

Report
of the
FICCI Working Group
on
Closer Cooperation
through Mutual Assistance
Village, Small, Medium & Large Industries



FEDERATION OF INDIAN CHAMBERS OF COMMERCE & INDUSTRY
NEW DELHI

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FEDERATION OF INDIAN CHAMBERS OF COMMERCE AND INDUSTRY

Federation House, New Delhi-11000

RESIDENT

P R E F A C E

A few prefatory lines to explain the origin of the Working Group and what its recommendations are about.

The Prime Minister, Shri Morarji Desai, had written to me in September 1978 asking for the views and suggestions of the Federation as to how best greater cooperation can be brought about between the village, small and large industries from a functional point of view, particularly in the context of the new industrial policy of the Government to promote village and small industries.

As the Prime Minister put it,

"Many problems of industrial operations cannot be dealt with purely on an individual basis. Government is trying its best institutionally to provide them assistance. It is, however, not easy to influence them in day-to-day working through outside assistance. It might be of some advantage if such assistance comes from the same occupational bias rather than from external sources however competent and well-equipped they may be."

I thought it necessary that the various issues should be discussed first by representatives of large and medium industries, consultancy firms, banks and financial institutions and the concerned governmental agencies. Towards this end a Conference was organised on 25th November 1978 in New Delhi.

The deliberations of this well attended Conference were fruitful. While a number of suggestions were mooted, the general consensus was that it would be better if the exact details of linkages between the various sectors of the industry could be gone into in depth so as to arrive at a concrete programme of cooperation. I set up a Working Group for this purpose, and

requested Smt. Sharayu Daftary, Vice-Chairman of the FICCI Industry Sub-Committee, to head it. The Working Group included, among others, senior officials of the Ministry of Industry, Chairmen of the Khadi and Village Industries Commission and the All India Handicrafts Board as members.

The Working Group has come to the conclusion that a good deal of cooperation in several industries already exists, but this is not sufficiently known due to information gap. An attempt has been made by the Group to get together relevant particulars in the case of some industrial undertakings/industries: matches, soaps, hand-made paper, leather footwear, tooth brushes, PVC footwear, plastic containers, biscuits and confectionery, automobiles, tractors, textile machinery and electrical equipment.

The finding is that the areas of cooperation differ in scope, emphasis and content, depending upon the type of industry. From unit to unit also, there are variations. Even so, the common areas are:

- Supply of raw materials;
- Supply of technical know-how, production planning and processing, and quality control facilities; and
- Market development and distribution.

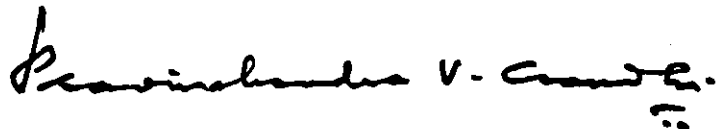
An important point made by the Working Group is that ideology alone cannot be a substitute for a sustained partnership. Economic interests constitute the key factor for promoting mutual cooperation, trust and confidence.

Naturally, the Governments, both at the Centre and in the States, have to play a supportive major role. They only can provide fiscal incentives, doing away with unnecessary levies, removing physical constraints, etc. An important recommendation in this connection relates to the introduction of duty drawback on the purchases made from the small scale sector as is being done in the case of all exports; further, the large and medium units buying components from small ancillary units should not only be exempt from sales tax but also be given specific weighted deduction in the cost for calculating taxable profits. This will go a long way in encouraging a purchase policy oriented towards the small-scale sector.

I hope this Report will be found useful by large and medium industries, consultancy organisations, financial institutions and Governmental agencies,

to take new initiatives to assist small scale and village industries which have a distinct place in both domestic and export markets.

It gives me great pleasure to record my thanks to Smt. Sharayu Daftary who spared no effort or time to get a difficult and sensitive task fulfilled with the utmost expedition. May I add my own thanks to hers to all the members of the Working Group and Panels, Shri S.J. Coelho, Joint Secretary, Ministry of Industry, Shri V. Ramachandran, Member-Secretary, Khadi and Village Industries Commission, for their active cooperation ?

A handwritten signature in black ink, reading "Pravinchandra V. Gandhi". The signature is written in a cursive style with a prominent initial 'P' and a flourish at the end.

(PRAVINCHANDRA V. GANDHI)

23rd March, 1979

R E P O R T

Introduction

The Conference on Closer Cooperation Through Mutual Assistance—Village, Small, Medium and Large Industries organised by FICCI in New Delhi on 25th November, 1978 recommended setting up of a Working Group to go into details of linkages between various sectors of industries and arrive at a concrete programme of co-operation. The FICCI President, Shri Pravinchandra V. Gandhi, requested Smt. Sharayu Daftary, Vice-Chairman of the Industry Sub-Committee to head the Working Group (composition given in Annexure I).

Terms of Reference

2. The following were the terms of reference :

- 1) To find out ways and means for promoting greater co-operation between large, medium, small and village industries and to recommend possibilities of decompartmentalising the present approach to industrialisation;
- 2) To identify areas where co-operation among large and medium enterprises, consultancy firms, banks and financial institutions, governmental agencies and small and village industries already exists and can be further accelerated; and
- 3) To explore the scope for assisting small-scale industries through the extension of consultancy services.

Working Group Meetings

3. The Working Group held four meetings in all—

Bombay	—4th January,
	—12th & 13th March
New Delhi	—13th February

4. At the very first meeting, the Working Group constituted the following four Panels, each comprising a set of industries, to carry out an in-depth study

encompassing the terms of reference of the Working Group. These panels were as follows :

- Panel—I : Industries in the de-centralised sector, covering matches, soaps, handmade paper, leather footwear and handlooms.
- Panel—II : Household plastic goods and packaging.
- Panel—III : Agro-based products.
- Panel—IV : Engineering industries covering automobiles, tractors, textile machinery and electrical items.

The composition of each panel is given in Annexure II.

Summary of Findings and Conclusions

5. The detailed reports of the four panels appear in Annexures III to VI. The basic considerations influencing the deliberations of the panels, as formulated by the Working Group, were three-fold :

- 1) Maximisation of employment opportunities,
- 2) Decentralisation of production, and
- 3) Extension of entrepreneurship.

In formulating the above major considerations, the Working Group regarded short-term considerations like relative earnings of various sectors inconsequential at this juncture, to the accomplishment of the major goals enunciated above.

6. From the various reports of the panels, it emerged that a good deal of co-operation in several industries which already exists is insufficiently known owing to information gap. The Working Group is of the view that suitable steps be taken to nullify this gap.

7. Areas of co-operation between village, small, medium and large industries differ in scope, emphasis and content from industry to industry. It is, therefore, the view of the Working Group that consideration be given to the unique characteristics of different industries which devise an action plan for extending co-operation between various sectors.

8. Common areas in which co-operation between the large, medium small and village industries already exists can be further stepped up by :

- a) Supply of raw materials,
- b) Supply of technical know-how, production Planning, processing and quality control facilities, and
- c) Market development and distribution.

9. The relations between the various sectors or industries can be put on a sound and durable footing on the basis of the economic interests of each fortifying the other; ideology alone cannot be a substitute for a sustained partnership.

10. Governments, both at the Centre and in the States, have to play a key role in different areas such as providing fiscal incentives, doing away with unnecessary levies, removing physical constraints, etc. New developmental policies have to be adopted through a system of giving duty drawback on the purchases made from the small sector as is being done in the case of all exports. Similarly, a large unit buying components from small ancillaries should not only be exempt from sales tax but also be given specific weighted deduction in the cost for calculating taxable profits. This will go a long way in encouraging a purchase policy oriented towards the small sector.

Major Conclusions of the Panels

Panel—1: Matches, Soaps, Handmade Paper, Leather Footwear, and Handlooms*

Matches

11. Out of the total production of matches today, about 30 per cent production is in the mechanised sector, 60 per cent in the decentralised sector, and about 10 per cent in the KVIC sector. It is planned that by 1990, the KVIC sector will be required to produce about 56 per cent of the total match production. This will naturally entail substantial effort on the part of the KVIC to augment its production in the next 10 years. In this effort the mechanised sector will have to join hands with the KVIC to give maximum support.

12. The mechanised sector has already submitted a joint plan with the KVIC to the Government of India on 6th February 1979 in which they have identified specific areas of co-operation. These were as listed below :

* Report to be submitted later.

Role of WIMCO

- WIMCO should substitute wooden boxes with cardboard boxes in a phased manner over the next five years. All possible assistance to enable WIMCO to seek to effect this conversion should be extended.
- WIMCO should assist KVIC in establishing Raw Material banks in different regions.
- The role of WIMCO will be limited to the provision of pre-determined quantities of various raw materials and KVIC will be the sole agency responsible for allocation of the same to its various units.
- Besides its own plans, WIMCO should actively assist the KVIC in its plan for regeneration of match wood.
- WIMCO should intensify its R & D effort with a view to seeking substitutes for materials in short supply.

Role of KVIC

- To ensure that adequate steps are set into motion to fulfil future demand of matches.
- To extend entrepreneurship base in the match industry and to avoid concentration in any particular geographical area.
- To seek an allotment of land for popular plantations in order to avoid wood shortage emerging in the future.
- To seek the support of other relevant interests in establishing Raw Material Bank for providing necessary and timely inputs to KVIC units.
- To take the necessary steps for making infrastructural support available to KVIC units.

Role of Government

- Government should offer adequate fiscal relief for accelerating the process of substitution of wooden boxes with cardboard boxes.
- Eliminate excise duty on tissue paper used for wax matches to promote progressive substitution of wooden splints by wax paper matches.
- Create additional capacity for the manufacture of match wax.

- Government should allocate additional power required for the production of potassium chlorate for fulfilling the requirements of KVIC.
- Government should actively encourage participation of the concerned parties in future plans for the re-generation of matchwood.
- Government should discourage the anti-social and unethical method of employment of child labour.

Soaps

13. Areas of co-operation identified in soap industry are as follows :

Small-scale units in the soap industry have done a splendid job in harnessing raw material in the way of non-edible oilseeds which were hitherto considered 'waste'. In order that oil can be extracted from these seeds, it requires two innovations—

- Appropriate equipment is tailored to suit the unique characteristic features of this raw material.
- Plan equipment which would ensure optimising the extraction process.

Steps should be taken by the engineering industry to develop appropriate equipment on the above lines.

14. It is estimated that 6,000 units with a rated capacity of 15 tonnes per year can be set up, if the machinery for the same is suitably adapted and upgraded. This will generate rural employment to the tune of 5,00,000.

Hand-made Paper

15. There are about 300 units manufacturing hand-made paper with a capacity of about 12,000 tonnes per annum. Looking at the need for stepping up employment and production, this capacity may be increased by at least ten times.

16. It is estimated that each unit can provide employment to 25 persons and 2000 units can be commissioned in the next 10 years with a capacity to produce 1 lakh tonne of paper.

17. The industry would need the following assistance from the large industry and Government :

- Identification of new raw materials for the manufacture of hand-made paper.

- Adaptation of adequate technology and the transfer of know-how.
- Training of artisans in pulp making, glazing etc.
- Design and tooling.
- Data Bank and Raw Material Banks to be established by mutual cooperation of large and small industries and Government agencies.

Leather Footwear

18. The organised sector's estimated production for the leather footwear is placed around 14 million pairs and the share of unorganised sector is about 20 million pairs. In the Sixth Plan, great emphasis has been laid on the promotion of units in the small and cottage sector.

19. The main difficulties faced by the manufacturers of leather footwear in the cottage and small sector are availability of finished leather and markets. These are the two areas where large industry can help the decentralised sector.

Panel II : Plastic household products and packaging.

20. The Panel examined the type of co-operation existing between large and small-scale sectors in the production and marketing of tooth brush, PVC shoes and plastic films and containers used for packaging, vanaspati and milk products. This industry provides a unique example where large industry extended help to the small sector in the twin areas of marketing and quality control. The scope for this help can be further extended in the areas of :

- Marketing
- Quality Control
- Tool making and supply of raw materials.

Panel III : Agro-based products.

21. This Panel studied the efforts made by some of the organised units manufacturing bread and confectionery in helping the small units and also initiating the production of cocoa in the country. There are instances of some large companies like Cadbury India Limited who have taken the initiative in successfully raising the acreage under cocoa in India from 2,900 hectares in 1974 to 6,400 hectares in 1978. Technical assistance and advice are provided to help farmers in various aspects of cocoa

cultivation, free of charge. Assistance is also given in drying and fomenting of beads.

22. Similarly, the scheme of Modern Bakeries is to provide technical collaboration to small-scale bread manufacturers. Marketing assistance to small bakers is provided at Delhi, Kanpur, Hyderabad and Madras.

23. The Britannia Biscuits Company has initiated small-scale sector in the manufacture of biscuits and breads. They are prepared to offer technical expertise in such enterprises as are selected by the District Industries Centres.

24. Areas of further co-operation in the agro-based products have been identified as follows :

- Provision of technical know-how
- Market development
- Rural—based small plants

Panel IV : Engineering Industries.

25. This Panel studied the growth of ancillary and sub-contracting units in engineering industries, particularly automobiles, tractors, textile machinery and electrical equipment. There has been substantial growth of ancillary and sub-contracting units in these industries, and several large manufacturers extend technical facilities and in some cases even supply raw materials and finance. However, the practices differ from unit to unit.

The areas identified for further cooperation are as follows :

Production planning, Quality control and Upgradation of technology

26. The large and medium enterprises, while establishing new capacity or undertaking an expansion programme, should plan production of items to be bought from small and ancillary units. This information must be disseminated to small units through appropriate organisations. Similarly, the large units can ensure all-round progress of small units in respect of product diversification, adoption of modern manufacturing and management techniques and quality improvement, cost reduction, etc.

Training

27. Small industrialists are often inadequately equipped in various areas of management, such as, running of enterprises, compliance with Government

regulations, labour laws, etc. Large enterprises can usefully organise periodic seminars and refresher courses to deal with various components of management. Similarly, workers employed in small enterprises could be given on-the-job training to handle work requirements which may be of a specialised nature.

Market Development

28. One of the biggest problems of the small-scale industries is marketing. This is because the small units with limited resources are unable to bring into operation the consistent package of various marketing skills like advertising, market development plans, etc. This is an area where large and medium enterprises with their extensive marketing abilities and network of consultancy organisations could assist the small-scale enterprises.

Supply of Raw Materials

29. Where specialised raw materials are required by the small units, the larger units, in their own interest, for ensuring quality and delivery schedules, should consider supplying the same to small units.

Composition of the Working Group

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Government

2. Shri S.J. Coelho
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3. Dr. Ram K. Vepa
Development Commissioner
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Ministry of Industry
Nirman Bhawan
New Delhi
4. Shri Somdutt
Chairman
Khadi & Village Industries
Commission
Irla Road
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Bombay-400 056
5. Shri L.C. Jain
Chairman
All India Handicrafts Board
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6. Shri V.P. Rama Rao
Secretary to the Government
of A.P.
Industries Department
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**Banks, Financial Institutions and,
State Corporations**

7. Shri H.C. Sarkar
Chairman & Managing Director
Bank of India
Express Towers
Nariman Point
Bombay
8. Shri C.R. Sen Gupta
General Manager
Industrial Development
Bank of India
Jolly Maker Chambers No. 1
Bombay-400 021
9. Shri K. Ramakrishnan
Chief Officer (SI & SB BKG
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State Bank of India
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10. Shri S.K. Misra
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11. **Shri S. Padmanabhan**
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President
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19. **Shri Rohit C. Mehta**
Chairman & Managing Director
Rohit Mills Ltd.
Khokhra Mehmedabad
Ahmedabad-380 008

13. **Shri N. Basu**
Project Leader
Progressive Agro Industrial
Consultants
B-1/4, Safdarjang Enclave
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20. **Shri M.M. Lal**
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14. **Dr. Surinder P.S. Pruthi**
Dr. Pruthi & Associates
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21. **Shri Bahubali Gulabchand**
Ravalgaon Sugar Farm Ltd.
Construction House
Walchand Hirachand Marg
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15. **Dr. M.S. Iyengar**
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M.S. Iyengar & Associates (P)
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22. **Shri B.D. Kapur**
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Industry

23. **Shri M.C. Jain**
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Nagpur Road
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16. **Shri K.N. Modi**
Chairman
Modi Spg. & Wvg. Mills Co. Ltd.
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24. **Dr. R.M. Thakkar**
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25. **Shri G.N. Palriwala**
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P.O. Hastinapur
Distt. Meerut (U. P.)
26. **Shri Dahayabhai J. Patel**
Southern Gujarat Chamber of
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Samruddhi
Nanpura
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27. **Shri Bharat Jhunjunwala**
Vishnu Straw Boards Ltd.
Moti Nagar
Faizabad
28. **Shri S.S. Aggarwal**
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All India Small Scale Cables &
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Shri Pravinchandra V. Gandhi
President, FICCI

... Ex-officio

Shri Harishankar Singhania
Vice-President, FICCI

... Ex-officio

Shri A.K. Jain
Chairman
Industry Sub-Committee, FICCI

... Ex-officio

FICCI Secretariat

Shri B.K. Agrawal
Deputy Chief, Industry

Composition of the Panels

Panel I—Industries in the de-centralised sector, covering matches, soap, hand-made paper, leather footwear, handlooms

1. Shri V. Ramchandran ...Convener
Member-Secretary
Khadi & Village Industries
Commission
Bombay
2. Shri S. Padmanabhan
Managing Director
State Industrial Development
Corporation of Maharashtra
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3. Dr. Surinder P.S. Pruthi
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4. Shri Gurudatta S. Talauliker
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Bank of India
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Airlines Hotel Building
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Panel II—Household Plastic Goods & Packaging

1. Dr. R.M. Thakkar, ...Convener
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Bombay-400 039

2. Shri Arvind Trivedi
Bombay
3. Shri K.G. Hingorani
Motco Plastics
Kurla Industrial Estate
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Panel III—Agro-based Products

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2. Shri N. Basu
Project Leader
Progressive Agro Industrial
Consultants
B-1/4, Safdarjang Enclave
New Delhi-110 016

Panel IV—Engineering Items covering automobiles, tractors, textile machinery and electrical items

- Shri B.K. Agrawal ...Convener
Dy. Chief, Industry
FICCI
Federation House
New Delhi

Report of Panel—I

Match Industry

Certain proposals for the co-operation and co-ordination of the large scale and the cottage sector in match industry is currently being discussed at the official level. A summary of their proposal is enclosed for the benefit of the FICCI Working Group.

There are two or three alternatives before the country as a whole on a long-term basis.

- (1) Switch over to wax matches in place of splints and paper boxes in place of veneer boxes.
- (2) Switch over completely to lighters.
- (3) Do some forest research and find out quick growing soft wood and regenerate the soft wood forest resources.

In practice, work on all the three points seems to be the proper thing to do in view of the employment and resource constraints in the way of complete switch-over. The modalities have to be worked out.

But taking into consideration the need to maintain and expand the employment base and disperse it, the cottage sector may not be able to take advantage of the card board boxes for another 4 or 5 years at least. It has to persist with its veneer boxes until at least a geographical redistribution of the production base is achieved. Soft wood regeneration must be part of the licensing, certifying excise concession proposals so that within a ten-year cycle a regular supply of soft wood for the unit will be regenerated by the unit itself. The financial and other physical resource implications will have to be worked out.

This is a major constraint facing not only the match industry, but also paper, boards, rayon and viscose and a host of other industries based on soft wood.

The whole programme may be based upon leasing out certain sections of irrigation, drainage and navigation canals to those who have their stake in

soft wood based industries, to plant and propagate appropriate soft wood on the banks of land appropriate to do so at their cost on a continuing basis from year to year. The first 10 years outlay may be advanced as soft loans to the units, repayable in appropriate instalments after the first cutting starts.

The broad basis of the proposals excepting these are in other major respects sound and may be accepted as our recommendations.

Need for Inter—Sectoral Co-operation

From a purely technical point of view, the match industry comprises three sectors : the Mechanised Sector, Decentralised Sector and the Cottage Sector. The decentralised sector is, however, not homogeneous; nearly 60% of the production in this sector comes from a network of units controlled by 17 families. Thus, the decentralised sector is quite distinct from the cottage sector. Promotion of the cottage sector has been the policy objective of the Government for the past so many years, as reflected in its decisions to reserve further expansion of the industry to the cottage sector. The Janata Government, which assumed office last year, has endorsed this policy. The cottage sector has been offered a special concessional excise tariff at Rs. 3.20* (5% special excise) per gross as against Rs. 4.60* + 5% payable by WIMCO and Rs. 4.30 + 5% by the decentralised sector.

Khadi and Village Industries Commission has been specially entrusted with the charge of developing and expanding this cottage sector in the country.

In order that KVIC, the chief instrument chosen by the Government, could play its assigned role effectively, it is necessary that there is closer co-operation between the interests involved.

Task before KVIC

In order that the KVIC sector can effectively bridge the gap between supply and demand of matches, their units will be required to produce the following additional volumes to fulfil the targets over the next 10 years. Also raw material requirement for fulfilling these targets are as follows :

(Note : *These rates have been radically changed in the recent Budget proposals.)

<i>Production by Cottage Sector (1000 cases)</i>			<i>Raw materials required</i>					<i>FULL CARD-BOARD</i>		
<i>Year</i>	<i>Additio- nal Pro- duction Units KVIC</i>	<i>Total Produc- tion KVIC Units</i>	<i>Wood 1000 CMH (Full Wood)</i>	<i>Potas- sium Chlorate Tonnes</i>	<i>Phos- phorous Tonnes</i>	<i>Blue Paper (Full Wood) Tonnes</i>	<i>Wax Tonnes</i>	<i>Wood 1000 CMH</i>	<i>Blue Paper Tonnes</i>	<i>Card Board Tonnes</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1979	100	280	70	1120	70	1400	1260	42	350	8400
1980	110	390	97.5	1560	97.5	1950	1755	59	487	11700
1981	110	500	125	2000	125	2000	2250	75	625	15000
1982	125	625	156	2500	156	3125	2812	94	781	18750
1983	125	750	188	3000	188	3710	3375	113	938	22500
1984	130	880	220	3520	220	4400	3960	132	1100	26400
1985	137	1017	254	4068	254	5085	4577	153	1271	30510
1986	144	1161	290	4641	290	5705	5225	174	1451	34830
1987	152	1313	328	5252	328	6565	5909	197	1641	39390
1988	158	1471	368	5884	368	7355	6620	220	1839	44130
1989	168	1639	400	6556	410	8195	7376	246	2049	49170
1990	176	1815	454	7260	454	9075	8168	272	2269	54450

The major bottlenecks will be :

- (a) Availability of matchwood for splints and veneers.
- (b) Potassium chlorate.

A Way Out

In order to successfully meet this challenge, an inter-sectoral and a multi-pronged approach is imperative. This will mean help to be offered to the KVIC sector by all parties concerned.

Role of KVIC

1. To ensure that adequate steps are set into motion to fulfil future demand of matches.
2. To extend entrepreneurship base in the match industry and to avoid concentration in any particular geographical area.

3. To seek an allotment of land for popular plantations in order to avoid wood shortages emerging in the future (amendment of KVIC Statutes and Regulations may be necessary for accomplishing this). An attempt may be made to elicit the co-operation of other interests involved in activating the efforts designed to regenerate matchwood plantations.
4. To seek the support of other relevant interests in establishing Raw Material Bank for providing necessary and timely inputs to KVIC units.
5. To take the necessary steps for making infrastructural support available to KVIC units, viz., training facilities, quality control, personnel, R & D substitution of materials and the like. The above and more steps would be needed in order that KVIC units can fulfil targeted production of 1 million cases by 1985 and hopefully enlarge it further thereafter.

Role of WIMCO

1. WIMCO Should substitute wooden boxes with cardboard boxes in a phased manner over the next five years. All possible assistance to enable WIMCO to seek to affect this conversion should be extended.
2. WIMCO should assist KVIC in establishing Raw Material Banks in different regions. Role of WIMCO will be limited to the provision of pre-determined quantities of various raw materials and KVIC will be the sole agency responsible for allocation of the same to its various units. In order that this scheme takes a practical shape, it is recommended that one or two such mother units should be set up in different regions on an experimental basis initially. Each mother unit should have an approximate capacity of manufacturing 20,000 cases of cardboard boxes per annum which could easily feed nearly 100 KVIC units.
3. Besides its own plans, WIMCO should actively assist the KVIC in its plan for regeneration of matchwood.
4. WIMCO should intensify its R & D efforts with a view to seeking substitutes for materials in short supply.

Role of Government

1. Government should offer adequate fiscal relief for accelerating the process of substitution of wooden boxes with cardboard boxes.
2. Eliminate excise duty on Tissue Paper used for wax matches to promote progressive substitution of wooden splints by Wax Paper matches.

3. Create additional capacity for the manufacture of match wax (Increase production to a total of 25,000 tonnes by 1990 required for both wood splints and wax splints).
4. In order that WIMCO can assist KVIC in the establishment of mother units, it is necessary for the Government to allocate additional power required for the production of potassium chlorate for fulfilling the requirements of KVIC.
5. Government should actively encourage participation of the concerned parties in future plans for the regeneration of matchwood.
6. Employment of child labour is anti-social and unethical and needs to be discouraged.

Soap Industry

The Sub-Committee on Minor Oilseeds constituted by the Ministry of Food and Agriculture felt that the total requirement of major oilseeds by the end of the Fourth Five Year Plan, i.e. 1969-73 was estimated to be of the order of 120 lakh tonnes as against which major oilseeds available resources tapped were only to the extent of 105 lakh tonnes, leaving a gap of 15 lakh tonnes to be bridged. The situation regarding the gap of resources remains the same to this day. The task of bridging this gap by tapping the resources of minor oilseeds like mahua, neem, karanja, kusum and sal, the Committee was of the view, could be substantially borne by the KVIC and other organised sector undertakings, having adequate experience in the field.

In view of the inherent problems in seed collection in the dense forest and hilly regions in the country, their storage, and transport, etc. the Minor Oilseeds Committee recommended that any initial loss incurred by the government agencies should be considered as expenditure on promotional activity. The soap Industry, being a processing industry, is caught between two stools, one being the oil Industry, and the other the chemical and therefore the Research and Development programme for soap should inevitably begin with oils and end with chemicals.

The national requirement of soap is of the order of around 1 million tonnes during the next 5 years as against which however 5 lakh tonnes of soap for laundry and 1.5 lakh tonnes of toilet soap per annum are being produced. An additional capacity for 3½ lakh tonnes will have to be created.

The approach for tackling this colossal problem by exploring newer sources of tree-borne oilseeds wealth should be an integrated one, wherein

the large-scale organised sector, the small-scale sector and KVIC sector are to be associated with one another, providing improved tools and equipment and technology. The tree-borne oils are effectively replaced by imported tallows and other hard fats. It is proposed that the quantum of additional requirement should be produced in 6,000 blocks in the country.

The contemplated pattern will result in the establishment of 500 toilet soap units and 5,600 laundry soap units in the course of the next 3 or 4 years on a decentralised basis. In the process, the objective of reaching the target of employment as envisaged by the Committee will be attained.

The recommendations of the Panel of FICCI headed by the Member-Secretary, Khadi and Village Industries Commission, are as follows :

Members present

1. Representative of M/s. Godrej Soaps Ltd., Vikhroli.
2. Representative of M/s. Tata Oil Mills Ltd., Bombay.
3. Representative of M/s. Hindustan Lever Ltd., Bombay.
4. Representative of M/s. SICOM, and
5. Representative of M/s. Khadi & V.I. Commission, Bombay.

The availability of non-edible oilseeds are mostly concentrated in dense forests and revenue areas such as road sides, private holdings and hilly areas. These areas have been identified by the agencies and institutions financed by the khadi and V.I. Commission as well as private entrepreneurs. There are many hurdles and bottlenecks in having easy accessibility in the interior forests in transporting seeds and obtaining remunerative wages. In addition to this, the pre-processing and storage facilities need to be considered before the seeds are brought to commercial status and taken to the regulated markets. There are many ways of tackling the above problem, namely, (1) the monopoly procurement in the forest areas reserve forest, (2) auctioning in the forests for providing agencies and fixing up the floor prices, (3) the individual sectors on the road sides and tree concentrations in private holdings and (4) giving the right of collection to a contractor by auction in tribal and hilly areas, and then offering open competition between the collectors on payment of royalty for the total seed collection. The Dandakaranya Committee appointed by the Commission headed by Shri Harihar Patel, Ex-Minister of the Orissa State, assisted by a Member of the Commission, Chief Conservator of Forests, Representative from the Directorate of Oilseed Development, Ministry of Food and Agriculture, Hyderabad, Dr. J.D. Kane, Department of Chemical

Technology, University of Bombay and the Representatives of Khadi and Village Industries Commission, Industry and State Directors. There is another Sub-Committee on Minor Oilseeds appointed by the Ministry of Food and Agriculture, Community Development and Cooperation, Government of India which was headed by the Jt. Secretary, Department of Agriculture and with members of the following representatives from the Department of Food, Ministry of Finance, Ministry of Foreign Trade, Director General of Technical Development, Central Forestry Commission, Hindustan Lever, Bombay, Tata Oil Mills, Bombay, Khadi & V.I. Commission, Bombay, Indian Soap and Toilet Makers Association, Calcutta etc. and Vanaspati Manufactures Association, Bombay.

The Committee felt that out of the total requirements of major vegetable oilseeds by the end of the Fourth Five Year Plan, i.e. 1969-73 are estimated at about 120 lakh tonnes as against this target of production of major oilseeds is 105 lakh tonnes. In order to bridge the gap of 15 lakh tonnes, all necessary steps and measures should be taken to tap the sources of oil from minor oilseeds. The non-edible oilseeds like mohua, neem, karanja, kusum, sal, kokam etc. are to be tapped. To achieve this collection, in a short period of 45 days to 60 days depending upon the seasonal collection, a large amount of finances has been recommended and suitable agencies are to be identified to achieve the above object. The Committee recommended that since the Directorate of Non-Edible Oils and Soap Industry, and the Khadi & V.I. Commission have done considerable work in organising collection and processing of minor oilseeds and utilisation of oils and soap making, they have to be given financial assistance by way of loans and grants for various purposes, namely, for collection of seeds, processing units, marketing, etc. The Committee also felt that the main difficulty in the minor oilseeds is the collection and marketing. This being a non-traditional commodity, it will be better if a public sector agency could promote collection and handle marketing. Any initial loss could then be absorbed by the Government agency as a promotional activity. The agency could stock the seeds and either process or dispose them of to the industry by entering into regular contracts.

The soap industry is a processing industry caught between two stools, the one being the oil industry and the other the chemical industry.

Hence any Research and Development programme for soap inevitably has to begin with oils and end with chemicals. Any advance in oils has to start with the oilseeds.

(1) The estimated quantities of oilseeds available are roughly as under :

<i>Name</i>	<i>Estimated Quantity available in tons</i>	<i>Actually Collected—Tons</i>	<i>Oil Produced in tons</i>
1. Sal	60,00,000	2,70,000	23,000
2. Neem	20,00,000	3,00,000	30,000
3. Karanja	5,00,000	32,000	8,000
4. Mahuva	10,00,000	60,000	20,000
5. Kusum	2,00,000	12,000	4,000
6. Rubber Seed	1,00,000	23,000	5,500
7. Kokum	2,000	750	300
8. Pinnai-Undi	4,000	1,100	300
9. Kakhan (Pilu)	46,000	150	40
10. Mango Kernel	1,00,000	33,150	850
11. Tung			
12. Maroti (Kevathi)			
13. Pisa		Large Quantities	Small Quantities
14. Nahor			
15. Dhupa			

Besides these forest-based tree-borne oil seeds, the following oil-bearing seeds are also available :

	<i>Oilseeds</i>	<i>Oils</i>
1. Water Melon	20,000 Tons	5,600 Tons
2. Wild Castor	1,000 Tons	350 Tons
3. Tobacco Seed	15,000 Tons	6,000 Tons
4. Maize Germ Oil	50,960 Tons	20,384 Tons
5. Jute Seed	80,000 Tons	8,000 Tons

6. Tea Seed Oil Content 33% in Kernel.
7. Gokhru Seed Oil Content 35% in Kernel.
8. Tumba seed Oil Content 21% in Kernel.

(2) Situated as we are with an intolerable employment situation and a very large potential for collection of tree-borne oilseeds and extraction of oil therefrom, there exists an immediate need to step up the collection of all the minor oilseeds from forests even at very attractive short-run wages must be a quick solution for a persisting shortage as land has to go round among the various priorities, sugarcane, pulses, food grains, oilseeds, tobacco, orchards and plantations. These tree-borne oilseeds need only to be gathered and processed.

(3) We suggest that a minimum wage of Rs. 10/- per head per day for collecting these seeds may prove to be providing enough incentives and enough increase in productivity.

(4) As these tree-borne oilseeds ripen almost on the eve of monsoon, much of the seeds are washed away. Even the seeds that are collected are wet and need drying arrangements on the spot. These arrangements in hilly and forest regions hardly exist. This should be provided.

(5) Drying Platform—A storage warehouse and some hot air facilities will immediately change the character of seed collection and make it attractive, highly productive and income generative. These must be available at the nearest point from the forest as the wet fibrous seeds are very bulky and massive and the oil yield by weight may not exceed 8% to 10% of seed.

(6) The kernel may also be crushed locally and the oils or fats alone marketed.

(7) The Tribal Development programmes should contain a programme to provide these facilities at site. 1000 drying platforms, 1000 hot air drying chambers, 1000-de-corticators may be provided within the next 2 years at 1000 places in Orissa, Madhya Pradesh, Andhra, and Karnataka for collection, drying, removal of fibrous materials and separation of kernel from seed coat. This may be shared between all the agencies interested in the work.

(8) The crushed oil cakes may be further processed at existing solvent extraction plants.

(9) A simple water, steam process of oil extraction from the seeds at the local level may be developed to be established right in the forest belts

for extraction of oil in small batch processing units of less than 1 or 2 quintals of seeds per day.

(10) There is no point in denuding the village of all its raw materials and offering it all finished products for these raw materials. The process ends in an anti-development syndrome. Hence, some processing other than mere seed collection should be located in the villages, right within the forests themselves.

(11) The village can make all its laundry and toilet soap requirements within the village itself in less than a month, beginning from the collection of seeds and ending with the toilet soap.

(12) The tree-borne oils can replace imported tallow and other hard fats.

(13) The big industry should suggest some way of salvaging the glycerine and other lipid losses in small batch soap manufacture.

(14) Similarly standardisation and quality control can be helped by the big industry.

(15) A floor price for oil kernels, oilcakes, oils and fats may be declared by common agreement at the beginning of every season, say, around April 15th for each year and all the agencies must offer the support price in all cases.

(16) A few regulated commodity markets may be opened at the forest sites by Government to regulate the price and payment practices.

(17) The large-scale industry will pass on all technical knowledge about upgrading some of these oils to high value edible oils and fats and for export purposes.

(18) An integrated approach in order to bring all the various interests into a common programmatic flow chart may have to be worked out if not begun straightaway, as detailed below :

- (a) The oilseed collector (tree-borne)
- (b) The dryer, storer, decorticator and the crusher
- (c) The Oil Crusher
- (d) The Solvent Extractor
- (e) The Oil Processor to upgrade Oils

- (f) The fat splitting recovering glycerine and lipids, tannins, bitters etc
- (g) The oilcake processor for recovery of oil by solvent extraction
- (h) The de-oiled cake converter into poultry, cattle, piggery feeds
- (i) Processing de-oiled cakes as natural detergents

All these form a chain and a cycle. Each link can provide employment and production of a vast number of work places and production of a wide range of useful products.

For all this the know-how is available. It needs only to be adapted to and adopted for small-scale use.

(19) Taking the national requirements of soap at around 1 million tons of soap over the next 5 years, we hardly produce at present 5 lakh tons of soap for laundry and 1.5 lakh tons of toilet soap per annum. An additional $3\frac{1}{2}$ lakh tons will have to be created. This new demand will be met from rural soaperies, each producing about 15 tons per year and located in about 6000 blocks. Total production will be 90,000 tons in 12 months or 8000 tons per month. It will provide employment to about 12 families per unit and hence about 72,000 people at the end of establishing the 6000 block units. The block units will produce laundry soap to start with and one block at the District Headquarters will produce toilet soap only. This pattern will result in establishing 500 toilet soap units and 5600 laundry soap units in the course of the next 3 or 4 years.

(20) In all this the Directorate of Vanaspati, Ministry of Agriculture, vegetable oils and fats, Directorate of Oilseeds Development, State Tribal Directorate of Commerce and Export and Import Development Corporation, Forests Corporations and KVIC have a long-term co-extensive interests involved.

(21) This integrated approach will benefit all the interests involved and recover very large wasted resources and build up a viable vegetable oils and fats economy not dependent upon imports and seasonal factors.

(22) While the extension of the village and cottage sector will gather momentum providing for significant additions to employment and resources, the large sector will be contributing significant know-how and technology to recover rare lipid associates, glycerine, bitters, tannins etc. from the small units also.

Rice bran oil is extracted at present at around 70,000 tons per annum. Another 2 lakhs tons are available for extraction.

Rice bran edible oil is extracted @ 5000 tons; another 1,50,000 tons can be extracted. Maize germ oil can be extracted around 2,50,000 tons, sal fat can be extracted 1,50,000 tons. Mango kernel oil can be extracted 28,000 tons.

(23) Many of the de-oiled cakes have high potentials as bye-products of very many other industries. Maize meal can be the feed stock for starch and glucose. Neem cake meal can be a nitrogen fixer in the fertilizer industry.

(24) The Neem Bitters have a wide application in pharmacopia.

(25) The Karanja Tannins can be very good in many branches of polish, leather etc.

(26) The Paint and Varnish Industry. The vanaspathy industry, the soaps, and detergent industry and fertilizers, leather finishing, pesticides and pharmacopic industries have all a rich source in many of the bye-products.

(27) Hence an overall policy cover for all these factors will have to be worked out and proper fiscal and income generation incentives built into the system.

(28) The coordination, research, development, adaptation, technology transfer, transfer of know-how are all areas in which a lot of inter-sectoral and inter-agency coordination and cooperation will be necessary.

(29) This Panel had the privilege and unique experience of bringing together all the sectoral interests to interact for the first time and this process may have to continue on a stable basis for many purposes, many years to achieve the full utilisation of all available resources, physical technological and know-how.

We hope and pray for the same.

(30) The decentralised new units should be assured of their chemical inputs before allowing expansion in the established large-scale sectors or the laundry soap unit sector.

(31) An arrangement for continuing cooperation and resource transfer should be established at the Central and the appropriate State levels to watch the process of implementation.

(32) Market intelligence, survey and field survey and dissemination of information through appropriate media should be jointly organised.

The proposals in brief will generate additional rural seasonal employment to nearly a million people for two months in seed collection equivalent to an annual employment of 1,50,000 people and in the oil crushing and allied industries to another 1,50,000 people and in soap making and sales to about 90,000 people in addition to the increase in the production, employment and distribution of an additional quantity of nearly 2 lakh tons of laundry and toilet soaps.

A series of structural facilities will be created at the forest bases for collection, drying, decorticating and crushing of oils.

A series of regulated markets for sale of these tree-borne oilseeds will be established in these centres.

The Central and State Governments and the various developmental agencies will share the responsibilities and support the various measures needed to do all this.

* * *

Hand-made Paper Industry

The hand-made paper industry cannot for obvious reasons compete with the mill-made paper industry in certain areas like printing, writing and highly glazed paper.

But it has certain built-in advantages in manufacturing the coarse and tough grade paper and board in great demand, like ;

- (1) (a) Paper for Artists, Engineers, and touch papers, document paper, certificate, wills, deeds and historical documents,
(b) Airefoil paper, cards, inland letters, water mark and bond paper of 25 lbs and above.
- (2) Filter paper, Album paper, Radio Cone, tough Boards like Jac paper, Defence need, paper for Archives, Fibre Boards and Insulation paper, packing and corrugated paper,
- (3) Fancy papers and Design Boards. Wall paper.
- (4) Cloth inlaid paper for special purposes like insured cover etc.

There are about 300 units with a capacity to produce 12000 tons per annum in actual operation. Looking at the need for stepping up employment and production this capacity may have to be increased at least ten fold.

The raw materials are not in short supply.

Tailor cuttings, hosiery cuttings, textile wastes, and used stationery and old paper recycled can provide the raw material.

Each unit can provide employment to about 25 people-10 people for the technical and supervisory purpose and 15 people for whole-time work. 50 tons of paper can be manufactured annually. About 2,000 units can be commissioned in course of the next 10 years with a capacity to produce 1 lakh tons of paper.

Co-operation

- (1) The technology and know-how transfer must come from the large-scale industry.
- (2) Research Development and identification of new raw materials must be a joint venture.
- (3) The training of artisans in pulp making, glazing etc. to be assisted by the technicians of the large-scale sector.
- (4) Design, tooling, equipment of units to be guided by the large scale engineers.
- (5) The use of particular grades of imported wood pulp to be identified and channelized to appropriate units according to product range.
- (6) Mutual feed-back arrangements for information.
- (7) A Data Bank and a Raw Material Bank to be established by mutual co-operation and agreement.

* * *

Leather Products

Total production of footwear was around 230 million pairs during 1977-78, of which 50% was accounted for by cottage and unorganised sector, 40% by small-scale sector and only 10% is by the large scale sector. The cottage sector is highly labour-intensive providing job opportunities to about 3 lakh persons. The approximate distribution of employment in various centres of leather products in the country is as follows :

	<i>Footwear</i>	<i>Other leather goods</i>
1. Cottage Sector	3.40	0.09
2. Small scale, organised	0.64	0.20
3. Large scale	0.06	—
	<hr style="width: 50%; margin: 0 auto;"/> 4.10	<hr style="width: 50%; margin: 0 auto;"/> 0.29

Improvement in cottage sector and small scale footwear production can be brought about by improvement in quality and raw material supply and by using improved tools and equipments. They also require marketing assistance both for internal and export market.

Targets set out for the Fifth Plan period for footweares are as under :

Leather footwear	300 million pairs
Leather garments and leather goods	1 million pieces

As per Government policy decision, the entire additional production is reserved for small scale and cottage industries. Setting up of additional capacity in the organised sector either by way of expansion or by way of new units is allowed subject to the condition that 100% of the production will be exported. The Khadi and Village Industries Commission also chalked out a very ambitious programme for the Sixth Plan. During this period 1,260 footwear and leather goods making units and other 1,000 marketing units are proposed to be set up. Besides, the plan envisages financing 42,000 individual cobblers to encourage production for whom the Commission envisages to extend marketing facilities. Under the fold of the Commission, the programme of leather industry includes setting up of tanneries, carcass utilisation centres, etc. At the end of the Sixth Plan, the production is envisaged at Rs. 140 crores from the level of Rs. 17.43 crores in 1977-78. The Leather Industry Programme under the fold of the Commission provides employment to about 60,000 persons now. At the end of the Plan period, the employment figure is expected to reach 5.50 lakh numbers.

Report of Panel—II

A meeting of the Panel on Household Plastic Goods and Packaging was held in Bombay on 21st February, 1979. The following report is prepared on the basis of the discussions that took place.

The growth of Plastic Processing Industry in India started from small scale only. Initially, a number of small scale units came up which were processing raw materials imported from developed countries. The plastic raw material manufacturing, which is a capital-oriented industry, made its inception when M/s. Polychem Ltd. started production of Polystyrene with a capacity of 2,000 tonnes per year. Today, the production of raw materials in India has reached a figure of 2,50,000 M.T. and is likely to grow to a level of 5,00,000 M.T. by 1983-84. The major part of growth in the processing sector of the raw material will be in small scale sector, whereas the raw material production has to be in the large scale sector alone.

The following are some of the difficulties faced by the small scale sector where the help of large scale can be taken (1) Marketing, (2) Quality Control, (3) Tool Making, and (4) Supply of raw material.

Small-scale entrepreneurs can rarely employ experts after the marketing, procurement, and quite often the technical expertise is also provided by him. In the present atmosphere of competition, it is very essential to have expertise in every field and this can be achieved by having a closer co-operation of small scale with large scale. Because of lower overheads of small scale sector, the production cost of goods can be reduced considerably and the same quality products can be made with the help of large scale.

Let us consider some specific cases in which the co-operation between large and small scale sectors exists.

Tooth brush—90% of the tooth brushes available in the market is marketed by large scale industries which are producing the allied products. However, the production of tooth brushes is entirely done by small scale plastic industry. The company which markets the product provides the complete specification to the small scale sector. The quality of product is

checked at every point of production. In this case the product is normally sold under the brand name of the marketing organisation which holds a good image with the consumers. The market research and the product development are also done by the larger company. This is one of the products which involve perfect combination between large & small scale industry.

Shoe making—Plastic shoe making industry, where boom started in 1968-69. has received certain setback mainly because of the production of sub-standard products. This happened because of the unhealthy competition between many small scale producers of P.V.C. shoes and chappals. The confidence of the consumers can be gained again, if we can provide quality products to the consumers at reasonable prices. Here again the large scale sector can provide its expertise in marketing and quality control and get the goods manufactured from the small scale sector. This is already being done by a couple of large scale and reputed companies in the footwear industry. PVC shoes are today manufactured to a great extent by small scale industry and marketed by the large scale.

Packaging Industry—Plastic films and containers used for packaging are largely produced by small scale industry and used by large and small scale industry. A greater co-operation in this can be achieved if the large scale industry takes up the research and development work so as to improve the quality of packings. Some examples where the co-operation exists between large and small sector are vanaspati packaging and milk packaging. The vanaspati manufacturers themselves worked to develop the H.D.P.E. container and got the approval of FDA. The containers are now largely produced in the small scale sector. Similarly the film for packaging of milk was developed by the dairies with the help of P.E. raw material manufacturers. These are now being produced by many small scale industries.

The following are some of the areas where large scale sector can co-operate with small scale sector.

Marketing of Plastic consumer products—At present the bulk consumer products are manufactured and marketed by large scale sector. Lately, many small scale industries have also started manufacturing consumer products. A greater co-operation can be achieved in this field. The major difficulties of small scale sector in this field are (a) Marketing, (b) erratic supply of raw material, (c) toolings and (d) finance.

Large scale marketing organisations can take up the marketing of plastic consumer products produced by small scale industry thereby ensuring a fixed market for small entrepreneurs. They can also help him in planning his

production vis-a-vis his raw material requirements and finance. Strict quality control can also be ensured through better toolings. Here constant research work can be taken up by these marketing organisations and the results fed back to small producers.

Report of Panel—III

The Panel had, on 20th January, 1979, sent out letters to 20 industries and associations connected with agro—based products, requesting them to give information about the extent and the manner in which their organisation has helped the small sector, the proposals for help in future and comments/suggestions for closer co-operation between village, small and large industries. We are sorry to say that the response has been very disappointing.

Problem Areas

Village and small scale agro-based industries, in the first instance, need the assistance of large industries in solving problems relating to :

1. Upgradation of technology
2. Supply of raw materials
3. Marketing
4. Finance
5. Training of entrepreneurs and artisans.

Upgradation of Technology

The village and small industries need to upgrade their technologies. Large industrial units have their own R & D/Consultancy services. These have developed new techniques for immediate commercial application. They have amassed basic scientific information leading to new and improved products and processes. They have also carried out improvements in the existing products and processes by application of modern scientific knowledge. They are doing work in the areas of product quality, product improvement and new product development. Large units can render help in upgrading technology to small units. For example, Modern Bakeries have plans to provide technical assistance to small units. They will charge only the actual expenses incurred. Similar plans can be developed by other units.

Supply of Raw Materials

The raw materials require testing to ensure good quality. Large units have laboratories where testing facilities can be provided to small units. Modern Bakeries have plans to assist small units in raw materials analysis and quality control. District Industries Centres will also have laboratories where small units can have the facilities for testing of their raw materials. Similar services may be extended by other large units also.

Large and small units may set up joint purchase organisations for purchase of raw materials. In this manner raw materials shall become available to large and small units which will be consistent in quality and reasonable in price. At present some small scale units purchase their raw materials at exorbitant price which effects their profitability.

Waste products from large industries can be processed by small units. For example, vegetable and fruit wastes from Large Units can be processed into cattle feed by small scale units. Large units should encourage such re-use or recycling by providing help by way of technology, finance etc.

Some processes are ideally suited for small units. Processing of Neem seeds and Imli are two examples, among many others. Tribal areas can take up this work. Here again some resourceful entrepreneurs shall have to take interest to properly organize production and marketing. Several such schemes can be identified at area level and referred for implementation by large industries located close to the "opportunity". This identification of "opportunity" may be done either by the large industries or by the District Industries centre.

Marketing

Small agro-based industries face a great problem in the marketing of their products. The first need is to improve the quality of their products to the I.S.I. and 'Agmark' standards. Large industry may help in this quality improvement to ensure that, in general, quality levels in the small sector are the same as in the large sector. This will facilitate help from large industries to market products of small industry.

For distribution of agro-based products of small units, help can be taken of the net work of over 45,000 sale counters of the khadi and village Industries Commission. Super Bazars and Co-operative stores can also render assistance in the marketing of agro-based products. How the help of large industry can be taken in this will probably be studied by Panel I.

We recommend Amul's experiment of marketing for the small producer. An effort on similar lines has been initiated by Britannia in South-India on an experimental basis. If this succeeds probably it will be extended to other areas. The Amul experiment also combines marketing help with help of raw materials, services etc. to (a) maintain the product quality upto the stage it is received by Amuls; and (b) technology support in processing and marketing. This experiment being of integrated nature in terms of technology, finance, services, marketing etc. deserves duplication, wherever feasible.

Finance

Small units need financial assistance. 'Lead' Banks can render help to small units. District Industries centre in each district will provide and arrange a package of assistance and facilities. These centres will establish close linkages with the specialized institutions concerned with the development of small industries.

Large units can also be of great help by adopting some small units as their Ancillary Units. Financial help to these ancillary units will be available through Large units.

Already steps have been taken to minimize delays in payments to small entrepreneurs both by Government and large industry. These steps can be strengthened and made more effective.

Often small scale sector which undertakes contracts on behalf of large scale sector has to get its jobs executed from the mini or informal sector which operates only on cash payments for want of skills relating to maintenance of accounts etc. Thus whereas small sector's payments are sometime held up by the large sector, the small sector itself operates in a market where cash payment is the practice. It thus gets squeezed, financially, and sometimes gets into difficulties. These problems can be minimised by introducing a system of advances to small scale sector when involved in a collaborative effort with the large sector.

Training of Artisans and Entrepreneurs

The Development Commissioner, Small Scale Industry has prepared schemes for training-cum-service facilities workshop for District Industries Centres. For agro-based products, there are 2 schemes :

- (i) Technical Training Centre for Bakery and Confectionary products.
- (ii) Technical Training Centre for Fruit and Vegetable Preservation.

Large industries could adopt these and open such training-cum-service centres in all or other District Industries Centres.

Small entrepreneurs need training. Large units can render assistance to these entrepreneurs by giving them training in their units. R & D divisions of these large units can prepare suitable training courses and also supervise the training of these entrepreneurs. In particular a study team drawn from large units in the area of agricultural processing should go into the curricula, academic and technical, of institutions imparting training in this area and upgrade or change these to better meet the practical requirements of the economy.

Both large industry and Development Commissioner, Small Scale Industries can also help by organizing training through correspondence courses.

"Lead House" Scheme

It is suggested that for rendering assistance to small units, the idea of having a "lead house" for the area may be adopted. The "Lead House" will have link with the "Lead Bank" for financial help. This will help bring about area level integration between large and small units by providing both finance and management skills.

The coordination of large and small units may be (a) area specific or (b) product specific or sectoral. Lead houses may bring about both area specific and sectoral coordination. They may help lead banks in most area level schemes in the small sector. But, in particular, they may help small industry in their own product line. This will be sectoral coordination. Several large units may be located in the same area and share both sectoral and area specific responsibilities. All units with investment more than Rs. 1 crore (at current prices) may be invited to participate in the lead house scheme.

"Reference Service" Scheme

Similarly there should be "Reference Service" for each sector of industry. For example, problems concerning Biscuits, may be referred to Britannia Biscuits. The R & D Division of Britannia Biscuits will be most suited for rendering this help to small units. Some problems in the area of food processing and preservation may be referred to "Kissans" etc. For this purpose each large unit should designate an officer to whom all problems by small units can be referred for advice and the officer so designated should provide this advice in such manner that it is useful and relevant.

Need for a study of small scale industries

It has been observed that, by and large, the small scale industries do not readily know what they expect from large units in the context of their mutual integration. A few case studies in specific sub-areas will be more helpful to identify areas of integration and the manner in which it is to be achieved.

Supplementary Report of Panel—III

Further to the earlier Report of the Panel III already presented in the Meeting of the Working Group held on 13th Feb., 1979 in Federation House, New Delhi, 5 Case Studies of work done by Cadbury, Britannia, Hindustan Milk Food, Modern Bakeries, Hindustan Breakfast Foods are given in the appendix. The work done by Cadbury India Ltd. in 'Making India a Cocoa Country' has been very successful-raising the acreage under cocoa from 2900 hectares in 1974 to 6400 hectares in 1978. Cadbury's approach to increasing the acreage under Cocoa has been a three pronged one aimed at small cultivators Plantation companies and Government Forest and Horticultural Departments. Cadbury's Cocoa Research Demonstration Centre was set up in 1964. Seedlings are distributed from a number of nurseries situated well within the reach of interior areas at a subsidised rate of 40p each. Cocoa Collection centres have also been established considering the need of the planters for disposal of their produce. Technical assistance and advice is provided free of charge to help farmers on various aspects of Cocoa cultivation as well as the right time for harvesting of Cocoa pods. Assistance and advice in drying and fermentation of beans is also provided. Cadbury Field Officers periodically call on farmers. 850 Cocoa growers were reached during 1977. All growers are visited at least once in each season, the larger once being visited more frequently. The total number of staff employed by Cadbury on Cocoa Project comprise of 120-7 Managers, 37 supervisors and 76 field workers. Until 1976, Cadbury has spent Rs. 62 lakhs on developing Cocoa growing in India. The expenditure in 1977 was Rs. 12.4 lakhs and Rs. 15 lakhs on 1978.

India, by the 1980's will be growing enough Cocoa to meet its domestic needs and in fact be in a position to enter the International Market with this commodity. In addition to Jute and Tea, Cocoa will thus become a significant export commodity for India and the resultant foreign earnings will be considerable.

The work done by Modern Bakeries is also commendable. Scheme of providing technical collaboration to small scale bread manufacturer has been initiated and will be further expanded. Marketing assistance to Small Bakers is being provided at Delhi, Kanpur, Hyderabad and Madras. Technical assistance will be provided throughout India to Small Bakers and also assistance in testing raw materials.

The proposed plant at Bhubaneswar has been converted into Small Bakers Production-cum-Training Centres. A special programme is being taken up to develop small bottlers through collaboration with Western—Maharashtra Development Corporation.

Small Scale Industry has difficulty in marketing. Large Scale Industry can give it a brand name, provide quality control and promote the product. The development of ancillaries for the production of various items required in the ultimate manufacture by the Large Scale Units is in mutual interest.

District Industries centres should give proper guidance and assistance to small units. In order to ensure that DICs are equipped to provide assistances with regard to project formalities, procurement of machinery, market intelligence and data, supply of credit by financial agencies, it is essential that adequate training is given to the staff to appreciate and assess the problem of development of rural industrial units. In such a situation, large industries have sufficient information and materials on the basis of which they can provide managerial and technical skills to the village and small Industries.

Cadbury India Limited

1. The Cocoa tree originated in the Amazon Forest. It was taken to Ghana, Ivory Coast, and Nigeria, who account for over 50% of the world production today. The species was introduced in India, on the Malabar coast, in 1930-35.
2. Successful cocoa plantation requires a rainfall between 50"-150", well distributed throughout the year. The temperature should be fairly uniform, with a mean of 65°-75°F. within extremes of 50°-90°F. The soil should be capable of retaining sufficient moisture throughout the dry season.
3. The Cadburys invited a West African Cocoa Expert Mr. D.H. Urquhart, and with the approval of the Government of India selected Kanyakumari district (Tamil Nadu), Wynad and Kottayam districts (Kerala) and South Karnara district (Karnataka) for its introduction in 1957.
4. Cadbury Schweppes supplied the initial seeds free of cost. The import of seeds started in 1967. 6771 Kgs. of seeds were imported during 1967-68 to 1972-73. It was sufficient to cover 2900 Hectares (with 1000 trees per hectare). In 1973, Malaysian Government stopped the export of seed. In Cadbury Cocoa Research and Demonstration Centre, at Chundale in Kerala, it was agreed by the State Government and Cadbury to earmark 6000 parent trees exclusively for seed purposes. 17 lakh seedlings were raised between 1975-78 from indigenous sources, and it is proposed to raise 10 lakh seedlings during 1979.
5. An Experimental seed garden has been promoted at Thamarassery in 1976, to grow hybrid varieties and determine their impact on yield and resistance to pests. State Government and other agencies have now joined hands in promoting additional plantation and nurseries for cocoa.
6. Cadbury's Cocoa Research & Demonstration Centre set up in 1964/65, is engaged in distributing seedlings at a subsidised rate of 40p. during the planting season, cocoa collection centres to assist the planters, free technical assistance and advice to help the planters, drying and fermentation of beans. Field officers attended to the needs of 850

cocoa farmers during 1977, at least once in each season. A staff of 120 people was employed by Cadbury for this purpose, including Managerial (7), Supervisory (37) and Field workers (76) in four districts. An expenditure of Rs. 62 lakhs was incurred upto 1976, a sum of Rs. 12.4 lakhs was spent in 1977, and a budget provision has been made for Rs. 15 lakhs in 1978.

7. Out of 6400 hectares under cocoa plantation in 1978, 2700 hectares of 1200 planters was assisted by Cadbury, apart from 1000 hectare controlled by the Karnataka Forest Plantation Corporation, and the rest belonging to other private owners.

8. The cocoa crop has increased from 50 tonnes in 1974 to 350 tonnes in 1978 and is expected to grow to 600 tonnes in 1979. The figures are based on collection, and are probably an index of 2/3 of the total crop.

9. Cadbury likes to encourage small cultivators. Other Plantation companies and Governmental, Forest and Horticulture Departments are helping to propagate cocoa growing.

10. Interplanting of cocoa with coconut and arecanut can assist the planters to earn an additional Rs. 9500 per hectare at an annual maintenance cost of about Rs. 1000/-.

11. Cocoa is likely to become an important export commodity by 1980, with considerable foreign exchange earnings.

Hindustan Breakfast Foods Manufacturing Factory New Delhi

PRODUCTS MANUFACTURED

Corn Flakes, Quick Cooking White Oats, Wheat Porridge, Wheat Flakes and Pearl Barley under the brand name of "Champion".

Various materials used are given below

- i) Raw Material : Oats, Maize and Wheat.
- ii) Packing Material : Printed Tin Containers, Paper Board Cartons, Hermatit Cartons, Polythene Bags, Plastic Lids, Wood Boxes, Cardboard Boxes.

What has been done so far to encourage village and small sector

(a) *Raw Material*

Over a period of time more and more Oats growers, from whom supplies of raw oats come were persuaded to change over from the traditional oats grown by them mainly for fodder, to the improved Australian Kent variety which gives better quality, yield and therefore price realisation. The response has been encouraging and more and more farmers are taking interest in growing this variety thus enabling them to increase their income.

(b) *Packing Material*

Over a period of time all our packing material requirements are obtained from small industrial sector units. At the moment except for the Hermatit cotton used for oats—the percentage of Hermatit requirements to our total purchase of packing material is less than 10 per cent—all our requirements are brought from small sector units. Hermatit Cardboard container production is at the moment done by only one large manufacturer in India.

Future Plan

(a) The Managing Board has recently decided to assist rural development work in a backward area, and are planning to do agricultural extension work there for the oats growing region. It will give all help for getting more marginal/small farmers to switch over to modern technology in growing oats. This will be an intensive effort to help the small/marginal farmers in the area of operation to enhance their income significantly.

(b) Efforts will be made to get functionally effective alternative to Hermatit cartons from the small scale sector or encourage units from the small industrial sector to go in for manufacture of this type of containers.

Hindustan Milk Food Manufactures Limited New Delhi

1. They are one of the leading agro-based industries in the country engaged in the manufacture of Malted Milkfoods, toiletries and drugs. They are vitally interested in any activity which will generate economic well-being in the rural sector.

2. They have provided assured offtake to the small scale sector, in respect of their requirements of Potassium Bicarbonate, Packing material like cartons, polu bags etc., engineering components equipment and machinery, cattlefeed formulations and fodder seeds.

3. They have actively encouraged rural industry in respect of dairy farming (i) by providing veterinary experts, (ii) subsidised medicines and nutritive cattlefeed; (iii) dairy demonstration and training centre to assist upgrading of cattle, fodder growth, and scientific dairy practices; (iv) distribution of financial assistance from commercial banks, and help in repayment of loans, (v) help and subsidies in the purchase of high breed cattle and high yielding fodder seeds; (vi) promoted cooperative village milk collection centres.

The Britannia Biscuit Co. Ltd. Bombay

1. They are a leading company in India engaged in the manufacture of Biscuits, bread, cakes and processed Frozen Foods.

2. They have assisted small scale industry by purchasing their requirements of corrugated boxes, polythene bags, raw materials like fish, meat and other general purpose items like pickles and spices.

3. They have assisted the small scale sector in the manufacture of biscuits and bread. They are prepared to offer technical expertise to such entrepreneur as are selected by the District Industries Growth Centres, or are able to secure financial help from the commercial banks for starting appropriate small scale industry in this sector.

4. They have set up an Export House, and purchased Rs. 3.0 crores worth of small scale industry production for export of other countries, and thus help the marketing of small scale industry production.

Modern Bakeries (India) Limited, New Delhi

1. They are a large public sector undertaking engaged in the manufacture of bread and beverages.

2. They have started a series of programmes for assisting the small scale sector :

A. Provided technical collaboration to small scale bread manufacturer in Dehradun on pilot basis.

- B. Purchase special breads from small bakers in Delhi, Kanpur, Hyderabad and Madras to assist their marketing.**
 - C. Help small scale bakers all over India in testing raw materials.**
 - D. A small bakers Training-cum-production centre at Bhubaneshwar, which will go into operation in about six months.**
 - E. Taking up a small bottlers programme in collaboration with the Western Maharashtra Development Corporation Ltd.**
- 3. Large scale industry can help small industry in marketing their production by quality control, including it under a brand name, or help them to reduce their cost of production, or adopt them as an ancillary unit.**

**Protein Goods and Nutrition Development
Association of India, Bombay**

- 1. They undertake consultancy for setting up rural units for food processing.**
- 2. They have organised education propaganda, seminars and workshops for promoting awareness of nutrition amongst people and State Governments.**
- 3. They have provided appropriate technology to small industry for setting up food processing units in villages.**
- 4. They have not been able to assist these small units in marketing their products, and need the help of large industry.**

Report of Panel—IV

Introduction

The present Panel has made an attempt to identify the development of small units in selected engineering industries, the arrangements that exist for purchasing parts and components, the assistance rendered by parent units to their ancillaries and the scope for further Inter-action so as to overcome the disabilities of small units in production, marketing, etc. The study covers automobiles, tractors, textile machineries and electrical items.

The Report has been drawn on the basis of discussions held with certain Industrial Associations and the replies received from some manufacturers in these industries. A few suggestions have also been made to strengthen the relationship between the ancillaries and parent units as this will further the growth of small industries.

Engineering Industries

The growth of small scale units, over the years, has been spectacular in the engineering industry. The areas where remarkable progress has been recorded are : automobiles, tractors, scooters, motor-cycles, electrical equipment, machine tools, electrical machineries, bicycles, radio receivers, etc.

No precise data on the number of units in the small scale sector is available. But the Census undertaken by the Small Industries' Development Organisation indicates that the number of small units registered with the Directorate of Industries in 1972 in the engineering industries were 62,243 or about 44 per cent of the total registered small units. The industry-wise break-up is as follows :

Basic metal and alloy industries	-- 5073
Metal products	... 34011
Machinery and parts	... 12701
Electrical Machinery, apparatus, etc.	... 4409
Transport equipment and parts	... 6049
	62243
	62243

These, however, do not include repair and service workshops which normally do engineering jobs. The above data relates only to the year 1972. The number of units in the last six years must have increased substantially.

Small units in the engineering industries, manufacture various parts and components and hardwares, and cater to the needs of replacement markets as well as supply to original equipment manufacturers. It is not known what percentage of total production by these units is sold in the replacement markets and how much goes to the original equipment manufacturers. However, several small units act as ancillaries to large units. Thus, a close relationship does exist between the small component manufacturers/assemblers and the original equipment manufacturers. Several enlightened enterprises in the private and public sectors have taken deliberate measures to develop small ancillary units around their factories. Some of them serve as captive units. Different practices have been followed in the private and public sector undertakings in helping ancillary development.

Large manufacturers help the small ancillary units in several ways. These relate to providing tool room training, training to supervisors and workers belonging to ancillary units, selection of stores for suitable raw materials, and machinery, quality control and inspection methods and sometime even by providing raw material and finance. The practice no doubt differs from unit to unit.

The present status of development of small and ancillary units in automobiles, tractors, textile machinery and electrical items industries and the assistance rendered by medium and large manufacturers are given below. As illustration, some case studies have also been given.

Automobile Industry

The automotive industry which constitutes the main vehicle manufacturing sector producing commercial vehicles, passenger cars and jeeps, also consists of manufacturers of motor-cycles, scooters, mopeds, 3-wheelers, agricultural tractors* as well as auto ancillaries.

No precise data regarding the number of small units in the automobile sector is available. But the census taken by the Small Industries Development Organisation has revealed that there are about 6,400 small scale units in the transport sector manufacturing parts and components. Of the total auto ancillaries produced in the country, the share of small sector is estimated at about 25 per cent.

* Has been dealt with separately

The small scale sector in the auto ancillary industry functions on a 2-tier basis :- One section manufacturing complete parts/components independently and with a market of its own. A number of them also make supplies to original equipment (O.E.) manufactures. The second category consists of subcontractors to the component assemblers and to some extent to O.E. manufacturers.

A number of auto ancillary units (large and medium) have taken special interest in fostering the growth of small scale sector. They have set up their own industrial estates to house small units and helped uninterrupted growth by feeding them not only with regular orders but also by providing the production know-how and at time financial assistance. Vehicle manufacturers have also initiated such a programme. As a result, several hundreds of small scale units in the auto ancillary sector owe their birth and growth to the initiative and assistance given by the large ancillary manufacturers as well as vehicle manufacturers.

The production trend of automobile components is given below :

Production Trend of Automobile Components

(Rs. million)

<i>Components</i>	1972	1973	1974	1975	1976	1977	1978
Engine Parts	479	533	691	953	1108	1150	1265
Electrical Parts	125	141	166	162	186	230	209
Drive, Transmission & steering Parts	273	296	324	414	476	517	564
Suspension & Braking Parts	304	299	365	420	375	439	421
Equipment	66	72	76	72	76	101	103
Other parts	64	67	122	196	298	270	302
Total	1311	1408	1744	2217	2523	2707	2864

The rapid development of auto ancillaries has helped to achieve a speedy indigenisation of vehicles. The automobile industry which started with 100 per cent imports has achieved 99.9 per cent indigenisation of com-

ponents or parts in the last two decades. The value of production of ancillary industries has increased from Rs. 130 crores in 1972 to Rs. 290 crores in 1978.

The automobile industry is giving substantial assistance to several ancillary industries to develop consistently high quality product. These industries which cannot afford the expenses of an elaborate testing and research organisation, are given facilities for designing, developing and testing their products to enable them to produce products of consistently high quality standards. One unit producing commercial vehicles for instance, has developed a special testing apparatus at its own cost for testing products of several competitive ancillary suppliers.

The components bought from ancillary industries constitute about 40 per cent of the total inputs required for the manufacture of vehicles. The following table gives the figures of value of purchase from ancillary industry for different types of vehicles.

	<i>Value of purchase from ancillary Industry (A) Rs.</i>	<i>Value of total materials pur- chased (B) Rs.</i>	<i>(A) as percentage of (B)</i>
Padmini Car	4,409	14,023	31
Jeep	7,983	18,143	44
Scooter	602	2,136	29
Motor Cycle	1,016	2,891	37
Truck	22,120	54,158	41

The enclosure gives the details of components purchased per unit of vehicles.

The Sixth Plan lays great emphasis on rural development and construction and maintenance of roads. This will push up the demand for various types of vehicles. Production of vehicles of all types is likely to be double the number by 1983-84 from the present level of about 3 lakhs. This would mean greater expansion of the auto ancillaries to meet the demand of vehicle manufacturers as well as replacement market. The vehicle manufacturers can give a real boost to the development of small units and auto ancillaries while implementing their expansion programmes.

Purchase of Components Per Unit of Vehicle*

<i>Components</i>	<i>Car</i>	<i>Jeep</i>	<i>Scooter</i>	<i>Motor Cycle</i>	<i>Truck</i>
	<i>(in Rs.)</i>	<i>(in Rs.)</i>	<i>(in Rs.)</i>	<i>(in Rs.)</i>	<i>(in Rs.)</i>
Tyres & Tubes	655	1,030	112	166	4,808
Battery	214	270	—	56	602
Bearings	407	546	47	124	1,059
Fasteners	221	966	28	29	342
Bimetal Parts	176	41	—	—	495
Piston Assy.	99	110	23	31	590
Carburettor	73	93	86	—	—
Starter Motor	195	295	—	—	873
Dynamo	230	235	—	—	301
Engine Valves	40	42	—	—	371
Fuel Pump	26	33	—	—	—
Radiator	304	390	—	—	750
Clutch Assy.	123	133	—	14	366
Tie Rods & Drag Links	79	116	—	—	299
Gears	272	463	—	—	—
Shock Absorbers	115	129	57	95	127
Breake Assy.	308	771	—	—	179
Brake Lining	21	—	—	8	108
Wheels	233	283	—	—	2,853
Wiper Motor	133	66	—	—	235
Head Lamps	85	108	18	19	248
Ignition Coil	35	39	29	—	—
Instruments	141	129	—	—	252
Glass	254	70	—	—	295
Fuel Injection Pump	—	—	—	—	1,105
Nozzle Holder	—	—	—	—	390
Fuel Filter	—	—	—	—	71
Injection Timer	—	—	—	—	—
Cables	—	—	20	8	—
Speedometer	—	—	42	43	—
Hydraulic Brake	—	—	—	—	251
Air-Assisted Brake	—	—	—	—	514

*Data obtained from the Association of India Automobile Manufacturers.

Tractor Industry

The Tractor Industry has contributed significantly towards the growth and diversification of the ancillary industry by farming out the purchases of its input requirements among numerous ancillary suppliers located in various parts of the country. With the spurt in demand for tractors, as also the growth trend towards specialisation in the tractor industry, this process of ancillarisation has gained momentum.

The prospect of an expanding and assured market in the parent tractor units has encouraged many prospective entrepreneurs to take up manufacture of parts and components for the units thereby widening the ancillary base for the industry as a whole. The tractor units find it more economical and convenient to buy out their extensive requirement of general purpose items that entail the use of comparatively limited capital and know-how. The value of ancillaries as a percentage of ex-factory price of a tractor (before excise and taxes) grew from 36 per cent in 1965 to 54 per cent in 1972 and currently stands at about 70 per cent.

The type of components purchased from the ancillary sector can be broadly classified into two groups : Proprietary and Non-Proprietary. The former consists of specialised, and patented items such as tyres and tubes, batteries, electrical, fuel systems and engine components where a choice is made by the tractor manufacturer, out of the product range of the proprietary manufacturers, of the model best suited to the particular tractor in question. In the case of non-proprietary group, components are manufactured to the specific drawings of the tractor producers. In value terms, approximately 75 per cent of all bought out items are represented by proprietary components in view of their comparatively high per unit cost.

The practices followed by some tractor manufacturers in helping small ancillaries are given below :

Escorts Ltd., Faridabad

The Escorts Limited, has made a distinctive contribution towards the growth of several small and big ancillary units by :

- (a) buying out a variety of parts and components; and
- (b) extending material, technical and financial assistance to them as part of its vendor development programme.

In the case of Escorts Tractors, as much as 83 per cent of the total inputs used in making a tractor is being supplied by about 350 ancillary

suppliers located throughout the country. Likewise, the manufacture of Ford Tractors is supported by a network of about 300 ancillary units that supply 1100 parts and components per tractor which represent a little over 80 per cent of the total inputs that enter into the manufacture of the tractor.

Vendor Development Programme

The Company's vendor development programme essentially aims at :

- (a) identifying prospective ancillary suppliers who have the basic manufacturing and testing facilities and potential for growth, and
- (b) developing them into a viable enterprise specialising in the production of parts and components through the offer of various types of assistance.

At the outset, a task force comprising the company's development engineers and experts in various fields commonly known as the Vendor Validation Team, helps to identify the units with technical capability and capacity to meet the requirement of defined range of parts. The survey seeks to identify prospective vendors with entrepreneurial spirit and the basic equipment for manufacturing and testing operations to turn out critical parts and components that can match international standards. Selected vendors are then placed on the approved list of Escorts Ancillary Suppliers and are apprised of all the product specifications to which they have to conform. The process of validation is a continuous one and aims at achieving perfection.

Material and Technical Assistance

The company provides suppliers besides initial drawings, detailed specifications of design and raw materials to be used and metallurgical and dimensional requirements for products to be supplied. Based on these specifications, the ancillary manufacturers plan and effect any improvements in their products and inspection facilities. The final samples of ancillary items supplied by the vendors are put through various stages of testing. At each stage, the material is meticulously analysed by trained personnel. The sample reports together with the product specifications help to get supplies in making the desired changes for qualitative improvements. Such elaborate and repeated testing has been instrumental in motivating suppliers to utilise their resources and skills to maximum advantage. Process engineers and other specialists from the company offer specialised advice to help them, modernise their production and inspection system and procedures.

In order to supplement the production facilities, the company offers essential items like tools, fixtures and Inspection gauges to them at subsidised rates. It also supplies forgings and dies besides costly material that the suppliers can-ill-afford. The company also lends its expertise towards economical packaging by the suppliers. At times, vendors are invited to the company's plants where they are offered an opportunity to view at close range the quality control and inspection procedures observed at the plants.

Financial Assistance

In certain cases, the company provides financial assistance on liberal terms. Furthermore, the company assists a large number of ancillary suppliers to obtain loans from banks on the strength of firm orders.

Encouraging Small Implement Manufacturers

Escorts provide initial drawings and technical assistance to small implement manufacturers thus enabling them to manufacture such implements to desired quality standards.

Developing Export Potential

The company is also making efforts to build up their ancillary suppliers and other small scale units as potential exporters by promoting their products abroad. The company has arrangement with its various principals and collaborators overseas for exporting to them any component that could be manufactured in India but suited to their specifications.

The International Tractor Division of the Mahindra and Mahindra Bombay

The company has approximately 250 sources of supply for over 1100 items purchased from the ancillary sector, of which more than 200 constitute the small scale manufacturers. Reliance on such large number of small scale units has necessitated a comprehensive vendor development and support programme to ensure continuity of supply and quality control.

Kirloskar Tractors, Nasik Road

They procure nearly 50 per cent of components from ancillary industries. The major components purchased by them include castings and forgings, sheet metal parts, hardwares, rubber and plastic components, electrical items like starters, dynamo cut-outs, switches, horns, lamps etc., fabricated items, hydraulic pumps, clutch, brake, steering etc. They also sub-

contract certain components which require machining like safety valves in hydraulics, rear axles, etc.

Tractors & Farm Equipment Ltd., Madras

The TAFE started operations in 1960 and the actual manufacturing operations commenced in 1961 with 51 per cent deletions and phased programme for indigenising remaining 49 per cent over a period of years. In 1977, the company achieved 100 per cent indigenous content.

Initially, the deletions consisted of high value items like engines, batteries, pneumatics, radiators. etc. and then the gradual process of indigenisation commenced. Except for the major components like heavy castings and forgings other assemblies and components are purchased from small scale units.

The company when it commenced production had only a handful of vendors which swelled to 210 in 1977 as indigenisation gathered momentum. They had 45 vendors in 1963, 112 in 1968, 141 in 1973 and 210 in 1977.

Textile Machinery

The textile machinery industry has made steady progress during the last few years. It is currently manufacturing the entire range of spinning, weaving and processing machinery of good quality. Textile machinery components/accessories sector is also producing high quality stores. The production of these two sectors during the last few years is given below :

(Rs. Crores)

<i>Year</i>	<i>Complete Textile Machinery</i>	<i>Components/ Accessories</i>	<i>Total</i>
1972-73	32.41	38.53	70.94
1973-74	48.80	43.86	92.66
1974-75	77.24	49.80	127.04
1975-76	80.39	53.96	134.35
1976-77	95.68	53.31	148.99

Though there are a large number of small units concentrated in Gujarat, Maharashtra and Tamil Nadu, manufacturing textile stores, their exact number is not known. They are supplying parts and components to textile machinery manufacturers as well as directly to the textile mills.

The practice of the textile machinery manufacturers is to leave to the choice of the mills a major part of the accessories to be directly bought by them, i.e., pneumafil units, motor starters, overhead cleaners, etc. Again, a number of mill stores like bobbins, cone tubes, etc. are also bought directly by the mills. This has led to the development of well-organised spare parts production and distribution machinery. As an illustration, the case of Lakshmi Machine Works, Coimbatore is given below :

The Lakshmi Machine Works, Coimbatore

This is one of the largest manufacturers of complete range of spinning machinery, which purchases as many standard products as possible made by large and small manufacturers. They have about 400 ancillary units which supply various components involving turning, milling, jig boring operations etc., sheet metal components, chrome plating, anodizing, tools, jigs & Fixtures, etc.

The procurement of parts and components by this company is dealt with in two ways :

- (1) Purchase as a finished component with party's material.
- (2) Purchase of finished, semi-finished or single operation components with *Lakshmi Machine Works'* material.

About 300 ancillaries located in various parts of the country fall in category one and about 100 parties mostly situated in and around Coimbatore and a few at Katpadi, Madras, Bangalore, in category two. Category one comprises of : (a) about 4000 components; (b) about 3000 tools; (c) about 500 raw materials like rounds, flats, sheets, etc. The outgo on this account was about Rs. 6.6 crores in 1976 and is estimated at around Rs. 7 crores in 1978. Category two comprises of about 4000 components and the payment to these units for service rendered in 1976 was under Rs. 1 crores (labour added) and will be around Rs. 1.35 crores for the year 1978.

The Lakshmi Machine Works has often to help these feeder units with technical know-how, supply of raw materials, tools and gauges, jigs & fixtures, selection and training of their personnel, both supervisors and workmen, and even assisting the entrepreneurs in the preparation of project, selection of machines and facilities, working out of profitability etc.

Electric & Electronic Equipment

In the field of electric and electronic goods a large range of items such as distribution and power transformers, switchgears, generators, rectifiers, conductors, cables and wires, electric fans, GLS lamps, fluorescent tubes, radio receivers, T.V. sets, electronic calculators, and a host of other items are being produced. A large number of small units have come up in this field also.

According to the Small Industries' Census, more than 4000 small scale units were engaged in producing electrical machinery, apparatus etc. These small units are selling parts and components in the replacement market as well as to prime assemblers.

Not much information could be collected from the various manufacturers of electric and electronic items regarding the development of ancillaries in this area. However, the Philips India which manufactures a variety of electric and electronic items, have furnished the details regarding the initiative taken by it in developing ancillaries. As an example, steps taken by the Philips India in ancillary development is given below :

Philips India Limited

The Philips India Limited which produces radios and other electronic goods has taken keen interest in developing small scale ancillaries. The management of Philips India Ltd. first established a cell attached to the central purchase department with the objective of locating small units which could be developed into ancillary suppliers through the provision of technical and other assistance.

The selection of these units is done on the basis of the following broad guidelines :

- acquiring comprehensive details about each unit
- finding out the basic attitude of the unit towards association with the company
- assessing the capacity of the unit to withstand normal business strains.

The aim of the first guideline has been such as not to discard or lose a supplier at a later stage because of its shortcomings in some areas. It was also true that the supplier grows with the company through mutual co-operation, and basic knowledge about him was essential. The second guide-

line aims at eliminating those units which do not have the right approach to solve the likely problems arising—as for instance out of Philips stringent quality control requirements. Thirdly, the management's philosophy is that the selected units should not be 100 per cent dependent on Philips, nor should Philips be dependent upon a very small number of ancillaries. Thus, the capacity of the supplier to sustain normal business strains on its own is an important criteria in its association with Philips. On the whole, the company does not allow its demand to account for more than 30 to 40 per cent of its suppliers' capacity.

After identifying the units, the company provides assistance to them in several areas. This consists of :

- the selection of sources for raw materials and machinery;
- the designing and manufacturing of tools, jigs and moulds;
- planning and job scheduling for optimum economy, data on process technology, quality control and inspection methods and standards;
- economic use of materials and material handling;
- the conducting of environmental tests and trials on raw materials and prototypes in the company's laboratories;
- the development of new products and techniques;
- managerial and organisational guidance to improve operational efficiency;
- the provision of guidance in evolving correct and systematic cost calculations with a view to enable them to offer supplies at economical rates but with a fair margin for themselves.

The Philips also assist its ancillaries in the procurement of raw materials and in working out costs of production for particular components. It sometimes makes advance payment to very small units which face problem regarding working capital requirements and in general pays all suppliers reasonably promptly.

On its own; Philips India has categorised certain fields where it completely relies on products supplied by the ancillary industries. For example, there are standard items which do not require any specific technology and the company may not wish to diversify into their production. Even if the scale of its requirements justify economic manufacture in its own plant. In the case of other products, the company adheres to the principle of 'make and buy in

a rational mix'. In the area of 'critical quality' it prefers to produce² the products on its own as these items have a very important bearing on the ultimate quality of the final product.

Apart from this, the company deals with its ancillaries in a flexible manner. If a particular part becomes technologically out of date but the company still needs some quantity, it produces that part on its own and the supplier is asked to manufacture the new part. Similarly the company takes into account the likely changes in the demand while placing order with the ancillaries.

As a result of this emphasis on minute details before identifying the suppliers, the company has been able to widen its association with ancillaries. As at the end of 1974, it had 561 ancillary units supplying various components (see Table). The goods and services supplied by them cover a wide range, from simple coil winding and hand-press plastic moulding to more complicated metal casting and precision tool making.

TABLE
Philips and its Ancillaries—1974

Total number of units	...	561
Total turnover (Rs. Crores)	...	71.68
Off-take by Philips (Rs. Crores)	...	11.00
Number of Employees	...	24742
Number of Employees sustained by Philips	...	3868

Conclusion

There has been substantial growth of the small and ancillary units in the engineering industries. Some of the large units (in automobiles, tractors, textile machinery and electrical items) have taken measures to promote the growth of ancillaries and sub-contracting units. A number of them also extend technical facilities and in some cases, raw materials and finance. However, the practice differs from unit to unit.

The following measures are suggested to promote and strengthen the base of small and ancillary units in the engineering field :

Production Planning

The large and medium manufacturers, while undertaking expansion programme as well as setting up new capacity, should plan production of items to be bought from small ancillary units. They should assemble information in advance and this should be disseminated to small units through the Small Industries Organisations, District Industries Centres, and the State Governments. In other words, the information passed on should be precise and delineate clearly what parts, components etc. and intended to be formed out and the quality are specifications expected.

Cottage and small industries could be deliberately and consciously developed to serve as ancillaries to the large industries. In this perspective, decentralisation of production had to be encouraged and the tax impediments required to be removed. For instance, a large unit buying components from small ancillaries should not only be exempt from sales-tax but also given specific weighted deduction in the cost for calculating taxable profits.

Training

The assistance can take two forms :

- Small industrialists often are inadequately equipped in various areas of management. These relate to the running of the enterprise, compliance with Government regulations, labour relations etc. Large enterprises could organise periodic seminars or refresher courses to deal with various components of management.
- Workers employed in small enterprises could be given on the job training to handle work requirements which may be of a specialised nature. For the purpose large units could earmark a specific number to be taken from ancillaries.

Quality Control

It is necessary that small industry products conform to quality as well as standard specification. This calls for provision of testing equipment as well as the services of fully trained personnel. The parent unit can provide these facilities, either at their own establishment or in areas where there is preponderance of ancillaries. The precise move will depend on a given situation.

Off-loading of Items

The large manufacturers should carry out an exercise through the help of their Works Managers for off-loading of parts and components which are being manufactured by them in favour of small units.

Upgradation of Technology

Modernisation of small units is important for their efficient working as also to make them competitive in the domestic as well as export markets. This would ensure allround progress of the small units in respect of product development, adoption of modern manufacturing and management techniques, product diversification, quality improvement, cost reduction, etc. This aspect has somehow not received sufficient attention. Large and medium industries can help small units in a big way in this respect by designing specific programmes for the purpose.

Marketing

One of the biggest problems of the small scale industries is that of marketing. This is because these units with their limited resources are unable to bring into operation a consistent package of various marketing skills like advertising, market development plans, etc. This is an area where large and medium enterprises with their extensive marketing abilities and network of consultancy organisations can help and assist the small scale enterprises. The parent units, apart from absorbing the products itself can also provide the services of its retail outlets for replacements. Consultancy firms on the other hand, can undertake studies of specified product ranges and advise how best the same can be marketed. Of course, the facilities may have to be provided at concessional terms which in turn might necessitate apportioning of resources on their part. Display Centres can also be set up jointly by large and small units to exhibit the products of ancillaries. This will help product identification for potential buyers.

Sub-contracting exchanges can play an important role in helping small units to market their products. In India as of now, 14 sub-contracting exchanges are in operation. These exchanges act as 'buyer-seller contact' in the field of ancillary development. There is need to open more such exchanges at different industrial centres and tone up their activities. These 'exchanges' can also arrange exhibitions in collaboration with large and small units at different centres.

Finance

Finance has been a major problem with the small units. Large enterprises sometimes due to constraints operating on them are unable to effect payments to ancillary and other small units in turn. As a result, the production programme of a number of small units is upset. It is necessary that small units whose financial base is narrow and cash flow limited are paid regularly. For this purpose refinance facilities should be available from banks.

Raw Materials

Where specialised raw-materials are required, parent units in their own interest for ensuring quality and delivery schedules, should consider supplying the same on an agreed basis.

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