactured by any (small-scale) unit in the country, was encouraged by many public sector undertakings. The Indian Railways
which did pioneering work in developing the small industries
never took up the idea of having an ancillary industry, but
identified parts that can be made in the small-scale sector
and tendered this openly for any unit to offer. As a
result, though they had diverted a lot of material to the
small industries sector, there was no organisational link­
up between any of their major production units and the
small industries which actually supplied the parts. Because
of the rule that purchases from outside should be first
tendered, the public sector plants, even when they decided
to buy components and parts from outside, took the line of
tendering for parts. As a result, most of these orders
went to well-established small industries organised in big
towns of the country, like Bombay, Madras, Calcutta, and
well-established centres like Ludhiana, etc. An ancillary
industry is a completely different concept. What Government
have been trying to emphasise for the last 12 years is the
idea of ancillaries. This has not received much attention
so far.

What is the progress of the type of ancillary
industry Government contemplated? In 1963, a paper pre­
pared in the then Ministry of Industry had mentioned that
13 public sector undertakings including the Railways and
20 private sector undertakings had taken up ancillary
industry programme. Out of these, we see today that
the Hindustan Machine Tools Ltd., Bangalore, which started
ancillary industries in 1957, long before the idea was
sponsored by Government, is probably the best run ancillary industry organisation in the country. The Indian Railways have sub-let a lot of their components and parts, but not to ancillary industry. Same is substantially the case with Indian Telephone Industries, Bangalore, Bharat Electronics Ltd. and Hindustan Aircraft Ltd. As regards the private sector, from the fact that in 1966 it was found necessary to mention Messrs. Enfield India Ltd., it is also obvious that many of the others had not really progressed with the ancillary industry idea. They had no doubt encouraged production of spares etc. in the small-scale industries sector, but this is not the same as the ancillary industry system.

Registration of ancillary units

The Ancillary Industries Committee held its 20th meeting in February 1968 and made the following recommendations:

"It was felt necessary that the small-scale ancillary units should be registered on the lines of Directorate General of Technical Development keeping in view the higher limit of capital investment towards machinery and equipment. There are thousands of small-scale units in the country which are supplying parts and components to large-scale enterprises, but
The consensus of the members present in the meeting was that obligatory registration of every small-scale ancillary unit should be done by the Office of the Development Commissioner, Small Scale Industries Organisation. The procedure followed for ancillary registration will be on the lines of enlistment for participation under Government Stores Purchase Programme. The registered small-scale units should furnish the production particulars on a quarterly basis which will be maintained by the Development Commissioner, Small Scale Industries Organisation, Government of India."

Selective approach

The following 20 industries in respect of which the upper limit for capital investment towards machinery and equipment has been raised to Rs. 1 million have been selected for Ancillary Industries Development Programme:-

1. Industrial Machinery
2. Agricultural and Earth Moving Machinery
3. Machine Tools
4. Industrial, Scientific and Mathematical Instruments (Mechanical)
5. Locomotives and rolling stocks, ships and aircrafts
6. Bicycles
7. Boilers and steam-generating plants
8. Steam engines, turbine and internal combustion engines
9. Automobiles
10. Commercial office and household equipment
11. Telecommunication equipment
12. Industrial instruments (Electrical)
13. Electrical machinery, equipment and appliances
14. Radio and electronics equipment
15. Air-conditioners and cold storage equipment including refrigerators
16. Mineral oil and petroleum industries
17. Railway (Rolling stocks, track equipments and signalling equipments)
18. Chemicals (for packing industries)
19. Fertilizers (for packing industries)
20. Iron and steel industries

**Definition of small ancillary unit**

An ancillary unit was defined as: any manufacturing industrial undertaking whose total capital (fixed) investment in plant and machinery does not exceed Rs.10 lakhs and also which produces parts, components, sub-assemblies,
toolings, intermediates or inputs for supply against known or anticipated demand of one or more units manufacturing/assembling complete products and which supplies directly at least 10 per cent of its production to one large unit and 50 per cent to one or more large units. However, it may be emphasised that the subtle meaning of an ancillary is unsettled even today. If we take an overall view of small-scale units and ancillary units in one organic whole, an ancillary unit is a 'Specialist Small Industry', to develop which no clear-cut policy has been laid down by the Government yet.
ANCILLARY INDUSTRIES—EXPERIENCE OF
DEVELOPED AND DEVELOPING COUNTRIES

JAPAN

The modern Japanese industrial complex is a pyramid with the larger and major industries at the apex, the sub-contractors in the middle and the sub-sub-contractors forming the base. The direct or first sub-contractors to the parent unit are referred to as primary sub-contractors and the sub-contractors to them as secondary sub-contractors. The parent company is the prime contractor as distinct from sub-contractors. The sub-contractors own medium scale industries and produce components, parts and sub-assemblies required by prime contractors or large industrial units.


(b) Keizo Fujita, 'Management Structure of Smaller Enterprises', Asian Affairs, 1957.


Many sub-contractors, in turn, further sub-contract part of their production to other small firms. There are at times as many as 4 to 5 tiers of sub-contractors each delivering the component to the parent units at a predetermined price. The number of sub-contractors of the biggest companies literally runs into thousands.

The sub-contracting system plays an important and continuously increasing role in the Japanese industrial structure. The very weakness of small enterprises, viz. lack of markets make them generally accept sub-contracting arrangements and enter into affiliation arrangements with large concerns, thus developing intricate patterns of specialization and complementarity.** Although possessing the necessary qualities for an independent industrial capital, the factories under sub-contract are compelled to be auxiliaries of the large-scale industries due to the lack of markets. The deep rooted immobility of labour has also been a contributing factor to the development of complementarity between large and small firms.


In fact one of the striking aspects of Japanese industrialisation has been the strength and staying power of the small industrialists, especially where they have been fitted organically into a framework of large scale organisation providing them with efficient marketing arrangements and cheaper credit and electric power.*

The ancillary industries acquired a special status in Japan because of their widespread extent, their persistence and their conservative influence on the social structure. Nissan Motor Company, a large automobile concern, has over 400 sub-contractors to manufacture the components. Each of these sub-contractors has scores of sub-sub-contractors to supply them with sub-assemblies, castings, blanks, individual gear wheels, etc.*

The internal structure of the ancillaries and its relationship with large units has been clearly defined and the ancillary-parent relationship is direct, sharp, extensive and advanced. The table on the next page shows the magnitude of sub-contracting system and the degree of dependence of large units on ancillary units in Japan.

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* "Economic Growth, Brazil, India and Japan", edited by E. Kuznets, E. S. Moore and J. J. Spengier, p.149

Table showing dependence of large industries upon sub-contractors

<table>
<thead>
<tr>
<th>Industry</th>
<th>Extent of dependence (percentage)</th>
<th>Number of parent plants by extent of dependence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maximum</td>
<td>Average</td>
</tr>
<tr>
<td>Ship building</td>
<td>34.3</td>
<td>12.3</td>
</tr>
<tr>
<td>Railway rolling stock</td>
<td>11.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Automobiles</td>
<td>43.9</td>
<td>25.3</td>
</tr>
<tr>
<td>Auto-tricycles</td>
<td>96.2</td>
<td>38.6</td>
</tr>
<tr>
<td>Bicycles</td>
<td>68.0</td>
<td>33.7</td>
</tr>
<tr>
<td>Electric Machinery</td>
<td>67.0</td>
<td>23.8</td>
</tr>
<tr>
<td>Electrical Wires &amp; Cables</td>
<td>7.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Machinery for commu-</td>
<td>58.6</td>
<td>28.3</td>
</tr>
<tr>
<td>nications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meters</td>
<td>62.0</td>
<td>30.2</td>
</tr>
<tr>
<td>Industrial Machinery</td>
<td>63.8</td>
<td>15.1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Mining Machinery</td>
<td>22.0</td>
<td>16.4</td>
</tr>
<tr>
<td>Machine Tools</td>
<td>44.7</td>
<td>22.3</td>
</tr>
<tr>
<td>Mining Machinery Repairing</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Spinning and Weaving Machines</td>
<td>55.4</td>
<td>32.0</td>
</tr>
<tr>
<td>Nobsors</td>
<td>56.0</td>
<td>18.3</td>
</tr>
<tr>
<td>Sewing Machines</td>
<td>97.5</td>
<td>41.4</td>
</tr>
<tr>
<td>Arms and Ammunition</td>
<td>14.9</td>
<td>7.2</td>
</tr>
<tr>
<td>Optical and Precision Machines</td>
<td>53.8</td>
<td>31.3</td>
</tr>
<tr>
<td>Measuring Instruments</td>
<td>40.0</td>
<td>21.6</td>
</tr>
<tr>
<td>Time Pieces</td>
<td>31.1</td>
<td>19.4</td>
</tr>
<tr>
<td>Spinning &amp; Weaving</td>
<td>100.0</td>
<td>15.4</td>
</tr>
<tr>
<td>Spinning &amp; Weaving</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>------------</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Textile Products</td>
<td>81.5</td>
<td>44.3</td>
</tr>
<tr>
<td>Printing &amp; Book-binding</td>
<td>42.0</td>
<td>17.6</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>24.0</td>
<td>9.5</td>
</tr>
<tr>
<td>Aluminium Products</td>
<td>9.3</td>
<td>6.9</td>
</tr>
<tr>
<td>Pottery</td>
<td>36.3</td>
<td>17.1</td>
</tr>
<tr>
<td>Synthetic Fibres</td>
<td>21.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Canned Foods</td>
<td>8.2</td>
<td>5.7</td>
</tr>
</tbody>
</table>

* Value of output of sub-contractors as a percentage of value of output of parent plants

* Manufacturer in Trading firms

The table shows the dependence of parent manufacturing industries on sub-contractors, as measured by the value of orders placed with sub-contractors to total value of output of parent firms. The dependence of parent units on sub-contractors is more in the case of spinning and weaving, auto-tricycles, sewing machines and textile products, as the percentage value of orders placed with sub-contractors to the total value of output of these industries varies from 90 to 100. A more coherent picture of the above analysis can be had by synthesizing the table on the last page with the one that follows the next para.

As could be seen from the next table, the average number of sub-contractors per parent industry is about 60. Sub-contractors with less than 100 employees accounted for 88% of the total and those with less than 30 workers for 52%. Those with a capital under 3 million yen accounted for 80% and those with a capital under 1 million yen for about 50%. Some 54% of the total number of sub-contractors are making use of under sub-contractors or sub-sub-contractors. Almost all sub-contractors are connected with more than two parent industries and the average number of parent industries per sub-contractor stands at nine. Thus in Japan, the 'ancillary coverage' in the industrial structure is very high. Even in rubber industry, there is ancillary-parent relationship in Japan. Certain operations in the rubber
<table>
<thead>
<tr>
<th>Industry</th>
<th>No. of parent plants</th>
<th>Percentage distribution</th>
<th>No. of sub-contractors per parent plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship-building</td>
<td>17</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Railway rolling</td>
<td>14</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Automobiles</td>
<td>9</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Auto-tricycles</td>
<td>9</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Bicycles</td>
<td>9</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Electrical machinery</td>
<td>9</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Electrical cables, etc.</td>
<td>9</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for communication</td>
<td>92</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for electric cables, etc.</td>
<td>6</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for motors</td>
<td>14</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for machine tools</td>
<td>16</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for electrical wires*</td>
<td>10</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for meters</td>
<td>17</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for industrial machinery</td>
<td>16</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for mining machinery</td>
<td>17</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery for machine tools repairing</td>
<td>9</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Machine tools</td>
<td>17</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Spinning &amp; weaving</td>
<td>17</td>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>96%</td>
<td>1%</td>
</tr>
</tbody>
</table>
industry cannot be done without fairly large machinery, but the system of performing various operations in separate shops rather than under one roof has not been entirely abandoned.

Assistance to ancillaries consists principally of raw materials, finance, loan of equipment and technical assistance. Sometimes, sub-contractors are allowed to use the trade marks of their parent units. In some cases, the parent units themselves directly assess the raw materials required by the ancillaries and make suitable arrangements for the supply of raw materials to the ancillaries. Sometimes, they give loans not only of funds for the enterprise, but also of funds necessary for their lights and shadows. The following table shows how the parent units in Japan offer 'package or turn-key' plans providing complete financing, engineering service to the ancillary units.

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Sub-contractors receiving raw materials and assistance from parent firms, 1955

<table>
<thead>
<tr>
<th>Form of Assistance</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of enterprises surveyed</td>
<td>151</td>
<td>100.0</td>
</tr>
<tr>
<td>Sale of raw or processed materials</td>
<td>255</td>
<td>41.1</td>
</tr>
<tr>
<td>Free supply of raw or processed materials</td>
<td>227</td>
<td>42.8</td>
</tr>
<tr>
<td>Lease of machinery and equipment</td>
<td>144</td>
<td>27.2</td>
</tr>
<tr>
<td>Interchange of personnel</td>
<td>9</td>
<td>1.7</td>
</tr>
<tr>
<td>Good offices or guarantees for loans</td>
<td>70</td>
<td>11.2</td>
</tr>
<tr>
<td>Loans for investments</td>
<td>37</td>
<td>7.6</td>
</tr>
<tr>
<td>Loans for working capital</td>
<td>26</td>
<td>4.9</td>
</tr>
</tbody>
</table>


In Japan, the development of small feeder units has not been so much due to any systematic promotional measures adopted by Government or any other private agencies, but mostly through collaboration and cooperation of large and small firms purely on voluntary basis. In other words, the development of ancillary-

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*Small-scale Industries in U.A., West Germany, Sweden and Japan*, Report of the National Productivity Council, April 1960, p.18
parent relationship mainly hinged on the direct contacts which the ancillaries had with the parent firms and all this was strengthened through a system of bilateral exchange of intelligence, ideas and methods of organisation. It is very interesting to note that the parent units help in the formation of a co-operative of their sub-contractors with a view to promoting effective liaison between the parent units on the one hand and the sub-contracts and in solving technical and other difficulties.

The effects of this ancillary-parent relationship, viz., price-cutting, delayed payments and imposition of rigid contractual conditions by parent units are removed by passing of the 'Anti-Monopoly Act' and a law for the prevention of delayed payments to the sub-contractors' by the Government under which the inclusion of rigid contractual conditions in sub-contracts is declared illegal and payments to sub-contractors should be made within a week of the delivery.

Machinery Manufacturers Inc. in U.S.A. secure a large number of parts and components from specialised feeders

"Small-scale Industries in U.S.A., West Germany, Sweden and Japan", Report of the National Productivity Council, April 1960, p.20
units. It is stated that in some cases, specially for heavier types of machinery, as much as 70% of the components are collected from feeder units and only 30% are of 'factory origin'. The International Business Corporation estimated that 50 to 80% of their components, depending on the nature of products, came from subcontractors and that about one-third of these were from small industrial units. General Electric Company in 1952 spent 60% of its prime contracts on jet engines on subcontractors in the field of small industry. Westinghouse Electric Company channelled more than 40% of its defence contracts to small industrial units.1 The Chrysler Corporation purchased more than 16% components and parts for automobile manufacture of which about 40 were from small units and accounted for 25 to 25% of the value of each automobile. The Bendex Aviation Corporation (Radio Division) estimated 90% of their parts to be from small-scale vendors. "Bell Telephone" of U.S. gets 80% of its ancillary requirements from small units. The company has 30,000 ancillary units supplying components valued at Rs.500 crores. The General Motors of U.S.A. buys 80% of its components from small industries. The General Motors of U.S.A. buys 80% of its components from small industries. Greyhound Corporation, Chicago, the largest road transport corporation in U.S.A. buys its

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component requirements from all possible sources—equipment manufacturers, brokers and jobbers. The Brown Coach Corporation, Los Angeles are able to make custom-built coaches economically by purchasing the components from feeder industry. The White Motor Co., Cleveland, Ohio, produces on an average 1300 trucks per month; about 35% of their production of vehicles is fitted with diesel engines and the remaining 65% with petrol engines; the diesel engines are all bought out completely. The petrol engines are made in factory, but items like valves, pistons, etc. are bought from ancillary sources. Even the International Harvester—-the largest producers of farm harvesters—do not make their own components and parts, but they buy their requirements from Lbossco Product Inc., Bedford, Ohio, which in turn buys forgings and castings from other sources and this chain work of sub-contracting enables each ancillary unit to achieve a high degree of specialisation in its own specific field.

In U.S.A., many large companies sub-contract components and parts with a view to achieving the following objectives:

(1) to avoid over-expansion during periods of hectic production activity.

(3) to avoid the need for acquiring and utilising continuously specialised employees who have experience in kinds of work of which a sub-contractor is already an expert.

(3) to get certain benefits from Registration Board. Regulations under this Board provide certain benefits to prime contractors who sub-contract to the greatest extent possible.

The role of sub-contracting system is well recognised and the system is being practised even in building industry and shoe-making industry. The table on the following page shows the extent of ancillary development in building industry.

Even the modern shoe-maker in U.S.A. is essentially an assembler of components. He buys his upper materials and cuts them up, but everything else such as heels, soles, tacks, solutions, bows, buckles, buttons, blanks, stiffeners, toe-puffs, toe pieces, welding, close uppers, complete button units, he likes to 'buy' on short notice from feeder units. *

The outstanding feature of ancillary-parent relationship in U.S.A. is that the large firms are as anxious about the performance of the sub-contracts by the vendors, as the

### Sub-contracting by trades in the building industry

<table>
<thead>
<tr>
<th>Trade</th>
<th>Main Contractor</th>
<th>Sub-contractor</th>
<th>Sub-contractor's party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site works</td>
<td>89</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Brick-layer</td>
<td>64</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Carpenter</td>
<td>91</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Plasterer</td>
<td>23</td>
<td>59</td>
<td>6</td>
</tr>
<tr>
<td>Plumber</td>
<td>40</td>
<td>52</td>
<td>8</td>
</tr>
<tr>
<td>Roof tiler</td>
<td>11</td>
<td>84</td>
<td>5</td>
</tr>
<tr>
<td>Painter</td>
<td>56</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>Glazier</td>
<td>36</td>
<td>69</td>
<td>1</td>
</tr>
<tr>
<td>Floor-layer</td>
<td>22</td>
<td>33</td>
<td>45</td>
</tr>
<tr>
<td>Gas fitter</td>
<td>13</td>
<td>85</td>
<td>2</td>
</tr>
<tr>
<td>Electrician</td>
<td>4</td>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>

vendors themselves and go all out to assist them in various ways to ensure the successful execution of the contracts placed. Once a large firm locates the sub-contractors, it not only supplies them with the full technical specifications and blue-prints for their products, but also sends its plant engineers to their factories to give the necessary technical guidance. It also supplies fixtures, dies and tools required for the parts sub-contracted and in several cases even machine tools on rental basis. In a very few cases, testing equipment are also loaned to the sub-contractors. The rental charge is usually calculated on the basis of the life of the items loaned which is assumed to be 100 months in the case of tools, dies and fixtures and 200 months in the case of machine tools.* Some large units also follow a dual policy in supply of tools to their sub-contractors. Either they purchase the tools themselves and loan them to their sub-contractors on rental basis or they permit their sub-contractors to buy these tools and adjust their cost against the payment to be made to the latter for the components supplied.**

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* "Small-scale Industries in U.S.A., West Germany, Sweden, and Japan", Report of the Indian Productivity Team, p. 15

** Ibid
The purchases from sub-contractors are made in accordance with a General Purchase Agreement entered into with them. The price of the component is determined on the basis of competitive quotations but there are cases where the price is also determined by negotiation on a time and material basis; in such cases the sub-contractors are generally allowed a profit margin of about 10% over the costs of manufacture. The sub-contractors are usually paid on completion of the deliveries. In some cases, the large units effect payments to their sub-contractors on a monthly basis up to 75% of their estimated monthly expenditure.

The system of sub-contracting to small units receives positive support from the Stores Purchasing Departments of the U.S. Government. Sub-contracting is often the most practical way for small manufacturers to participate in defence orders. National Security Expenditures in the U.S.A. usually amount to 50 billion dollars a year; 30 billion are earmarked for defence purchases. This represents a great deal of business of which sub-contractors usually obtain a major share.

* "Small-scale Industries in U.S.A., West Germany. From an Indian", Report of the Indian Productivity Team, I. C., April 1965, p. 15

The Regional Offices of S.B.A. (Small Business Administration) have the names of large prime contractors in their respective areas. The Regional office staff contact manufacturers of essential civilian and defence products to learn what portion of their production can be sub-contracted to small business firms and to urge them to form out to small manufacturers as large an extent as practicable.

Sub-contractors usually get the specific advice and assistance from S.B.A. which has a specific sub-contracting programme. The Department of Commerce, Federal Trade Commission, Navy Department, Chambers of Commerce, Banks, State Employment Services, Public Interest Organisations, etc. procure sub-contracts for small firms. They publish 'trading lists' giving the names of sub-contractors and these lists are made available to large firms. United States Purchasing Directory also gives a list of sub-contractors. Thus all these agencies provide a 'link service' to develop ancillary arrangements.

WEST GERMANY

In West Germany, the giant manufacturers as a matter of accepted policy, do not make the ancillary parts themselves nor do they have the tendency to produce such parts, as the ancillary industries are in a position to supply all the components needed by them at the most economical prices.
According to the report of the Indian Productivity Team, a well-known large-scale firm of machine tool manufacturers which the team visited was purchasing nearly 40% of its turnover from outside firms; of which, it was estimated that one-third was from small-scale units. Another firm engaged in the design and manufacture of high quality industrial servicing machines and also card punching machines for another large-scale firm, purchased all its forings, castings, electrical parts and components (which accounted for about 18% of its turnover) from other firms, most of whom were reported to be small units.

The Auto-Union, GmbH, Ingolstadt — the largest producer of 750 cc., 800 cc. and 1000 cc. engines in West Germany — buys about 40% by value of the components from outside sources; it is worth noting that the company has no foundry of its own; they buy all their requirements of castings and forgings from other sources and therefore the natural impact on the cost-structure, made possible by the standardisation of castings, is understandably encouraging.*


As a result of this progressive policy, the ancillary industries handle a very large volume of production of component items both for original equipment as well as for the replacement trade.

Goetze-Werke, Koln—one of the biggest ancillary units—produces piston rings, cylinder liners and oil seals. VDO Tachometer-Werke, Frankfurt, another ancillary unit alone produces about 93% of the total requirements of dashboard instruments for the entire German automobile industry. Robert Bosch Crubh, Stuttgart—an old and reputed unit in the ancillary sector—produces starters, motors, dynamos, headlights and all electrical and fuel injection systems.

Verband der Automobile, Frankfurt—an association of Automobile and Ancillary Manufacturers in West Germany—plays a vital role in the effective execution of this process by providing a common forum for both the vehicle manufacturers to discuss their technical problems freely and frankly vis-à-vis individual requirements. The association has made very significant contribution to the standardisation of components which, in turn, has considerably simplified manufacturing processes and promoted cost-reduction.

UNITED KINGDOM

Similar instances can be quoted from industries in U.K. The automobiles ancillary industries of U.K.—Joseph Lucas, Smith, A.C. Pleco, Lodge, Champion—meet almost all the
component requirements. Inspite of their high degree of integration, even the large British firms buy many parts and components. It has been estimated that on an average, two-thirds of the factory value of a British car is accounted for by bought out materials and components.\footnote{Ministry of Supply, National Advisory Council for Motor Manufacturing Industry, Report & Proceedings (H.M.S.O. 1947), quoted in the "Structure of the British Industry" a symposion edited by Duncan Burn, Cambridge University Press, 1956.p.11}

**SCHENEN**

The large industrial establishments in Sweden generally purchase their requirements of components and parts on the basis of competitive quotations from several sub-contractors and sub-contracts are also negotiated with individual firms in special cases. Ancillary purchases are made from more than one source so that no single supplier can let them down. The drawings and full technical specifications are invariably supplied to the sub-contractors and the goods supplied by them are subject to rigid inspection before acceptance.

There seems to be no organised promotional measure undertaken by the Government specially for the development of ancillary or feeder industries.\footnote{Report of the Productivity Team, April 1946, p.11} The sub-contracting system between large and small firms developed purely on voluntary basis.
The Swedish Mechanics Association issues an annual publication giving the names of industrial units in Sweden, the number of workers employed in each, the items manufactured and the processes employed by each firm. Large and small firms use this publication to get into touch with one another.

Under the controlled economy in Russia, the entire production is state-controlled and so the development of ancillaries has been on a different pattern. Business contracts between individual enterprises are officially regarded as special techniques for strengthening the economic plan and the principles of Khozraschet. General contracts are concluded by Central authorities representing producers as well as sellers. On the basis of these contracts, each individual enterprise signs the local contracts for concrete implementation of the plans through prescribed channels.

From the discussion we had in the foregoing pages, emerge the following points:

(1) The industrial giants in the U.S.A., Japan, West Germany, U.K., Sweden and U.S.S.R. offer a very living and dynamic example of how different technological processes co-exist and function together in a continuous manner. A
system of close co-operation and collaboration has been evolved wherever necessary, by which the large units are constantly in touch with their small suppliers to whom they render technical guidance. In these countries, the development of ancillary or feeder industries is being looked upon as a valuable procurement tool.

(2) In industrially advanced countries, there is a balance in the contribution made by the large and small industries to overall industrial production. The bigger industrial units get a good proportion of their production carried out by units which are in the small sector. There is thus interdependence and a large 'spread' in the way to go before this balance is achieved and this spread is achieved to a great extent.

(3) The number of small industries which produce a complete finished product on their own is very few.

(4) The identification of an ancillary unit is comparatively clear as they are given a definite role.

(5) The sub-contracting system in these countries is direct, short, extensive, definite and advanced and the 'interlacing' between the focal units and the ancillary units is made up of strong threads through the bilateral exchange of ideas and assistance.
(e) Thus these ancillary industries enjoy an enviable position in leading countries that go by the generic name 'advanced countries'; in fact a strategic role is being played by these industries.

Developing countries

The "Expert Group meeting on the role and promotion of sub-contracting" has made a significant reference in respect of development of sub-contracting system prevailing in some of the developing countries. In Asia and Far East this system has not yet taken hold except in Japan, and to some extent China (Taiwan), India and Pakistan. However, it should be mentioned that in Japan the development of sub-contracting has played a very vital role in industrial growth.

In as far as Africa is concerned, a preliminary survey by AFRASEC indicates that sub-contracting is hardly existent in most countries of this continent; where it exists it is of an irregular and intermittent nature. In the Expert Group meeting, one participant from an African country stressed the need for the development of indigenous enterprises before one could talk of sub-contract. The governments of these countries often face great difficulties in reconciling their desire to encourage foreign investments through a liberal investment code and their need to press these foreign firms to sub-contract work locally.
However, in Latin America, the more industrialised countries of the continent have already developed to a stage where a considerable volume of sub-contracting is being practised in certain industries. The continent viewed as a whole, there still exists a great deal of lack of mutual trust between the large and the small industries which has considerably hampered the further development of sub-contract which has been recognised in that continent as a potentially important instrument towards spreading industrial development away from metropolitan cities.

The Expert Group was, therefore, of the opinion that while the amount of sub-contracting would vary with a degree of industrial development, a start could be made to promote such a system even at early stages of industrialisation by a system of small industrial units as suppliers of parts and services to large units. Sub-contracting, as a matter of fact, should be taken into account in the general industrial development plans and programmes of all the developing countries.
EXTENT OF ANCILLARY DEVELOPMENT IN INDIA

We have observed in previous chapters that in many other countries, especially in Japan, the concept of ancillaries is well defined and the role of ancillary industries has been given a due recognition. Often we are told that a giant like the General Motors of U.S.A. buys 80% of its components from small industrial units. In Japan, approximately 27% of the value of output of engineering industries is produced by small feeder units. Similar data are quoted about Germany and other developed countries which should make us feel sorry about the lack of comparable balance in our economy.

The ancillary industries are best suited to our country because here, business firms which are modernised and comparatively big and equally well small and medium sized business firms which are less developed already co-exists a considerable disparity of wages exists between such businesses.

Lack of integration between large and small sectors

The potential for the development of ancillary industries in certain high priority production fields is really great in India, but there is an inherent tendency among large-scale units to produce all of their component
requirements under their own roofs which perpetuates till this day and thereby leading to vertical development in industries. The most disquieting tendency is that even the public sector undertakings with the exception of a few have invested a lot of capital in equipment for operations that are divorced from the main plant, which, in other industries, are the function of specialised ancillary manufacturers.

The amount of sub-contracting within the Indian manufacturing industry is strikingly low. Two sets of data taken from the census of Indian manufacturers and Annual survey of Industries throw light on the extent of sub-contracting in Indian engineering industries in so far as it relates to the work done including repair by customers. They are:

(1) Amount paid to others for work done by them for the factories; and

(2) Amount received from the customers for work done for them by the factories.

(1) is an item of input and (2) is an item of gross output of the industries. Separate information regarding repair work done in regard to (2) is also available. The relative importance of both the items of sub-contracting in the general and electrical engineering industries is shown in the following two tables.
VALUE OF WORK DONE BY AND FOR ENGINEERING FACTORIES

(Amount in lakhs of Rs.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount paid for work done</th>
<th>Column (2) as % of input</th>
<th>Repaid</th>
<th>% of gross output</th>
<th>Other work</th>
<th>% of gross output</th>
<th>Total work done as % of gross output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946</td>
<td>17.8</td>
<td>1.2</td>
<td>87.7</td>
<td>3.2</td>
<td>66.4</td>
<td>2.5</td>
<td>154.1</td>
</tr>
<tr>
<td>1951</td>
<td>72.5</td>
<td>1.7</td>
<td>384.7</td>
<td>5.2</td>
<td>101.2</td>
<td>1.4</td>
<td>485.9</td>
</tr>
<tr>
<td>1956</td>
<td>152.0</td>
<td>1.8</td>
<td>504.0</td>
<td>3.8</td>
<td>244.5</td>
<td>1.8</td>
<td>748.5</td>
</tr>
</tbody>
</table>

SOURCE: Report of Census of Indian Manufacturers
INDUSTRY-WISE BREAK-UP OF WORK DONE BY AND FOR ENGINEERING FACTORIES

<table>
<thead>
<tr>
<th>Engineering Industrial groups</th>
<th>Amount paid to others for work done</th>
<th>Input</th>
<th>Col. (2) as % of Col. (3)</th>
<th>Amount received for work done for others</th>
<th>Output</th>
<th>Col. (5) as % of Col. (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
</tr>
<tr>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
<td></td>
<td></td>
<td>Rs.</td>
<td></td>
</tr>
<tr>
<td>Manufacture of metal products</td>
<td>87,11,132</td>
<td>60,02,66,373</td>
<td>1.45</td>
<td>1,27,10,906</td>
<td>81,50,40,225</td>
<td>1.55</td>
</tr>
<tr>
<td>Manufacture of machinery other than electricals</td>
<td>2,51,61,113</td>
<td>66,64,93,576</td>
<td>3.77</td>
<td>5,67,23,329</td>
<td>1,04,48,14,500</td>
<td>5.42</td>
</tr>
<tr>
<td>Manufacture of electrical machinery and appliances</td>
<td>99,90,940</td>
<td>78,53,28,706</td>
<td>1.27</td>
<td>2,48,86,104</td>
<td>1,15,86,83,222</td>
<td>2.14</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4,38,63,185</td>
<td>2,05,20,88,655</td>
<td>2.13</td>
<td>9,43,20,339</td>
<td>3,01,85,37,947</td>
<td>3.12</td>
</tr>
</tbody>
</table>

**SOURCE:** Annual Survey of India, 1961
It may be observed, from the tables, that sub-contracting as an item of input in engineering industry has been strikingly insignificant during the decade 1946-56. The amount of sub-contracting as an item of gross output, has been of the order of 6%. Even this percentage was substantially in respect of repair work and not manufacture of parts and accessories. In Japan, the average ratio of value of orders placed with sub-contractors to the total value of output of parent firms was 24.6% in 1955 and as much as 27% in 1956. The following table shows the extent of sub-contracting between large and small firms in the Japanese engineering industries:

<table>
<thead>
<tr>
<th>Industries</th>
<th>Percentage of the total cost of the finished product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling stock</td>
<td>70</td>
</tr>
<tr>
<td>Ship-building</td>
<td>60</td>
</tr>
<tr>
<td>Motor cars</td>
<td>62</td>
</tr>
<tr>
<td>Textile Machinery</td>
<td>34</td>
</tr>
<tr>
<td>Telephone Switch Boards</td>
<td>26</td>
</tr>
<tr>
<td>Sewing Machines</td>
<td>40</td>
</tr>
<tr>
<td>Bicycle</td>
<td>31</td>
</tr>
<tr>
<td>Weaving Machine</td>
<td>28</td>
</tr>
<tr>
<td>Matches</td>
<td>19</td>
</tr>
<tr>
<td>Electric Motor</td>
<td>17</td>
</tr>
<tr>
<td>Electric Appliances</td>
<td>11</td>
</tr>
</tbody>
</table>


The degree of sub-contracting in Indian engineering industries is deplorably low compared with other countries. This is evident from the table below:

**ANCILLARY DEVELOPMENT DURING 1960-70**

| 1. No. of large units obtaining ancillary supplies | 200 |
| 2. No. of ancillary units manufacturing components | 10,000 |
| 3. Total investment in these units (in millions of rupees) | 3,000 |
| 4. Total ancillary supplies made to parent units (in millions of rupees) | 227.28 |
| 5. Total employment in these units (in thousands) | 100 |
| 6. Types of end products covered by ancillary units (10 industry groups) | 980 |
| 7. Centres of concentration | Bangalore, Bombay, Delhi, Ranchi, Madras |

*Source: Small Scale Industries Development Organisation, New Delhi.*

There were, no doubt, certain difficulties in the past which exercised an inhibiting influence and arrested the industrial development on these desirable lines. The difficulties were however, mainly due to the lack of systematic planning and developmental efforts in the country. The large-scale units were developing.
as far as possible, as self-contained units. The small-scale units were, on the other hand, growing haphazardly with their small capital resources. They had no technical guidance, their products were sub-standard, their organisation was inefficient and their existence uncertain. It was all a vicious circle; sub-contracting was not developing as there was practically no scope for it, and the scope for its development was lacking because the smaller firms, which are the backbone of sub-contracting, were not developing on modern lines.

Thus until very recently, our historical background was based on the conviction that quality production meant the production within the four walls of a factory of all the items and components that the factory wanted. Such an attitude commonly prevailed in countries that ruled over other countries and also in countries that were being ruled. We had, along-side, the tradition that owners had to be the managers of the industries they owned. Times have since changed; factors like the paucity of managerial skills, overheads, income-tax loads, and other circumstances have led to active steps being taken by large and medium scale industries, for the growth of ancillary industries, more as an act of self-preservation than one of patronage, as it is inclined to be considered even now.

It is true that the five-year plans, particularly the Second Five-Year Plan, by its special accent on the
### TABLE SHOWING VALUES OF INDICES REGARDING EXTENT OF SUB-CONTRACTING

(Amount in lakhs of Rupees)

<table>
<thead>
<tr>
<th>Engineering Industrial Groups</th>
<th>Amount paid to others for work done</th>
<th>Input</th>
<th>Col.(2) as % of Col.(3)</th>
<th>Amount received for work done</th>
<th>Output</th>
<th>Col.(5) as % of Col.(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal products</td>
<td>87</td>
<td>6003</td>
<td>1.45</td>
<td>127</td>
<td>8150</td>
<td>1.55</td>
</tr>
<tr>
<td>Machinery other than electricals</td>
<td>252</td>
<td>6665</td>
<td>3.77</td>
<td>567</td>
<td>10445</td>
<td>5.42</td>
</tr>
<tr>
<td>Electrical machinery and appliances</td>
<td>100</td>
<td>7853</td>
<td>1.27</td>
<td>249</td>
<td>11587</td>
<td>2.14</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>439</strong></td>
<td><strong>20521</strong></td>
<td><strong>2.13</strong></td>
<td><strong>943</strong></td>
<td><strong>30182</strong></td>
<td><strong>3.12</strong></td>
</tr>
</tbody>
</table>

*SOURCE: Annual Survey of India, 1961*
The purchase of industrial services by engineering industries (Col.2 of the table on the next page) shows a rise of some importance from Rs.1.8 crores in 1956 to about Rs.4.4 crores in 1961. The rise is also noticeable in it as a constituent of input. On the output side, although there is an increase in the sale value of industrial services from Rs.7.5 crores in 1956 to Rs.9.4 crores in 1961, as a constituent of output, the percentage shows a fall. Within the various groups of engineering industries, the machinery group leads both in the matter of purchase and sale of industrial services. In other groups of engineering, sub-contracting still plays a minor part. Annual Survey of Industries data for later years are not available as far as this item is concerned. But the opinion in responsible quarters is that sub-contracting in the engineering industry further increased during the third and fourth plans with the commissioning of several projects both in the public and private sectors. The progress of ancillary development in different states in recent years is
indicated in the following table:

<table>
<thead>
<tr>
<th>Name of the State</th>
<th>Ancillary supplies made (in millions of Rupees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>4,927</td>
</tr>
<tr>
<td>Assam</td>
<td>3,961</td>
</tr>
<tr>
<td>Bihar</td>
<td>24,880</td>
</tr>
<tr>
<td>Delhi &amp; Haryana</td>
<td>16,749</td>
</tr>
<tr>
<td>Gujarat</td>
<td>12,684</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>0.230</td>
</tr>
<tr>
<td>Kerala</td>
<td>14,435</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>32,435</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>10,696</td>
</tr>
<tr>
<td>Mysore</td>
<td>42,938</td>
</tr>
<tr>
<td>Orissa</td>
<td>23,700</td>
</tr>
<tr>
<td>Punjab &amp; Himachal Pradesh</td>
<td>10,000</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>2,353</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>66,595</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>2,500</td>
</tr>
<tr>
<td>West Bengal</td>
<td>5,955</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>277,278</strong></td>
</tr>
</tbody>
</table>

*Source: Small Scale Industries Development Organisation, New Delhi.*
A further statewise analysis is given in the following pages:

Andhra Pradesh

150 small-scale ancillary units are functioning in the State. These units had supplied parts, components and spares worth nearly Rs.50 lakhs to large scale undertakings during the year 1969-70.

Assam

Parts and components valued at Rs.40 lakhs were supplied by six small-scale ancillary units to the NEF Railway, Assam Oil Company and Oil & Natural Gas Commission. Besides the needs of large industries tea, plywood etc., were also met by the small ancillary units.

Bihar

During 1969-70, more than 100 small-scale ancillary units supplied parts and components worth Rs.2.49 crores to various large-scale undertakings. Supplies were made to almost all types of industries—mechanical, metallurgical, chemical, electrical and tele-communications, industrial machinery, paper and pulp, rubber goods, etc.

* Development Commissioner (Small-Scale Industries), Ministry of Industrial Development & Company Affairs, Government of India, New Delhi, "Reports on the Small Scale Industries for 1969-70."
Rs. 167 lakhs worth of ancillary items were supplied by over 400 small-scale ancillary units to the large-scale enterprises. About 60 small-scale firms supplied stores to defence organisations and their supplies during 1967-68 amounted to about Rs. 100 lakhs.

As a result of the vigorous efforts put up by SISI, Ahmedabad in farming out sub-contracts from large-scale undertakings, ancillary items worth Rs. 127 lakhs were supplied by about 50 small-scale units during 1969-70.

Parts and components like machine screws, wheel valves, metal drums, C.I. parts, cycle bells, wire drawing dies, etc., worth Rs. 145 lakhs were supplied to about a dozen large-scale units during 1969-70. About 14 small-scale units located in various industrial estates were introduced as ancillary to a few large enterprises by the Kerala State Small Industries Corporation, Trivandrum.

About 400 small-scale ancillary units are supplying parts and components to about 210 large-scale units. Most of these units are engaged in the metal working industries. Total value of such ancillary supply was estimated at Rs. 3.24 crores.
Parts and components valued at over Rs. one crore were supplied by small-scale ancillary units to various large-scale undertakings—private and public—of which Messrs. Hindustan Steel Ltd., Bilsai, was one of the principal customers. About 34 small units have been selected for promotion as ancillary units.

Ancillaries worth Rs. 4.29 crores were supplied to 19 large-scale units by about 300 small-scale units. These supplies were effected to units engaged in the manufacture of machine tools, automobiles, electronics, electrical and oil engine and tele-communication equipments, etc.

Ancillary units in the State executed supplies worth Rs. 237 lakhs during 1969-70.

Parts and components worth nearly Rs. 24 lakhs were manufactured by the small ancillary units for large units engaged in automobiles, electrical and general engineering.

Parts and components valued at Rs. 6.86 crores were supplied by small-scale ancillary units to the large units. Besides, small-scale units catered to the needs of Defence,
Railways and other Government departments, the value of supplies to them being Rs.3.68 lakhs, Rs.49.32 lakhs and Rs.17.56 lakhs respectively.

Uttar Pradesh

About 20 small-scale ancillary units supplied stores worth as much as Rs.25 lakhs during 1969-70. There are 70 ancillary units in the State.

West Bengal

Parts and components worth nearly Rs.60 lakhs were supplied to large-scale units engaged in the manufacture of automobiles, electrical, industrial machinery, machine tools, etc. by the small ancillary units. In addition, stores valued at Rs.19.43 lakhs were supplied to Defence Departments and Railways.

Despite the fact that a number of small-scale units are supplying components, stores items, etc., required by large undertakings, the progress made in the development of ancillary industries as a whole has not been significant. As the Estimates Committee has observed, "The actual achievement cannot but be regarded as meagre and even the

little progress that has been achieved cannot be mainly attributed to the Government's programme for the development of ancillaries." The Committee has also noted that no serious effort has been made to implement the ancillary programme or even to formulate a realistic policy aimed at producing concrete results.*
FOSTERING ANCILLARY INDUSTRIAL ESTATES AROUND
PUBLIC AND PRIVATE SECTOR UNDERTAKINGS

The industrial estates programme launched in several countries has particularly helped in providing ancillary industrial estates under the umbrella of large industries. In so far as developing countries are concerned, it is always advisable that large industrial units should provide technical guidance and assistance, and also raw materials whenever necessary to sub-contractors. It is strongly felt that in the interest of the sub-contractors they should endeavour to supply their products to more than one contractor at the same time as this will ensure mobility of the sub-contractors and avoid dependence on one prime contractor.

The ancillary industrial estates programme is particularly of much use to sub-contractors who are located in congested metropolitan cities and other large industrial towns. There is, however, a growing feeling that the co-operative form of organisation of industrial estates has yet to produce the desired result. It is, therefore, necessary that sub-contractors themselves should come forward to organise themselves into an association to set up an "Ancillary Industrial Estate" by taking advantage of various facilities offered by the government and financial institutions for purchase of land, building and machinery.
In the next few pages an attempt has been made to spell out some of the measures undertaken to promote ancillary industrial estates around public sector undertakings in the country. Before doing so, it is relevant to spot out the difficulties actually hindering this programme.

**Difficulties standing in the way of ancillarisation**

A great inhibitor in the pursuit of the ancillary programme by our public sector plants is the open-tender system. The mainstay of the ancillary system is the capacity of the parent plant to place orders on a particular unit in the ancillary estate for a reasonable period at a reasonable level. This means negotiations with an individual producer. This is frowned upon by the audit experts as detrimental to Government interests and require special orders of the head of the office. The open-tender is not necessarily the best way of obtaining parts, sub-assembly, tools, spares and accessories for the production in the public sector plants. Though theoretically, an open tender is supposed to get the best terms, the response depends on the state of the market at the time. The small-scale sector all over the country has to depend on a large extent on the 'black market' for their important raw material supplies. The response to a tender also depends on the order book position of the small-scale sector in the particular line of production at that time. Delivery dates may not be kept if the order book position is tight. There is
normally very little relief in this matter. These difficulties of the open-tender system were also substantially responsible for the large factories trying to produce as many of their parts, sub-assemblies, tools etc. in their own shops, even at high cost instead of depending on the open market. On the other hand, the ancillary industry, being tied to the parent industry and substantially dependent on the large factory, is in a way at the mercy of the large plant. The main problem is the fixation of the price for the supplies. The HMT, Bangalore has evolved a price formula which appears to be working well and can be copied by others. Though it is true that when the market is down, an open-tender may benefit the big plant, it is really a distress offer and the sufferer is the small industry. A fair price formula is in the interest of the large factory and the small sector. What is wanted is general clearance of Government to this method of developing ancillaries and negotiating the price of parts let out to ancillaries. When we know that Government have authorised the encouragement of the small-scale sector, by even price preferences, this proposition deserves consideration. If this hurdle can be got over, development of ancillaries can be rapid.

There is another reason for the neglect of the ancillaries by the large plants. It has been suggested that the raw material supplies should be organized by the large factory
and raw materials also imported on the user licence. The public sector plants have been feeling a lot of difficulty in getting ways and means finances. Profits have not accrued as foreseen. As a result, there is a great reluctance in finding ways and means finances for supplying raw materials to the small-scale sector. Foreign exchange for inputs is rationed out to the public sector. The factories are loath to spend any part of this in importing scarce raw material for the ancillaries. No production can be organised economically without a guarantee of the necessary imports of scarce raw materials.

For over twelve years we have been trying to evolve the ancillary industry pattern around our public sector plants. We have asked the private sector to follow a similar policy. Except in HMT, Bangalore which really started its programme long before the official assent, and the Enfield India Ltd. in Ennore, which has established this at a certain level and to a certain extent Rourkela Steel Plant, the large factories have been trying with the idea of ancillaries. Progressed registered by these three large industrial units is relegated to the latter part of this chapter. They have not distinguished between sub-letting of production lines to the small-scale sector and the organisation of parts of their production in an ancillary estate. One reason, as explained before, is a certain lack of clarity in the advice given to our public
sector factories to organise the ancillary sector. Other reasons are clarity in the methods to be adopted to make the system a success like negotiated production at negotiated price. There is another important reason for this. A large programme of this nature which involves several Ministries at the centre, cannot be put through by mere issue of letters and decentralising responsibility to subordinate organisations like SSIDC. In any large programme of this nature, the difficulties have to be resolved by clear statement of policy by Government, and provision of necessary funds and foreign exchange facilities in the planning. These can be done only by a fully involved Ministry or Department of Government.

The importance of this has been realised now. It is against background a two-day seminar was organised in early 1970 to formulate a strategy for directing the public sector undertakings to give a practical shape to the concept of ancillary industrial estates around public sector undertakings. This is discussed below:

Seminar on development of ancillary units by Public Sector Undertakings

A two-day Seminar on the Development of Ancillary Industries by Public Sector Undertakings was held at Bangalore on 3rd and 4th April, 1970. The Seminar reviewed the progress made in regard to the development of ancillary industries in
some detail and suggested that more serious attempts should be made to implement the programme of development of ancillary industries by the public sector undertakings so that the example could also be followed by the private sector undertakings. The subject was discussed at length and the following resolutions were adopted for the rapid development of ancillary industries by the public sector undertakings:

(i) Every public sector undertaking, where ancillary development is possible, should set up an Ancillary Division or designate a senior officer who should be primarily responsible for the development of ancillaries and for farming out parts/components and sub-assemblies which can be competently produced in small-scale ancillary units, around the enterprise. The officer, who is designated for this work, may be aided, advised and assisted by suitable technical and financial experts. Amidst the other items of work, his main responsibilities should be the following:

(a) To specify items whose import is inescapable and give top priority in locating indigenous capacity for such items in as short a time as possible;

(b) To farm out items which could be conveniently developed by ancillary units in and around that undertaking; and
(c) To identify the items which could profitably
be off-loaded to the existing or proposed
industrial units.

The officer should send progress reports in this regard
to the Development Commissioner, Small-Scale Industries,
New Delhi, bi-annually.

(ii) The public sector undertakings should take upon
themselves the responsibility for the development of
Ancillary Industrial Estates, in co-operation with and
with the assistance of the State Governments/State
Director of Industries so that whatever ancillary units
can be set up in that area, are provided with the minimum
basic infrastructural facilities. It goes without saying
that the public sector undertakings should normally pro­
vide all necessary technical assistance, tooling and
testing facilities, etc. because such expertise may be
beyond the competence or the capacity of the small ancil­
orary units.

(iii) The most important handicap, not only for the
small-scale units, but also for other ancillary units,
could be the non-availability of scarce raw materials,
both imported and indigenous. For this purpose, it may
be necessary that the major public sector undertakings
should be enabled and assisted by Government for setting
up raw material banks out of which the requirements of
ancillary units, particularly of the scarce materials
may be drawn.
(iv) There should be reasonable understanding between the public sector enterprise and the ancillary units on price and period of contract. It would be advantageous, both for the public sector undertaking and the ancillary units, if the orders or sub-contracts are settled for a reasonably long duration.

(v) There should be a Standing Selection Committee comprising: (a) the Chairman of the Public Sector Undertaking in question, (b) a representative of the State Directorate of Industries, and (c) a representative of the Development Commissioner (Small-Scale Industries). This Committee should be responsible for selecting the enterprises/entrepreneurs who may be assisted in setting up ancillary units. Preference should normally be given to technical employees of the public sector plants and the local available technical talent.

(vi) That the public sector undertakings should recommend the financial requirements of their ancillary units to the various financial agencies and their recommendations should be honoured by the banks.

Guidelines for the development of ancillaries around public sector undertakings.

(i) Before finalising agreements with foreign collaborators or aiding countries, the items which are proposed to be manufactured must be clearly specified;
(ii) Scrutiny of parts and components required for each item must be made by the competent technical person with a view to determining:

(a) what should be manufactured by the undertaking;
(b) what should be developed and manufactured by ancillary units in the small or large-scale sectors;
(c) what should be sub-contracted or bought out. This may include fabrication, standard hardwares and other items; and
(d) what should be imported initially and for which items steps be taken for their early production, indigenously, on a top priority basis.

(iii) At the time of licensing, the large undertaking (whether in public or private sector), should spell out the items which they propose to farm out to ancillary units either by value or by percentage. This will give a big impetus to the development of ancillary industries. The percentage or the value of the ancillary items can be fixed by the Development Commissioner (Small-Scale Industries) in consultation with the large undertaking.

These recommendations have been accepted by the Ministry of Industrial Development and suitable guidelines have already been issued to the Licensing Committee.
Other Ministries have also been requested to initiate suitable action in this regard.

Experience of Rourkela Steel Plant

In pursuance of a notification of the Orissa State Government in June 1965, a Committee was constituted under the name "Ancillary Advisory Committee for the Rourkela Steel Plant", which was charged with the responsibility of taking up the preliminary work of planning ancillary industries for the Steel Plant at Rourkela and also advise Government from time to time on the execution of different programmes for their development. The General Manager of the Rourkela Steel Plant was taken as the Chairman of the Committee, which included members from the State Directorate of Industries, Small Industries Service Institute, of Government of India, Officers of the Rourkela Steel Plant, a Member of the Orissa Small Industries Association, the Collector of Sundergarh and a Member of the Parliament from Rourkela area.

The Committee had its first meeting at Rourkela in August 1965 and drew a time-bound programme of work to be taken up. In the absence of a regular organisation of the State Government, a senior officer of the Orissa Small Industries Corporation was then posted at Rourkela to look after this work.
At the outset, the Committee decided to start work on the following aspects:

(i) Detailed analysis of the stores purchases made by the Steel Plant.

(ii) Selecting suitable existing small industries to be groomed as ancillary industries.

(iii) Prepare an Area Development Plan to provide the infrastructure for establishment of the proposed ancillary industries.

In pursuance of the above 3-point programme work was taken up and as a result, the following progress had been achieved by the end of 1968:

(i) **Stores Analysis**: A detailed analysis of the stores purchased by the Steel Plant was made. Detailed review of the actual purchases made over the past three years were made to arrive at the steady demand for the different products. While making this analysis, special attention was given to highlight such items which would be conveniently and economically manufactured in the ancillary sector. Due stress was given to explore the field of import-substitution in case of simple items of import. Detailed study of the specification of each type of product was also made. This work required examination of 50 categories of stores, each of which included 2000 to 3000 items and took about 7 months of detailed work.

(ii) **Grooming existing industries**: In order to achieve tangible results right from the beginning, a few existing
small-scale industries in the Industrial Estate, Rourkela were taken up to be groomed as the first group of ancillary industries, to take part effectively in the stores purchase programme. This work not only stood out as a practical example of the potential field for ancillaries, but it also helped to iron out a number of technical bottlenecks in the existing purchase pattern for local manufacturers. In order to have a complete idea regarding the purchases made by the mother unit, the authorities of the Rourkela Steel Plant were requested to send copies of all tenders issued by them to the Ancillary Organisation and within a period of three years, it was able to make a library of tenders, classified into different type of products, which has been a highly valuable reference for planning the industries. Besides, the Steel Plant authorities also permitted the Directorate of Industries to recommend offers by way of any of the local units, which could produce items required in any of the tenders and have considered these offers favourably. These tenders, received daily, attracted the local manufacturers to study them and offer their proposals even though enquiries were not made from them specifically.

One of the most important achievement in this field has been, thanks to the co-operation of the Steel Plant authorities, the opportunity given to local manufacturers, a chance to negotiate rates, in the events where their tenders were not lowest. This has opened a very bright prospect for the local manufacturers to rectify their errors in estimating and at the same
time get a chance to offer products at competitive rates. With the introduction of this system, a number of instances of severe under-quoting by bigger manufacturers elsewhere in the country came to the fore, but it is gratifying to indicate that the local manufacturers could rise to the occasion to improve their productivity and match the rates.

While grooming up these industries, the State Government gave all-round attention in respect of their allotment of scarce materials, special steel, imported components, etc. Applications for financial assistance were processed on special priority and all efforts were made to help the local industries to be able to offer their products in proper quality and at competitive rates to the mother unit.

It is gratifying to note here that, over a period of three years, since August 1965 till August 1968, 24 such industries had been able to participate to the extent of nearly Rs.98 lakhs of goods supplied to the Fourkela Steel Plant. A list of these industries, with their products manufactured and present annual installed capacities, is given on the next two pages.
Table showing details of small manufacturing units supplying products to Fourkela Steel Plant

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of firm</th>
<th>Products</th>
<th>Annual production capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Model Foot-wear Unit (Government of Orissa)</td>
<td>Safety Boots and Industrial hand-gloves</td>
<td>₹3,00,000</td>
</tr>
<tr>
<td>2</td>
<td>Kanak Commercial Co.</td>
<td>Hosting equipments</td>
<td>₹5,00,000</td>
</tr>
<tr>
<td>3</td>
<td>Lakhotia Industries</td>
<td>Non-ferrous casting and machining</td>
<td>₹1,00,000</td>
</tr>
<tr>
<td>4</td>
<td>Zentuc Industries</td>
<td>Mechanical spares</td>
<td>₹15,00,000</td>
</tr>
<tr>
<td>5</td>
<td>Mahabir Engineering</td>
<td>Medium structural</td>
<td>₹5,00,000</td>
</tr>
<tr>
<td>6</td>
<td>Prabhut Iron Foundry</td>
<td>Cast iron foundry</td>
<td>₹10,00,000</td>
</tr>
<tr>
<td>7</td>
<td>Fourkela Industries</td>
<td>Expanded metal and structural</td>
<td>₹5,00,000</td>
</tr>
<tr>
<td>8</td>
<td>Pipe products</td>
<td>H.S. Pipes</td>
<td>₹5,00,000</td>
</tr>
<tr>
<td>9</td>
<td>Orbi Enterprise</td>
<td>Aluminium knotted bars and shots</td>
<td>₹10,00,000</td>
</tr>
<tr>
<td>10</td>
<td>Fourkela Proofing Corporation</td>
<td>Fertiliser bags and rails</td>
<td>₹11,00,000</td>
</tr>
<tr>
<td>11</td>
<td>Fourkela Fabrications</td>
<td>Medium and light structural</td>
<td>₹12,50,000</td>
</tr>
<tr>
<td>12</td>
<td>Orissa Timber Products</td>
<td>Furniture &amp; joinery</td>
<td>₹5,00,000</td>
</tr>
<tr>
<td>13</td>
<td>Oriental Chemicals Industries</td>
<td>Chemicals</td>
<td>₹3,00,000</td>
</tr>
<tr>
<td>14</td>
<td>Suchin Engineering Works</td>
<td>Mechanical spares</td>
<td>₹3,00,000</td>
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<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>15</td>
<td>Utkal Timber Traders</td>
<td>Wooden skids</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Bedi and Bedi Saw</td>
<td>-do-</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>J.C. Anand Saw Mills</td>
<td>-do-</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Rajani Timbers Traders</td>
<td>-do-</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Orissa Battery Industr</td>
<td>Special type storage batteries</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Modern Engineering</td>
<td>Mechanical spares</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>G.R. Ice and Cold</td>
<td>Cold storage</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Hindustan Bakery Co.</td>
<td>Bakery and confectionery</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>K.K. Industries</td>
<td>Mechanical spares</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Steelage Industries</td>
<td>Mechanical spares</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** ........................................... 1,17,50,000
Besides entertaining open tenders, the Steel Plant has gone a step further to directly negotiate with the local ancillary machine shops for their urgent requirement of spares at pre-estimated rates. It is anticipated that this procedure will provide the base load for the machine shops developed under the Ancillary Programme and at the same time increase the confidence of the Bokakhat Steel Plant authorities in an effort to quickly produce items of their urgent requirement and up to the quality specified by them. Even before the development of ancillary industries in the State of Orissa, the State Government have gone with a token expenditure of Rs. 3 to 5 lakhs for the construction of 6 new factory buildings during 1966-67 and 3 more factory buildings are under construction. Developed area for about 35 acres have been kept ready in the industrial area for allotment to suitable ancillary industries and further expansion of the Industrial Estate. The State Government have further taken steps to acquire a bigger area of 843 acres beyond Poonooch which will be developed quickly to provide space for the new ancillary industries. Special allotment of scarce raw materials like copper, zinc, stainless steel, aluminium, etc., have been made during the year to the newly developed ancillary industries, against orders placed by the Bokakhat Steel Plant. Applications for hire purchase of machinery, loan under State Aid to Industries Act, etc., have been quickly processed to help the ancillary industries. It is expected that with the
provisions made in the Fifth Plan were such assistance will be available for setting up ancillary industries at Rourkela.

The State Government are also preparing a scheme for setting up a testing laboratory in the Industrial Estate, Rourkela for testing the products manufactured by the ancillary industries. The General Manager of the Rourkela Steel Plant has repeatedly laid stress on these aspects. To overcome difficulty of the materials testing, temporary arrangements are being made with the Regional Engineering College at Rourkela to get some materials tested in their Laboratory and Rourkela Steel Plant have been kind enough to accept reports from this Institution.

Officers of the State Government have gone round similar developments being taken up in the adjoining States at Bilal, Jamshedpur, Ranchi and collected useful report from which the state has drawn examples for their work. They have been specifically pursuing tenders from the newly developed ancillary industries at the purchase offices both at Rourkela and Calcutta. They keep a close liaison with each ancillary industry coming up at Rourkela and put it in touch with the purchasing authorities and also the shops which use the products. The State Directorate has been promptly bringing specific problems to the notice of the General Manager of the Steel Plant, in order to create an atmosphere of healthy dependence of the ancillaries on the mother unit. It is expected that, with such continued efforts, the ancillary project at Rourkela will soon
develop into a well-knit and stable sector and would be able to substantially participate in the store purchase programme of the Steel Plant which runs to nearly 6 to 7 crores of rupees per annum.

An abstract of stores requirements of Fourkella Steel Plant is reproduced in the following pages.
<table>
<thead>
<tr>
<th>Category No.</th>
<th>Category Name</th>
<th>Major Items of Purchase</th>
<th>Average Annual Purchase</th>
<th>Remarks</th>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Abrasives</td>
<td>Grinding wheels</td>
<td>2,00,000</td>
<td>2,00,00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tape</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carbide tipped tool</td>
<td>15,000</td>
<td>900</td>
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<tr>
<td></td>
<td></td>
<td>Segments</td>
<td>10,000</td>
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</tr>
<tr>
<td>2</td>
<td>Bearings</td>
<td>Ball bearings</td>
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<td>2,00,00</td>
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<tr>
<td></td>
<td></td>
<td>Roller bearings</td>
<td>4,00,000</td>
<td>15,00</td>
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<td></td>
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<td>Bearing seal</td>
<td>4,500</td>
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<tr>
<td></td>
<td></td>
<td>Sleeves</td>
<td>10,000</td>
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<tr>
<td></td>
<td></td>
<td>Brush bearing</td>
<td>--</td>
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</tr>
<tr>
<td>3</td>
<td>Belts, etc.</td>
<td>Belts</td>
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<td>2,00,00</td>
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<tr>
<td>4</td>
<td>Gears and brushes</td>
<td>Carbon brushes</td>
<td>15,000</td>
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<td></td>
<td></td>
<td>Brush bristles</td>
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<tr>
<td></td>
<td></td>
<td>Soot stone brush</td>
<td>6,000</td>
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<td>3</td>
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<tr>
<td>5</td>
<td>Bolts, nuts, etc.</td>
<td>Bolts and Nuts</td>
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<tr>
<td></td>
<td></td>
<td>Screws</td>
<td>60,000</td>
<td>500</td>
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<tr>
<td></td>
<td></td>
<td>Washers</td>
<td>50,000</td>
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<tr>
<td></td>
<td></td>
<td>Pivots</td>
<td>40,000</td>
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<tr>
<td></td>
<td></td>
<td>Studs</td>
<td>50,000</td>
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<tr>
<td></td>
<td></td>
<td>Nails</td>
<td>15,000</td>
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</tr>
<tr>
<td>6</td>
<td>Building materials</td>
<td>Clay</td>
<td>25,000</td>
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<tr>
<td></td>
<td></td>
<td>Corrugated sheets</td>
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<tr>
<td></td>
<td></td>
<td>Plastic sheets</td>
<td>10,000</td>
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<tr>
<td></td>
<td></td>
<td>Asbestos mill board</td>
<td>30,000</td>
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<tr>
<td></td>
<td></td>
<td>Prestressed concrete</td>
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<td></td>
<td></td>
<td>Cement</td>
<td>85,00,000</td>
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<td>7</td>
<td>Cans, containers, etc.</td>
<td>Hessian bags (bitumenised)</td>
<td>60,00,000</td>
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<tr>
<td></td>
<td></td>
<td>Kraft paper</td>
<td>10,000</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Cans</td>
<td>10,000</td>
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<td>3</td>
<td>4</td>
<td>5</td>
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<td>8</td>
<td>Chemicals, etc.</td>
<td>Salt</td>
<td>Rs. 35,000</td>
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<td></td>
<td></td>
<td>F. P. Hard coke</td>
<td>Rs. 2,17,000</td>
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<tr>
<td></td>
<td></td>
<td>Hydrochloric acid</td>
<td>Rs. 1,40,000</td>
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<td></td>
<td></td>
<td>Sodium orthosilicate</td>
<td>Rs. 75,000</td>
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<tr>
<td></td>
<td></td>
<td>di-Sodium hydrogen citrate</td>
<td>Rs. 2,50,000</td>
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<td></td>
<td>Sulphuric acid</td>
<td>Rs. 4,80,000</td>
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<td></td>
<td></td>
<td>Ammonia liquid</td>
<td>Rs. 50,000</td>
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<td>9</td>
<td>Cloth, rubber, leather, etc.</td>
<td>Cloth items</td>
<td>Rs. 2,50,000</td>
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<tr>
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<td></td>
<td>Bed sheets, saris, etc.</td>
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<tr>
<td></td>
<td></td>
<td>Hose pipes</td>
<td>Rs. 1,00,000</td>
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<td>Cotton waste</td>
<td>Rs. 1,75,000</td>
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<tr>
<td></td>
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<td>Wollen jerkins, blankets</td>
<td>Rs. 1,00,000</td>
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<td></td>
<td></td>
<td>Leather shoes, bellows</td>
<td>Rs. 1,80,000</td>
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<td>Spares for dumper</td>
<td>Lift truck blocks, tacks</td>
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25. Spares for automobile, tubes, oil, seals, etc.  $20,000$
25. Spares for shovels and shoveling machines  $1,000,000$
25. Spares for dumper  $25,000$
25. Spares for fork lift truck  $60,000$
25. Spares for dumper, tacks, etc.  $1,000,000$

80,000 spares
Hydraulic jacks, etc.
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<td>28</td>
<td>Steel untented</td>
<td>G.I. sheets</td>
<td>Rs. 3,50,000</td>
<td>Rs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S. angles</td>
<td>Rs. 4,50,000</td>
<td>Rs.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>High speed steel</td>
<td>Rs. 70,000</td>
<td>Rs.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>M.S. flats</td>
<td>Rs. 1,00,000</td>
<td>Rs.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>M.S. rounds</td>
<td>Rs. 50,000,000</td>
<td>Rs.</td>
<td>not likely to recur</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carbon steel rods</td>
<td>Rs. 40,000</td>
<td>Rs.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>M.S. channels</td>
<td>Rs. 3,00,000</td>
<td>Rs.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>28</td>
<td>Steel untested (cont.)</td>
<td></td>
<td>F. S. Joints</td>
<td>1,70,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flanges</td>
<td>1,50,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>M. S. Bushes</td>
<td>30,000</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Wood, etc.</td>
<td></td>
<td>Logs (Bixa, sal, Champa)</td>
<td>2,50,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sleepers</td>
<td>50,000</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Platforms</td>
<td>50,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>scanting, boards, etc.</td>
<td>3,50,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Furniture</td>
<td>60,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Skids for rolling mill</td>
<td>2,00,000</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Wire ropes, etc.</td>
<td></td>
<td>Mild steel</td>
<td>3,20,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wires</td>
<td>2,00,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Wire ropes</td>
<td>2,50,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Hooks, blocks</td>
<td>10,000</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Iron clips</td>
<td>20,000</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Chains</td>
<td>90,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Rolls chain</td>
<td>2,90,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rope slings</td>
<td>3,00,000</td>
<td></td>
</tr>
</tbody>
</table>
As pointed out earlier, HMT is the pioneer public sector undertaking which went ahead of its own to give a practical shape to the concept of ancillary industrial estate around this public sector unit. Its experience in this field is worth emulating by others. In the next few paras, an attempt has been made to bring out some of the significant measures taken by it in this regard.

First of all, the authorities of HMT identified the components, accessories and other items including packing cases, sheet metal covers etc., which could advantageously be farmed out to the Ancillary Estate. This first unit which started during December 1959 in one of the discarded military barracks turned out to be a great success not only for the Company but for the entrepreneur who through hard work and initiative was also very greatly benefited. In a way this experiment became an example to other entrepreneurs who became sold on the idea and were prepared to invest their hard earned money in taking up a unit in HMT Industrial Estate.

The HMT prepared feasibility studies and ensured that each unit could be a viable and profitable proposition. It also created a small cell of planners and production technicians headed by an engineer to plan various units in all detail, such as working out lists of plant, equipment, tools and covered area etc., to produce certain components and accessories.
In one area, no chance was taken and that was, in the selection of entrepreneurs. However, preference was given to HMT technicians, primarily because the units in their planning, economics and profitable functioning took for granted that the owner himself assumed the technical and managerial role or running the unit. Wherever this was not possible, HMT made sure that the unit was going to be run by a competent management-conscious technician, preferably an engineer. HMT gave the detailed plan of the unit to selected entrepreneur and almost made him sign the hire-purchase application which then was forwarded to the State Director of Industries. All applications forwarded were promptly approved by the State Directorate of Industries and subsequently by NSIC and the orders for plant and machines as recommended by HMT were placed by NSIC on behalf of the entrepreneurs.

Besides giving worksheds in the HMT Estate as per size needed for producing certain items in the pre-planned quantities, HMT helped the entrepreneurs in installing machines and in connecting them to the main electric power-lines. After loading the units to full capacity, HMT engineers constantly guided the entrepreneurs to produce quality components and accessories in the quantities as required by HMT from month to month and inspected the parts during various stages of operations so that rejections were kept to the bare minimum. In the beginning, the value of
rejected raw materials was made good by HMT to the extent of 50% during the first month and 25% in the second month and from the third month onwards the entrepreneur was expected to compensate fully for the rejections. The units were supplied with the required raw materials and bought out parts if any. Besides, to save the entrepreneur from the initial burden of heavy working capital, he was given on loan, all inspection tools, gauges and fixtures. Sets of cutting tools and workshop consumable stores including even cotton waste and oils were sold to the entrepreneurs on easy terms. Payments were made promptly, latest within a week after the acceptance of the products.

The Company in the initial stages undertook the responsibility of helping some of the entrepreneurs in maintaining books of accounts and in some cases, HMT accountants even helped some of these entrepreneurs to draw up their balance sheets and guided them in their tax problems.

Thus HMT's main task was to prove to the entrepreneur that the whole scheme was well conceived and profitable for him and for the parent company. Even so and in spite of their best efforts and a close supervision, there were a few instances of units which were chronically inefficient and the entrepreneurs ran into heavy loss month by month. In such cases, HMT took charge of the units for a period varying from six months to one year and ran these through their own personnel
and showed the entrepreneurs how to administer and run the enterprises profitably. After HMT was convinced that the entrepreneur was capable of running his unit, HMT handed it over back to him.

After guiding the entrepreneurs in this manner for about one year or so, HMT gradually withdrew itself into the background and allowed the entrepreneur to run his unit more independently but at the same time, gave him assistance as and when needed by him.

All this may lead one to believe that there was no problem for the entrepreneur who was indeed a fortunate individual to have been allotted a unit in the HMT Ancillary Estate and as such he was expected to discharge his responsibilities faithfully both to the NSIC and HMT. Actually, however, this did not happen in all cases; there were many ups and downs in the early part of the history of their Ancillary Estate. During August 1963, the reports of Manager, HMT Industrial Estate on the functioning of the units read like this: "The NSIC had issued final notice to 14 of their entrepreneurs for the re-possession of machines and equipment as the outstanding towards the hire-purchase instalments were mounting. In addition, dues to the Company from the entrepreneurs by way of raw materials, tools, jigs and fixtures, rent and other services amounted to Rs.4.00 lakhs. The sundry debts
owed by the entrepreneurs were around Rs.3.00 lakhs.*

Thus, the Ancillary Estate faced a serious crisis and HMT as sponsors of the units were naturally extremely concerned. Some radical changes were necessary in order to set the units on sound foundation and to lead them towards progressive prosperity. At that time there were only two courses open: either to sit tight on the orders that were already released on the units for which raw materials were supplied but not taken up for manufacture for nearly 12 to 18 months, or alternatively to induce confidence amongst the entrepreneurs and release further load. The morale among the entrepreneurs was to some extent deteriorating as the quantum of work-load made available to them was also not enough.

On further analysis, it was found that entrepreneurs were losing money at the prices fixed by HMT. Therefore, HMT pricing policy needed upward revision. At this juncture a correct assessment of the shop capacity on unitwise basis was made once again. With the date thus established, the matter was discussed in great detail and action was taken to release additional load and to some extent increase the prices although this policy involved certain risks. Further, a detailed loading on each machine in every unit was undertaken and tighter schedules for machine utilisation were imposed on the units with a closer follow-up and supervision. As a result of all these measures, visible results started
showing up from September 1963 onwards. Within a period of 6-8 weeks from the date of issue of final notice to the 14 entrepreneurs, practically half the amount due to NSIC was cleared by them.

In the life of any enterprise of this magnitude, ups and downs are, of course, inevitable. When HMT was satisfied that all problems had been sorted out and the units were doing splendidly well, there came during 1966-67, a bolt from the blue both for the Company and the Ancillary Estate in the form of industrial 'recession'. HMT could not load the units to their full capacity, being itself faced with the problem of under-utilised capacity in its various shops. It could also not finance the provisioning of requisite raw materials to the entrepreneurs for whatever orders it could place on them. Even for the small items supplied by the entrepreneurs, it was unable to make regular payments. Thus, many of the entrepreneurs, particularly those in the second phase who started later, had really hard time—so much so that many could not pay their due instalments to NSIC and as a result heavy penalties were imposed on them. The entrepreneurs supported by HMT placed on several occasions their difficulties before NSIC. The entrepreneurs were, however, helped by NSIC by waiving off the panel interest, by rephasing of the payment of instalments over a period
of 10 years instead of 7 years and by granting moratorium for the payment of instalments during the years of recession. These very kind gestures on the part of the NSIC have once again generated great confidence and have encouraged the entrepreneurs who, with increased and assured load from HMT, regained their original position and stood by their commitments to pay NSIC, their dues regularly.

Signs are bright and the latest report on the performance of the Estate is encouraging. In the year 1972-73, the units supplied HMT with products worth over 60 lakhs of rupees.

The proof of the pudding is in eating. The fruits of these efforts have not only benefited HMT by the creation of reliable facilities to regularly sub-contract components and accessories to the tune of nearly Rs. one crore per year, but the entrepreneurs in the Estate—almost all of them—have become matured small industrialists, having long-range survival determinants lined up in their favour.

Since it is of direct relevance, the pages that follow, contain information on the kinds of components supplied by various units in the HMT Industrial Estate to the parent company (i.e., HMT itself).
List of Components being supplied by various ancillary units in the HMT Industrial Estate to the parent company (i.e. HMT)

<table>
<thead>
<tr>
<th>Components</th>
<th>Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long milling arbors</td>
<td>Vasnaik Engineering, HMT Industrial Estate, Bangalore</td>
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<tr>
<td>Stub milling arbors</td>
<td></td>
</tr>
<tr>
<td>Adaptor sleeves</td>
<td></td>
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<tr>
<td>Grinding mandrels</td>
<td></td>
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<tr>
<td>Capstan and second operation lathe—&quot;V.C.L&quot;—26 mm bar capacity</td>
<td>HMT Industrial Estate, Bangalore</td>
</tr>
<tr>
<td>Cylindrical reboring bar—&quot;VBR&quot;—3 capacity 55 to 120 mm</td>
<td></td>
</tr>
<tr>
<td>Universal face plates</td>
<td>Lakshmi Machine Industries, HMT Industrial Estate, Bangalore</td>
</tr>
<tr>
<td>Live centres</td>
<td></td>
</tr>
<tr>
<td>Dead centres</td>
<td></td>
</tr>
<tr>
<td>Reduction sleeve</td>
<td></td>
</tr>
<tr>
<td>Tooling equipment for Turret lathe</td>
<td></td>
</tr>
<tr>
<td>Long milling arbor</td>
<td>Rarewala Engineering Works, HMT Industrial Estate, Bangalore</td>
</tr>
<tr>
<td>Stub milling arbor</td>
<td></td>
</tr>
<tr>
<td>Reduction milling sockets</td>
<td>Cutting Tools &amp; Welding Industries, HMT Industrial Estate, Bangalore</td>
</tr>
<tr>
<td>Chuck flanges</td>
<td></td>
</tr>
<tr>
<td>Driver plates</td>
<td></td>
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<tr>
<td>Brackets</td>
<td></td>
</tr>
<tr>
<td>Soft jaws</td>
<td></td>
</tr>
<tr>
<td>Wheel guard and cover</td>
<td></td>
</tr>
<tr>
<td>Hook spanner</td>
<td></td>
</tr>
<tr>
<td>Carbide tipped tools</td>
<td></td>
</tr>
<tr>
<td>Key 1</td>
<td></td>
</tr>
<tr>
<td>Coolant equipment</td>
<td>Hindustan Steel &amp; allied Industries, HMT Industrial Estate, Bangalore</td>
</tr>
<tr>
<td>Chip trays</td>
<td></td>
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<tr>
<td>Splash guards</td>
<td></td>
</tr>
<tr>
<td>Machine lamps</td>
<td></td>
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<tr>
<td>Moulding boxes</td>
<td></td>
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<tr>
<td>Control crucibles</td>
<td></td>
</tr>
<tr>
<td>Office &amp; industrial equipments</td>
<td></td>
</tr>
</tbody>
</table>
Reduction sleeve
Taper sleeves
Split bushes
Draw bolts & nuts
Dead centres
Collets, feed fingers, guide rings for autos & Capstan, Turret
Milling collet chuck and collets
Die sets
Two dimensional pantograph engraving machine BR-234 with accessories
Quick change tool post
Tool holders for auto lathe
Self opening die head
Steady rest
Milling arbors

Milling arbors
Drilling machine "D6"
Wheel flange
Reduction sleeve ISO.60/MIT6
Quick action clamping device G9
Carbide tipped cutter heads
Boring bars
Measuring stand
Carbide tipped tools
Lapping motors
Fixtures
Special tools VP21; W1

Live centre MT-3; MT-4; MT-5
Dead centre MT-3; MT-4; MT-5
Tool holder for lathe
Stop roll
Longitudinal stop
Wheel flange
Tool holder for auto & turret lathe
Special collets
Boring and facing heads self-centering vice
S.A.M units

Machineries
Angular dressers
Crank handles

Toolcraft,
HMT Industrial Estate,
Bangalore

Aruna Enterprises,
HMT Industrial Estate,
Bangalore

Precision Tools Industries,
HMT Industrial Estate,
Bangalore

Precision Engineering Enterprises,
HMT Industrial Estate,
Bangalore

Satish Industries,
HMT Industrial Estate,
Bangalore

Uma Industries,
HMT Industrial Estate,
Bangalore
Open steady rest
Closed steady rest
Wheel dresser on table
Comparator at end of table
Spring rest
Spring actuated work support

Standard fasteners
High tension bolts
Protection covers

Standard fasteners
Counter weight

Surface plates
Angle plates
Ht. adjustable tailstock
Milling arbors
Reduction sleeves

Standard fasteners—cylindrical pins, taper pins, threaded taper pins, precision machine screws, etc.

Self centering vice
Adjustable vice
Height adjustable tail stock
Hand operated dividing head (horizontal and vertical)
Sine tables
Universal vice
Unit and unit head for key slot milling, woodruff key, way milling, horizontal milling, six spindle drilling
Co-ordinate table

Shaft tool holder—straight
Adjustable tool holder
Wheel flanges
Adjustable vice
Driver plates
Chuck flanges
Soft jaws
Wheel flanges
Soft jaws
Standard fasteners
Wood & polythene
Packaging materials
Patterns
Quick change tool post
Sine plates
Standard fasteners
Face plates
Chuck flanges
Driver plates
Centrifugal pumps
Tool holder—long
Tool holder—short
Tool holder for auto lathe
Standard fasteners—ring nuts, screws, etc.
Coolant pumps of all sizes
Fractional H.P. motors
Adjustable tool holder
Multi tool holder
Radius and side dresser
G13, G17
Hand-operated dividing head
218 H
Live centre MT 2 to MT 5
Drill press vice
CMTI boring bar
Aluminium castings—Items of
Bhagya Standard Industries,
HMT Industrial Estate,
Bangalore
Emmiamma Machine Tools
Accessories,
HMT Industrial Estate,
Bangalore
Dhanalakshmi Industries,
HMT Industrial Estate,
Bangalore
Eureka Pattern
Manufacturers,
HMT Industrial Estate,
Bangalore
Lakshmi Industries,
HMT Industrial Estate,
Bangalore
Machine Tool Accessories,
HMT Industrial Estate,
Bangalore
Balasubhikai Industries,
HMT Industrial Estate,
Bangalore
Allied Electricals,
HMT Industrial Estate,
Bangalore
Acumac, Engineers &
Manufacturers,
HMT Industrial Estate,
Bangalore
Ganesh Foundry,
HMT Industrial Estate,
Bangalore
Coolant equipment
Coolant reservoir
Chip trays
Splash guards
Lathe base
M.S. Tanks
Structural work

Main spindles
Milling arbors
Gear blanks
Armour bolts
Cam shafts
Flanges
Lifting tackles
Trailer parts

Precision machine screws
Oil nipples
Connection nipples
Bolts and nuts
Taper packings
Screw plug
Rivets
Washers
Terminals and studs for electronic equipment
Bearing screws for speedometers

Universal joints of various types and sizes to the specifications of manufacture
All types of handle keys and hand wheels

Fellow rest
Face plate 180, 240
Driver plates
Chuck flanges
Tool holders for auto lathes
Cutter head grinding attachment

Rear tool holder
Dresser for inclined and square sides
Coolant brackets

Mysore Engineering Works,
HMT Industrial Estate,
Bangalore

Vishnu Fore,
HMT Industrial Estate,
Bangalore

Hindustan Machine Components,
HMT Industrial Estate,
Bangalore

Krishna Engineering Industries,
HMT Industrial Estate,
Bangalore

Fatima Small Scale Industries,
HMT Industrial Estate,
Bangalore

Shri Venkateswara Enterprises,
HMT Industrial Estate,
Bangalore
Air-cooled single phase and three phase transformers
Air break contractors
Control panels
Bakelite and rubber mouldings
Neon sign transformers
Solenoids of various capacity and duty cycles

Metal labels (aluminium anodised)
Oil sight glass
Oil strainers
Machine lamp fittings
Printed circuits for electronic equipment
Surface finishing

Universal face plates
Hand-operated dividing head
Standard fasteners
Socket head screws, socket grub screws, precision machine screws
Square box spanners

Universal face plates
Radius dressers
Dial indicator holder

Four jaw high precision independent chuck sizes: $\phi$ 315, 355, 400, 480
Radial dresser G-13, G-17
Swivelling work holding fixture
Tool holder
Three jaw self-centering chuck $\phi$ 195, 250
Rotating neon signs and name boards
Jigs and fixtures

Wheel flanges
Wheel balancing stand

Gray iron castings—Items of Bangalore Tool

Spos Electricals,
HMT Industrial Estate,
Bangalore

Bharat Industrial Arts,
HMT Industrial Estate,
Bangalore

Royal Industries,
HMT Industrial Estate,
Bangalore

Sadhana Industries,
HMT Industrial Estate,
Bangalore

Prasad Enterprises,
HMT Industrial Estate,
Bangalore

Ram Engineering,
HMT Industrial Estate,
Bangalore

Bangalore Tool
Accessories Mfg. Co.,
HMT Industrial Estate,
Bangalore

Bangalore Foundries
(Private) Ltd.,
HMT Industrial Estate,
Bangalore
Chuck flange—Praga and GMT
Coolant Bracket—LB, G-13/17
Height measuring equipment
Soft jaws
Face spanner
Adjustable pin spanner
Standard parts—T-nut, hinges, door latches, T-piece
Flat table
Antenna cabledrum
Cable reel
Support electric equipment
Locking bar assembly

Rear tool holder
Chuck splash guard
Comparator at the end of table
Draw bar for collets
Standard fasteners
Fuel injection spares
Feed pump plungers
Feed pump spindle
Hand priming device
Hand high pressure oil-cum-grease gun

Aluminium castings
Grey iron castings
Malleable iron castings—items of

Hydro-copying attachment
Reconditioning services
Aluminium castings—items of
Bronze castings—items of

Rothan & Co.,
HMT Industrial Estate,
Bangalore

Kumar Engineering Works,
HMT Industrial Estate,
Bangalore

Shri Shankara Malleables,
HMT Industrial Estate,
Bangalore

Hydraulics & Reconditioning Services,
HMT Industrial Estate,
Bangalore

Ravi Metalloids,
HMT Industrial Estate,
Bangalore
Another ancillary industrial estate has been set up in Madras with the help of a private manufacturer—Enfield (India) Ltd.—a major producer of motor cycles and scooters, and of engines for industrial and agricultural use. In 1961, Enfield assisted in setting up a co-operative industrial estate for its sub-contractors. The co-operative built 20 factories on the estate, of a total covered area of 60,000 sq. feet (5,574 sq. metres), with financial assistance from the Government and from the large firm. Enfield built a tool room with the necessary machinery, which supplies the occupants with dies, jigs, fixtures and other toolings. The company provides: process sheets, drawings and specifications; technical assistance in selection, installation and maintenance of machinery, in production and in quality control as well as in production planning and scheduling; and raw materials when the units are unable to obtain them from other sources. Financial assistance is given by the company in the form of advance payment towards unexpected capital expenditure such as an increase in the cost of machinery; the advance payment is recovered from the units in instalments. The purchase prices of the parts and components are fixed according to mutually agreed formulae; payments are made against delivery.
Enfield is reported to purchase from the small-scale sector 1680 parts and components valued at Rs.20 million out of 2000 parts and components valued at Rs.25 million; the remainder is purchased from the large-scale sector. Enfield sub-contracts to 500 enterprises, of which 450 are small-scale and 50 are large-scale.

The case of Enfield is probably more significant for the promotion of self-contracting in the developing countries than that of B.M. As a rule, large-scale enterprises, whether public or private, would not consider burdening themselves with all or a major part of the sizeable investment costs of developing land and buildings for industrial units in their industrial estate. On the other hand, giving assistance to private groups, vicinity of the large plant, may be an enlightened form of self-interest on the part of the contractor. It is likely, however, that in developing countries, where no or very few government-sponsored industrial estates exist, it would be hardly possible to encourage the development of co-operative estates. These could develop only after the government-sponsored industrial estate programme demonstrated its worth. There are reasons for believing that, with proper support from the Government of India, more private large companies could be induced to help in setting up co-operative ancillary estates.
Explorative Analysis of the Functional Relationship between Ancillary Units and Paper/Client Organisations

Study (Sample size: 474 units) of small ancillary units revealed the following:

1. Degree of dependence

The degree of dependence of an ancillary unit on one particular client can in a way be viewed as:

Amount of work delivered in a year's time to the client \( \times 100 \)
Ancillary unit's total annual sales turnover

Study showed the following picture:

<table>
<thead>
<tr>
<th>Degree of dependency</th>
<th>Percentage of units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10%</td>
<td>23.7%</td>
</tr>
<tr>
<td>11 - 20%</td>
<td>29.3%</td>
</tr>
<tr>
<td>21 - 30%</td>
<td>17.0%</td>
</tr>
<tr>
<td>31 - 50%</td>
<td>16.0%</td>
</tr>
<tr>
<td>51 - 75%</td>
<td>4%</td>
</tr>
<tr>
<td>76 - 100%</td>
<td>1%</td>
</tr>
<tr>
<td>Unidentified</td>
<td>7% and still surviving</td>
</tr>
</tbody>
</table>

Prima facie, it appears that small units try to maintain their independence as far as possible by supplying only part of their production to a single prime contractor. Only 4 per cent of the ancillary units have recorded their degree of dependency on large and medium units to a tune of 51% to 75% and 1% between 76% and 100%; otherwise, an overwhelming majority of these units have supplied less than 30% of their production to one single contractor.
II. The reason for becoming an ancillary unit:

(a) The owner-managers had formerly
been employees of the main clients  19%

(b) The owner-manager's family members
own the main client company  37%

(c) The ancillary unit's superior technological skills were recognised  11%

(d) Other reasons  12%

(e) Unidentified  21%

It is clear from the figures above that one significant factor responsible for developing ancillary relationship between small and large units is that owner-manager's family members own the main client's company. Well over one-third of ancillary units fall in this category. Next to it come those units whose managers had formerly been employed by the main clients. This category accounts for 19%. A little over 10 per cent of units have given reason for becoming ancillary unit as being technologically efficient.

One tends to interpret this picture as:

(i) Parent/client organisations are not objective in their approach to selection of entrepreneurs; they mainly go by blood relations.

(ii) Parent/client organisations lean more on their ex-employees (i.e. those with whom they have dealt in the past). They do not adequately look out for outstanding entrepreneurial talents outside their own work-environment. The result
is that many young/middle-aged experienced persons, specially those returning to India from abroad cannot encash their entrepreneurial talent, merely because they are not privileged in terms of possessing such relationships.

III. **Number of years since these units became sub-contractor/ancillary to the parent organisation/main client**

<table>
<thead>
<tr>
<th>No. of years</th>
<th>Ancillary percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 years old</td>
<td>29%</td>
</tr>
<tr>
<td>2 - 4 years old</td>
<td>23%</td>
</tr>
<tr>
<td>4 - 6 years old</td>
<td>19%</td>
</tr>
<tr>
<td>6 - 10 years old</td>
<td>14%</td>
</tr>
<tr>
<td>10 - 15 years old</td>
<td>11%</td>
</tr>
<tr>
<td>Over 15 years old</td>
<td>4%</td>
</tr>
</tbody>
</table>

An interesting picture emerges from this table in that ancillary relationship is rather of recent origin in most of the cases. A little less than 30 per cent of ancillary units have become sub-contractors only two years ago. Nearly one-fourth of the units range in 2 to 4 years group. Thus, it may be said that over 70 per cent of units surveyed have developed their sub-contractual relationship only less than 6 years ago. Hardly 15 per cent of units have an ancillary relationship of 10 years and over. A great redeeming feature is that there is a steady progressive rise in ancillary development.
IV. Whether these ancillary units were assisted by their parent organisations/main clients (as visualised by the ancillary units themselves)

<table>
<thead>
<tr>
<th>Assisted</th>
<th>12%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not assisted</td>
<td>66%</td>
</tr>
<tr>
<td>Unidentified</td>
<td>22%</td>
</tr>
</tbody>
</table>

Ancillary units, as it emerges from the table above, do not expect much help from their prime contractors. This is well brought out by the fact that only 12% of the ancillary units have availed themselves of assistance from their parent organisations. The enviable achievement of small-scale industry units in this country is in spite of the fact that two-thirds (66%) of the surveyed ancillary units did not receive any assistance from parent companies. It could be well imagined what would have been the economic contribution of this ancillary sector if there had been more of willing and enthusiastic co-operation/assistance from their "bigger brothers", i.e. the parent organisations.

V. Nature of assistance given by parent organisation/main client.

<table>
<thead>
<tr>
<th>Nature of main assistance</th>
<th>Percentage of units getting it</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Financial investment</td>
<td>2%</td>
</tr>
<tr>
<td>2. Financial loan</td>
<td>3%</td>
</tr>
<tr>
<td>3. Help to secure a loan</td>
<td>2%</td>
</tr>
</tbody>
</table>
Taking a look at the above table, only four types of assistance merit mention. They are: supply or raw materials (21%); making of a long-term or continuous contract for work (19%); lend/sell jigs, fixtures etc. (19%); and technological guidance (17%). Financial investment and financial assistance do not constitute a significant factor. Whereas kinds of assistance mentioned at S. Nos. 11, 12 and 13 can be considered to be beyond the control of parent organisations, the following should be well...
within their capacity:

(i) Finance assistance (mentioned at S.Nos. 1, 2, 3 & 6)
(ii) Consulting services (mentioned at S.No.8)

If one can take a lesson from the success stories of HMT, Rourkela Steel Plant and Enfield (India), there should be some sort of mental revolution on the part of other parent organisations for helping their sub-contractors in a big way by extending a more comprehensive pattern of assistance.

VI. The opinions of the ancillary units about the sub-contracting relationship with the parent companies/main clients

1. Since the ancillary unit has a special intimate relationship with the parent company, it hopes to continue it without any feeling of insecurity .. 21%

2. Though the ancillary unit has no special intimate relationship with the parent company, yet it hopes to be able to continue the relationship without any feeling of insecurity .. 29%

3. Of late, the parent company has become very selective; and as a result the ancillary unit is put in a rather insecure position .. 41%

4. Others .. 9%
A little over one-fifth of the units have expressed their views that, because of their harmonious relationship with their prime contractors, they have little or no problem of insecurity. Slightly a higher percentage (29%) of units, however, have no special tie-up with their parent firms, and still they are happily pulling on. Thus, half the number of ancillary units are feeling secure without any fear of stress and strain with their parent firms in discharging their sub-contracting jobs. What is, however, disturbing is that over 40 per cent of ancillary units have reported to be in a bit of insecurity due to change in the attitude of the parent firms. In other words, prime contractors are increasingly becoming selective.

VII. Opinion of the ancillary units regarding their satisfaction about the relationship

1. We like to continue the ancillary relationship with the parent company/main clients as we are now having 53%

2. We are not satisfied with the relationship and so we want to locate some other large clients to which we can become ancillaries 16%

3. We don't want to work as ancillaries; on the contrary, we like to develop our own independent products (Main reason given as delay in payments) 31%
This table has a close link with the table preceding it. One significant factor emerging from the above table is that as many as 31 per cent of units have shown an inclination to detach themselves from the present system of sub-contracting due primarily to delay in payments. Adding to this, 16 per cent of units have not been satisfied with their arrangements with large units. However, a little over half the number of units do like to perpetuate their ancillary relationship.

VIII. Mode of communication received by ancillary units from the parent company/main client

1. Always, written communication .. 16%
2. Written communication in more than 75% cases .. 31%
3. Written communication in 50% to 75% cases .. 25%
4. Written communication in less than 50% cases .. 17%
5. No written communication; only verbal/telephonic communication .. 11%

The table is self-explanatory. Though written communication is the predominant medium of communication, as many as 11% cases indicate a relationship where verbal/telephonic communication is enough; such a faith does show a close relationship based on a lot of respect for a mere word from the client.
IX. Utilisation of ancillary units by the ancillary units under study

1. About 83% of the ancillary units under this study do not utilise any sub-ancillary units.
2. About 17% utilise the sub-ancillary units.

The above clearly reveals the fact that 8 out of 10 ancillary units surveyed have not sub-contracted their work to other small units. However, the incidence of utilisation of such facilities by ancillary units is fairly of a recognisable proportion. This was observed mostly in the case of those ancillaries which are relatively larger in terms of block capital investment and employment. The definition of ancillary units, it may be recalled, includes those units whose capital investment in fixed assets is up to and including Rs.10 lakhs. Ancillary units particularly falling in the investment range of Rs.7.50 to Rs.10.00 lakhs have been farming out some jobs to sub-ancillaries.

X. Payments to ancillary units by parent company/main clients

The number of days which, on an average, elapse, between the delivery date for the products and the date of receipt of payment by the ancillary units brought out the following:
The most irksome aspect of the system of ancil-
larisation is in the payment area. This table brings
forth very clearly that parent firms generally delay
the payments to their smaller clients. There are
hardly any, making their payment within a month; 14%
of the units take one to two months. Nearly half the
units get their payments within two to three months.
Thus, a little over two-thirds of units could get their
payment cleared within 90 days. The disquieting aspect
of the system, as the above figures amply prove, is that
over one-third of units have to wait for over three
months for their payment; one-tenth of the units surveyed
have complained that they have to wait as much as over
six months to receive their dues from client firms.
It is this aspect which has been agitating the minds of
small industry development departments; the proposed
legislation is mainly directed to redress this delayed
payment from prime contractors to their sub-contractors.
Incidentally, it may be mentioned that the dimension of this payment problem as has been found in this survey is by and large the same as the findings of the Reserve Bank's Committee on delayed payments to ancillaries, which has been discussed in detail in the next chapter.

XI. Rejections

The rejection percentage as against the total goods supplied by the ancillary units was also studied.

<table>
<thead>
<tr>
<th>Value of rejected work as a percentage of the value of total work done in 12 months</th>
<th>Percentage of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5%</td>
<td>12%</td>
</tr>
<tr>
<td>6 - 10%</td>
<td>78%</td>
</tr>
<tr>
<td>11 - 15%</td>
<td>7%</td>
</tr>
<tr>
<td>16 - 20%</td>
<td>2%</td>
</tr>
<tr>
<td>21 - 25%</td>
<td>1%</td>
</tr>
<tr>
<td>Above 26%</td>
<td>Nil</td>
</tr>
</tbody>
</table>

There is hardly any unit whose rejection percentage exceeds high 26. Only 10 per cent of the units have recorded higher than 10 per cent rejection rate. Over two-thirds have varying degrees of rejection from 6% to 10%. This shows, rejection is prevalent, but it is within limits. Quite a few ancillary units (12%) have to their credit less than 5% rejections. With proper guidance in the technical
fields, the rejection percentage may further get reduced, thus making ancillarisation more viable and harmonious.

XII. Reasons for using ancillary units

(a) Because the parent organisation/main clients cannot do the jobs 5%
   (i) Because they do not have certain types of equipment (1%)
   (ii) Because they do not have the needed skills and technology (3%)
   (iii) Others (1%)

(b) Even though the parent company can do the work if they wish to, yet they use ancillary units 54%
   (i) Because the labour cost is higher if the work is done by the parent companies (14%)
   (ii) Because it costs more on account of the quantity being small (32%)
   (iii) Because those jobs if done by them would interrupt the flow of their main operations (3%)
   (iv) Because they do not want to increase the number of workers (5%)
(c) Even though parent companies are doing identical jobs, they still like to get part of these done by the ancillary units ... 20%

(i) Because the parent company does not have sufficient capacity (7%)
(ii) Because it is cheaper to get it done outside, though they have the capacity (6%)
(iii) Because they do not want to increase the number of workers (5%)
(iv) Others (2%)

(d) Because there is a special personal relationship between the ancillary units and the parent company ... 21%

Diverse reasons have been quoted by the client organisations for making use of ancillary units. From this survey, cost seems to be the main factor for their going in for this sort of arrangement with small-scale units. It is quite obvious from the above table, because 54 percent of parent companies have expressed their desire to contract out their jobs although they could do these types of work themselves if they wish to. Another important conclusion that could be drawn out of this table is that over one-fifth of client firms have farmed out their parts and components simply because of the special personal
relationship between ancillary units and parent companies. Large units, of late, taking advantage of several incentives offered to small units, have been developing, under their ownership (disguised or undisguised), small ancillary units to sub-contract their own work to them. Fears have been expressed in government quarters that such a trend will ultimately make the small-scale sector a captive segment of larger units. However, this aspect has been taken into account while framing a suitable legislation for ancillary development in our country, according to which Government are not going to encourage such ancillaries which are owned by large organisations or by the major share holders of those large organisations (or, even their close relatives).
RESERVE BANK'S FINDINGS ON DELAYED PAYMENTS TO SMALL INDUSTRY UNITS

The Committee set up by the Reserve Bank of India in October 1970 under the chairmanship of Sri V.D. Thakkar to review the special credit schemes of the commercial banks, had expressed its concern at the delay in the settlement of bills of small entrepreneurs by large industries. The Reserve Bank of India, accordingly constituted in April 1971, a Committee to examine this problem and to make suitable recommendations which would ensure a speedy settlement of claims of small industry units. The Committee made a study of the problem on the basis of data and other material furnished by the institutions and agencies concerned i.e., the large-scale industries (both in the private and public sector), small-scale industry units and the banks. The Committee also extended the scope of the enquiry to cover the delay in payment of bills to small entrepreneurs by Government Departments/Public Sector Undertakings.

Findings of the Committee, more or less, confirm the findings of the survey done for this thesis.

The Committee made a number of useful and practical suggestions for minimising the delay in the payment of bills of small industries, which are reproduced below:
1. About one-sixth of the total number of functioning small scale industrial units was estimated to supply goods to medium and large industries/Government Departments/Public Sector Undertakings. The number of small scale industrial units which responded to their questionnaires, though too small (5.5 per cent) to lend itself to a firm conclusion, indicated that the problem of delay in payment of bills of small industries did exist and it was acute enough at least in respect of the units which responded to the questionnaires.

2. More than half the number of small scale industrial units supplying their products to medium and large industries faced the problem of delay payment. The position of small enterprises in regard to receipt of payments from the Government Departments/Public Sector Undertakings, was more or less identical with the pattern of their sales to medium and large industries, although the magnitude of delay would seem to differ considerably as between the various categories of buyers, either Government Departments or Public Sector Undertakings.
3. Although payments to small scale industries did not form any significant proportion of the total expenditure of the big companies, during times of temporary strain on their liquidity, there might have been a tendency on their part to cushion the impact, to the extent possible, through delayed payments to their suppliers which specifically affected small-scale industries whose bargaining position was relatively weak.

4. The delay in payment to medium and large industries by Government Departments/Public Sector Undertakings had no major bearing on the delayed payments to small-scale industries by the former.

5. The delay in payments to small-scale industries by medium and large industries was generally attributed to: (1) the inferior quality of goods supplied by them (2) non-adherence to the supply schedules (3) lack of adequate documents (invoices, bills, etc.) and (4) the delay in inspection of goods by the buyers.

6v. In the case of Government Departments/Public Sector Undertakings, in addition to the above, the government procedures covering payments to the suppliers and, more importantly, the manner of their implementation had also an important bearing on the delay.
7. While the period of supplier's credit would depend upon several factors, a period up to 3 months may be considered as a norm for purchases from small-scale industries and any extension of this period should be justified by special factors.

8. The sales to medium and large industries/Government Departments/Public Sector Undertakings accounted for 70 per cent of the total sales of the small-scale industrial units, which supplied goods to them. Further, a major portion of their sales (82 per cent) was on credit terms, while a substantial part of their purchases was on a cash basis. Obviously, for those units which sold their products exclusively to medium and large industries or Government Departments, the impact of delayed payments on their operations was severe.

9. The impact of delayed payment on the liquidity of small-scale industries was mitigated to the extent to which banks extended the period of retention of bills or the period of their advances against bank debts. However, undue extensions of the period of credit against receivables do not constitute an appropriate remedy for minimising the delay in the payment of bills. Moreover, in the long run, such undue extension of the period of credit by banks would only contribute to perpetuate the problem.
10. The magnitude of the problem of delayed payments to small industries covered a sizeable segment of small industry sector, where it was of a significant dimension and that in view of the imperative need to encourage the growth of small enterprises in our economy, it is necessary to remove any disabilities from which they suffered in the past.

11. The recommendations for minimising the delay in making payments to small-scale industries emanated from the basic need to strengthen the bargaining position of the small-scale units on the one hand and the need to inculcate a greater measure of financial discipline on the medium and large industries as well as Government Departments.

12. The small-scale industrial units should pay greater attention to the quality of goods manufactured by them and adhere to the schedule of supplies prescribed by the buyers. There is a good deal of scope for the units to avail themselves of ISI marking facilities in the manufacture of final products as well as components and spare parts. The State Governments as well as promotional agencies in the field of small-scale industries such as NSIC and State Small Industries Corporations should set up laboratories for facilitating testing of products of small-scale industries on payment of reasonable charges.
13. At present, a major portion of credit sales of small-scale industries is financed under the 'open account system'. The conversion of credit sales into bills will not only expand the volume of credit provided by banks against receivables but also ensure financial discipline on buyers as well as on borrowers. Apart from this, the banks also would be in a position to discount these bills under the new Bill Market Scheme of the Reserve Bank of India.

14. Medium and large industries units should not have any objection to accepting the bills drawn on them by small-scale industry entrepreneurs, particularly by those who are regular suppliers and who have established satisfactory dealings with them. As the small scale units have to bear the stamp duty on bills drawn by them, until such time as these bills attain a measure of popularity, Government may consider the scope for reduction of the stamp duty on such bills.

15. For administrative convenience, only bills for Rs.1,000 and above need be accepted by the medium and large industries.

16. Where the payment is made after the expiry of a certain period, usance bills should be drawn instead of demand bills which will also help to bring such bills within the purview of the new Bill Market Scheme of the Reserve Bank of India.
17. With a view to providing incentives to the buyers to accept the bills, the suppliers may offer a discount to the buyers more or less on the lines of 'cash discount' offered for settlements in cash. To dissuade the drawees of bills from refusing the payment on the bill, even after acceptance, it is desirable to insist upon payment of overdue interest at the rate stipulated by drawers if bills are not paid on the due dates. As a further measure for popularisation of the bill system, particularly for bringing the bills within the purview of the new Bill Market Scheme of the Reserve Bank of India, there should be a separate sub-limit within the overall credit limits sanctioned to medium and large industries for acceptance/letter of credit facilities covering their purchases from small-scale industries. Banks should encourage the prescription of such sub-limits through offer of liberal and concessionary terms therefor. The rate of discount on bills should be ½ to 1 per cent lower than the rate of interest on advances against book debts.

18. With a view to facilitating credit sales through bills, the buyers should take steps to ensure that the quality of inspection is as thorough as possible so that rejections at a later stage are reduced to the minimum.

19. The medium and large industries should specifically indicate in the purchase contracts that the inspection of goods manufactured by small-scale units would be completed
within the agreed period which should not exceed 30 days from the date of receipt of goods and that any delay in this regard would be compensated by payment of penal interest on the value of stores supplied.

20. The Government Departments/Public Sector Undertakings should carefully study their payment procedures with a view to simplifying and streamlining them so as to ensure that supplies are received according to the terms of the contract. In particular, they should stipulate a time-limit for:

(a) completion of inspection, (b) submission of certificate of receipt by the consignee and (c) checking and scrutiny of bills so that the entire process is completed within 45 days. If it is found that a delay in payment has occurred even though the supplier has fulfilled the terms of the contract, he should be compensated by way of payment of penal interest on the outstanding debt for the period of delay.

21. Purchase transactions of Government Departments/Public Sector Undertakings, to the extent possible, should culminate in bills of exchange. The Reserve Bank may pursue this question with D.G.S.& D. and also take up this with these Central Government Departments which are authorised to indent for stores direct; State Governments; and public sector undertakings.

22. The Federation of Associations of Small Industries of India should take steps to train their members in documentation procedures.
23. The margin on bills purchased and discounted, if at all, should be nominal. The margin on overdrafts against bills in the course of collection should also not materially differ from the margin on purchase/discount of bills. To the extent that advances against book debts are inevitable, the margin on such advances should not be much more than that on bills. A difference in the levels of margin on bills and advances against book debts will, however, be desirable, at least to discourage advances against book debts.

24. A detailed scrutiny of the 'sundry creditors' item in the financial statements submitted by the larger borrowers will enable banks to keep a watch whether the proportion of 'bills payable' to the sundry creditors is showing a progressive improvement. These proposals may be tried by banks in respect of their borrowers enjoying credit facilities of Rs.25 lakhs and over. For borrowers enjoying credit facilities of Rs.1 crore and above the Reserve Bank of India should keep an overall check on the implementation of the above proposals through their Credit Authorisation Scheme.

25. It will be advantageous to the small-scale units to replace cash deposits for their orders by a system of letter of credit.
PROPOSED LEGISLATION FOR PROMOTION OF SMALL INDUSTRIES

It is a welcome feature that some of the aspects discussed in the last few pages are beginning to receive some attention with the Government.

The Small-Scale Industries Board in its 29th meeting held at srinagar on August 26 and 27, 1971, recommended that a committee might be set up to examine the feasibility of enacting suitable legislation for small-scale industries. Accordingly, the Ministry of Industrial Development constituted a Committee on January 25, 1972, under the chairmanship of Shri A.P. Math with the following terms of reference:

To identify specific areas where legislation is considered necessary for the promotion of small industry development with particular reference to:

(a) Limited partnership;
(b) Simplified company law for small-scale units;
(c) Sub-contracting relationship and prompt payment of bills to ancillary units;
(d) Reservation of items for the small scale sector; and
(e) Purchase programme by public procurement agencies.
At a later stage, the Committee was also requested to give its views on the definition of small-scale industries.

The following aspects of small-scale industry development, in the opinion of the Committee, are likely to play an important role in the growth of the small-scale sector and need greater attention:

1. Accurate statistics
2. A uniform definition
3. Price preference programme
4. Ancillary development programme
5. Supply of raw material
6. Reservation programme
7. Risk capital
8. Modernisation
9. Decentralisation of administrative functions and responsibilities
10. Wider entrepreneurial base

Observations and suggestions of the Committee

The Committee's observations and suggestions on these aspects are given below.

(1) Government must devise a method whereby accurate statistics are compiled on significant aspects of the small-scale sector annually. These data can be made available to the Government agencies concerned within a reasonable period of time.
(ii) A single definition for small-scale industry needs to be adopted preferably on a statutory basis. It should be adopted uniformly by the Government and other public agencies.

(iii) The declared policy of the Government regarding its Stores Purchase Programme has not been followed by its own agencies and as a result, the small-scale sector has not benefited to the desired extent.

(iv) Unless some more effective measures are taken, the objective of the entire programme of ancillary development may remain unfulfilled.

(v) The Government should lose no time in ensuring that imported raw materials are distributed to the small-scale sector precisely on the same basis on which these are given to large units.

(vi) The Government should not merely rest content with reserving some of the items for production exclusively in the small-scale sector, but should have constant and systematic follow-up assistance programme for such units. The policy of reservation needs to be constantly reviewed by a high level agency.

(vii) In addition to the present efforts, something more is required to be done to ensure a greater flow of risk capital into this important sector.
The present concept of partnership with unlimited liability should be amended to one of limited liability so that more persons can be persuaded to invest in new enterprises in the small-scale sector.

(viii) Greater attention should be paid to upgrade the technology and implementation of a well-thought-out programme of modernisation.

(ix) There is need for more clearly defined promotional measures which could be implemented uniformly in all the States in order to avoid regional imbalances and uneven progress.

(x) In order to widen the entrepreneurial base and to include technically qualified persons and enterprising business-oriented managers, the entire programme of small-scale industry development needs to have a forward look and should be precisely defined without having to depend on the discretion or whims of the individual administrators charged with implementing such programmes.

In view of the considerations mentioned above, the Committee concluded that the outlines of a more clearly defined programme of development for small industries should be provided through legislation.
There is enough popular support for adopting a more comprehensive and well-thought-out statutory programme which could clearly lay down the lines on which development is to take place and the specific assistance that would be made available from the various Government agencies.

The Committee has cited examples of other industrially advanced countries which have gone in for legislation as a means of laying down the guidelines for systematic growth of small-scale sector and for giving the programme legal and constitutional support.

In U.S.A. the Small Business Act was passed in 1953 to regulate the development of small business.

In Japan, the most important of the several laws which have been enacted for promotion of small enterprises is the Basic Law promulgated on 20th July, 1963. It outlines the broad objectives of national policy.

The United Kingdom has relied on conventions rather than legislation for the enforcement of executive policies. The Committee has made pointed references to the Report of the Committee on Enquiry on Small Firms in U.K. (popularly known as the Belten Report) 1972, whereena number of measures for safeguarding the interests of small firms have been suggested.
In India, the main thrust of statutory enactment had been towards assistance to the large industries under the Industries (Development & Regulation) Act. While a number of promotional and protective measures have been taken, the emphasis has tended to be on the growth of the scheduled industries.

The Committee feels that small industries have not received a proportionate share of assistance in these measures. The Committee is of the opinion that the time has now come when greater attention should be paid to a corresponding growth of the small-scale sector and to the establishment of a suitable institutional and administrative framework on a statutory basis to provide the right conditions for the small-scale units to grow.

Conclusions of the Committee

The Committee came to the conclusion that there is need for legislation in the following areas to be specifically mentioned in the terms of reference:

(1) Definition of small industry
(2) Restricted Partnership—facilities for securing risk capital.
(3) Development of ancillary industries and ensuring of prompt payment of bills.
(4) Reservation of items and lines of production for the small sector.
(5) Public purchases and disposals for the small sector.

Definition of Small Industry

The Committee noted that at present small units, by and large, are entitled to incentives and facilities on a uniform basis, that is, irrespective of the size of their investment; in actual practice, the major share of these facilities flows to the larger among the small units. The Committee has, therefore, suggested that the whole sector might be divided into three segments:

(a) **Tiny units**: Meaning units where the total capital investment on plant and machinery in each does not exceed Rs.1 lakh, investment per worker does not exceed Rs.4000 and the turnover does not exceed Rs.5 lakhs per annum.

(b) **Small units**: Meaning units in which total capital investment on plant and machinery does not exceed Rs.7.5 lakhs irrespective of the number of workers.

(c) **Small ancillary units**: Meaning units in which the total capital investment in plant and machinery does not exceed Rs.10 lakhs and which produces parts, components, sub-assemblies, tooling, intermediates or inputs for supply against known or anticipated demand of one or more units manufacturing or assembling complete products and which supplies directly at least 10% of its production to one large unit and 50 per cent to one or more
The introduction of the concept of 'tiny units' is a major change suggested in the definition. The underlying idea is to recognize the class of 'smaller' among the small units. The Committee also discussed the issue of ceiling on investment by an individual or family in respect of small-scale units set up by them in the country, i.e. the investment of the family or a particular business group, in plant and machinery, in more than one unit, put together exceeds Rs. 7.5 lakhs, it has been suggested that the unit or units concerned should not be recognized as small ones. The Committee decided by a majority vote that it would not be advisable and helpful to add a qualification by reference of family investment in plant and machinery in recognizing and defining a small industrial unit.

Restricted partnership—facilities for securing risk capital

The Committee felt that there is limited scope for a small unit owned by individual for enlarging its capital base either by converting itself into a partnership under the existing partnership law in the country or by taking to the corporate form of organization. It is, therefore, suggested that the concept of restricted partnerships might be introduced. This concept is already known in
U.K., Japan and some other countries. The draft Act suggested by the Committee aims at creation of partnership firms consisting of one or more 'general' partners and one or more 'restricted' partners. While the liability of the general partner shall remain unlimited, the liability of the restricted partner shall be limited to the extent of the capital he undertakes to contribute. The restricted partner shall have no authority to bind the firm or to take part in its management. In the opinion of the Committee the provisions in regard to the enlarged partnership in the proposed Act shall meet all requirements of a simplified company law in a far more convenient manner. The Committee has not favoured the suggestion regarding a 'Simplified Company Law'.

Development of ancillary industries and ensuring prompt payment of their bills.

The Committee has gone into the entire issue of ancillary development and has concluded that statutory protection should be afforded to this programme. It has suggested the enactment of a law to be named "Small Ancillary Industries Act".

The proposed Act lays emphasis on the growth of ancillary units making it obligatory on large units to off-load a certain proportion of their requirements of parts, components and sub-assemblies. It provides guide-
lines for the industrial licensing authorities on the subject. It proposed that the State should offer suitable incentives to ancillary units as well as large units buying their products in order to encourage voluntary development of ancillaries. The Act also makes a provision for prompt payment of bills of ancillary units so that supplies should be inspected within two weeks of their submission of inspection or delivery and payment made within a specified time not exceeding 90 days.

**Reservation of items for the Small Sector.**

With a view to making the policy of reservation of specified items for exclusive production in the small sector more effective, a law to be titled 'Small Industries Reservation Act' has been suggested by the Committee. The draft Act lays down certain broad criteria which should govern the selection of industries for reservation. The Act provides that an item should be reserved initially for a period of 10 years and necessary inputs like raw material, finance, etc., should be assured to reserved industries. The State shall create an agency to enforce the implementation of the provision of this law and a penal clause has been inserted in respect of those who contravene its provision.
Public purchases from and dispositions to the small sector.

As the executive decisions of the Government concerning purchases to be made from the small sector and of giving them price preference, have not been implemented in letter and spirit at various levels, protective measures through a law to be termed 'Public Stores Purchase & Disposal Act for Small Industries' is suggested by the Committee. The proposed Act is contemplated to provide that a small unit shall not be barred from participation in the Government purchase programme on the ground that it does not have testing facilities in respect of its products or it does not have means by itself/to carry out one or more of the production processes. Payments of bills should be made within a specified time not exceeding 90 days from the date of delivery. It also provides for reservation of certain items for purchase exclusively from the small sector and a continuous review of identifying additional ones which could be included on the reserved list.

The other areas where the Committee has suggested legislation are:

(1) Collection of statistics
(2) Supply of scarce raw material
(3) Programme of modernisation for small industries
(4) Fiscal incentives.
Administrative agency

The Committee has further suggested that there should be a suitable agency to implement the policies laid down in the Small Industries Development Act and other proposed Acts. The agency should initiate all policies and programmes in regard to the development of small-scale industry. They have recommended that the task might be entrusted to the Small Scale Industries Development Organisation (SSIDO) which has already acquired sufficient specialization and experience in the field of small industry, after strengthening its set-up suitably. The Development Commissioner, who will head this Agency, should be a person of outstanding qualifications, known to be familiar and sympathetic with the needs and problems of small industries. He should be the principal adviser to the Government of India on all matters concerning small industries and should be an ex-officio secretary to the Central Government. The Committee has strongly recommended that there should be a separate Department for Small Industries directly under the charge of a Cabinet Minister.
The theme of ancillary industry is not an innovation but its organised recognition in the development process, is rather recent. Pre-independence era, in India, lacked conducive infrastructure for horizontal dispersal of industries; as a result, vertical integration of all production processes in industry developed in general and which adversely affected the traditional small units. Thereby, the growth of entire manufacturing sector suffered in absence of rapid replacement of small units by large ones.

The definition as has been given by the United Nations Industrial Development Organisation (October 1969) in respect of sub-contracting is worth reproducing here.

"Sub-contracting is a contractual arrangement between a primary company (contractor) and a secondary company (sub-contractor) for:

(a) the supply, by the sub-contractor, on order from the primary company, of parts, components, sub-assemblies and assemblies that are then incorporated in a product sold by the primary company, both companies being involved in manufacture;

(b) the processing of materials for the primary company—whether the materials are provided by
it or net—and the processing or finishing of parts provided by, and returned to, the primary company."

This definition more or less is in tune with the one now prevalent in India.

Sub-Contract Exchange

One of the recent ancillary developments worth recalling at this juncture is the establishment of two sub-contract exchanges in India. The concept of modern Sub-Contract Exchanges envisages an engineering super-encyclopedia providing instant information to engineering units desirous of utilising the surplus capacity of firms able to meet their exacting requirements. As an instrument of planning, the sub-contracting exchange, by co-ordinating the supply of and demand for machine capacity, ensures a regular flow of work between large and small-scale units, large and larger units and equally well between small and small units.

In December 1968, at the instance of the Development Commissioner (Small-Scale Industries), the Government of India, invited Mr. Robert Holtz, Secretary General of the Federation of Small-Scale and Medium Size Industries, France, to advise on the utilisation of idle capacity of small-scale industries in India through the establishment of sub-contracting exchanges. Mr. Holtz visited three of the large-scale automobile manufacturers and held discussions with the members of various industries associations,
Federation of Associations of Small Industries of India etc. Mr. Holtz's visit was followed by that of Mr. I. Krestovsky, Chief of Small Industries, Technical Division, United Nations Industrial Development Organisation (UNIDO), Vienna, who also visited a number of small-scale units. Both Mr. Holtz and Mr. Krestovsky felt that the time was ripe for setting up of Sub-contract Exchanges in India similar to those working in several of the European countries. As a result of their findings, the Government commissioned the services of Mr. Emrys Edwards, a British Expert on Sub-contract Exchanges (who is also Managing Director of the Central Production Information Registers Ltd., U.K.) to help the establishment of two pilot Sub-contract Exchanges in India—one in Bombay and the other in Madras. These Exchanges have since started functioning. For some time, I had the opportunity to head the activity in Bombay.

The subject matter of creation of sub-contracting exchanges was discussed at length at the Expert Group Meeting on the Role and Promotion of Sub-contracting (sponsored by UNIDO) and a number of recommendations emerged, as follows:

The exchanges in the opinion of the Group may extend the following services:
(a) Facilitate sub-contracting, that is, bring together supply and demand;

(b) Obtain information on the number of machine-hours available and other facilities; such information makes it possible to find out under and over-equipments and enables, therefore, the exchange to provide advice in the field of investment;

(c) Provide information focused on technical questions.

In view of the numerous contacts with entrepreneurs which take place on the occasion of the services provided by a sub-contracting exchange, it is possible to rely on the exchange to infuse in the enterprises and their managers, ideas aimed at starting actions for the improvement of productivity, to facilitate the establishment of groups of enterprises, to provide managerial training and so on. It is extremely important, in particular, that an exchange should provide technical assistance in addition to its normal functions, especially in developing countries.

The Group emphasised that exchanges could not and should not be a planning instrument, even at the regional level, since their action does not relate to all the enterprises located in a given area. They should not
operate as a procurement service nor as a commercial one. In particular, they should not act as an intermediary in the commercial sense of the word; they should not become involved in the commercial negotiations between large and small industries and should not suppress free competition.

As regards the sponsorship of an exchange, the Group stressed the need to have recourse to an institution enjoying the confidence and respect of both big and small industrialists. This is usually the case of Chambers of Commerce and Industry, provided they group all types of industries and are not dominated by the large ones. However, it was noted that, in most developing countries, the Chambers and other professional associations are usually reluctant to add promotional functions to their normal functions of protection. Yet, the Group felt that it was worthwhile to attempt to steer them towards promotional activities. The industrial extension centres also present all the conditions required to sponsor a sub-contracting exchange, and the Group recommended that they be called upon to undertake that task. The fact that industrial extension centres have, as a basic assignment, to provide small-scale industries with assistance in technique and management, is a further reason for doing so, in view of the special importance of
technical assistance for the sub-contractors.

In developing countries, the exchanges should be set up so as to serve a rather limited geographical area where the following conditions would be met: industrial potential, communication and support by large industries. The scope of action of an exchange will usually be more restricted than in industrial countries where it may encompass 150 to 200 kilometres. Proximity between large and small industries is indeed desirable in developing countries, in order to make it possible for the large industries to check the efficiency of their sub-contractors and to give them technical assistance more easily. The distance between the prime contractor and the sub-contractors should necessarily be relatively small when sub-contracting is of the capacity type. It may be greater in the case of specialised sub-contracting.

The Group considered that, in most cases, the services of a sub-contracting exchange should, at any rate in the early stages, be provided free of charge. A contribution system could be introduced later on, with Government subsidy if need be.

Many participants stressed that the exchanges should be autonomous if they were to be dynamic and efficient. An exchange should be financed, leaving aside the contributions of the industrialists, by the sponsoring organisation, by the professional associations.
for services extended to the sector as a whole, and by
the Government for the contribution made by the exchange
to actions of global interest, in particular to the in-
crease in productivity.

The opinion that an exchange was a self-destroying
instrument was correct only with respect to specialised
sub-contracting, but not in regard to capacity sub­
contracting. The latter was, in industrial countries,
the main activity of sub-contracting exchanges. In
developing countries, the exchange would be expected
to serve the promotion of sub-contracting in all its
forms, and if both large and small industries grew, the
disappearance of the exchange would not be likely to take
place.

The Group emphasised strongly the importance of
selecting, as the director of an exchange, an engineer,
preferably a mechanical engineer, having not merely a
high technical competence and widespread experience,
but also human qualities and "public relations" talent
which would get him the trust of the entrepreneurs, both
big and small. The importance of trust in the field of
sub-contracting could not be under-estimated.
International sub-contracting

It is a well-known fact that the distance between the prime contractor and the sub-contractor is an important factor to be taken into account when evaluating the prospects for sub-contractor. When sub-contractors are sought, one usually looks for them in one's own vicinity. Sub-contracting internationally is in most cases restricted to products with high labour content, as would be the case when a developed country gives orders for goods in a developing country. Economic functioning requires that reduced labour costs are not offset by high transport costs.

Common markets, free trade areas or monetary blocks should not be taken as pre-conditions for international sub-contracting. But, however, the establishment of such arrangement will certainly improve the contacts between the countries and thus helps to develop international sub-contracting. It is always to the benefit of the developing country that international sub-contracting should be developed between firms in developed countries as contractors and developing countries as sub-contractors. There are, however, also prospects for increasing sub-contracting arrangements between developing countries themselves, but there are difficulties due to the fact that industries are competing rather than complementing the activities of each other.
Fairs and exhibitions

Fairs and exhibitions do play a significant role in the promotion of sub-contracting activities, especially if they are held on special occasions or at particular locations where sub-contractors' representatives gather. There is also a growing feeling that permanent exhibitions at convenient centres such as premises of trade associations, Chambers of Commerce and Industry and even the showrooms of big contractors could promote sub-contracting effectively. Even when sub-contracting activity is nascent, fairs and exhibitions can become an important promotional means of fostering such activity.

Incidentally, it may be mentioned that the permanent exhibition at SISI, Bombay, is playing a very effective role in sub-contracting development, since not only are the items needed by large organisations displayed, but, also the quantities in which they are annually required, mentioned. For most of the items, even the drawings and specifications are available at the SISI, itself. This, of course, is supported by technological guidance regarding manufacturing. All this is worth-emulating.
Responsibility of Enlightened Private Groups

Government-sponsored agencies will, of course, always, play a major role in the promotion of subcontracting in India. Much support, however, can be expected from private institutions, such as industry associations, chambers of commerce and industry, and even enlightened large private industry houses.

As a rule, industry associations, including the Federation of Small Scale Industries of India (FASII), are more concerned with the protection of the short term interests of their members than with their long term survival and promotion. Most of these organisations engage primarily in union activities and "lobbying" with governments. These "lobbying" activities are necessary and useful, but much would be gained if the trade organisations also endeavoured to complement the promotional efforts of the government agencies.

It is quite probable that, as the small scale industry sector grows in India, the resources of the government will not expand in the same proportion. It will be desirable for the Government to encourage measures which will enable the manufacturers to rely on self-help. Industry associations and chambers of commerce could provide some counselling in techniques of management and marketing, organise training
facilities, undertake market and other surveys, facilitate financing, and so on, for those in industry and also for the prospective entrepreneurs and more particularly the subcontractors. So far, however, most such organisations have either never considered engaging themselves in such activities or have been reluctant to do so—for both organisational and financial reasons. The absence of measures of encouragement on the part of the Government has probably also been a factor, in general, though so far as FASII is concerned, the Government of India, always patronised and encouraged it as an apex representative body of small scale industrialists.

There are, reasons to believe that industry associations and chambers of industry could be induced to provide active assistance in the field of sub-contracting. Such organisations, especially when they include industries of all sizes, are extremely well placed to provide information on needs and resources in their respective geographical areas. The fact that, in some countries, members of such organisations have greater trust in the latter than in government agencies would be a contributing factor. It is no accident that, in France, the Netherlands and Sweden, subcontracting exchanges have been set up by employers' federations. In the United Kingdom, the Engineering Industries Association, a trade association of small engineering firms, regularly publishes bulletins giving information on equipment
capacity available and being offered by members for sub-
contracting as well as details of work for which sub-contra-
tors are being sought. In India AIMO regularly dispenses
information relevant to small units capable of working as
sub-contractors, which is indeed commendable; may be some
other similar organisations like FAKI and the chambers of
commerce and industry can start similar activities.

Role of enlightened large scale private industry houses

Since times immemorial, young Indian students in the
ashramas of their gurus chanted the following verse before
starting their studies:

ॐ सहनावलं तिथिः अनुनतिः
शान्ति न कर्जलिङ्ग तेजस्वीतेलिङ्ग भूति
भी न निरोधिनं | ॐ शान्ति : शान्ति : शान्ति |

"May we prosper together, and enjoy our prosperity in
common. Let our exploits be joint adventures. May
our studies be full of light. May we not quarrel with
each other. Let there be peace, peace, peace".

Even today there are families in our country who
recite this verse before taking their food in the style of
the saying of grace in Christian homes. The shlokas not
only epitomises the quintessence of Indian thought and cul-
ture, but propounds the very basic concept of social life
based on welfare and justice. This idea is not limited only
to common households. Even the seers of India who were pre-
pared to sacrifice anything for the sake of truth had realised
the importance of social welfare. The very first verse of
Ishavasya Upanishad which Gandhiji considered to be the
epitome of the Indian philosophical thought runs thus:

इशावास्यमिदं ज्ञातं न विद अनात्माय नाग्ना
tतैनन्दन्यात्तं मृत्यूः शुद्धं कश्चिद् धनम् महामः

This is variously interpreted. But the most common
interpretation today seems to be this: "All that exists in
this universe is the abode of the Almighty. Therefore, enjoy
the good things in life by sharing them with others. Do not
covet the possessions of others." A way of life enjoyed by
our tradition can be our guidelines today when we are stand-
ing at the crossroads, both in our political life and economic
devours.

The modern version of these abiding truths in our
culture could be formulated thus. Today the owners of capital
and wealth have no absolute right over their possessions for
personal gain. They have to use their economic possessions
for the good of society as a whole. This is both a function
and justification of ownership of wealth today. One of the
most distressing developments of modern times, particularly
in our country, is the abdication of social responsibilities
by the business community which has rather tacitly taken
it for granted that it is the function of the government to
look after the social welfare of the people.
But while doing so, the business community forgets the fact that social welfare is too important a matter to be left to governmental machinery which has its own inherent limitations. If business and industry abdicate the responsibility of social welfare, then naturally those who take the cause of social justice alone would demand that the levers of economic growth should also be passed on to their hands, whatever may be their standard of performance. This demand is, in a way, understandable because, after all, social justice is inconceivable without economic power. Those who take upon themselves the responsibility of ushering in social justice will, therefore, demand that they should be the sole custodians of growth also. If, in the process, the business community is relegated to the background, I am afraid, the fault would be entirely that of the business community. It is for the business community to make the choice. If it wants to play its role as managers of development, it will have to accept social welfare as a basic ingredient of economic growth. If another agency or the government takes over the responsibility in respect of social welfare, it will sooner or later be compelled to take over the tools of economic growth also, whatever may be the political implications. This is the compulsion of social justice and political democracy.

There is another reason also why businessmen should take up the responsibility of implementation of social justice. If businessmen come forward to undertake this basic
task, the social cost of numerous projects of social justice would be much lower than what would be incurred if they are handled by the governmental machinery. In the final analysis, social justice should involve better management and it is here that the managerial talents of the business community should be made available to society without any reservation. It is only a question of business and industry changing their attitude and accepting managerial responsibilities. If business were to create such an image of itself, then government also will be compelled to change its attitude towards business and will use the agency of private sector as a competent management tool for a faster economic growth with social justice. In this joint endeavour I do not visualise any area of conflict or misunderstanding between government and business. In fact, I do foresee a fruitful partnership between the two for economic prosperity with social welfare.

In earlier days, the only responsibility of those in charge of business was to produce more and maximise profits. Despite all its limitations, it was this emphasis which brought about the great transformation, better known as the Industrial Revolution in the Western world, over the last 200 years or so. But, even in the West, they have found that the exclusive emphasis on growth brings in its train some serious problems. It has, therefore, come to be recognised that growth is one of the several goals of business. It is certainly not the most important goal nor even the central
goal. Even in the most affluent country like the U.S., the problem of environment and social tensions has become a major issue. The problem of the depressed areas has been baffling Britain which pioneered industrial revolution in the world. All these developments have brought home to the leaders of business in the West that responsibility to the society as a whole has to have a high priority amongst the goals of business.

If this is so, even in the affluent West, it has to be much more so in a country like India which faces the problem of eradicating massive poverty.

No responsible leader of business can say that the problem of poverty is something to be dealt with exclusively by the government and that the business has nothing to do with that. Times are changing and voluntarily or involuntarily, business will have to redefine its basic goals. It will have to accept that overriding its loyalty to the consumer, there is the wider basic responsibility which it has to fulfil in improving the quality of life—both in the material and spiritual sense—in the society as a whole.

Viewed from this angle, it will be evident that all the debate cast in terms of "the private sector versus the public sector" is totally misconceived. Of course, there are problems of co-ordination between these two sectors which cannot be ignored, but they should not be regarded as something different from the problems of co-ordination
of different departments in the same business unit. These problems will always be there and will have to be tackled as and when they arise. The basic point to be emphasised is that there is no dichotomy between the two sectors so far as the society as a whole is concerned. Any acrimonious debate or conflict between the two major sectors of the economy can lead to only harmful results. India cannot make any significant progress unless the two sectors establish a harmonious working relationship.

In this context, the example of Japan, which has an incomparable record of economic growth, can be cited. In Japan too there are rigorous government controls in many spheres of the economy like control on bank credit, foreign exchange control, control on foreign investment, labour laws, governmental distribution of foodgrains, etc. There are many occasions when business is not in agreement with the government. But there has been a very wise tradition in Japan established right from the Meiji Restoration a century ago that all the discussions and debates are held privately. There are no acrimonious public debates between the two sectors. While the private debates continue, the business always works in close collaboration with the government. Some such sort of harmonious co-ordination will have to be achieved in this country too if we are to progress rapidly. The government should, of course, adopt an equally constructive attitude towards the private sector.
In a general and vague manner every Indian knows that ours is a poor country. Most of the urban intellectuals, administrators and businessmen have, however, hardly any idea of the conditions prevailing in the villages, only a few miles from the metropolitan centres. To be frank, for a good part of my life, I also did not have much idea about the real extent of poverty in our country's rural areas where most people of this country live. I recall (with gratitude to our Five Year Plans) the memory of my having spent many weeks together every six months, in the rural areas of Punjab and Rajasthan (deep in the countryside); it was when I, as an Assistant Director (Management Training and Consultants) at Small Industries Service Institute, Government of India, New Delhi, (and later from Ludhiana), had to accompany the State Government officers (who came to us for training in Small Industry Extension) to guide them in area survey and area development techniques. I must confess, what I saw in the village shook me to my very foundations. It was this experience which convinced me that I should henceforth work only for the Small Scale Industry movement; and I am proud, I did (and am still doing so) in spite of substantially better opportunities elsewhere.

Eradication of poverty was a major policy commitment of the Indian national movement, even during the British days. Therefore, naturally, right from Independence, it has been, at least formally, the central policy objective
of the government at all levels. But, somehow, what has been actually achieved is far short of our requirement.

I do not want to underrate the significant progress achieved in building the infrastructure, in the development of modern large scale industry and in similar developments in other fields. If we take into account the immense problems which a country so big as ours and with parliamentary democracy has to face, our achievements should be regarded as impressive. Any tendency to be little our achievements should be eschewed. But, at the same time, it should be recognised that all our developmental efforts have made practically a negligible dent on the massive poverty in the rural areas.

In this context, I would like to bring to my mind an important misconception which may be called a sort of a theory of automatic percolation. We concentrated on increasing production. We were aware that it led to affluence mainly at the top, but we went on hoping all along that if we increase the affluence at the top, in due course it will automatically percolate to the bottom. Relying on this theory, we did not pay the same attention to social justice. Of course, the politicians are never tired of chanting the mantra of social justice day in and day out, but as we know, this did not mean very much in practice.
We built up huge steel and engineering complexes. We hoped that somehow affluence would spread to the neighbouring areas. But we know today that all these huge complexes did not have any significant impact, even ten miles beyond Jamshedpur or Ranchi or Bhilai. In fact, the same is true also of the hothouse development which we have in such metropolitan centres as Bombay and Calcutta. Obviously, whatever the reasons, there is no percolation. The same situation prevails in the rural areas where the green revolution has widened the gulf between the rich and the poor. Such a development strategy only creates further economic distortions and social disparities. In other words, the indirect approach does not seem to work. So, henceforth we will have to devise our investment strategy that we begin directly with the task of giving gainful economic activity to the poorest strata of society.

This will mean that there will have to be a fundamental change in the whole process of planning and investment as well as in the attitudes on the part of both the government and the business community. In other words, the problem of providing for the vast majority of the unemployed and under-employed poor as well as increasing the productivity of small agriculturists must have the first priority on the investible resources of the economy. The business will have to accept the managerial responsibilities of efficient utilisation of these resources. It means that the business community should assist in the
development of small scale ancillary enterprises, co-operatives, supply of raw materials, and providing efficient managerial service, etc. It is a stupendous and extremely difficult task, but it is not impossible of solution.

A hopeful factor in the situation is that the moral fibre of the rural people is good. And if the private sector provides the required type of initiative, the rural people are capable of displaying considerable amount of self-help and co-operation.

The organised business sector will have to consciously accept the rural decentralised sector as a partner in its plan to growth and will have to undertake the full responsibility for the proper development of the rural decentralised sector as an integral part of the total plan of its own investment. Take, for instance, tractor manufacturing. A large industrial house which applies for a licence for tractor manufacturing should be asked first to organise a number of small ancillary entrepreneurs who should be helped to make tractor parts. These small men should be assisted by the large house as if they were the concerns of its own group. Once these units are established and organised, the issue of licence for manufacturing tractors to a large industrial house should be a logical consequence. What is true of tractor manufacture is also true of almost
all lines of manufacturing. The urban organised sector will not only have to divest itself of some of its economic activities which can successfully be undertaken in the small sector, but also refashion its own plan of investment in a manner that will supplement and support the economic activity in the rural decentralised sector.

As is well known, the American or Japanese products are cheaper despite higher wage-cost. One of the reasons for this is the fact that American and Japanese manufacturers farm out to outside ancillary industries as many parts and components as possible, concentrating their attention on the manufacture of one or two crucial items and then the assembly of the final product. Perhaps if our large industry houses give a trial to this approach in their organisations, they may reduce cost and the magnitude of the labour problem in their units and make a signal contribution towards a wider spread of entrepreneurial activity and material well-being in our society. This scheme can succeed in our situation only if it is backed up by continuous management services in the matter of supply of raw materials, technical improvements, timely payments for supplies and assured market.

Some of the ideas that have been mentioned in regard to development of ancillaries and industrial decentralisation would obviously require tremendous resources. The question would therefore arise with the limited resources at the
disposal of large private organisations, how can they
tackle the problems in the suggested manner? Here, the
Western concept of growth with free play of market forces
will not hold good. The "survival of the fittest" theory
will also not be valid in the context of our peculiar
situation. What is intended to be suggested is that there
is no other way but to make an arbitrary allocation of
even our limited resources for these social responsibilities.
The scale of priorities should be so altered as to provide
adequate resources for these tasks. We shall have to
accept the family concept of our Indian life while making
decisions on the allocation of resources for the weakest
segments of our society. In a family, the needs of children
and the sick have always to be the first charge on the
resources even at the expense of other genuine necessities.
A voluntary cut in the ostentatious requirements of the
relatively affluent sector of our society is thus an inex-
capable necessity to provide resources for this worthwhile
project. Such a solution is completely in tune with our
basic culture as propounded by our sages. The choice before
the business community is clear: either find such a solution
by fulfilling social responsibility through voluntary re-
straint on consumption, or accept state intervention in all
aspects of life and thus abridge the areas of democratic life.
Against this background, it is now proposed to make, in the pages that follow, an in-depth analysis of four major problems:

(1) Managerial skills and techniques and their application

(2) Creating new entrepreneur-managers

(3) Appropriate technology

(4) Management consultancy services