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INDUSTRIALISATION
OF
TRIBAL AREAS
IN
ANDHRA PRADESH

Report of the
Expert Committee

SOCIAL WELFARE DEPARTMENT
GOVERNMENT OF ANDHRA PRADESH
HYDERABAD



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HYDERABAD

1978

INTRODUCTION

The scheduled areas of Andhra Pradesh, as elsewhere, are endowed with rich natural resources such as forests, minerals and water. But the tribes inhabiting these areas lack the necessary initiative to exploit these natural resources to their advantage either through the promotion of industrial activity or through the adoption of modern agricultural technology. It, therefore has become imperative to plan for the human resource development among them such that they not only are equipped with technical and managerial skills but also with entrepreneurial abilities. Alongside of this exercise, a scientific mapping of the available natural resources needs to be done so that establishment of suitable industries could be planned and rapid industrialisation achieved.

It is to this task that the Government of Andhra Pradesh have addressed themselves and constituted (*vide* G.O.Ms. No. 19 of Employment and Social Welfare Department, dated the 3rd January 1975, and Govt. Memo. No. 148-F1/75 of the same Department, dated the 19th May 1975) an Expert Committee on Industrialisation of Tribal Areas in the State.

The committee comprised the following :

1. The Secretary to Government,
Industries Department,
Hyderabad.

Chairman

2. The Director of Industries,
Hyderabad.

Member

3. The Managing Director,
Andhra Pradesh Industrial
Development Corporation,
Hyderabad.

Member

4. The Managing Director,
Andhra Pradesh Small Scale
Industrial Development
Corporation, Hyderabad.

Member

5. The Director,
Khadi and Village Industries
Commission, Hyderabad.

Member

6. The Managing Director,
Andhra Pradesh Industrial
Infrastructure Corporation,
Hyderabad.

Member

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| 7. The Deputy Secretary to Government,
(Tribal Welfare),
Employment & Social Welfare Department,
Hyderabad. | <i>Member</i> |
| 8. The Director of Tribal Welfare,
Hyderabad. | <i>Member</i> |
| 9. The Director,
Tribal Cultural Research and
Training Institute,
Hyderabad. | <i>Convenor</i> |
- Aspects Studied**

- The specific aspects on which the committee was asked to study and report were
- 1) to assess the potential and examine the scope of establishing agroforest large-scale small-scale and cottage Industries in the tribal areas;
 - 2) to formulate a guided promotive industrial development policy for the tribal areas;
 - 3) to initiate a continuing dialogue between the different promotive agencies and the entrepreneurs in different sectors viz. public, private and co-operative;
 - 4) to suggest suitable schemes for improving the technical know-how, skills and entrepreneurial abilities among the tribals;
 - 5) to consider the role of the State Government, Industrial and Financial institutions such as the Andhra Pradesh Industrial Development Corporation, Andhra Pradesh Small scale Industrial Development Corporation, Andhra Pradesh Industrial Infrastructure Corporation, Andhra Pradesh State Financial Corporation, Khadi and Village Industries Commission, Girijan Co-operative Corporation, Visakhapatnam, Small Industries Service Institute for development of Industries in tribal areas;
 - 6) to consider the nature of concessions to be given for promoting Industries in tribal areas and, in particular, to examine the procedural, financial and fiscal and other incentives for private sector;
 - 7) to examine the scope for starting Industrial estates in tribal areas on cooperative lines;
 - 8) to suggest self-employment schemes for the educated un-employed among the tribal people;
 - 9) to examine the scope for establishing Girijan Industrial Development Corporation exclusively for the tribal areas.

Working of the Committee

The Committee, in all, has held 20 sittings and had discussions with representatives of commercial banks, the Andhra Pradesh State Cooperative Bank, the State Financial Corporation and also with a number of officials including Dr. B. D. Sharma, IAS, Joint Secretary to Government of India, Ministry of Home Affairs, Shri P. V. Rao, IAS, Deputy Secretary to Government of India, Shri S. V. S. Sarma Principal-Director, Small Industry Extension Training Institute, Shri K. V. S. Suryanarayana, IAS, Managing Director, Girijan Co-operative Corporation and Shri R. K. Rao, Assistant Chief Conservator of forests.

The Committee examined the following background papers submitted to it by various departments and agencies.

1. Tribes of Andhra Pradesh.
2. Plan policies and views of various committees and commissions on village and small-scale industries.
3. Industrialisation of tribal tracts of Andhra Pradesh.
4. Planning for industrial development of tribal areas.
5. Training Programmes for educated tribal youth and artisans.
6. Schemes for improving technical and other skills of tribals.
7. Proposals for improving the skills and entrepreneurial abilities of tribals.
8. Provision of infrastructure facilities in tribal areas.
9. Gum industry - Prospects and problems in Andhra Pradesh.
10. Forest-based industries in tribal areas.
11. Incentives and concessions for industries in tribal areas.
12. Coordination of industries for tribal areas of Andhra Pradesh.
13. Agency for industrial development of tribal areas.
14. Action-cum-research programme for development of entrepreneurs among tribals of Visakhapatnam District.

After identifying the issues which needed study in depth, the Committee convened a seminar on the 12th November, 1975, on Industrialisation of Tribal Areas for the purpose of having a dialogue on them with the field level functionaries. The participants of the seminar included, in addition to the members of the Expert Committee, the Deputy Directors of Industries of Srikakulam, Visakhapatnam, East Godavari, West Godavari, Khammam, Warangal, Adilabad and Mahabubnagar districts. The issues which the seminar considered among others were factors inducing industrial growth in scheduled areas, identification of growth centres, raw material-based industries, industries based on local skills and identification of entrepreneurs.

The Report

The Committee constituted a sub-committee comprising Shri D. R. Prafap, its Convenor, and Shri K. C. Asthana, Industrial Advisor (W/S.) Industries Department, for a closer scrutiny of the problems, sifting the mass of material collected and preparing the draft report. The sub-committee conducted further discussions in detail with the representatives of various departments and agencies and prepared the draft report. The report is divided into two parts. Part I comprises 10 chapters and Part II consists of the background papers, statistical data, project profiles and proceedings of the seminar.

Background Papers are presented by various Departments and Experts, while Project Profiles are mostly prepared by the Industries Department and Khadi and Village Industries Commission. These Profiles attempt to give broad outlines of industries suggested in Scheduled Tribe areas but these profiles are not to be taken as the last word and a lot of further feasibility study has to go into them before the industries contemplated in Scheduled Tribe areas are set up. Seminar proceedings project the ideas and opinions of the participants. Finally Statistical statements furnish useful information on Scheduled Tribes.

Acknowledgements

The Committee records its gratitude to the officials of the various departments of the state government; to representatives of the commercial banks, Reserve Bank of India and Andhra Pradesh State Cooperative Bank, Hyderabad; to the Small Industry Extension Training Institute, Andhra Pradesh Small Scale Industrial Development Corporation, Andhra Pradesh Industrial Development Corporation, Andhra Pradesh Industrial Infrastructure Corporation, Girijan Co-operative Corporation, State Finance Corporation; to all the participants of the seminar; to Dr. B. D. Sharma, I.A.S., Joint Secretary to Government of India, Ministry of Home Affairs, Shri P. V. Rao, I.A.S., Deputy Secretary to Government of India, Ministry of Home Affairs, Shri K. V. S. Suryanarayana, Managing Director, Girijan Co-operative Corporation, Shri P. S. Rao, Chief Conservator of Forests for their advice and suggestions at various stages of its work. The Committee specially expresses its gratitude to Dr. B. D. Sharma for his valuable contribution of a paper.

The Committee thanks Shri S. V. S. Sharma, Principal-Director Small Industry Extension Training Institute, Shri R. Purnam, Director, Small Industries Service Institute, and Shri O. Swamynatha Reddy, Managing Director, Andhra Pradesh State Financial Corporation for their keen participation in the deliberations of the committee.

The preparation of the report entailed collection and collation of variety of statistics, and detailed study of the problems in depth and this voluminous work has been undertaken by the Sub-Committee comprising of Sri D. R. Pratap, Director, Tribal Cultural Research and Training Institute and Convenor of this Committee and Sri K. C. Asthana, Industrial Advisor (W/S) Industries Department. The Committee also expresses its appreciation for the active assistance rendered by Sri K. Nagabhushanam, Asst. Director, Industries Department and Sri A. Somasekhar, Statistical Officer of the Tribal Cultural Research and Training Institute. The Expert Committee wishes to place on record its gratitude for their untiring efforts in the preparation of the draft report.

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| 1. Shri S. R. RAM MURTHY | <i>Chairman</i> |
| 2. Shri P. S. KRISHNAN | <i>Member</i> |
| 3. Shri C. S. SASTRY | <i>Member</i> |
| 4. Shri V. P. RAMA RAO | <i>Member</i> |
| 5. Shri M. VENKATARATNAM | <i>Member</i> |
| 6. Shri B. K. PENTAI AH | <i>Member</i> |
| 7. Shri C. S. VENKATESHAM | <i>Member</i> |
| 8. Shri DHARMA PURIA | <i>Member</i> |
| 9. Shri D. R. PRATAP | <i>Convenor</i> |
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PART I

ECONOMIC PROFILE

The Area :

The scheduled area of Andhra Pradesh extends from Bhadraviri Agency in Srikakulam to Bhadrachalam Agency in Khammam and thereon to north-west into Adilabad Agency and all along the periphery of Dandakaranya bordering on the States of Madhya Pradesh, Orissa and Maharashtra and accounts for 11,595 sq. miles. The terrain in the scheduled areas is undulating with broad valleys and densely wooded hill ranges. The hill ranges popularly called Eastern Ghats run through northern part of the Districts of Visakhapatnam, East and West Godavari. In addition, there are a number of tribal pockets in the plains in the districts of Nellore, Chittoor and Guntur in which Yerukula, Yenadi, Sugali and Chenchu tribes live. The total tribal population living in the State is 16.58 lakhs which is 3.81 per cent of the total population of the State.

Climate :

The climate in tribal areas is characterised by extreme seasonal variations. The atmosphere is balmy and surroundings placid. The hill ranges run across to form watershed to many a stream creating gorgeous valleys in between. The scheduled areas are well fed by rain water.

During summer, the temperature varies from area to area. It is too hot in Bhadrachalam and cool in hilly areas of Visakhapatnam. Winter is severe in most of the tribal areas.

Forests :

The total forest area covered by the 24 Tribal Development Blocks in the State is 28,03,641 acres and is mostly in Visakhapatnam, East Godavari, Khammam and Warangal districts. The important types

of forests are (a) tropical dry deciduous, (b) tropical including dry evergreen, (c) mangrove, (d) beach or dune, and (e) bamboo. They are rich in various types of minor forest produce. Bamboo is an economically important forest raw material in the state, increasingly utilised in the fast developing paper industry of the state. Forests also are a vital source of food, shelter and employment for many tribals.

Minerals :

There is considerable mineral wealth in these scheduled areas. Pottery and brick clays are found in Paderu and Chintapalli Taluks of Visakhapatnam district. Graphite is distributed over Bhadrachalam Agency, Yellavaram Agency and Polavaram Agency. Huge deposits of manganese and iron ore are found in the tribal areas of Visakhapatnam, Khammam, Srikakulam and to some extent in West Godavari districts. The Kothagudem Collieries in Khammam district finds an important place on the industrial map of India. A variety of semi-precious stones and rare minerals are known to be available in the tribal areas for which a scientific survey has to be conducted.

The People :

Thirty-three tribal groups are found inhabiting the scheduled and plains areas of the state. They are Bagatas, Gadabas, Jatapus, Kamma-Kondhs, Kotia-bentho-oriyas, Kulias, Malis, Manne Doras, Mukha Doras or Nooka Doras, Porjas, Reddi Doras, Rona or Renas, Savaras, Chenchus, Sugalis, Yenadis, Yerukulas, Andh, Bhil, Gond, Hill Reddis, Kolams, Pardhans, Thotis, Goudus, Nayaks and Valmikis. But numerically Gonds, Koyas, Hill Reddis, Savaras, Bhagatas, Valmikis, Yerukulas and Yenadis are the largest groups accounting for more than 50 per cent of the total scheduled tribe population. Savaras, Gadabas, Gonds, Bhagatas and Konda Reddis are mostly found in the scheduled areas.

While Gonds, Kolams, Naikpods and Andhs are found in Telangana region, Savaras, Jatapus, Malis, Kotia-Bentho-Oriya and Bhagatas are concentrated exclusively in Andhra area, whereas Yerukulas, Yenadis and Sugalis are scheduled tribes in Andhra area, they are not declared as such in Telangana area. Chenchus are mostly found in Amarabad Plateau and Nallamalai forests. Koyas are found in Andhra and Telangana areas. The tribe-wise population as per 1971 Census is furnished in Table 1.

TABLE 1 — TRIBE-WISE — POPULATION—1971

<i>S.No.</i>	<i>Tribe</i>	<i>Males</i>	<i>Females</i>	<i>Total Population</i>
1	2	3	4	5
1.	Andh	1,095	1,310	2,405
2.	Bhagata	36,464	35,193	71,657
3.	Bhil	273	287	560
4.	Chenchu	12,780	11,398	24,178
5.	Gadaba	12,408	12,700	25,108
6.	Gond	79,575	77,914	1,57,489
7.	Hill Reddis	2,211	2,095	4,306
8.	Jatapu	37,533	36,777	74,310
9.	Koya or Goud	1,43,082	1,42,144	2,85,226
10.	Kammara	18,083	17,586	35,679
11.	Kattunayakan	129	160	289
12.	Kolam	13,029	13,469	26,498
13.	Konda Dora	49,944	51,612	1,01,556
14.	Konda Kapu	19,747	18,379	38,126
15.	Konda Reddi	21,039	18,379	38,126
16.	Kondhs (Kodi & Kodhu) Desaya Kondhs, Dongria Kondhs, Kutiy Kondhs, Sikiria Kondhs & Yenity Kondhs.	18,252	16,123	34,375
17.	Kotia—Bentho-Oriya, Dartika, Dhulia or Dulia Holva, Paiko, Putiya, Sesrona & Sidho Paiko	8,951	8,937	17,888
18.	Kulia	115	73	188
19.	Mali	1,021	957	1,978

1	2	3	4	5
20.	Manne Dora	4,637	4,735	9,372
21.	Mukha Dora or Nooka Dora	6,690	6,545	13,235
22.	Nayak	1,934	2,057	3,971
23.	Pardhan	5,559	5,848	11,407
24.	Porja (Paragi Porija)	6,263	6,094	12,357
25.	Reddi Doras	2,639	2,615	5,254
26.	Rona or Rena	7	5	12
27.	Savara	40,939	40,288	81,227
28.	Sugali(Lambadi)	68,091	64,373	132,464
29.	Thoti	1,026	759	1,785
30.	Valmiki	14,514	14,453	28,967
31.	Yanadi	123,312	116,091	239,403
32.	Yerukula	82,780	79,780	162,560
33.	Unspecified	5,890	5,160	11,050
	Total :	840,022	817,635	1,657,657

There are 6,141 scheduled villages with 7.36 lakhs of tribal population. Region-wise, coastal Andhra, Rayalaseema and Telangana areas account for 10.25, 1.91 and 4.43 lakhs of tribal population, respectively.

There are 24 Tribal Development Blocks (TDB) in Srikakulam, Visakhapatnam, East and West Godavari, Khammam, Adilabad and Warangal districts covering 6.26 lakhs of scheduled tribe population. The remaining tribal population is inhabiting in the plains areas outside the Tribal Development Blocks of the state. Table-2 gives the distribution of tribal population, district-wise :

TABLE 2—SCHEDULED TRIBES POPULATION—DISTRICT-WISE 1971

<i>Sl. No.</i>	<i>District</i>	<i>Total population</i>	<i>Scheduled Tribe population</i>	<i>Percentage of Sch. Tribe population to the total population</i>
1	2	3	4	5
1.	Srikakulam	2,589,991	212,459	8.20
2.	Visakhapatnam	2,805,366	299,970	10.69
3.	East Godavari	3,087,262	119,027	3.85
4.	West Godavari	2,374,306	51,723	2.18
5.	Krishna	2,493,574	50,742	2.03
6.	Guntur	2,844,488	105,478	3.70
7.	Ongole	1,919,995	55,111	2.87
8.	Nellore	1,609,995	130,277	8.09
9.	Chittoor	2,285,536	66,801	2.92
10.	Cuddapah	1,577,267	26,611	1.68
11.	Anantapur	2,115,321	64,878	2.06
12.	Kurnool	1,982,090	32,407	1.63
13.	Mahboobnagar	1,932,082	5,600	0.28
14.	Hyderabad	2,791,762	4,667	0.16
15.	Medak	1,467,944	120	0.08
16.	Nizamabad	1,313,268	578	0.04
17.	Adilabad	1,288,348	169,299	13.14
18.	Karimnagar	1,963,928	16,433	0.83
19.	Warangal	1,870,933	43,278	2.13
20.	Khammam	1,369,982	201,670	14.72
21.	Nalgonda	1,819,738	519	0.02
Total :		43,502,708	1,657,657	3.81

The taluk-wise distribution of scheduled tribe population in the state is given in Annexure—I.

Literacy :

The tribal areas are backward from the point of view of education. According to the Census of 1971, the percentage of literacy among tribals is as low as 5.34 when compared with the state literacy rate of 24.56.

Working Force :

According to Census of 1971, the working tribal population is 7,81,838 which constitutes 47.16 per cent of the total tribal population. Out of them 5,14,446 are males. The sex ratio is 973 females per 1,000 males. Among the non-working population, females constitute 63.8%. Majority of tribal workers are found in the age-group of 14 to 44.

Occupational Distribution :

Agriculture is the traditional calling for majority of the tribals. About 85 per cent of the tribal working population is engaged in agricultural sector, while the remaining working population is engaged in non-agricultural sector. Agricultural labour, forest labour and collection of minor forest produce are the subsidiary occupations. According to the Census of 1971, the distribution of tribal workers engaged in agricultural and non-agricultural occupations is given in Table 3.

TABLE 3—DISTRIBUTION OF SCHEDULED TRIBE WORKERS 1971

<i>S.No.</i>	<i>Sector</i>	<i>No. of persons</i>	<i>Percentage of workers</i>
1.	2.	3.	4.
I. Agricultural Sector			
(a)	Cultivators	2,82,239	36.09
(b)	Agricultural labourers	3,83,595	49.06
		6,65,834	

<i>II. Non-Agricultural Sector</i>	<i>No. of persons</i>	<i>Percentage of workers</i>
(a) Livestock, Forestry, Hunting and Plantation activities	31,060	3.97
(b) Mining and Quarrying	1,943	0.24
(c) Manufacturing, Processing, Servicing and repairs	41,528	5.31
(d) Constructions	3,326	0.42
(e) Trade and Commerce	17,544	2.24
(f) Transport, Storage and Communications	6,019	..
(g) Other Services	14,583	..
	1,16,004	
Grand Total :	7,81,838	

The percentage of workers engaged in non-agricultural sector is only 14.9. The district-wise occupational pattern of the scheduled tribes is furnished in Annexure-II. Settled as well as shifting cultivation is the mainstay of the tribal groups. Gonds, Koyas, Valmiki and Bhagatas are settled agriculturists. Savaras, Gadabas and Khonds practise Podu cultivation. Valmiki pursue a variety of occupations varying from agriculture to moneylending. Savaras of Srikakulam are famous for terraced cultivation. Banjaras are pastorals. They practise settled cultivation and are receptive to ideas of change. Kolams and Naikpods, who were once shifting cultivators, have now taken up settled cultivation. Chenchus are adepts in forest labour and engage themselves in collection of minor forest produce. Pardhans and Thotis thrive as musicians and ceremonial bards to the Gonds. The main occupations of many of the Yanadis are fishing, hunting rodents and small game, a few of them are engaged also as domestic servants. A few Banjaras and Yerukulas are found to be gainfully employed in service in government and industrial undertakings. Naikpods rear and harvest tassar cocoons. Konda Reddis are basket weavers in addition to being shifting agriculturists.

Almost all the tribals rear and eat poultry, sheep and goats, but pig-rearing and eating are restricted to certain tribal groups such as Koyas, Konda Reddis and Yerukulas.

Andhs are considered to be born hunters, but they are now settled on agriculture. Gadabas during non-agricultural seasons are engaged in stone-breaking, earth work, and such other road and construction works of Forest and other government departments and in bamboo and coupe cutting of private contractors of Forest Department. Kammaras are blacksmiths inhabiting the scheduled areas of Srikakulam, Visakhapatnam, East and West Godavari districts. They manufacture and repair agricultural implements of the tribals. Samanthas or Khonds are adepts in hunting and fishing besides being shifting cultivators. They are well-versed in handicrafts like basket and mat-weaving, oil-extraction, etc. They are also engaged as forest labour by Forest Department and forest contractors.

Economy

Primary Sector :

Agriculture has been the traditional calling for most of the tribal groups. The cultivable area and the net sown area per agricultural worker are 1.07 and 0.99 acres, respectively. The man-land ratio in tribal areas works out to 0.753 acres. The average size of holding works out to 3.48 acres in Srikakulam and 4.94 acres in Adilabad.

Livestock in tribal areas suffers from poor feeding, breeding and management. The average number of livestock per cultivator is only nine. When compared with livestock in plains areas, the milk yield and working capacity of the animals in tribal areas is very low.

Secondary Sector :

Tribals are living in a pre-industrialised traditional society. Development of secondary sector is not given the importance that is due to it and efforts for its balanced and integrated development along with primary sector have been negligible in the earlier plan periods. Only a small amount of Rs. 11.12 lakhs was spent for the promotion of secondary sector

in tribal areas till the end of the Third Five Year Plan. During the Fourth Five-Year Plan, though some of the employment-oriented programmes such as the training programmes to tribals as masons, motor drivers, apprentices, and trade-assistance programmes were introduced, their impact on the tribal society and economy has not been perceptible.

Tertiary Sector :

Power :—The river Machkund is harnessed for power at Machkund, Lower Sileru and Upper Sileru. Kothagudem Thermal Station is also located nearer the tribal villages in Khammam district. But the consumption of electricity for domestic, agricultural and industrial purposes in tribal villages nearby is almost negligible. This is evident from the fact that the percentage of villages electrified in tribal areas is only 2.9 as against 3.47 in the state. About 116 villages out of 6,141 villages in the scheduled areas have been electrified by the end of the Fourth Plan. These are in the districts of Srikakulam, Visakhapatnam, East Godavari, West Godavari, Khammam, Warangal and Adilabad. By the end of Fifth Plan, it is proposed to electrify about 700 tribal villages.

Roads :

The tribal areas are less developed in the matter of transport facilities. The existing road mileage in the scheduled areas works out to 6.7 per 100 sq. miles as against 38 per 100 sq. miles in the plains.

Railways :

Most of the tribal areas in the state are not directly connected by railways. It is only the tribal areas of Visakhapatnam which had the benefit of rail-road and that too for lifting of iron ore mined in that area. Out of 115 km. line of D.B.K Railway Project in the state, about 80 km length of line runs through the hilly tracts of Araku Agency in Visakhapatnam district. Out of 13 stations on this line nine stations are located in the agency area.

Thus, roads and railways are not adequately developed to serve the economy of the tribal areas.

Thus tribals in the state are leading a life below the poverty line. The per capita income of a tribal household works out to Rs. 217/- whereas the per capita expenditure is Rs. 245. The average debt per tribal household is Rs. 654/-. About 74 per cent of the households are deficit households. The contribution of agricultural sector towards the average income of a tribal household is 74 per cent. The income from manufacturing sector is almost nil. The contribution of collection of minor forest produce, which is one of the major subsidiary occupations, is estimated at 10 per cent of the average income of a tribal household. The tribal areas represent a typical example of backward agrarian economy with low yields, poor earnings and under-employment. Subsistence production is still the hallmark of tribal economy. The economy of tribals is custom-bound and not competitive. There is no balanced growth of primary secondary and tertiary sectors as the later two sectors are almost neglected in tribal areas.

INDUSTRIAL SETTING

The present state of industrial development in the scheduled areas needs a brief review so that it may provide the necessary backdrop for the preparation of a plan for industrial development of tribal areas.

Large and Medium Industries :

A. C. C. Cement Factory at Mancherial, Paper Mills at Sirpur and Coal Mines at Bellampalli are adjacent to the tribal areas. Singareni Collieries at Kothagudem, Thermal Power Station at Palavanha in Khammam District, Power Generating Station at Machkund, Hydro-electric Project at Upper Sileru in Visakhapatnam district are located in the tribal areas. D. B. K. Railway project passes through the tribal areas of Visakhapatnam District.

Certain medium and small-scale industries are proposed to be established in the tribal areas in public and private sectors besides some of them being joint ventures. Initial work has been completed in respect of the following industries :

1. Jute Manufacturing Industry at Salur, Srikakulam District.
2. Aluminium Industry at Anantagiri, Visakhapatnam District.
3. Plywood Factory at Rampachodavaram, East Godavari District.
4. Board and Paper Plant at Bhadrachalam, Khammam District.
5. Rayon Grade Pulp Unit at Eturnagaram, Warangal District.
6. Sugarcane Crushing Unit at Kadam, Adilabad District.

Small-scale and Cottage Industries :

A sericulture farm was opened at Ashoknagar in Warangal District to train tribals in sericulture industry during the First Five Year Plan.

During the Second and Third Plan periods, training-cum-production centres, common facility centres, etc., were started. An amount of Rs. 11.12 lakhs was spent on these activities till the end of the Third Five-Year Plan. The industrial units functioning in the tribal areas of Srikakulam, Visakhapatnam, Khammam and Adilabad districts are as under :

Srikakulam District :

1. Sreenivasa Carpentry-cum-Blacksmithy Co-operative Society Ltd., Seethampet.

Visakhapatnam District :

2. Carpentry Training-cum-Production Centre, Paderu.
3. Spinning and Weaving Training-cum-Production Centre, Hukumpet.

Khammam District :

4. Rural Community Workshop, Vinayakapuram, Aswaraopet.
5. Demonstration-cum-training Unit in Fruit Preservation, Aswaraopet.
6. Common facility Centre (Power operated), Aswaraopet.
7. Common facility Centre, Bhadrachalam.

Adilabad District :

8. Rural Arts and Crafts and Industries Centre, Utnoor.
9. Common Facility Centre, Wankidi.

A considerable number of tribal workers are engaged in blacksmithy, carpentry, basket weaving, etc. The distribution of such workers is given in Table 4.

TABLE 4—DISTRIBUTION OF INDUSTRIAL WORKERS IN TRIBAL DEVELOPMENT BLOCKS

Sl. No.	Occupation	No. of workers		
		Tribals	Non-Tribals	Total
1	2	3	4	5
1.	Blacksmithy	926	403	1,329
2.	Carpentry	670	345	1,015
3.	Pottery	728	240	968
4.	Brassmithy	88	41	129
5.	Goldsmithy	1	359	360
6.	Basket Weaving	697	74	771
7.	Mat Weaving	165	16	181
8.	Cloth Weaving	305	7	312
9.	Other Workers		259	259
	Total	3,580	1,744	5,324

The distribution of tribal and non-tribal industrial workers in each tribal development block of Srikakulam, Visakhapatnam, West Godavari, Warangal and Adilabad Districts is furnished in Annexure-III.

During the Fourth Plan period, the training-cum-production centres were not encouraged. Under employment-oriented training programmes during the Fourth Plan period, 60 tribals as motor drivers, 231 as village officers, 312 as masons in addition to 50 as apprentices in public and private sector undertakings were trained.

Certain sporadic efforts have been made by Girijan Co-operative Corporation, which has been functioning in tribal areas since 1956, in establishing the following units for the benefit of tribals.

1. Sheekai Grinding Plant.
2. Honey Pasturisation Unit at Narsipatnam.

3. Myrobalam Crushing Unit at Srungavarapukota.
4. Niger Seed Oil Mill at Paderu.
5. Manufacturing Unit for Washing Soap from non-edible oils at Seethampet.
6. A Plant for extraction of Fibre from Sisal leaves at Araku.

The Corporation has approved proposals to establish the following units with the financial assistance of National Co-operative Development Corporation, New Delhi.

1. Honey Pasturisation Plant at Warangal.
2. Extraction of Alkaloids from Nuxvomica at Palavanchna.
3. Tartaric Acid and Pectin from Tamarind pulp at Madugula.
4. Starch extraction Plant from Tamarind seed at Gummalaxmi-puram.
5. Gum Grading Unit at Adilabad.

The Corporation has also undertaken the establishment of bee-keeping units in collaboration with Khadi and Village Industries Commission. A small experimental herbarium is also opened at Araku for demonstrating the cultivation of herbs. Steps are also being taken by the corporation to promote cultivation of coffee and other medicinal herbs in the tribal areas of the state.

A beginning has been made for the establishment of large, medium, small-scale and artisan industries over the Plan periods. The development so far achieved covers only a fraction of the utilisable resources available in the tribal areas.

In artisan industries, an attempt has been made in improving the skills and the effort achieved some results. The artisans by virtue of their acquisition of greater skills might be found suitable for further encouragement to develop small-scale industries.

Vigorous steps are called for exploitation of the resources. There is vast scope for starting small and cottage industries in tribal areas. The importance and role of these industries in strengthening the tribal economy hardly needs any emphasis. These industries will be helpful in reducing the unemployment and under-employment and in increasing the supplies of consumer goods in tribal areas. Small-scale and cottage industries have thus a vital rôle to play in the tribal society and economy.

STRATEGY AND PRIORITIES

The Government have been adopting several policy measures and programmes to promote the establishment of small-scale industries in tribal areas. During the Fifth Five Year Plan, emphasis is laid more upon the agro and forest-based cottage industries in backward areas. In this context, it is worthwhile to examine the views of various committees and commissions on the question of promotion of cottage and small-scale industries in tribal areas.

Views of Commissions and Committees :

Various Committees and Commissions, especially Dhebar Commission and the Elwin Committee, have stressed the need for promotion of village and small-scale industries in tribal areas. According to Dhebar Commission, "if the problem of destitution or the subnormal standard of living in the tribal areas is to be tackled, it can be only through development of village and cottage industries." The Commission opined that poverty in the midst of considerable unused human and material resources and undeveloped creative facilities is the phenomenon of tribal areas. It has suggested promotion of village and cottage industries in the tribal areas with a view to (1) utilise and develop creative faculties of the tribal people, (2) provide gainful employment to them and (3) offer them, an avenue for converting their raw materials into processed articles and thus taking their economy a step further.

Village industries in the tribal areas can be divided into three categories viz., (1) consumer goods industries, (2) processing industries and (3) handicrafts and art pieces. The Commission stressed that "wherever, therefore, there is raw material available and there is a market available locally or outside, the principle should be that the raw material should not go out as raw material but should go as processed articles unless the cost is uneconomic or it involves technical or transport problems beyond the reach of the administration in the tribal area."

Referring to cottage industries, the Elwin Committee quoted the observations of the Development Commissioners' Conference at Mussorie as follows:

“While chalking out the programme, consideration should be given to the locally available raw materials, skills and marketing facilities. It will be wise to plan largely on the basis of consumption in the area itself and self-sufficiency.” The Development Commissioners' Conference further remarked that “Rapid introduction of machine and higher techniques in tribal areas should be discouraged. The techniques in these areas should be an organic development. Every effort should be made to ensure that the culture and tradition of these people do not suffer any jolts in the process of the introduction of improvement in their style and standard of living.”

The Elwin Committee suggested that the present rules of the Forest Department have to be examined how far they militated against the development of cottage industries. The Forest Department should encourage the tribals to follow their arts. The women welfare centres should be re-oriented with tribal background such as designs embroidery, knitting. The committee has also suggested the starting of peripatetic units for training in crafts besides conducting research. Surveys have to be undertaken to find out what type of arts or crafts already exist and to assess how these can be developed and what crafts can be introduced on an economically sound basis and to discover what kind and quality of articles can be consumed locally and what type of articles can be exported.

Strategy :

The economic growth of a region largely depends on the balanced growth of primary, secondary and tertiary sectors. There should be an all-round exploitation of material resources and goods and development of cultural values to bring wealth and prosperity to 16.58 lakhs of tribals in the State.

The promotion of local industrial activity may set in motion a set of forces including higher levels of agricultural resources productivity, higher levels of farm and family income and may also lead to a reduction in spatial and personal inequality, thus contributing to Myrdal's 'national economic integration'.

Appropriate policies and programmes to create industrial climate and improve the technical knowledge and entrepreneurial skills of tribals have to be designed. The solution for the economic development of tribes lies in capital-saving and labour-intensive techniques which are

possible through initiation of small-scale and cottage industries with particular emphasis on industries based on local forest resources. These cottage and small-scale industries, in addition to strengthening the agro-forest based economy of tribes, can serve as a means of bridging more swiftly the gap between the subsistence sector and advanced sector and enable the achievement of higher level of income and growth in tribal areas.

The objective should be to make the scheduled tribes the full-fledged partners in the promotion and development of industries and this objective would dispel the prevailing opinion that the present mode of development is making the scheduled tribes as wage earners only. But there is an apprehension that at least for some years to come, sufficient entrepreneurship might not be forthcoming from the tribes and if others are precluded from entering the field of industries in tribal areas, the tribal areas may not develop industrially. Though, there is some truth in the above argument, yet the participation of scheduled tribes in development of industries will have to be brought about. The entrepreneurial qualities among the scheduled tribes can be cultivated if serious efforts are made in that direction. Secondly, unless some reservation is made for the scheduled tribes in the establishment of industries in the scheduled areas, they may not stand to gain the advantages of industrial development. However, if a blanket reservation is made, the industrialisation may be retarded in view of the above stipulation. What is needed, therefore, is to strike a balance between the two wherein benefits of industrialisation should go to the scheduled tribes along with the speedy industrialisation of the areas.

Approach :

In view of the above, the following approach may be adopted.

1. Industries should be located in identified growth centres in the scheduled areas.
2. The small and cottage industries with an investment of Rs. 2.00 lakhs and below may be reserved for entrepreneurs belonging to scheduled tribes only.
3. In the case of industries which require investment of more than Rs. 2.00 lakhs, first preference should be given to the tribals and a period of five years may be allowed for the emergence of the tribal entrepreneurs to set up industries with investment of more than Rs. 2.00 lakhs. After the lapse of five years, if no tribal entrepreneur come forward, then the public-sector or other entrepreneurs may be permitted to set up the industries with provision of some safeguards to ensure the welfare of

tribals. The safeguards suggested are (1) substantial shareholding for tribals ; (2) procurement of raw materials from tribals only ; (3) employment ensured to tribals only; (4) provision for earmarking a substantial part of end-products for use in industries set up by tribals and (5) permitting the tribals progressively to acquire the shares of others.

The policy of large-scale industrialisation should embody the rehabilitation of displaced tribals. The large-scale industries located in the plains areas with hinterland of tribal areas, shall attend to the development of the hinterland simultaneously.

Guided promotive policy :

The course of industrial development in tribal areas may proceed on the following lines which, as a matter of fact, is not exclusive and at times may overlap also.

1. The industries in which the scale of the required investment cannot be provided either by the individual tribal entrepreneur or by the small co-operatives, they may be promoted in joint-sector with safeguards as enumerated earlier which can be described as collaborative arrangement between Girijan Co-operative Corporation and other corporate bodies like Andhra Pradesh Industrial Development Corporation, Andhra Pradesh Small-scale Industries Development Corporation etc. The industries which are likely to fall in this category are large and medium industries and capital-intensive Small-scale industries.
2. Industries in which the scale of the required investment cannot be provided by the individual tribal entrepreneur they may be started as co-operative ventures ; they should be economically viable, technically feasible and should be composed of homogenous group. The industries falling in this category are the small scale and cottage industries with labour intensive technology.

In an economy in which the basic factors favouring industrialisation are absent, the promotion or creation of factors which stimulate industrialisation, becomes a matter of necessity which should be taken care of by the guided promotive approach. Guided promotion can be described as promotion of industries in the co-operative sector or by the agency itself which is entrusted with the implementation of the industrial programmes in the tribal areas. This approach would not include or preclude or substitute the promotive approach with inducement. The policy of Guided promotion involves the creation of a cell, rather a specialised cell, exclusively charged with the responsibility of promoting industries in the tribal areas.

The guided promotive policy may largely involve.

1. Identification and motivation of entrepreneurs, improvement in the skills and funding programme, appropriate training programmes and devising suitable institutional framework such as (a) organisation of co-operative ventures with nominated managing committees consisting of professional experts, (b) management of the societies by professional managers in the initial stages, (c) promotion of public-sector industries and (d) small industries and business ventures by the local tribal entrepreneurs.
 2. Linking up of production with marketing agencies specially created.
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INDUSTRIAL POTENTIALITIES

Only 9.95 per cent of the working population among the scheduled tribes is employed in the secondary sector. This shows that tribal economy depends heavily on agriculture and the pressure on land is very high. As such, the development and expansion of industries is essential for balancing and stabilising the economy through diversification of economic activities of the tribals. Fortunately, the tribal areas are plentifully endowed with all the resources for industrialisation. These areas have considerable agricultural, mineral and forest resources coupled with thermal and hydro-electric power. The man-power is abundant in tribal areas. In spite of the availability of human and natural resources, the industrial development of tribal areas is extremely low and the potentialities remain unexploited.

Diversification of occupational structure of the tribals is necessary so as to strike a balance in the imbalanced agro-based economy and reduce the mounting pressure on land and provide gainful employment to tribals. It is also necessary to ensure not only the balanced growth of primary and secondary sectors but also the designing of appropriate patterns to solve some of the problems such as inadequate capital, low productivity techniques, market inadequacy and lack of technical knowledge and entrepreneurial skills.

An assessment of different types of resources is briefly made below.

Human Resources :

Human resources play a vital role in the economic development of an area and a community. Development of human resources is also essential for social, political, spiritual and cultural growth of the society. The tribal people are lacking entrepreneurial capabilities, knowledge, leadership qualities, technical skills and organisational abilities which are in fact necessary for the economic development.

Development of human resources in tribal areas is the most important element in rapid industrialisation and is an adjunct of the much-needed occupational diversification so as to relieve pressure on land in the tribal areas.

It is high time to realise that a balanced growth between human resources development and the development of physical and capital resources remains the most desirable policy to be pursued by the government in tribal areas. It is, therefore, imperative that a positive approach for comprehensive human resources development is evolved for equipping the tribals not only with technical skills but also with moral, spiritual and behavioural abilities so as to prepare them to utilise the new opportunities and promote their managerial and leadership qualities. It may be pointed out that though education is an important factor in accelerating human resource development, low level of education does not necessarily hamper the process of human resource development as acquisition of technical skills, organisational abilities, leadership qualities does not require much of the theoretical knowledge. Rapid industrialisation of tribal areas depends mainly upon the approach adopted for human resource development among these disadvantaged. What is required is long-range planning so that we do not find a vacuum in trained man-power especially when new industries are started.

During the Plan periods, 1,904 artisans were trained in trades such as carpentry, blacksmithy, pottery. In spite of the huge expenditure incurred on the education of tribals during the various Plan periods, the percentage of literacy is only 5.32 as against 24.56 in the state. The technically trained candidates among the scheduled tribes are very less in number. The tribal traditional artisans require training in improved skills. The labour force among tribals in the field of agriculture is surplus and they have to be diverted towards higher productive occupations. It is essential that a large section of tribal population should be imparted training in appropriate technology in the field of agriculture and industries.

Agricultural Resources

Agriculture is the backbone of tribal economy. The land use pattern in tribal areas varies from region to region depending on the topography, physiography, economic and institutional factors. The net area sown constitutes 13.86 per cent of the total geographical area while the percentage of irrigated area is 5.06. The agro-based economy of tribals is characterised by the predominance of food crops. The percentage of food crops is about 85. The cropping pattern is directly correlated to soil types. Black cotton and alluvial soils are found predominantly in the tribal areas from Warangal to East Godavari. The alluvial soils which are found on either side of the Godavari river in Khammam, East Godavari and West Godavari Districts, are suitable for raising commer-

cial crops like tobacco, chillies and sugarcane. The hilly tracts of Visakhapatnam and East Godavari are ideally suited for coffee plantations. The cultivation of niger seed (Valasalu) and mustard crop is popular in the tribal areas of Visakhapatnam District. Pippalmodi is also being cultivated in Paderu block. Red loamy soils, which are suitable for growing vegetables, are mostly met with in Araku valley and Chintapally Agency of Visakhapatnam district. In the tribal belt of Srikakulam, mostly the soils are of red ferruginous and black-cotton. The Savaras of Srikakulam are well-known for terraced cultivation and they grow ginger, wet paddy, turmeric, hill banana, etc. Cotton crop is the most predominant crop in the tribal areas of Adilabad district.

The main crops grown in the tribal areas are jowar, paddy, bajra, maize, chillies, wheat, pulses etc.,. The percentage of area under food crops is 85.75 whereas under commercial crops it is only 14.25. The yield per acre in tribal areas is less when compared with plains areas.

Horticultural Resources

An Horticultural Development Farm has been functioning at Sirigindlapadu in Rampachodavaram Tribal Development Block of East Godavari district with the specific object of promoting improved horticultural practices in the tribal areas. This farm has been supplying hybrid/high-yielding varieties of seeds of benda, brinjal, tomato (P.E.D.) tomato (S. 120), tomato (Seivux), castor, cowpea, etc., to tribals. Horticulture is yet to be developed on commercial lines. Tribals can be encouraged to grow vegetables on their lands or homesteads. There is vast scope to popularise vegetables and fruits like cabbage, tomatoes, cauliflower, papaya, jack fruit, loose skinned orange, pineapple.

Malis of Visakhapatnam, Gonds, Kolams and Naikpods of Adilabad and Koyas of Warangal are experts in growing vegetables. Malis are traditional horticulturists. The tribal areas of Khammam, Visakhapatnam, East Godavari and Adilabad are suitable to grow on a large scale the exotic vegetables like tomato, cauliflower, cabbage, french-beans, nool khol, beet root, potato. Fruit canning centres are functioning at Paderu in Visakhapatnam district and Aswaraopet in Khammam district. The Committee opines that the area under horticulture should be multiplied to make these as a source of subsidiary income to most of the tribal groups in the State.

Livestock Resources

As agriculture is the main occupation of the majority of tribals of Andhra Pradesh, cattle constitute the backbone of agro-based tribal economy. The role of cattle is more pronounced in tribal areas where

undulating and rocky terrain thick forest growth and indifference of the people towards adopting mechanical devices, chemical fertilisers etc., set limits to rapid replacement of cattle by machines. Tribal farmers have to depend on bullock power in view of their economic backwardness, and poor resources at their command. Livestock and poultry are used by tribals in different ways. Cattle are being used for agricultural operations and for transporting the produce to the market. Sheep, goat and poultry are used during magico-religious ceremonies and on other social occasions. The cattle and poultry population of the tribal areas is mostly non-descript and stunted in growth. The milk yield and egg production is very low when compared with plains areas. The milk production is almost at zero level, as the tribals do not milk their cows. Due to stunted growth and neglected management, a cow yields about one-fourth to one-half litre of milk per day, buffaloes yield about half to one litre. This production of milk is only for a short time in a year. Similarly, rough estimates of egg production works out to about 1.00 lakh per year.

The following is the livestock population of the tribal areas :

Total livestock population	24.40 lakhs
Cattle	8.94 lakhs
Buffaloes	3.35 lakhs
Total Bovine population	12.29 lakhs
Sheep and Goats	1.84 lakhs
Total Poultry population	9.47 lakhs

With a view to improving the quality of tribal livestock, many animal husbandry programmes have been implemented since the beginning of the Five-Year Plans. One major landmark in livestock development in tribal areas is the starting of livestock farm at Chintapalli to produce good breeding bulls needed for upgrading the local stock. Besides starting of veterinary dispensaries to look after the cattle health, preventive measures like vaccination and castration to check the attack of contagious diseases and indiscriminate breeding have been in action in tribal areas. There are 65 veterinary institutions functioning in the area. Vast areas of grazing lands and pastures (22.35 lakh hectares) are available in the tribal areas.

These pastures are in a bad shape being over grazed and denuded of good grass. But there is good scope for development of these grazing lands on scientific lines to provide adequate and nutritious fodder to the livestock in tribal areas.

Forest Resources :

Tribal areas are gifted with forest resources such as timber and bamboo. Minor forest items such as Tamarind, Addaleaf, Myrobalans, Nuxvomica, Gantubarangi, Pathalagaridi, Mohwa seed, Gumkaraya, Honey are also available in forest areas. The economic and social well-being of tribals depends upon the forest and the exploitation of its resources.

Besides collecting the minor forest produce, the tribals also are engaged in forest labour works. Forest also provide them edible fruits, tubers, leaves and flowers during lean seasons and drought years. They make use of the herbal medicines, aromatic grasses, forest grasses, house-building material available in the forests. The forest areas, in which the tribals are the original inhabitants are serving the raw material requirements of certain major industries such as Sirpur Paper Mills at Kagaznagar (Adilabad District), Andhra Paper Mills, Rajahmundry (East Godavari District). A good number of cottage and small-scale industries are based on forest resources. Certain minor forest products are also contributing to the foreign exchange earnings of India. Many of the minor forest commodities are the basic raw materials for the chemical, pharmaceutical and cosmetic industries. The tribals living in the forest areas of Bhadrachalam, Rampachodavaram, Golugonda and Chenchu Reserve have been given certain concessions for free grazing, collection of forest produce and removal of small timber and fuel for domestic and agricultural purposes from unreserved forests.

The national forest policy resolution of 1952 emphasised the material development of the original inhabitants of the forests. As a matter of policy, the economic development of tribals should be the guiding principle in forest management and exploitation of forest resources. The Girijan Co-operative Corporation has monopoly rights for buying the minor forest produce collected by tribals. Besides the concessions given to tribals, the Forest Department has sanctioned lease of forest produce on concessional terms to co-operative societies formed by the scheduled castes and scheduled tribes and other backward classes (G.O.Ms. No. 1049, Food and Agriculture Department, dated 6-4-1964). Certain general concessions applicable to tribals for employment in Forest Department are also issued by the government.

One of the ways of solving the chronic poverty of tribals is the maximum utilisation of forest resources. The estimated yield and potentialities of certain forest resources in tribal areas are furnished below (Table 5).

TABLE 5 — ESTIMATED POTENTIAL AND YIELD

<i>Sl. No.</i>	<i>Name of the Species</i>	<i>Estimated Average Annual Yield in Tons</i>	<i>Estimated Potential in Tons</i>
1	2	3	4
1.	Bamboos	1,43,902	2,23,800
2.	Fodder Grass	54,742	1,43,100
3.	Broom grass	1,218	4,700
4.	Vatti Gaddi	325	500
5.	Risa Grass	488	900
6.	Beedi leaves	27,680	37,450
7.	Adda leaf	17,443	28,860
8.	Rella Bark	2,109	4,570
9.	Tangedu	4,508	10,400
10.	Myrobolams	423	2,330
11.	Tamarind	15,000	18,260
12.	Gumkaraya	N.A.	N.A.
13.	Nuxyomica	N.A.	N.A.
14.	Honey	13	59
15.	Gantu Barangi	N.A.	N.A.
16.	Mohwa Seed	436	1,600
17.	Pathala Garidi	1.9	10.0
18.	Katha	N.A.	N.A.
19.	Soap Nut	601.5	1,880.0
20.	Annatto Fruit	..	1,000
21.	Annatto Seed	..	150
22.	Marking Nuts	..	500
23.	Clearing Nuts	..	100

Source: Forest Department.

The Forest resources provide immense scope for starting forest-based industries. The Committee is of the firm opinion that exploitation of forest resources has to be done to the maximum extent for the benefit of tribals.

The industrial development of tribal areas depends upon the maximum exploitation of agricultural, horticultural, livestock and forest resources. It is time now to take adequate steps for the multi-sided development of tribals and tribal areas by utilising the abundant agro-based and forest-based resources which are either wasted or under utilised.

As the conducting of industrial potential survey is time-consuming, the Committee opined that it is better to proceed with the already identified industries available with the Industries Department and the blueprint of the Girijan Co-operative Corporation. There is large scope for starting various types of agro-forest and livestock—based small-scale industries in tribal areas.

Small Scale Industries

Forest Based : There is good scope for starting small-scale industries in tribal areas based on agro and forest raw materials. Small-scale industries based on forest resources which can be started are as follows:

1. Washing Soap Unit.
2. Starch from tamarind.
3. Tamarind de-seeding units.
4. Tamarind seed dhal.
5. Hand-made paper unit.
6. Rope and Ban making unit.
7. Dehydration of ginger and ginger products.
8. Honey plant for pasturing honey.
9. Grading and processing of gumkaraya.
10. Lemon grass oil by distillation.
11. Wood cutting (saw mill).
12. Annatto seed processing for extracting of colour.
13. Splints and veneers manufacture.
14. Modified Tamarind Kernel powder, TKP Phosphate or TKP Borate.

15. Manufacture of absolute alcohol from mohwa flower.
16. Splints for agarbathis.
17. Safety matches.
18. Soapnuts and sheekai powder.
19. Bilwan oil extraction (marking nuts).
20. Slate frame unit.
21. Furniture.
22. Mohwa seed oil extraction.
23. Niger seed oil extraction.
24. Charcoal.
25. Gum paste.
26. Linseed Oil and double oil boiling.
27. Lime Kiln.

Agro Based : There is scope for starting the following plantation industries in tribal areas:

1. Plantation of SISAL hemp fibre.
2. Plantation of miscellaneous fibre.
3. Plantation of food forming trees for tassar culture.
4. Establishment of an experimental demonstration Farm for improved varieties of Cotton and setting up of one ginning Unit in the agency areas of Adilabad District.
5. Plantation of food trees for lac culture and shellac.
6. Intensive cultivation of Pine-apples and other fruit trees in agency areas.
7. Setting up of two herbariums for medicinal plants at Warangal and Visakhapatnam.

About two and a half lakh acres are available for plantation crops in the scheduled areas. This area is eminently suitable to grow plantation crops like coffee, tea, cocoa, rubber, pepper. As plantation crops require huge investments which are beyond the scope of tribal entrepreneurs it is quite essential that a Plantation Corporation for scheduled areas may be established.

Agro-based Industries :

1. Khandasari.
2. Jaggery making.
3. Sago.
4. Coconut and Coir Complex.
5. Oil Expeller.
6. Kisan Rice Mill.
7. De-hydration of Onions.
8. Power Looms or Hand Looms.
9. Ginning Mills.
10. Dall Mill.

Village and Cottage Industries :

There is scope for improving the following village and cottage industries in the tribal areas with the financial assistance from Khadi and Village Industries Commission.

1. Cane making industry.
2. Bamboo and basket making.
3. Mat Weaving.
4. Fibre processing industry.
5. Stitching of Adda leaf.
6. Bee-keeping industry.
7. Ghani Oil industry.
8. Collection of gumkaraya.
9. Bricks manufacturing.
10. Collection of forest medicinal plants, barks and fruits.
11. Pottery.
12. Katha manufacturing.
13. Beedi manufacturing.
14. Carpentry and blacksmithy.
15. Aluminium and brass utensils.

16. Agricultural implements like bullock-carts etc.
17. Khadi industry.

Livestock-based Industries :

The local livestock in tribal areas should be upgraded and the traditional pastoral tribals like Banjaras and Goudus should be supplied with milch animals. Along with this basic programme, the following livestock-based industries should be established to bring about 'white revolution' in tribal areas.

1. Dairy.
2. Milk chilling centres.
3. Poultry units.
4. Feed mixing plant.
5. Carcas utilisation centre.

Project profiles for the above agro; forest and livestock, small scale and cottage industries together with financial implications are given in Part - II.

Tribal Handicrafts :

Handicrafts are material symbols of our culture. Tribal Culture is well-known for its artistic instruments, handicrafts, artifacts, etc. The tribal handicrafts have to be revived and encouraged. Steps will have to be taken to provide ready market for the tribal handicrafts, artifacts etc. The following handicrafts and artifacts of scheduled tribes and denotified tribes should be revived and encouraged.

1. Musical Instruments.
2. Traditional dresses.
3. Traditional jewellery and costume jewellery.
4. Applique work—a kind of embroidery.
5. Tribal handicrafts, such as (a) Hair-pins, (b) Eye Black, (c) Combs (d) Verimiline of various colours, (e) Water Bottles made up of Bottle gourd (f) Baskets with Date palm leaves and Vines.
6. Printing of tribal designs on cloth.

There is a lot of demand from foreigners for some of the tribal handicrafts, artifacts, etc. They like Banjara dress. It is desirable to promote tribal handicrafts to strengthen tribal economy and to keep alive and spread the traditional skills.

Industrial Estates :

As an integral part of the integrated programme of developing secondary sector, the promotion of industrial estates in tribal areas is essential. These will provide a planned factory accommodation along with the facilities of water, electricity, transport, banks, post-offices etc. The industrial estates will attract ancillary establishments and other institutions of marketing, education and other amenities for the benefit of tribal entrepreneurs and workers.

The industrial estates are to be constructed by government in view of the backwardness of tribals and tribal areas. Reasonable rents are to be fixed so as to be within the reach of the tribal entrepreneur. At present, the existing industrial estates functioning in the plains areas are transferred to the newly established Andhra Pradesh Industrial Infrastructure Corporation, Hyderabad. Recently, the Andhra Pradesh Industrial Infrastructure Corporation took up the establishment of Industrial Estates in (1) Araku in Visakhapatnam district, (2) Bhadrachalam in Khammam district, (3) Rampachodavaram in East Godavari district, and (4) Wankidi in Adilabad district and is providing them with (a) sheds, (b) roads and water facilities and (c) voluntary loan contribution for getting power supply.

Government lands at these places have been demarcated and the preliminaries are being attended to. It is felt by the Corporation that land is cheap in tribal areas. But the main difficulty is with regard to power. However, the Rural Electrification Corporation is providing large sums of money for electrification of tribal villages.

The provision of industrial estates in the above-mentioned four places will not be adequate. It is desirable to establish industrial estates in the identified growth centres. The following growth centres were identified for promotion of industrial estates in the tribal areas.

I. Srikakulam District :

1. Bhadragiri
2. Seethampet
3. Pachipenta

II. Visakhapatnam District :

1. Paderu
2. Araku/Araku Valley
3. Chintapalli
4. Koyyuru
5. Anantagiri
6. Sileru

III. East Godavari District :

1. Rampachodavaram
2. Addateegala
3. Kutravada

IV. West Godavari District :

1. Polavaram
2. Buttayagudem
3. Pragadapalli
4. Kannapuram
5. K. Ramachandrapuram.

V. Khammam District :

1. Bhadrachalam
2. Burgampad
3. Yellandu/Sudimalla
4. Cherla

VI. Warangal District :

1. Eturnagaram
2. Govindaraopet

VII. Adilabad District :

1. Utnoor
2. Wankidi
3. Ichoda
4. Indravalli
5. Hasnapur
6. Neredikonda

VIII. Mahaboobnagar District :

1. Mannanur

The Committee is of the opinion that in view of the lack of demand from tribal entrepreneurs, only five or six sheds might be constructed in each industrial estate. These estates may be expanded in due course as and when the demand increases. However, the establishment of industrial estates would have to be preceded by adequate pre-location techno-economic surveys.

As regards the nature of each industrial estate, it may be composed of agro, and forest-based with a few consumer goods industries. Tribal entrepreneurs in the industrial estates may be provided with technical assistance besides other common facilities. While starting industrial estates, tribal trainees who underwent training in various trades may be given preference for establishing their own industries.

Trained Tribal Artisans : Tribals were trained in various crafts by Training-cum-Production Centres, Rural arts and Crafts Centres etc., under Community development programmes. Most of the trained candidates are not yet settled in the trades in which they are trained due to various reasons such as lack of finance, technical know-how, marketing, under-employment. The Committee is of the opinion that it is necessary to extend necessary assistance to settle them in the trades in which they are trained and to set up common workshop or their own workshops.

Self-Employment Schemes : Unemployment and under-employment have been the common features in the tribal areas. These problems have to receive specific attention of the government. A crash programme has to be devised to solve unemployment among educated tribals taking into account the levels of their education. A large number of matriculates and under-matriculates have to be provided with self-employment schemes.

The following self-employment schemes can be encouraged and assisted among semi-literate and literate tribals. Small enterprises also are suggested :

1. Cycle hiring and repairing
2. Grocery shop
3. Tea stall
4. Agricultural implements repairing shop
5. Laundry shop
6. Typewriting institute (Job Typing)
7. Medical Shop
8. Tailoring centre
9. Pan shop

10. Book shop
11. Fancy Stores
12. Mutton Shop
13. Cloth Shop
14. Rice & Flour Mills
15. Dairy Farming
16. Civil contractors
17. Agar-bathi sticks from bamboo
18. Match sticks
19. Gum collection

The above list is tentative and subject to market survey.

It is necessary to conduct industrial potential survey in tribal areas to identify the resources and indicate the possibility of starting various types of large, medium, small-scale, village and cottage industries.

TRAINING PROGRAMMES

Training programmes in skills and entrepreneurship for the tribals are a prerequisite for promotion of industrial activities in tribal areas. The training programmes are to be designed to suit the traditional skills and the new skills required.

During the Plan periods, the State and central governments have undertaken certain training programmes to improve the skills of tribals. The state government have undertaken training programmes through Training-cum-Production Centres, Industrial Training Institutes and Polytechnics, and the Central government initiated certain programmes through Rural Industries Projects and Khadi and Village Industries Commission. Each programme is briefly discussed below:

1. *Training-cum-Production Centres* : Training-cum-Production Centres were established in Tribal Development Blocks to impart training to tribal candidates in various trades such as carpentry, blacksmithy, pottery, brickmaking, bee-keeping, bamboo and rattan work, spinning and weaving, adda leaf plate-making. These centres could not bring about a perceptible change in improving the skills of tribals. However, a good number of tribals were trained in various trades and some of them are settled.

TABLE 6—SCHEDULED TRIBES — TRAINED AND SETTLED IN VARIOUS TRADES

S. No.	Trade	Number of persons Trained	Number settled
1	2	3	4
1.	Carpentry and Blacksmithy	500	203
2.	Pottery and Brick making	172	70
3.	Spinning and Weaving	183	42
4.	Bamboo and Rattan work	235	71
5.	Adda leaf plate making	72	12
6.	Tanning of hides	50	21
7.	Bee-keeping	35	20
8.	Horn work	8	1
9.	Pottery	66	38
10.	Carpentry	309	105
11.	Tanning	33	14
12.	Basketry	38	16
13.	Leather goods	40	22
14.	Steel trunk manufacturing	8	4
15.	Other trades	155	39
TOTAL:		1904	678

These trained personnel would constitute an important nucleus for taking up cottage and small-scale industries.

During the Fourth Plan period, the Training-cum-Production Centres were not encouraged and only a few such institutions are now functioning in the Tribal Development Blocks of Srikakulam, Visakhapatnam, Khammam and Adilabad districts.

The Department of Tribal Welfare also initiated the following training programmes :

1. Training of Tribals as Masons.
2. Training of Tribals as Motor Drivers.
3. Apprenticeship programme for tribals in Public and Private Sector undertakings.

As a follow-up measure, the Andhra Pradesh State Road Transport Corporation and other public undertakings may be induced to absorb the trained personnel in driving and masonry, giving higher training to them, if necessary. Andhra Pradesh State Road Transport Corporation may also recruit tribal youth as conductors and provide training for them.

2. *Industrial Training Institutes and Polytechnics*: The technical institutions have been imparting training mostly in industrial trades such as mechanic, fitter, turner, welder, typewriting, shorthand. Four per cent of the seats are reserved for tribals in these institutes. During the year 1972-73, only 15 candidates in Polytechnics and four candidates in other technical institutions were imparted training out of the total of 5287 trainees and 3180 in Polytechnics and other technical institutions, respectively.

Under Craftsmen Training Scheme, out of 8,595 trainees only 69 scheduled tribe candidates were on the rolls as on 31-10-1971.

3. *Rural Industries Projects*: These programmes are initiated by Government of India to improve skills mostly of rural artisans. Forty-nine rural industries projects are functioning in various states, providing training facilities, common service facilities, technical assistance, marketing facilities, etc. Fifty more new projects are proposed to be started during the Fifth Five-Year Plan. Though 39,575 candidates were trained under this programme from 1964-65 to 1970-71, the tribal candidates trained were not known.

Srikakulam and Khammam districts are now covered by the rural industries projects and artisans training programme can now be expected to be taken up in these two districts for tribal artisans.

4. *Training in Secretarial Courses and Management*: The state government have been extending scholarships for imparting secretarial courses such as typewriting, shorthand for tribal candidates besides establishing Pre-examination Training Centres exclusively for scheduled castes and scheduled tribes. The Pre-examination Training Centres have been imparting training to scheduled castes and scheduled tribe candidates for various competitive examinations conducted by Board of Technical Education, APPSC, UPSC, RSC, Nationalised banks and other public and private sector undertakings for different categories of posts such as typists, stenographers, clerks, assistants, managers and officers. At the Pre-examination Training Centre, Hyderabad, 133 scheduled castes, scheduled tribes and denotified tribe candidates were trained so far and 89 of them have got employment.

5. *Khadi and Village Industries Commission*: The training programmes of Khadi and Village Industries Commission can be divided broadly

into two categories viz., programmes for artisans and programmes for organisational staff.

The training programmes for artisans are provided in 22 village industries such as khadi, processing of cereals and pulses, ghani oil, village leather, cottage, match, Gur Khandsari, Palm Gur, Non-edible oils and soap, hand-made paper, village pottery, Bee-keeping, Fibre, Blacksmithy and Carpentry, manufacture and use of Methane Gas and Manure, Limestone and its products, manufacture of Shellac, collection of forest plants and fruits for medicinal purposes, fruit processing and preservation, bamboo and cane work manufacture of household utensils from aluminium, manufacture of gum resins and manufacture of katha. The training programme for organisational staff aims at improving the technical and managerial skills of staff engaged in organising these different types of village industries. The Khadi and Village Industries Commission has also introduced a people's education programme in 1972. An essential feature of this programme is that some artisans meet again and again in the study circles and study the different aspects of the industry and thus obtain a comprehensive picture and understanding of the programme. The main intention of this programme is to equip the artisans the "Why and Wherefore" of the activities in which they are engaged.

Details of the training programmes of Khadi and Village Industries Commission are furnished in Annexure-IV.

Review :

A brief review of the existing training programmes indicates that they are quite inadequate. All these programmes did not make any impact on tribal artisan-industries. These programmes are not mainly related to local raw materials, Some of them are general in nature and not exclusively intended for tribals. The training facilities extended mainly by Industrial Training Institute are not broad-based and they did not cover the agro-forest and livestock-based industries. The training programmes of rural industries projects are not extended to tribal areas in view of the fact that not even a single rural industries project is confined to tribal areas. Though Khadi and Village Industries Commission's programmes are suitable for tribals and tribal areas, much impact on improving the skills of tribals has not been noticed despite the efforts made by the Commission. The people's education programme of Khadi and Village Industries Commission is still to be extended to tribal areas.

Proposed Strategy :

The strategy of training programmes for tribals and tribal areas should aim at improving the traditional skills, creation of new technical

and managerial skills related to the exploitation of the natural resources besides promotion of entrepreneurship. Non-formal training also has to be promoted under self employment schemes. Further existing training facilities have to be improved and enlarged.

Traditional Skills : Certain tribal groups are well-known for their traditional skills. Kolams and Hill Reddis are adepts in bamboo-cutting and basket-making. Konda Kammaras are traditional blacksmiths who manufacture and repair agricultural implements. Samanthas or Khonds are well versed in mat weaving, oil extraction etc. Gadabas are engaged in stone breaking, earth work besides weaving a particular type of cloth. The traditional skills are to be upgraded through different types of appropriate training programmes. Viable projects may be prepared for all these artisan groups and necessary training may be imparted so that the artisans adopt bankable projects. Training programmes may also be taken up by SFDA, MFAL, and Girijan Development Agency Projects. Steps should be taken to revive the tribal handicrafts and encourage the preservation of tribal culture.

2. Promotion of New Skills : New industries are proposed for tribal areas which require new skills. These new skills have to be imparted to tribals, in agro-forest and livestock-based industries. Except for the Khadi and Village Industries Commission, most of the existing agencies do not have programmes to train the tribals to acquire new skills. Attention needs to be paid to this aspect.

Further, in addition to providing training in engineering skills like turning, drilling, welding, simple foundry practice is also essential for creation of skilled labour force so that eventually the tribals may be in a position to take up these industries in due course.

Hence a Training Institute with condensed courses in all these fields may be established in Visakhapatnam District in an experimental basis.

It is also desirable to persuade the large and medium-scale industries to provide free of cost training facilities to the tribals in their respective enterprises.

Regarding filling up the seats in ITI's, the committee feels that 4 per cent of the seats should be filled through providing liberal facilities and relaxing the rules in favour of Scheduled Tribes candidates.

The charitable institutions, religious endowments, voluntary organisations and departmental funds can be made use of, for providing lodging facilities to tribal candidates in view of the present policy of government regarding opening of hostels.

Training in Organisational Skills :

It is found that the tribals are not at all occupying the middle-level managerial posts even in the few industries located in and around the tribal areas. Efforts should be made to provide training facilities to tribals in business management and secretarial courses. They should be trained as Managers, assistant managers, office assistants, accounts assistants, typists, stenographers, etc. For this purpose, the training activities of Pre-examination Training Centre need to be intensified and a close co-ordination has to be maintained with the industries located in tribal areas. Further, the Andhra Pradesh Productivity Council and the Zonal Training Centre of KVIC (Southern States) may be approached to provide training in Managerial courses for Scheduled Tribe candidates.

Promotion of Entrepreneurship : Training programmes have to be designed for identification and promotion of entrepreneurship among the tribals.

It is necessary to induce some of the enterprising people to embark on industrial ventures and to exploit the natural resources. Regarding promotion of entrepreneurship among tribals, two different approaches are suggested by SIETI and APSSIDC. These approaches have different methodology for identification and promotion of entrepreneurship among the tribals. The schemes suggested by SIETI and APSSIDC are furnished in Annexures V and VI. The experiment in this field will be a pioneering one especially among the tribals. The committee recommends the scheme suggested by SIETI for adoption.

To achieve the above objectives, the Committee suggests the following steps :

1. An official level selection committee may be formed to select tribal boys through vocational guidance for admission into ITI's and other technical institutions.
2. Effective implementation of Apprenticeship Act.
3. Forecasting of likely vacancies in public and private-sector undertakings and guidance to tribal candidates.
4. Follow-up action for the tribals trained in various trades.
5. Government may make it compulsory on the part of industries to give preference to local tribals and absorb them in suitable posts after imparting training.

6. Relaxation of the minimum educational qualifications, wherever necessary.
7. Training programmes should form part of a project profile of each industry. Suitable workshops have to be established by industries. Training has to be given at company's cost.
8. Diversification of courses in ITI's covering agro, forest and livestock-based trades or establishment of ITI exclusively for tribals.
9. Selected tribal entrepreneurs may be imparted in plant training in the industries proposed to be set up in tribal areas.
10. Constitution of employment committees in large and medium industries or for a group of small-scale industries for recruiting suitable tribal candidates.

Feasibility Studies : The exploitation of natural resources is the bedrock of tribal economy. The resources have to be properly utilised and augmented by long range planning. For the exploitation and best utilisation of minor forest products like tamarind pulp, tamarind seeds, nux vomica seeds, gum karaya, solanium, Annattoo seeds, non-edible oil seeds like Pongam, Mohwa, Pinne, Kusum, Soap nuts, Shikaya, Ginger and others for industrial purposes. Steps were taken in obtaining technical notes, project reports and other relevant particulars from the various national laboratories in different parts of the country on the manufacture of tamarind kernal powder, modified tamarind kernal powder, pectin and tartarate from tamarind fruit pulp, alkaloids from nux vomica, solicidia from Solanium, grading and processing of gum karaya, edible colours from annattoo seeds, tanning extract from myrobalan, citronella oil. Subsequently, a number of forest-based industries have been identified and their implementation has been taken up. While schemes for the manufacture of Shikaya powder, Crushing of Myrobalans, niger seed oil, milling have been started directly by the Girijan Co-operative Corporation, others like Alkaloids from Nuxvomica, grading and processing of Gum Karaya, tanan extract of Myrobalan, edible colours from annattoo seed are being sponsored as joint ventures in collaboration with the Girijan Corporation, APSSIDC and some private entrepreneurs.

There are still other industries which are yet to be taken up and more industries have to be identified based on this forest produce. Further economic feasibility and viability of these schemes should also be assessed. Any central financial institution like the IDBI, IFC, LCDC, is nowadays

insisting on the preparation of a project report including the economic feasibility and viability of the scheme whenever they are approached for financial assistance from the sponsors. There are a number of consultants who are prepared to undertake the work not only of preparation of the reports but also of commission the projects on turn-key basis. It is always desirable to implement this scheme by entrusting to such competent technical consultants who are ready to conduct the feasibility study and commission the plant, and impart training to the local tribal workmen.

INCENTIVES AND CONCESSIONS

The state government have introduced a number of measures to create proper industrial climate and to change the industrial horizon of Andhra Pradesh. The Planning Commission have identified the following 14 districts in the state as the industrially backward districts:

1. Nalgonda
2. Chittoor
3. Medak
4. Nizamabad
5. Mahaboobnagar
6. Kurnool
7. Karimnagar
8. Cuddapah
9. Warangal
10. Nellore
11. Anantapur
12. Ongole
13. Khammam
14. Srikakulam

Of the above 14 districts, scheduled areas are found in Mahaboobnagar, Warangal, Khammam and Srikakulam. These districts were identified as needing special attention so as to remove the regional imbalances by accelerating their industrialisation. Special incentives such as special subsidy of 15 per cent on capital investment, concessional finance by the central financing institutions including lower rates of interest, longer period of repayment, participation in the share capital and reduction in undertaking commission are being provided by the central government to encourage entrepreneurs to set up industries in these backward districts. In addition to the incentives offered by central government, the state government is also providing some incentives to attract industrialists.

The Government have been pursuing a policy of attracting industrialists to the state by offering the following facilities and incentives to the new industrial undertakings started on or after 1-1-1969.

Concession of Sales Tax : Refund of sales tax on raw materials, machinery and finished goods levied by state government subject to a maximum of 10 per cent on equity capital, paid-up capital of public limited companies or the capital outlay (excluding working capital) in the case of others. The ceiling of 10 per cent shall be for the whole period of five years for which this concession is available and not on annual ceiling.

Power Subsidy : Subsidy on power for production to the extent of 10 per cent in the case of medium and large-scale industries and 12½ per cent in the case of small-scale industries. This concession will not apply to the cases where concessional tariffs are allowed by the Andhra Pradesh Electricity Board.

Exemption from payment of water rate : Exemption from payment of water tax is given on water drawn from sources not maintained at the cost of government or the local body.

Non-Agricultural assessment : Liability on account of assessment of land revenue or taxes on land used for establishment of an industry shall be limited to the amount of such taxes payable immediately before the land is so used.

Additional incentives : The following special incentives will be allowed to new industrial units set up in the ayacut areas of Nagarjunasagar, Pochampad, K. C. Canal, Ramagundem, Kothagudem area and in the fourteen districts already declared as backward.

1. Sale of lease of government land at concessional rates.
2. Grant of financial assistance on a priority basis by the State Financing Institution with lower margins and lower rates of interest.

As long as the incentives offered are uniform throughout the state all industries whose capital investment (excluding working capital) does not exceed Rs. 5 crores would find it more disadvantageous, except for the easy availability of raw material which is the only facility and which may not sufficiently enthruse the development of industries in tribal areas. To compensate for the many negative factors arising on account of the poor infrastructure, it is necessary that the government should give for

some years to come better incentives and more concessions for industries in tribal areas, than those given in backward areas as an inducement for setting up industries in these inconvenient tracts. This is also desirable to arrest flow of labour from the backward areas to metropolitan centres.

With a view to stimulate rapid industrialisation the following effective incentives and concessions are proposed for the scheduled areas:

(1) Twenty per cent subsidy on the fixed capital investment is proposed to be given to all types of industries in the non-corporate sector, and 15 per cent to all types of industries in the corporate sector, where capital investment does not exceed Rs. 1 crore. The maximum amount which could be paid will be limited to Rs. 15 lakhs in each case. Even the industries whose capital investment fixed on assets-exceed Rs. 1 crore may be considered on selective basis for purposes of granting subsidy which again may be limited to Rs. 15 lakhs.

(2) *Sales Tax* : There should be complete exemption from sales tax on the purchase of raw materials, machinery, equipment and also on the sale of materials, machinery, equipment and also on the sale of finished products.

(3) *Power Subsidy*: In view of the backwardness of the tribal areas, powerlines should be laid at the cost of government to the periphery of the site occupied by the industry. Power subsidy should be given to the extent of 50 per cent on the amount charged by the Andhra Pradesh State Electricity Board for a period of five years. It has to be guaranteed that no power cut would be imposed at any time for any industry in tribal areas.

(4) *Local Taxes*: The industries in tribal areas should be completely exempted from the Panchayat Taxes.

(5) *Transport Concessions* : 50 per cent subsidy should be given on the cost of transport charges incurred by the unit, to transport raw materials or finished products.

(6) *Stamp Duty* : The industries in tribal areas should be exempted completely from stamp duty.

(7) *Water Rates* : Industries should be exempted from payment of the cost of water drawn from a source maintained by a government or a local body.

(8) *Non-Agricultural Assessment* : The industrialists in tribal areas should be exempted from the assessment of land revenue or any tax on land used for the establishment of an industry at least for a period of ten years.

(9) *Rate of Interest* : Concession in the rate of interest should be given to industries located in tribal areas by financial institutions. The committee suggested that 4 per cent concession has to be given to industries located in tribal areas in view of the peculiar conditions prevailing in tribal areas.

(10) *Developed plots* : The APIIC may acquire and develop the plots with suitable industrial amenities for development. The developed plots may be allotted to tribal industrialists free of cost or at nominal cost or on easy hire-purchase basis.

(11) *Buildings Accommodation* : In developed plots, the APIIC may construct sheds and allot to the tribal entrepreneurs on easy instalment basis or on reasonable rents, which are to be fixed so as to be within the reach of Scheduled Tribe entrepreneurs.

(12) *Machinery and Equipment* : It is quite essential that government or a corporation may take up the supply of machinery and equipment necessary for the industrialists in tribal areas on concessional basis.

(13) *Price preference* : A 20 per cent price preference has to be given to the products of small-scale industrialists in tribal areas for a period of five years.

(14) The Girijan Co-operative Corporation which has been procuring forest produce, should first meet the raw-material requirements of Scheduled Tribe entrepreneurs and then supply the remainder to other areas.

Thus a package of incentives and concessions are essential for speedy and effective industrialisation of tribal areas and especially to encourage and attract tribal entrepreneurs.

CHAPTER VII

ORGANISATION; ADMINISTRATION AND MARKETING

The agencies promoting industries in the state are: (1) Industries Department, (2) Andhra Pradesh Industrial Development Corporation, (3) Andhra Pradesh Small-scale Industries Development Corporation, (4) Andhra Pradesh Industrial Infrastructure Corporation, (5) Girijan Co-operative Corporation, and (6) Khadi and Village Industries Commission. Though there are a good number of agencies charged with responsibility of promoting industries, specific attention has not been paid to the tribal areas and no industry in Large-scale sector or Small-scale sector has been set up in the interior of scheduled areas. The Girijan Co-operative Corporation has, however, set up a few processing industries in the tribal areas.

The Committee held discussions with the Heads of these agencies and the Girijan Co-operative Corporation and reviewed their functioning with reference to scheduled areas. The Andhra Pradesh Industrial Development Corporation, Andhra Pradesh Small-scale Industries Development Corporation and Andhra Pradesh Industrial Infrastructure Corporation are the specialised institutions with a large area of operation while the Industries Department is mainly a promotive agency. The Girijan Co-operative Corporation, which is basically a trading organisation has entered recently the field of industrial development in tribal areas.

Different opinions have been expressed on the desirability of having an agency for bringing about rapid industrialisation of the scheduled areas. One view was that the Girijan Co-operative Corporation, Visakhapatnam, should be entrusted with industrialisation of this area. The main reason behind this argument is that the Girijan Co-operative Corporation is having the virtual monopoly of minor forest produce on which many industries could be set up.

Another view was that since the Girijan Co-operative Corporation was a trading concern, if it entered the field of industries, its trading activity

would suffer and diffusion of its effort would stretch its financial and other sources to a limit when it might not be able to do justice to either of its functions. Secondly since it has no expertise in the field of industries its entry in the field of industries might do more harm than good to the cause of industrialisation of scheduled areas. In this connection the attention of the committee was drawn to the Memo. No. 2226/F1/74 dated 3-6-1975 of Employment and Social Welfare (F) Department, of Government of Andhra Pradesh, in which the Girijan Co-operative Corporation was directed not to set up any industries in the scheduled areas. Further Girijan Co-operative Corporation was directed to supply minor forest produce to Andhra Pradesh Small-scale Industries Development Corporation or Andhra Pradesh Industrial Development Corporation in case these organisations decided to set up industries on the basis of minor forest produce. The Girijan Co-operative Corporation was allowed to sell the remainder of minor forest produce in auction in which Andhra Pradesh Small Industries Development Corporation and Andhra Pradesh Industrial Development Corporation can also participate if they so desired.

In the light of these views, the Committee is of the view that following set up would be helpful :

1. The Girijan Co-operative Corporation may be allowed to set up industries based on the raw materials in the procurement of which it has a monopoly on conditions that it should start such industries with its own capital.
2. The Andhra Pradesh Small-scale Industries Development Corporation should be the main agency to take up joint ventures with the GCC and private entrepreneurs as partners.
3. The Andhra Pradesh Small-scale Industries Development Corporation should again be the agency to set up the industries in the scheduled areas based on the raw material in which the GCC has no monopoly. Even in the case of raw material in which the GCC has monopoly, the APSSIDC may be allowed to set up industries in case the GCC does not come forward to set up industries based on them.

The Committee however felt that there was no justification for establishing a Corporation exclusively for these areas as plurality of agencies would not serve the purpose. The Committee, after careful consideration, opines that a 'High-power Committee' should be constituted to focus continuous attention on formulation and implementation of industrial development schemes in scheduled areas. It may comprise the following officials:

- | | |
|--|----------------------|
| 1. Secretary to Government,
Industries Department,
Government of Andhra Pradesh,
Hyderabad. | <i>Chairman</i> |
| 2. Secretary to Government,
Employment & Social Welfare
Department,
Government of Andhra Pradesh,
Hyderabad. | <i>Vice-Chairman</i> |
| 3. Chairman,
A.P.S.E.B.,
Hyderabad. | <i>Member</i> |
| 4. Managing Director,
A.P.I.D.C., Hyderabad. | <i>Member</i> |
| 5. Managing Director,
A.P.S.S.I.D.C.,
Hyderabad. | <i>Member</i> |
| 6. Managing Director,
A.P.I.I.C., Hyderabad. | <i>Member</i> |
| 7. Managing Director,
G.C.C., Visakhapatnam. | <i>Member</i> |
| 8. Director,
K.V.I.C., Hyderabad. | <i>Member</i> |
| 9. Director,
Industries Department,
Hyderabad. | <i>Member</i> |
| 10. Chief Engineer,
Public Health Department,
Hyderabad. | <i>Member</i> |
| 11. Chief Conservator of Forests,
Forest Department, Hyderabad. | <i>Member</i> |
| 12. Director,
T.W.D., Hyderabad. | <i>Convenor</i> |

The Committee feels that the High-power Committee should be vested with full powers for industrialisation of the areas through a decision of the State Cabinet. The decisions of the proposed High-power Committee should be binding on every organisation which should become accountable to it. The functions of the proposed *High-power Committee* may be as follows :

1. To focus continuous and specific attention on promotion of industries in scheduled areas.
2. To implement the recommendations of the Expert Committee.
3. To coordinate and guide all the promotive agencies for effective industrialisation of the areas.
4. To give directions from time to time to all the agencies involved in promotion of industries in scheduled areas and see that its directions are followed.
5. To scrutinise the annual budget proposals of all the promotive agencies for ensuring the allocation of 4 per cent of their funds for the Scheduled Tribes and to give its approval.
6. To apportion responsibilities between different organisations and departments in regard to the fields of industries to be taken up by them. It will specify the agency for each industry to be promoted in the scheduled areas.
7. To give permission to set up industries in scheduled areas.
8. To undertake monitoring and review of different industrial schemes and explore further industrial possibilities in tribal areas.

The proposed committee will have to utilise the existing staff of different promotive agencies and suggest organisation of a cell in the Directorate of Tribal Welfare with necessary technical and Secretarial staff to work under the control of the Director, Tribal Welfare Department for speedy industrialisation of tribal areas.

The Expert Committee also considers it necessary that an exhaustive and comprehensive industrial potential survey has to be conducted in scheduled areas with the help of a multi-disciplinary team drawn from SIETI, SISI, TCR & TI, APSSIDC and KVIC. Though it is a time-consuming survey, it is essential to assess the potentialities of scheduled areas and identify the scope for new industrial possibilities. Research in the sphere of industrial economics, industrial sociology, industrial finance, industrial management and industrial marketing pertaining to tribals and tribal areas is essential. The responsibilities for providing, technical know-how, product designing and processing will be taken up by the National Labora-

In the tribal areas, the major marketing agency for agricultural produce and minor forest produce is the Girijan Co-operative Corporation. Products such as honey, sheekai powder are being marketed by the GCC

through a net-work of its depots. Shandies in tribal areas are the major centres for marketing of various types of goods including industrial products since organised markets are not found in the tribal areas.

Markets are important for industrial goods. Larger the market and effective the demand, the greater opportunity for the industry to grow. In the scheduled areas the size of the market for the industrial goods is small and therefore, the industries set up in the scheduled areas may have to look for markets elsewhere. Though for the present, the industries based on forest product may have monopoly in the markets, this situation may not last long and the industries in the scheduled areas will have to face competition from similar industries established elsewhere. Further, there are substitute products with which they have to face competition. Therefore, the industries in tribal areas should develop markets for their own goods. The following agencies should take up immediately marketing surveys for the products to be manufactured by the industries in the scheduled areas and develop marketing intelligency.

1. Girijan Co-operative Corporation has a net-work of more than 400 depots spread over the state. This net-work can be used for marketing the products manufactured in the scheduled areas. However, the depots need to be strengthened.

2. The Tribal Welfare Department, in collaboration with SIETI or any other competent agency in the field of marketing, may take up marketing survey not only in the markets of Andhra Pradesh but also in other main consuming centres of the country. The extent of demand for each product the competition from similar products and substitutes, the quality of each product, etc., should be assessed.

3. State Trading Corporation is another agency which may be entrusted with the marketing of products from the scheduled areas. This agency may also be associated with the marketing survey.

4. Price preference to 20 per cent may be given to the products manufactured in the scheduled areas and all consuming departments of Andhra Pradesh should be made to procure the goods from the industries of scheduled areas.

An organisational framework has to be evolved to bestow on the small-scale industries and the economies of scale in purchase and sale operations and also in securing financial assistance from various agencies in addition to solving the problems such as storage and finding suitable and timely market.

FINANCIAL RESOURCES

Small-scale industries sector now enjoys the benefit of getting finance from different agencies. Prominent among them are the nationalised banks, APSFC, National Small Industries Corporation and Co-operative Banks. The Lead Banks in Andhra Pradesh such as State Bank of India, State Bank of Hyderabad, Syndicate Bank, Andhra Bank and Indian Bank cover all the districts and provide finances for small-scale industries.

Andhra Pradesh State Finance Corporation provides finances to the extent of 85 per cent of the cost of Machinery and shed for the industry. It will not provide working capital. This corporation can even finance small industries with a capital of Rs. 5,000/-. Loans are generally issued on hypothecation of machinery and buildings. The rate of interest charged by this Corporation is 9 per cent for backward areas. The Corporation is willing to finance the industries in tribal areas even at 8 per cent rate of interest. The rate of interest can be subsidised by government. As regards the working capital, the commercial banks, Khadi Board, Industries Department and Tribal Welfare Department can be approached. The margin money can be provided by Industries and Tribal Welfare Departments. In this connection the committee felt that the proposed rural banks might also be approached for financing the tribal artisans at lower rates of interest.

The nationalised banks such as State Bank of India and State Bank of Hyderabad have so far advanced loans to tribals for agricultural purposes only. Loans are not given by these banks for industries purposes in tribal areas. The branches of certain banks are already functioning in the following tribal areas.

- | | |
|----------------------------|--|
| 1. State Bank of India | Araku, Chintapalli, Seethampet, Salur. |
| 2. State Bank of Hyderabad | Wankidi, Utnoor and Bhadrachalam. |
| 3. Andhra Bank | Bhadragiri |

4. Syndicate Bank

Rajahmundry, Kakinada, Eluru and Vijayanagaram (by opening extension counters or mobile banks)

5. Union Bank of India

Rampachodavaram and Addateegala.

During the discussions with the representatives of nationalised banks and other financial institutions they indicated that they could provide finance to tribal entrepreneurs provided that (1) viable schemes are prepared and (2) suitable legislation is brought about for recovery of loans, as is being done by Governments of Uttar Pradesh and Bihar. Under U. P. Public Moneys (Recovery of Dues) Act, 1972, the Co-operative and Commercial Banks can get their dues recovered as arrears of land revenue provided that they have had their schemes notified by the Government as State sponsored schemes under Section 2 of the Act. This type of legislation would help the Banks to enter the identified area. The Revenue Recovery Act in Andhra Pradesh has to be extended to recover the loans from entrepreneurs as in the case of land revenue subject to the condition that only machinery and buildings could be attached for recovery of loans.

The location of banks have to be examined from the point of view of growth centres in tribal areas. Growth centres are already identified in some of the tribal areas. Each branch of the bank may have to be induced to adopt a growth centre in its vicinity. This will be the focal point from which other industrial activities will be radiated to adjoining areas. The Banks can open extension counters in Industrial Estates or Mobile Banks can be started since the Bankers cannot get deposits at these growth centres in the initial stages. Accommodation for location of the banks and their staff should be provided in each industrial estate. Banks can advance loans for the purpose of constructing staff quarters and extension counters in industrial estates. In this connection the Committee felt that a small group comprising the representatives of Lead Bank, GCC, APIIC, APSSIDC, APSFC, Industries and Tribal Welfare Departments may be constituted for growth centres in each district to co-ordinate the various activities connected with the organisation and financing of Industries in tribal areas.

Co-operative Banks can also provide finance to tribal entrepreneurs for starting industries in the tribal areas. In this connection the Committee came to the view that the Andhra Pradesh State Co-operative Bank and National Co-operative Development Corporation might be approached for finance. Already an amount of Rs. 5 lakhs has been set apart by Andhra Pradesh State Co-operative Bank for industrial development in tribal areas. Khadi and Village Industries Commission also might take up training programmes and provide financial assistance to cottage industries organised under the co-operative sector.

It is observed that neither the commercial banks nor the co-operative banks are coming forward to finance the tribal entrepreneurs without collateral security in most of the cases. Further, the commercial and co-operative banks cater to the needs of all sectors of the economy. The committee is of the view, that State Industrial Co-operative Bank may be established and its activities should confine to extension of credit to the artisans and industries set-up by weaker sections. Its managing Committee may comprise the Director of Industries, Managing Director, Andhra Pradesh Small-scale Industries Development Corporation, Managing Director, Girijan Co-operative Corporation Limited and Director of Tribal Welfare.

The financing agencies are apprehensive of going into scheduled areas for advancing medium-term and short-term loans to industrial projects for fear that they might not be able to recover the loans in the event of failure of the industrial projects. Small-scale industries are already covered under the credit guarantee scheme to the extent of 75 per cent. To remove the apprehensions of the financing institutions, it is suggested that upto 25 per cent of the credit advanced by the banks for small-scale and cottage industries may be guaranteed and a sum of Rs. 10.00 lakhs may be set apart for this purpose.

Various Corporations and Nationalised Banks charged with the responsibility of promoting industries in the state should be made to earmark a minimum of 4 per cent of their annual budget provision towards industrial development of scheduled areas.

The programmes envisaged in this report require an outlay of Rs. 173.52 lakhs (Annexure—VII) as detailed below:

	<i>Rs. in lakhs</i>
1. Small-scale, Village and Cottage Industries	77.52
2. Plantations	20.00
3. Training Programmes	7.00
4. Livestock based industries	20.00
5. Tribal Handicrafts	2.00
6. Industrial Estates	25.00
7. Self-Employment Schemes	1.50
8. Feasibility studies	3.00
9. Incentives and concessions	7.50
10. Credit guarantee scheme	10.00
Total :	<u>173.52</u>

The contribution of each agency for promotion of industries in tribal areas is furnished below :

	<i>Rs. in Lakhs</i>
1. Sub-Plan	
(a) Central Assistance	75.00
(b) Tribal Welfare Department	5.00
(c) Industries Department	5.35
2. Andhra Pradesh Industrial Infrastructure Corporation	15.00
3. Khadi and Village Industries Commission	9.50
4. State Finance Corporation	19.12
5. Girijan Co-operative Corporation	8.35
6. Animal Husbandry Department	20.00
7. Entrepreneurs share	2.75
8. Banks	9.45
9. Government	4.00
Total :	<u>173.52</u>

The expected credit-flow for industrialisation of tribal areas from Banks, State Finance Corporation, Khadi and Village Industries Commission and Andhra Pradesh Industrial Infrastructure Corporation would be about Rs. 53.07 lakhs.

ACTION PROGRAMME

An immediate action programme should be initiated and implemented.

Some of these steps should be linked with the existing skills and practices of the tribals such that their economy might show immediate improvement. A number of studies done by the Industries Department, Khadi and Village Industries Commission, and Tribal Cultural Research and Training Institute reveal that there are a number of professions such as blacksmithy, Carpentry, Bee-keeping, Rope-making, tassar silk-worm rearing, mat-making, fibre extraction, gum collection, logging, basketmaking, pottery, oil-extraction, costume and jewellery making, embroidery which can be the sources of gainful employment for the scheduled tribes population.

If improvements and refinements are introduced in the existing cottage and village industries and suitable trade channels are created linking them with marketing agencies, it will be possible to afford immediate economic and social benefits to the scheduled tribe population. As such an immediate economic programme has been worked out.

Because of the absence of factors like capital, entrepreneurial ability, etc. in the agency area, most of the schemes may have to be taken up in the co-operative fold with built-in-safeguards for their proper functioning. Besides, scheduled tribe entrepreneurs may also be encouraged, wherever possible, to take up small industries and business ventures under self-employment schemes. The following industries may be taken up immediately in co-operative fold and by individual scheduled tribe entrepreneurs.

<i>S.No.</i>	<i>Industry</i>	<i>No. of units</i>	<i>Places</i>
1.	Non-edible oil seeds crushing	1	Bhadrachalam.
2.	Washing soap	2	Koyyuru.
3.	Rope making	3	Addateegala, Bhadrachalam, Eturnagaram.
4.	Basket making	3	Polavaram, Burgampadu, Chintapalli.
5.	Aluminium and Brass utensils	1	Bhadragiri.
6.	Bee-keeping	400 boxes	T. D. Blocks
7.	Sago Units	1	Seethampet.
8.	Fibre extraction	2	Addateegala, Seethampet.

a) Facilities like participation in share capital, loans towards share capital, managerial assistance, etc. should be provided by the Industries Department.

b) Khadi and Village Industries Commission may be requested to provide financial assistance to the above industries. Besides, Co-operative Central Banks and Commercial Banks may also be approached for extending financial assistance to the above industrial co-operatives.

c) Under self-employment scheme, some business ventures and small industries may be promoted with local entrepreneurs as the beneficiaries and the following are suggested.

1. Dairy
2. Cycle Taxis
3. Grocery shops
4. Servicing Workshops for Oil Engines etc.
5. Gum collection
6. Minor Forest Produce collection, etc.
7. Medical Herbs collection.

It is suggested that immediate steps may be initiated to establish the above in the tribal areas during the year 1975-76. The financial implications may be to the tune of Rs. 12.63 lakhs.

RECOMMENDATIONS

The uni-sectoral economy of the tribes has to be diversified to keep pace with overall economy of the State. The secondary sector in the Scheduled areas needs greater and specific attention along with the primary sector to bring about a sustained growth of tribal economy. The committee made several recommendations for rapid industrialisation of tribal areas which are briefly mentioned below :

1. ECONOMIC PROFILE :

1.1 The secondary sector in tribal areas has to be built up from the scratch and the occupational pattern of Scheduled Tribes has to be diversified so as to reduce the ever mounting pressure on land and provide gainful employment to the tribals.

1.2 Communications have to be developed widely linking up the hinterland with the identified growth centres so as to facilitate the industrial development.

1.3 Industrial infrastructural facilities have to be provided at identified growth centres in scheduled Areas.

2. INDUSTRIAL SETTING :

2.1 Sporadic efforts so far made in the field of setting up industries in tribal areas cover only a fraction of utilisable resources. Concerted efforts need to be put in for exploitation of the resources and the existing human skills on a large-scale.

3. STRATEGY AND PRIORITIES :

3.1 The Committee is of the opinion that the solution for economic development of tribes lies in capital-saving and labour-intensive techniques which are possible through initiation of small-scale and cottage industries.

3.2 The Committee suggests that industries should be located in the identified growth centres of the scheduled areas. Those industries in which the investment does not exceed Rs. 2.00 lakhs, should be reserved to the scheduled tribes and those industries where the investment exceeds Rs. 2.00 lakhs may be thrown open to others with built-in-safeguards for Scheduled Tribes as enumerated below :

- (a) Substantial share-holding for tribals.
- (b) Procurement of raw materials from tribals only.
- (c) Employment ensured to tribals only.
- (d) Provision for earmarking a substantial part of end-products for use in industries set up by tribals.
- (e) Permitting tribals to acquire progressively the shares of others.

3.3 Guided promotive policy has to be adopted in promoting industries in Scheduled areas. This policy involves the promotion of industries in Scheduled areas mostly in the co-operative sector and joint-sector. This does not, however, preclude the offer of inducements to individuals to set up industries.

3.4 Rehabilitation of displaced scheduled tribes should form part of any large-scale industrialisation and large-scale industries in scheduled areas should devote special attention to the development of hinterland from which raw materials are being procured.

4. INDUSTRIAL POTENTIALITIES :

4.1 The Committee emphasises that as a matter of fact the tribal areas need a purposive policy of encouragement and help in exploitation of natural resources and in creation of industrial climate.

4.2 Appropriate patterns need to be designed to solve some of the problems in tribal areas such as inadequate capital, low productivity techniques, market inadequacy, lack of technical knowledge and entrepreneurial skills.

4.3 There is a large scope for establishing agro-forest and livestock-based industries on the basis of the existing resources.

4.4 Besides promotion of agro-forest and livestock-based industries tribal handicrafts and self-employment schemes are to be encouraged, among the tribals.

4.5 Industrial estates are to be established with not more than five or six sheds in identified growth centres. These should be provided with all facilities to attract the scheduled tribe artisans and entrepreneurs.

4.6 The Committee is of the opinion that promotion of industries in tribal areas has to be planned and organised carefully to make the tribal economy self-reliant and self-generating within the predetermined time scale.

4.7 Surplus labour in the field of agriculture should be diverted towards more productive occupations such as industries.

4.8 The Committee suggests that agricultural and horticultural resources in tribal areas should be made more productive through intensive and extensive cultivation. A plantation Corporation may be established as plantation crops require huge investments which are beyond the scope of any private scheduled tribe entrepreneurs.

5. TRAINING PROGRAMMES :

5.1 The Committee is of the opinion that training programmes are to be designed to improve the traditional skills and to promote new skills. With this aim in view, about 30 types of training programmes are suggested to suit the proposed industries.

5.2 An official-level Selection and Guidance Committee may be formed for admission of tribals into I.T.I's and for taking up follow up action. This committee will be a subordinate body of the proposed High-level Committee.

5.3 The Committee recommends that training programmes should form part of project profiles of each industry and the training should be imparted at the cost of the company.

5.4 The scheduled tribes trained so far in various trades should be absorbed into various public and private-sector undertakings and the local scheduled tribes should be given preference. Employment Committees should be formed for recruitment of tribal candidates into various industrial undertakings.

5.5 The scope of the I.T. I's has to be enlarged so as to include agro-forest and livestock-based industrial skills besides non-formal training under self-employment schemes.

5.6 Efforts should be made to fill up 4 per cent of the seats reserved for Scheduled Tribes by extending liberal facilities.

5.7 Apprenticeship Act should be implemented effectively and the likely vacancies in public-sector undertakings should be estimated in advance to provide guidance to tribal candidates.

5.8 Training in engineering skills will go a long way in taking up industries by the scheduled tribes. For this purpose one training institute may be established exclusively for Scheduled Tribes at Visakhapatnam and Scheduled Tribes candidates should be admitted by relaxing the minimum educational qualifications.

5.9 Training of tribal candidates in managerial and secretarial skills is of highest importance on the eve of industrialisation.

5.10 Identification of entrepreneurs among the scheduled tribes is an urgent task which has to be done through action-cum-research programme by Small Industries Extension Training Institute, Tribal Cultural Research and Training Institute and Industries Department.

5.11 Feasibility studies should be undertaken by the national laboratories such as Regional Research Laboratory, Central Food Technology Research and Training Institute, Central Leather Research Institute etc.

6. INCENTIVES AND CONCESSIONS :

With a view to stimulate rapid industrialisation of scheduled areas, the following incentives may be provided.

6.1 Twenty per cent subsidy on the fixed capital investment should be given to all types of industries in the non-corporate sector and 15 per cent to all types of industries in the corporate sector, whose capital investment does not exceed Rs. 1 crore. The maximum amount which could be paid should be limited to Rs. 15 lakhs in each case. Even the industries whose capital investment on fixed assets exceeds Rs. 1 crore should be considered on selective basis for purposes of granting subsidy which again should be limited to Rs. 15 lakhs only.

6.2 Some of the identified growth centres are not having power supply. These centres will have to be electrified as early as possible and the cost of such supply should be borne by Government in view of the importance of power to industries.

6.3 The committee recommends that the industries should be exempted from stamp duty, water rates, land tax, sales tax, etc. Power subsidy may be given to the extent of 50 per cent on the amount charged by Andhra Pradesh State Electricity Board for a period of five years for the industrial units, located in scheduled areas from the date of its going into production.

Four per cent concession in the rate of interest should also be extended to the Units.

6.4 Scheduled Tribe entrepreneurs should be provided with developed plots, building accommodation and machinery and equipment on concession basis.

6.5 The Girijan Co-operative Corporation which has been procuring minor forest produce, should first meet the raw material requirements of Scheduled Tribe entrepreneurs and then supply the remainder to other areas.

7. ORGANISATION, ADMINISTRATION AND MARKETING :

7.1 The Committee strongly recommends that a *High-level Committee at the State level* should be constituted for implementing the recommendations made herein and to focus continuous and specific attention on the promotion of industries in the scheduled areas.

7.2 The agencies to bring about industrialisation of Scheduled areas should be Girijan Co-operative Corporation and Andhra Pradesh Small-scale Industrial Development Corporation.

7.3 Marketing agencies for the products manufactured in the scheduled areas should be Girijan Co-operative Corporation and Andhra Pradesh State Trading Corporation. Marketing surveys should be entrusted to Small Industries Extension Training Institute or any competent agency in the field of marketing.

8. FINANCIAL RESOURCES :

8.1 It is estimated that an amount of Rs. 174.00 lakhs would be required for the identified agro-forest and livestock-based small-scale and cottage industries.

8.2 Finances for promotion of industries in the tribal areas will have to be tapped mainly from nationalised banks, Andhra Pradesh State Financial Corporation, Co-operative Banks, Khadi and Village Industries Commission, All India Handicrafts Board, Andhra Pradesh Industrial Infrastructure Corporation, Andhra Pradesh Small-scale Industrial Development Corporation and government departments such as the Industries Department, Tribal Welfare Department.

8.3 The nationalised banks may have to be induced to adopt growth centres in its vicinity for banking operations.

8.4 The Committee suggests that a co-ordination committee may be formed for growth centres in each district to organise and finance the industries in tribal areas.

8.5 A specialised apex Co-operative institution like State Industrial Co-operative Bank has to be established for extending liberal credit facilities to artisans and industries set up by weaker sections.

8.6 An amount of Rs. 10 lakhs may be initially set apart towards credit guarantee required by commercial Banks so as to cover 25 per cent of the credit extended by the commercial banks.

8.7 Four per cent of the annual budget of the Corporations and Nationalised Banks should be earmarked for the industrial development of tribal areas.

9. ACTION PROGRAMME :

9.1 The Committee felt that it is necessary to formulate immediately an economic programme linking up the existing skills and practices for the benefit of educated unemployed and artisans among the tribals.

9.2 Industries based on certain raw materials and those based on local skills have been identified for inclusion in the immediate action-programme. It is estimated that an amount of Rs. 12.63 lakhs would be required towards this programme for the year 1975-76.

PART II

I. BACKGROUND PAPERS

1. TRIBES OF ANDHRA PRADESH

*Tribal Cultural Research and
Training Institute*

Andhra Pradesh has a scheduled area of 11,595 Sq. Km. with 33 scheduled tribes. This area is spread over eight districts from Adilabad, in north-west to Srikakulam district in north-east with a pocket in Mahaboobnagar district. The 33 tribal groups of the state are inhabiting both the scheduled and plains areas. The total scheduled tribes population according to 1971 Census is 16,57,657 constituting 3.81 per cent of total population in the state. The numerically largest groups are Gonds, Koyas, Hill Reddis, Savaras, Bhagatas, Valmikiis, Yerukalas and Yenadis, accounting for more than 50 per cent of the scheduled tribe population in the state. There are 6,141 scheduled villages with 7.36 lakhs of tribal population. The remaining 9.21 lakhs of scheduled tribes population is found in plains areas. The distribution of scheduled tribe population in Andhra, Rayala-seema and Telangana areas according to 1971 Census is 10.25 lakhs, 1.91 lakhs and 4.42 lakhs, respectively. The 6,141 scheduled villages are found distributed in the districts of Srikakulam, Visakhapatnam, East and West Godavari, Khammam, Warangal, Adilabad and Mahaboobnagar districts. There are 24 Tribal Development Blocks in seven districts and viz., Srikakulam, Visakhapatnam, East and West Godavari, Khammam, Adilabad and Warangal covering 6.26 lakhs of scheduled tribe population. About 2.90 lakhs tribal population is found in 20 identified pockets, in Srikakulam, Visakhapatnam, Khammam, East Godavari, Warangal, Mahaboobnagar and Adilabad districts.

The tribals are living under diverse conditions, inhabiting plains, thick jungles, hill ranges, river valleys, plateau of varying nature and elevation. The culture of these tribal groups does not offer a uniform pattern. Social ceremonies, festivals, dress and decoration, music and dance vary from region to region and tribe to tribe. Their distinctive marriage ceremonies, spirit-worship and propitiation of innumerable indigenous deities, typical traditional codes of conduct and peculiar dress and decoration have profound bearing on the life and culture of the tribal people. The traditional Tribal Council still plays an important role in their social, economic and religious life.

Similar to Geo-ethnic environment and social structure, the economic organisation of the tribal is complex and varied. According to their levels of development, the tribal groups can be broadly divided into three categories viz., agriculturists, pastoralists and food-gatherers. Settled as well as shifting cultivation is the mainstay of the tribal groups. Agriculture constitutes the backbone of the tribal economy. About 82% of the tribal working population is engaged in agricultural sector, while the remaining working population is engaged in non-agricultural sector. Agricultural labour, forest labour, collection of minor forest produce, hunting

and fishing constitute the subsidiary occupations. The advanced tribal groups like Gonds, Koyas, Valmiki and Bagathas are settled agriculturists. Valmiki pursue a variety of occupations varying from agriculture to money-lending. Savaras, Gadabas and Kondhs undertake Podu-cultivation. Savaras of Srikakulam are experts in terraced cultivation and grow ginger, wet paddy, turmeric, hill banana, etc. Banjaras are pastorals besides being settled cultivators and are more respective to change. Gonds, Kolams, Naikpods Bagathas, Savaras, Valmiki, Kotias, Gadabas, Samanthas, Hill Reddis and Koyas are tillers of land of one type or the other. Kolams and Naikpods, who were once shifting cultivators have now taken to settled cultivation. The Chenchus are yet to outgrow the food-gathering and hunting stage. Pradhans and Thotis thrive as musicians and ceremonial bards to the Gonds. The main occupations of many of the Yanadis are fishing, hunting rodents, and small game, a few of them are also engaged as domestic servants. A few Banjaras and Yerukulas are found to be gainfully employed in government services and industrial undertakings.

Gonds are plough cultivators with cotton crop, holding a key position in the agro-based tribal economy of Adilabad district. Naikpods rear and harvest tassar cocoons. Coffee cultivation is found mostly in the Agency tracts of Visakhapatnam and East Godavari districts and some of the tribals are also found to be engaged as labourers and coffee cultivators. There is vast scope for horticultural development especially Banana, Jack and Mango trees on the hill slopes of the Savara country. Chenchus are adepts in forest labour and they are also engaged in collection of minor forest produce. Banjaras and Goudus are experts in cattle rearing, whereas Konda Reddis are basket weavers in addition to being agriculturists. Almost all the tribals rear and eat poultry, sheep and goats. It is observed that pigrearing and eating are restricted to certain tribal groups.

Andhs are considered to be born hunters. But this group which is found in Adilabad district is also now settled in agriculture. Gadabas during non-agricultural season are engaged in stone-breaking, earth work and such other roads and construction works of forest and other Government Departments and in the Bamboo and coup-cutting of private contractors of Forest Department. Kammaras or blacksmiths inhabiting the scheduled areas of Srikakulam, Visakhapatnam, East and West Godavari districts. They manufacture and repair agricultural implements of tribals. Samanthas or Khonds are adepts in hunting and fishing besides being shifting cultivators. They are well-versed in handicrafts like basket and mat weaving, oil extraction. They are also engaged as forest labour by Forest Department and forest contractors.

The tribal areas represent a typical example of backward agrarian economy with low yields, poor earnings and under-employment. Subsistence production is still the hallmark of tribal economy. The economy of tribals is custom-bound and not competitive. There is no balanced growth of primary, secondary and tertiary sectors as the latter two sectors are almost neglected in tribal areas. The low yield in agriculture, absence of industrialisation, inadequacy of transport and communication facilities, high ratio of tribals in the age group of below 14 years with standard of living which is always below the poverty line are considered to be the characteristic features of the backward tribal economy

The tribal areas are rich in forest and mineral wealth. They are famous for minor forest produce such as gum, chironji, tuniki leaf, adda leaf, tamarind, marking nuts, gantu barangi, nuxvomica. The tribal areas are rich in forest wealth such as timber, bamboo and minor forest produce. Some of the minor forest products form the base product for the chemical, pharmaceutical and cosmetic industries. There is vast scope for starting agro-based industries since the tribals mostly depend upon agriculture. There is scope for food preservation in the tribal areas.

Andhra Pradesh is endowed with a wide range of mineral deposits such as coal, iron ore, manganese ore, lime stone, graphite. Lime-stone of cement grade, clays useful in ceramic industry and coal are being exploited in the tribal areas of Adilabad district. In Warangal and Visakhapatnam tribal areas lime-stone, coal (Khammam district) and Graphite (Khammam, West and East Godavari Districts) are found. The tribals are not benefited though many of these mineral deposits are being commercially exploited. Rich mineral ores are available in Khammam district. The coal fields at Kothagudem and Yellandu of Khammam district have secured a place of honour in the Industrial map of India. Large deposits of iron ore are located at Bayyaram, Kacharam, Mallaram and Appalanarasimhapuram of Khammam district. The minerals such as barytes, bauxites, coromides, mica, graphite, lime stone and quartz are also available throughout Khammam district. Singareni collieries, a government undertaking, is situated near the scheduled areas of Khammam district. Many of the Koyas belonging to surrounding villages of Yellandu and Kothagudem mines settled as unskilled workers in the collieries. Sirpur Paper Mills is also located in Adilabad District where the tribal population is more predominant. A.C.C. Cement factory at Mancherial and Coal Mines at Bellampalli are adjacent to the tribal areas. Very few tribals of surrounding villages are employed as labourers in these two industries.

The mineral, forest and agro-based raw materials which are abundantly available in tribal areas are not fully exploited. There are no worth-mentioning large-scale and small-scale industries in tribal areas. Though there are about 3,000 tribal workers in the fields of blacksmithy, carpentry, pottery, basket weaving, mat weaving etc, they are not settled in these fields and their technical skills are not improved. Food canning centres common facility centres, bamboo and rattan production centres etc., are found here and there in the tribal areas. The impact of these existing industries on tribal economy is almost negligible, as only 2.58% and 3.54% of workers are engaged in quarrying mining, forestry, plantation etc., and household industry respectively as per 1961 census. The existing list of cottage industries and the list of tribal industrial workers are given in Annexure 1 and 2.

The Girijan Co-operative Corporation which has been functioning since 1956 in the tribal areas has made certain sporadic efforts in the field of industries. Many of the minor forest products which are being transacted by the Girijan Co-operative Corporation form the basic raw materials for certain industries. The Girijan Co-operative Corporation started the following small-scale units in the tribal areas.

1. Sheekai Grinding Plant.
2. Honey Pasturisation Unit of Narsipatnam.

3. Myrabolan Crushing Unit at Srungavarapu Kota.
4. Niger Seed Oil Mill at Paderu.
5. Manufacturing Unit for Washing Soap from non-edible oils at Seethampeta.
6. A Plant for extraction of fibre from Sisal Leaves at Araku.

The Girijan Co-operative Corporation has identified as many as 24 units for development of forest-based industries. The Girijan Co-operative Corporation in its Board meeting held on 5-3-1974 approved plans for starting the following 5 units with financial assistance from the National Co-operative Development Corporation:

1. Honey Pasturisation Plant at Warangal.
2. Extraction of Alcoholoids from Nuxvomica at Palvancha.
3. Tartaric Acid and Pectin from Tamarind Pulp at Madugula.
4. Starch extraction Plant from Tamarind Seed at Gummalaxmipuram.
5. Gum Grading Unit at Adilabad.

Besides the above, the Girijan Co-operative Corporation proposed to take up coffee plantation and cultivation of medicinal plants (Herbarium) in Agency areas of the state. It has also opened small experimental herbarium at Araku on guidelines furnished by Dr. Akhtar Hussain Kashmiri for demonstrating the cultivation of herbs.

The efforts so far made in the industrialisation of tribal areas are not upto the desired level. There is vast scope for starting agro-forest and mineral-based industries in tribal areas. A systematic industrial potential survey about these resources has to be conducted in each of the eight districts so as to assess the extent of their availability in each area and their usefulness for starting various industries. However, a blueprint is prepared by the Industries Department about the possibilities of taking up small-scale industries in tribal areas. The project profiles for 24 units are available (List furnished in Annexure 3). An amount of Rs. 74 lakhs would be required for establishing these 24 forest based industries in tribal areas. This blueprint also indicated the possibilities of establishing certain other village and cottage industries. Schemes are also prepared in respect of sisal, miscellaneous fibres etc. The list of village and cottage industries are given in Annexure 4. The action Plans prepared by the Tribal Welfare Department indicate the possibility of number of agro-forest based industries, which are given in Annexure 5. Apart from establishing agro-forest based industries in tribal areas, vigorous steps have to be undertaken for improving skills of tribals and for establishing Tribal Industrial Estates, besides initiating action for starting Industrial Development Co-operative Corporation exclusively for the tribal areas. These steps will diversify the tribal economy and strike a balance for the promotion of secondary sector in the tribal areas.

2. PLAN POLICIES AND VIEWS OF VARIOUS COMMITTEES AND COMMISSIONS ON VILLAGE AND SMALL SCALE INDUSTRIES

Tribal Cultural Research

and

Training Institute

The present day policies favour a balanced approach recognising that the industrial development cannot proceed effectively without corresponding appropriate development of agriculture. According to Lewis, "an agricultural and industrial revolution always goes together, the first releasing the labour, which the second draws off the land." The process of industrialisation involves an increased volume and range of consumption goods to the population in the agricultural sector. The promotion of local industrial activity provides alternative employment opportunities for underemployed farm labour which in turn creates "a new source of income for farm investment and perhaps a new spirit of progress". Local industrialisation may set in motion a set of forces inducing higher levels of agricultural resource productivity, increased farm production, higher levels of farm and family income and may also lead to reduction in spatial and personal income inequality, thus contributing to Myrdal national economic integration.

The policy followed by government in the promotion of village and small-scale industries during the planning era is discussed here.

First Five Year Plan : The policy was to provide a field within which each cottage industry may be able to organise itself. A measure of control by government over the organised sector of the industry was necessary to reduce the competition of a large scale industry with cottage industry by way of formulating the common production programme. As regards handicrafts, it was stated that co-operatives and associations should be formed to make artisan become less dependant on middlemen.

Second Five Year Plan : The industrial policy resolution of April 6th, 1956 emphasised that while continuing the measures of differential taxation or direct subsidies to protect the small-scale cottage and village industries, the aim of the State policy should be to ensure that the decentralised sector acquires sufficient vitality to be self-supporting and its development is integrated with that of large scale industry. It was also further stated that a start has to be made with the establishment of industrial Estates and Rural Community Workshops to make good deficiencies such as lack of technical and financial assistance, working accommodation.

Third Five Year Plan : During the Third Plan, the policy was set out to organise co-operatives for artisans and craftsmen, improve the productivity of worker and reduce

progressively the role of subsidies, sales rebates and sheltered markets besides promoting the development of small-scale industries as ancillaries to large industries.

Fourth Five Year Plan : While reiterating some aspects of earlier policy approach, the Draft Fourth Plan (1966-71) published in August, 1966, emphasised the development of rural industries including agro-industries and also the manufacturing of inputs required for agricultural production like agricultural implements. Another important step was the identification of rural and tribal growth centres and provision of credit, technical advice and service facilities in an integrated manner.

The Fourth Plan document (1969-74) states that the small-scale dispersed units should absorb the fruits of technological advance and provide opportunities for self-employment for technically trained persons. The technological unemployment has to be avoided at any cost and the small-scale units should be made viable. During the Fourth Plan, it was envisaged to promote small-scale and village industries including agro-based ancillary industries in semi-urban and rural areas besides improving the skills and production techniques.

The Ashok Mehta Committee (1968), while emphasising that the basic approach should be development oriented for the establishment of village industries, recognised that for building up the structure of decentralised industry "it is necessary to adopt measures for the provision of socio-economic overheads and essential facilities including efficient systems of transport, water and power supply, credit, technical training and advice, etc. in small towns and villages."

Fifth Five Year Plan : The strategy during the Fifth Plan is to create large scale opportunities for fuller and additional productive employment and improvement of their skills so as to improve the levels of their earnings. The programmes would be reoriented to step up the production of some of the basic and essential articles for the masses and also the products which have a larger export potential. The broad strategy of the programmes will be to :

- (i) develop and provide entrepreneurship and provide a 'package' of consultancy services' so as to generate maximum opportunities for employment particularly self-employment;
- (ii) facilitate fuller utilisation of the skills and equipment of the persons already engaged in different small industries;
- (iii) progressively improve the production techniques of these industries so as to bring them to a viable level; and
- (iv) promote these industries in selected growth centres in semi-urban and rural areas including backward areas.

These programmes would be supported by suitable policy measures of protection and incentives. During the Fifth Five Year Plan the policy is to encourage small and medium entrepreneurs and continue the policy of reservation for the small sector consistent

with the potentialities within the framework of industrial policy resolution of 1956. The small entrepreneurs including co-operatives will be encouraged to participate in the production of mass consumption goods.

Development of backward areas : During the Fifth Five Year Plan, it is proposed to give high priority for the development of agriculture and processing of forest produce. Schemes for exploitation of forest resources and programmes of horticulture and small cottage industries based on forest raw materials will have to be drawn up to generate considerable employment to tribals. The draft Fifth Five Year Plan also envisages advance planning to absorb the tribals affected by the establishment of the industrial projects. It is also stated that "in backward areas, choices for investment are to be identified and on the basis of a careful investigation of local potentials and integrated into the framework of appropriate strategies arising out of the existing levels of productivity trends of development, assessment of organisational capabilities, coverage and quality of infrastructure, patterns of consumption, production relations, vocational patterns availability of skills and entrepreneurial availabilities."

The government have been adopting varied policy measures and programmes as detailed above for the promotion of small-scale industries. During Fifth Five Year Plan emphasis has been laid more upon the agro and forest based cottage industries in backward areas. In this context, it is worthwhile to examine the view of various committees and commissions on the promotion of cottage and small scale industries in tribal areas.

Views of the Commissions and Committees : Various Committees and Commissions especially Dhebar Commission and Elwin Committee have been stressing the need for promotion of village and small-scale industries in tribal areas. According to Dhebar Commission, "if the problem of destitution or the sub-normal standards of living in the tribal areas is to be tackled, it can only be through development of village and cottage industries." The Commission opined that poverty in the midst of considerable unused human and material resources and underdeveloped creative facilities is the phenomenon of tribal areas. It has suggested promotion of village and cottage industries in tribal areas with a view (1) to utilise and develop creative faculties of the tribal people, (2) to provide gainful employment to them, and (3) to offer them an avenue for converting the raw materials into processed articles and thus taking their economy a step further.

The village industries in the tribal areas can be divided into 3 categories viz: (1) consumer goods industries, (2) processing industries, and (3) handicrafts and art pieces. The Commission stressed that "wherever, therefore, there is raw material available and there is a market available locally or outside, the principle should be that the raw material should not go out as raw material but should go as processed articles unless the cost is uneconomic or it involves technical or transport problems beyond the reach of the administration in the tribal areas."

As regards organisational aspect, the Commission observed that "the basic thing, however, is the need for an effective organisation for all the three types of village and cottage industries. It is only when there is organisation solely devoted to the task of survey, study, piloting and organising that there will be any appreciable change in the situation."

According to the Elwin Committee, not very much satisfactory progress has been made in the field of arts and crafts of tribal areas. The arts and crafts of tribals have largely perished though the tribal people are essentially artistic and creative in temperament due to the following inimical factors (1) poverty of tribals, (2) difficulty in obtaining raw materials due to forest laws, (3) painting has never developed because the people cannot afford or obtained paints and paper, (4) lack of patronage and encouragement, (5) little possibility of marketing agricultural produce on commercial basis in inaccessible areas, (6) taboos on the practice of various crafts.

The contribution of tribal arts and crafts to material economy was extremely limited. The programmes which were introduced for the promotion of arts and crafts in tribal areas were not successful due to lack of knowledge on the part of extension officers regarding the hereditary skills and the actual arts that are practiced by the tribals. It may not be desirable to subsidise craftsmen for the rest of their lives since the tribesmen tend to become accustomed to governmental assistance, with the result that they cannot readjust themselves easily when particular schemes came to an end.

Too many craftsmen of particular kind should not be created at one place and too much of mechanised aid also is no good. While suggesting the approach to the subject from sociological side, the Committee observed that if a particular trade is tabooed it should not be imparted.

The Elwin Committee quoted Dr. B. H. Mehta who stated in his report on Field Research and Survey on Tamia Block that "the origin of arts and crafts in animism, the recreational basis of arts and crafts and the emphasis on family and self-sufficiency are three factors that must be taken into account when planning the development of tribal arts and crafts." Dr. B. H. Mehta further observed that "under no circumstances should commercialisation of artistic values be encouraged." People should not think in terms of sales only. In fact, the tribals should be encouraged to make things for religious purposes, for their dances and festivals to decorate their own houses with carved doors, wall paintings and pictures, so that they can wear their own textiles, and not have to buy them from outside. In this way the creative spirit will grow and flourish.

In this connection the Elwin Committee has also quoted the approach adopted by the N. E. F. A. administration in attempting to sell the products in the area through emporia in the towns, placing its priorities as follows:—
 "First to enrich the people themselves so that they can wear their own hand-made dress, use their own carved masks for dances and to adorn their temples, decorate their own institutions with beautiful pictures and designs. Secondly, the surplus local products should be purchased by the administration itself to furnish their own offices and institutions, for example, locally made blankets are being bought for hospitals and school hostels, hand-woven coats are being made as blazers for school boys, tribal curtains are being obtained for offices and circuit houses. And only thirdly, when the people become proud of wearing and using their own things and local needs have been supplied, it is planned to sell goods on any large scale outside."

Referring to cottage industries the Elwin Committee quoted the Development Commissioner's Conference held at Mussorie as follows :—

“While chalking out the programme, consideration should be given to the locally available raw materials, skill and marketing facilities. It will be wise to plan largely on the basis of consumption in the area itself and selfsufficiency.” The Development Commissioners Conference further observed that “Rapid introduction of machine and higher technique in tribal areas should be discouraged. The techniques in these areas should be on organic development. Every effort should be made to ensure that the culture and tradition of these people do not suffer any jolts in the process of the introduction of improvement in their style and standard of living.”

The Elwin Committee suggested that the present rules of the Forest Department have to be examined from the angle how far they militated against the development of cottage industries. The Forest Departments should encourage the tribals to follow their arts. The women welfare centres should be reoriented with tribal background, such as designs, embroidery, knitting. The Committee has also suggested the starting of peripatatic units for training in crafts besides conducting the research. Surveys have to be undertaken to find out what type of arts or crafts already exist and to assess how these can be developed, what crafts, can be introduced on an economically sound basis and to discover what kind and quality of articles can be consumed locally and what type of articles can be exported.

3. INDUSTRIALISATION OF THE TRIBAL TRACTS IN ANDHRA PRADESH

Industries Department

I. Economic background of Tribals in Andhra Pradesh :

The tribal Agency of the State of Andhra Pradesh extends from the Bhadrachalam Agency in Srikakulam District to the Bhadrachalam Agency in Khammam all along the hinterland of the Coromandal coast and thereon northwest into the Adilabad Agency and all along the periphery of Dandakaranya bordering on the States of Madhya Pradesh Orissa and Maharashtra. In addition, there are a number of tribal pockets along the coastal areas, mainly in Nellore, Chittoor and Guntur Districts. The agency areas are inhabited by the Savaras, the Gadabas, the Bhagathas, the Kondareddis, and Gonds, etc. The plains pockets of the coastal areas are inhabited by the Yanadis, the Sugalis, the Yerukalas and the Chenchus.

The different tribal groups live in the varying stages isolation and development however, they are all characterised by a marked degree of economic backwardness.

- (i) The most primitive of the hill tribes live in remote corners in the hill and forest areas of the agency.
- (ii) Some live at the 'Podu' of shifting stage of cultivation.
- (iii) Others have taken to regular agriculture though almost entirely on a sub marginal basis.

The Agency areas of the State abound in forest wealth such as Timber and Bamboo. In addition, there is a large amount of forest produce characterised as Minor Forest produce such as tamarind, Gum Karaya, Myrobolams, Nuxvomica, Rawolfia Serpentina, Honey Mohwa seed, Adda leaf, etc. Many of these commodities form the base produce for the chemical and pharmaceutical and cosmetic industries. Other form the base for industrial uses such as Leather, Textiles, etc.

Needless to say, the economic and social wellbeing of the tribal depends upon the forest and the exploitation of its resources (i) the gathering of Minor forest produce forms the predominant occupation of the most backward of the tribals. This activity provides them with sustenance as well as a source of income through trade and barter. Minor forest produce is of spontaneous growth every year and the tribals have a free right to gather the produce, and sell it for their earnings. (ii) or the slightly more advanced tribals 'Podu' or shifting cultivation on the hill slopes represents a stage of Agriculture at a low level of agricultural technique, (iii) for some of the tribals in the forest areas the exploitation of fuel and bamaboo coupes through the Govt.

departments or through contractors provides them seasonal employment. (iv) traditional cottage crafts such as they exist, use the raw material available from the forest such as bamboo, Koperi grass, etc., for Rope making, Mat weaving etc. The economy of the tribal is necessarily frail and no single occupation or a combination of these can provide him even subsistence standards of living. At the same time due to the isolation and backwardness thrust upon them, the tribals have been denied opportunities of developing their skills. For the same sociological reasons, there are little prospects of employment through migration to urban areas.

II. The National Forest Policy and its Impact over Tribal Economy

The National Forest Policy Resolution of 1952 laid stress on the material well being of the inhabitants of the forests. In fact that the well being of the tribals is to be the guiding principle of forest management and exploitation of forest resources either directly by the State or through a net work of tribal co-operatives.

While the collection of Minor Forest Produce forms the major occupation, the tribal has had to depend upon an inequitable barter system for the sale of these produces at the "Shandy" or market points. The tribal was forced to wait at the receiving end of an inequitable exchange system which exploited his isolation from the organised market to cheat him in terms of both price and weight for his produce.

The Girijan Co-operative Corporation Ltd., through a net work of multipurpose credit co-operative and Marketing societies through tribal areas of the State, purchases the Minor Forest Produce of the tribals, ensuring them a price commensurate with that prevailing in the organised market. The Girijan Co-operative Corporation Ltd. buys off the major portion of the tribals produce of Gum Karaya, Tamarind, Nuxyomica, Honey, Addaleaf Myrobolams etc. to be sold in the organised market either to end users or more often to the trader in the organised markets. The trading activity of the Corporation has gone a considerable way in ensuring a fair return to the tribal. However, it may be seen that this is essentially a protective measure which substitutes an institutional agency for a private exploitative system.

It is necessary to develop this activity into its promotional aspects viz., for industrialising the tribal areas with the necessary impact of the occupational structure and the economy of the tribals, the solution for the economic development of the tribals is seen in the maximum exploitation of the produce of the forest through a net work of processing units within the geographical limits of the tribal area. These industries will use both the M. F. P. and the agricultural produce of the tribals as the basic raw material. These industries will provide opportunity for diversifying the occupational pattern of the tribals from being gatherers of forest produce to the workers engaged in processing and industry. They will help to secure a better price for the basic produce of the tribals.

Simultaneously, with the establishment of several processing industries, the skills of the tribals to suit the small village and Cottage Industries production programmes have

to be developed. In the beginning, simple techniques would ensure the tribals acquire these skills with the minimum training. These are suitably structured programmes for the development of small and Medium Industries would create the necessary impact on the economic profile of the tribal areas while bringing about a change in the occupational pattern of the tribals which in turn will bring about a new pattern of wants, and consequently ensure higher standards of living. Such of the tribal who have availed of the facilities for vocational and technical training can be imparted with advanced technique to suit more sophisticated processing units.

III. Industrialisation of Tribal Areas :

The Girijan Co-operative Corporation Ltd., has taken the lead in these aspects and has in the recent past made a beginning in setting up a few processing units in the Agency areas. The Corporation runs a Sheekai Grinding Plant at Narsipatnam with an installed capacity of 75 kgs. per 8 hours Shift and a small honey pasteurisation unit with an installed capacity of 75 kgs per 8 hours in Nārasipatnam. Based on this experience, the Corporation has set up three more units (i) Myrobalam Crushing unit at S. Kota with an installed capacity of 3½ tonnes per 8 hours (ii) a Niger seed oil crushing unit at Paderu with an installed capacity of 8 to 10 tonnes per day and (iii) a Soap manufacturing unit at Seethampeta. The earlier units were financed entirely out of the Corporation resources. The Myrobalam Crusher and the Oil Expeller have been financed by way of "Grants-in-aid" from the Government funds and Soap Making Unit by Khadi and Village Industries Commission, respectively.

In addition to these modest beginnings, the Corporation in its role as Chief Promoter of economic activity in the tribal areas had identified large areas for development of forest-based industries. The Corporation has to investigate available resources in the agency areas and also identify specific possibilities of resource-based processing industries. A list of 24 such Industries, which offer possibilities of processing the forest produce are indicated below:

1. B. Class Soap Unit.
2. Honey Plant for Pasteurising Honey.
3. Starch from Tamarind.
4. Pectin and Tartrate from Tamarind Pulp.
5. Alkaloids from Nuxvomica, and R.s. Serpetina etc.
6. Fruit Preservation Unit.
7. Khandasari Sugar Unit.
8. Hand made paper Unit.
9. Match Industry.
10. De-hydration of Ginger and Ginger Products.
11. Rope and Ban making unit.

12. Sago Pellets from Tapioca.
13. Grading and Processing Gum Karaya.
14. Lemon Grass oil by distillation.
15. Wood cutting (Saw Mills)
16. Annato seed processing for extraction of colour.
17. Splints and Veneers.
18. Modified Tamarind Kernal Powder TKP Phosphate or TKP Borate.
19. Tartaric Acid from Tamarind leaves.
20. Manufacture of absolute Alcohol from Molasses and Mohwa flower.
21. Beedi Manufacturing.
22. Basket Making.
23. Dall Mill
24. Agriculture implements.

Further scope exists for developing the plantation industries such as :

1. Tussar Silk Production.
2. Lac production.
3. Bædi Leaf Collection.
4. Production of fibre from Pineapple and Sisal.
5. Plantation Industries.
 - (a) Coffee Plantation.
 - (b) Teak Plantation.
 - (c) Cocoa Plantation.
 - (d) Pepper Plantation.
 - (e) Cardemum Plantation.
 - (f) Sardol Plantation.
 - (g) Rubber Plantation.
 - (h) Perfumery and Flowers with leaves, etc. for essential oils.
 - (i) Cinnamon campher plantation.

The degree of investigation in each one of these cases varies from unit to unit.

(a) Project reports are available in respect of the following units.

- (i) Starch from Tamarind seed.
- (ii) Tannin extract from Myrobalam.

- (iii) Honey Pasteurisation Plant.
 - (iv) Myrobalam crushing unit and
 - (v) Niger seed oil extraction unit.
- (b) Technical notes are available in the following cases:
- (i) Tamarind Juice concentrate.
 - (ii) Pectin and Tartrate from Tamarind Pulp.
 - (iii) Alkaloids from Nuxvomica.
 - (iv) Fruit preservation unit.
 - (v) Khandasari Sugar Unit.
 - (vi) Match Industry.
 - (vii) Hand Made Paper unit.
 - (viii) De-hydration of Ginger and Ginger products.
 - (ix) Rope and Ban making unit.
- (c) For other units some basic notes are available viz.
- (i) Sago pellets from Tapioca.
 - (ii) Grading and Processing of Gum Karaya.
 - (iii) Lemon Grass oil by distillation
 - (iv) Wood Cutting (Saw Mill)
 - (v) Annatto seed processing for Extraction of colour.
 - (vi) Splints and Veneers.
 - (vii) Modified Tamarind Kernal Powder TKP Phosphate or TKP Borate.
 - (viii) Tartaric Acid from Tamarind Leaves and
 - (ix) Manufacture of Absolute Alcohol from Mojassess and Mohwa flower.

Further, investigation is necessary to come up with processing details and project-cum-feasibility reports.

A rough estimate of the investment required for these processing industries exclusively will be of the order of 88 lakh rupees. It would provide direct employment for about 1,000 tribals and another 500 by way of indirect employment. On an approximate estimate

of an annual income of Rs. 1,500/ per person employed, the total wage and salary income generated will be of the order of 25 lakh rupees. In addition, these industries will permit a higher purchase price paid to the tribal, at an estimated of 10% rise over the present level. It will generate a further income of 5 lakhs in the agency area. Thus total additional income would be of the order of approximately Rs. 30 lakhs.

Similarly the investment for the plantation industries would require another 65 lakh rupees.

IV. Source of Finance :

The national Co-operative Development Corporation, New Delhi has a comprehensive scheme of planning, promoting, organisation and financing of co-operative processing units and intensified development of small industries including agricultural processing in rural and tribal areas. The Corporation sanctions assistance both short term and long term on receipt of specific proposals on the basis of both consistent and project reports. For the purposes of block-cost; and units are divided into two categories in respect of Co-operative Agricultural processing units viz.

- (a) Units with block capital cost of less than Rs. 15 lakhs are classified as small sized; and
- (b) Units with block costs between Rs. 5 lakhs and Rs. 60 lakhs are classified as medium sized.

For the purpose of the above classification, the block capital cost is deemed to include all long term requirements including cost of land, building, plant and machinery, erection charges and also the necessary provision for margin money for the purpose of raising working capital.

The block cost of the processing units taken up under this centrally sponsored scheme will normally be above Rs. 1 lakh.

According to the pattern of assistance of the N.C.D.C. in case of small sized units, the refinance is available upto 75% of the block cost while in the case of medium sized units, the refinance facility is available upto 70% of the block cost. In the case of co-operatively underdeveloped areas and industrially backward districts identified by the Planning Commission the N. C. D. C.'s assistance is available upto 80% of the block cost for both small and medium sized units.

The National Co-operative Development Corporation also provides margin money for co-operative processing units in order that limitation on raising working capital may not restrict the capacity of processing units to secure raw material for utilisation of installed capacity. The National Co-operative Development Corporation also arranges for conducting training in management of Co-operative processing units for managerial personnel. The N. C. D. C. also provides assistance for the preparation of feasibility project reports for establishing the co-operative processing units.

V. Girijan Co-operative Corporation Limited. As per promotional venture

The Girijan Co-operative Corporation has provided for a large degree of economic activity in the tribal areas. In addition to normal activities of outright purchase of produce of the tribals, sale of D.Rs. and provision of agricultural credit, the Corporation has added various lines of activity in its operations to ensure effective exploitation of resources for the benefit of the tribals. It has concerned itself with improving the technical skills of the tribals and providing them with opportunities for diversifying their occupational patterns. It has conducted a number of training schools for masonry, brick making, motoi driving etc. It has encouraged mat weaving, rope making, basket making etc., among the tribals. It has also made a beginning introducing new patterns of occupations such as Bee-keeping and Sericulture among the tribals. Further it has set up a few processing units within the agency areas.

The Girijan Co-operative Corporation with the exclusive objective of promoting industrial development in the agency areas may

(i) continue its operations in surveying forest potential and list out possibilities for industrial development of the tribal areas, obtain processing details, feasibility reports and project reports and maintain liaison with various Research Organisations like R. R. Labs, C.F.T.R.T., H.R.T.C. etc.

(ii) Commission Institutions with research experience in the preparation of reports on technical feasibility and economic viability of forest-based industries.

(a) to develop the processing details on the basis of raw materials made available and to prepare the technical feasibility reports in each case.

(b) In cases where development processing reports are not available, evolve and develop process after testing the raw material on the pilot plant available in the department itself before incorporating in the technical feasibility reports.

(c) In cases where processing reports are available, technical feasibility and economic viability reports will be prepared for adoptation by the Girijan Co-operative Corporation.

The Girijan Co-operative Corporation may utilise the 100% subsidy facility available in the pattern of assistance of the N.C.D.C. under Corporation sponsored schemes for the preparation of Project reports and get the reimbursement of the expenditure incurred by it for the preparation of project Feasibility and Processing details reports.

4. PLANNING FOR INDUSTRIAL DEVELOPMENT OF THE TRIBAL AREAS

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Introduction : Economic development is generally characterised by diversification of economy and sustained growth of its numerous facets. When a nation starts with a base of agricultural economy, a fast rate of growth in the industrial sector is always desired. This, however, cannot be planned in isolation, it has to be preceded by, or at least accompanied by a steady rate of growth in the agricultural sector. It is not necessary for us to go into the theoretical aspects of a balanced or imbalanced growth path. However, the past experience in the Indian economy brings out some essential features. The Second five year plan envisaged a high rate of industrial growth; this emphasis continued in the Third Plan when high priority was given to basic industries. The agricultural sector was not able to keep pace within overall growth matrix in the nation and, therefore the basic structure was subjected to numerous strains. A review of the policies was undertaken and agriculture has again been given a high priority in the strategy of national development.

2. The tribal economy is even less developed compared to the general rural economy in India; it is also less diversified. The sophistication of even general agricultural sector is not found in many tribal areas. However, the entire tribal tract does not present a uniform picture. Some of the tribal regions are extremely backward and subsist at pre-agricultural level of technology while some of the more advanced areas compare favourably with the general agriculture scene in the country. Many of the tribal areas have rich forest and mineral resources. The forest provide a substantial part of the subsistence in the tribal economy although their activities are limited to the collection of minor forest produce and unskilled labour in the traditional forestry operations. The tribal communities have a high level of traditional skills; but the level of literacy and the more sophisticated 'modern' skills are missing. The infrastructure of roads, communications, institutions etc., is not developed in many areas. Availability of other inputs like water, sources of energy, cheap labour etc., are, however, in many cases their distinguished features.

3. *A resume of Industrial Scene in Tribal Areas :* There is no consistent picture of the industrial scene in tribal areas; in fact a special model of development of tribal economy has not been attempted. The objective of bridging the gap between the tribal areas and the more advanced areas and the desirability of the tribal communities joining as early as possible the mainstream of national life are stated in general terms without indicating even broadly the possible growth paths. Therefore, it is not surprising

that the growth of industrial sector in tribal areas has been ubiquitous and is influenced by other considerations rather than being a part of an overall strategy of development of these areas. The industrial process is also essentially inward looking having little concern for its impact on the tribal economy.

4. *Bigger Industries* : A number of major industries based on raw material have been established in the tribal areas on considerations of overall national economy. Thus, the industrial complexes of Rourkela in Orissa and Ranchi in Bihar came up in the most backward tribal areas; the Mining Complex of Kiruburu in Orissa and Bailadila in Madhya Pradesh were also started for similar considerations. In their case, once locational decisions were taken essential infra-structure like railways, roads, power-lines etc., were developed as a part of the projects. There is one important characteristic of these big industrial and mining complexes; they are inward looking and self-sufficient having most of their linkages with more advanced areas. They do not depend upon the local communities even for unskilled labour. Some other industries based on bulky raw materials like forest produce which can be processed with advantage at their source, have also been established in some areas. However, there is no systematic effort and the units are ubiquitous and sporadic.

5. (i) *Other Efforts* : As a part of various general programmes under different schemes like Community Development and Tribal Development Blocks, promotion of small-scale industries, handicrafts, village industries etc., some steps have also been taken in tribal areas. These schemes, in most cases were however, formulated for advanced regions and have been introduced without adaptation to the specific requirements of the tribal areas. The schematic patterns prove far beyond the absorptive capacity of the local tribal communities. There, these efforts could not generally take root in these areas. Wherever some progress has been made the centres are more a continuation or extension of the urban or industrial economies and do not represent real growth nuclei of the local tribal economy. The modern and the traditional fail to meet.

Impact of Industrialisation on Tribal Economy - A resume

6. (i) *Bigger Industries* : The above analysis shows that the industrial sector has so far not been consciously trained with reference to the specific requirements and potentialities of the tribal areas and people. The major industrial and mining complexes have placed some of the most modern and sophisticated socio-economic structures in juxtaposition with some of the more primitive groups in the country. There is no meeting point between the two. Therefore, the modern industrial sector, starting at small nuclei in vast underdeveloped regions, grow at the cost of the rest of the economy displacing the local communities without much benefit to them. In fact, some of the so-called 'economies of the industries in the backward areas arise from non-appreciation of the traditional rights of the local communities and their inability to assert these rights in the face of the new and stronger institutions. For example, forests provide a substantial part of the subsistence to the local community. But our concepts of compensation do not take into account this factor. Even lands in possession of local community which may not

have been formally assigned to them, do not attract the provisions of compensation law for no fault of the tribal. The compensation is paid with reference to the pre-developmental state in the area. The secondary displacement is nobody's concern and the differential in the socio-economic structure work to their disadvantage.

7. (ii) In these areas even the normal linkages of industries with their hinterland do not get established. It is the secondary migrants who get established in services. Certain new commodities may be produced in the hinterland depending on transport facilities etc., but even here the secondary and tertiary migrants take the lead. Poultry products and vegetables are imported for some time. The important component becomes smaller as dairy and poultry units get established in the neighbourhood. In the absence of a conscious effort to smoothen the skill discontinuity through the upgrading and diversification of the tribal economy, the gaps filled by migrants which further displaced the tribals. In a situation where the tribal is not able to establish even in the primary sector, he is by-passed in the secondary sector units which get established in these areas. The new migration and the second generation of first migrants are able to meet the growing man power need of the new small scale and the services sectors.

8. (iii) *Smaller Industry*: Similar is the case, though on a smaller scale, in relation to other smaller, raw material based, industries like saw mills or processing units. These units are generally dispersed; it is possible that their benefit to the local communities is somewhat larger and their adverse effects somewhat less. However, there is another aspect. As these industries are more dispersed, they are less amenable to general administrative regulations. Therefore, the possibility of larger benefit to the local communities is also accompanied by possibility of a wider exploitative net work getting established if other timely administrative regulatory measures are not taken.

9. (iv) *House-hold Industry*: We have already noted that a systematic effort has not been made in relation to village and small scale industries; thus they may not answer the needs of the area. There is hardly any effort to built up the programmes from below. Rigid programmes may by-pass the very groups for whom they are formulated. For example, if a training programme in tailoring does not first identify the traditional groups dependent on this profession, it may help the more advanced elements making the traditional tailor even more vulnerable and susceptible to induce competition in his own area. Thus, these programmes by and large have not benefited the tribal areas.

10. (v) *Competition of Machine-made Goods*: As the tribal areas are getting opened up, their last natural protective wall of inaccessibility gives way; cheap mass produced goods find their way into the deepest tribal regions. The well-known phenomenon of uprooting of small artisans in the face of competition of British goods in the national economy in the early colonial period is being repeated in these areas with greater intensity. Thus, the traditional weaver is much too weak to stand the competition of mill-made cloth; hand pounding of paddy is giving way to hullors; traditional wood-workers are getting out of employment because their artifacts no longer have the same attractive market. The schematic developmental programmes have not been able to help these groups.

A New Dimension for Industry in Tribal Areas

11. While industrialisation admittedly adds to the gross regional output of an area, some basic questions arise when we consider it as an instrument of tribal development. Does the tribal community share the incremental benefit in the gross regional output? Perhaps, the first relevant question is whether the local community is in a position to absorb the benefits of the new activity. It is clear that for a large spectrum of the industrial sector the local community in the tribal areas is not ready to absorb the new benefits. These problems cannot be solved so long as industrialisation is viewed in a narrow context and establishment of a few industries is considered enough. Industrialisation should not result in a dualistic economic system in the region but it should help in diversification of the local tribal economy for which the developmental impulses may be provided by the new growth centres. Therefore, the next question is whether, before starting an industry in a tribal area we should wait for the diversification of the tribal economy in a gradual and natural sequence of events or the process of diversification should be speeded up in a planned fashion. Alternatively, whether the setting up of the industry itself will be enough for the diversification or whether both the diversification effort and setting up of industries can be treated as two facets of the same process provided there is adequate planning input at the micro-level. Planned economic development cannot await the result of a slow change process, similarly, an under-developed community cannot be left just to the play of unknown forces resulting in confrontation and dualistic structure. While setting up of industry should not be accepted as an end in itself for sufficient development of the local community, the concept of industrialisation will need to be broader aiming at diversification of the tribal economy. Thus, assimilative capacity of the local community will be an important element in the industrial planning of a tribal region. Since the level of development of different tribal regions differ considerably, a uniform solution or approach is not conceivable for the entire range of industrial activity or for the tribal area as a whole. Therefore, the first obvious conclusion is that industrial planning for these areas cannot be done on an ad hoc or overall consideration; it will be necessary to add a new dimension to the micro-level planning for each of the region so as to ensure that at every step the new activity is designed for diversification of the local economy and aims at benefiting the tribal community.

Rationale of Industrial Location

12. Before we consider the policy implications of consideration of tribal development for industrial growth of a region, let us consider the problem from the industry's end. Why industries are established in any areas? If we analyse the rationale for the industrial location, there are broadly three considerations, which can be summarised as follows:

(a) *Economic:*

- (i) Availability of raw material, cheap factor cost;
- (ii) Infrastructure development including communication network, availability of power;
- (iii) Availability of skilled man-power;

- (iv) Availability of entrepreneurial skills ;
- (v) Demand for the finished products ;

(b) National Policy for balance regional development :

It may be supported by regulations or incentive to overcome the special difficulties on account of absence of the one or more of the other economic factors.

(c) Overriding strategic, national or regional interests.

13. In theories of economic development, regional development has generally been taken as synonymous with the development of the people. This is not necessarily valid when two entirely different systems meet as is the case in the tribal areas where industrial culture penetrates the traditional tribal system. The industrial locations so far have at the best been decided on regional considerations. This will need to be harmonised with the development of the local population. It will, therefore, be necessary to identify the human elements in the locational theory and suitably manipulate them for achieving optimum development of the people. In principle, this should be the overriding consideration in the context of tribal development, yet sometimes it may be necessary to accord it a second place as a matter of conscious policy. It will be useful to identify these situations so that we may develop a suitable frame for industrial development of tribal areas, in general.

Industries with Strategic or National Priority

14. Various industries can be classified with reference to their priority for strategic considerations or role in the development of national, regional or local economy. Decisions for location of certain industries may have to be taken as it may be crucial to the national interest although it may not be in the local interests. The obvious examples are defence installations or a heavy steel complex in a backward region. Even here some caution may be necessary. The priority may not be as high as may appear to be at the first sight. For example, defence installation cannot wait for any other considerations. But while planning a mining complexes, the time schedule or the choice of location are not absolute. They are known to be influenced by so many considerations like financial constraints, political demand, and infrastructure. The local socio-economic constraints have been ignored so far. If the implications of their establishment to the local community are clearly spelt out a different priority pattern may emerge. For example, take the case where the difference in economies of an industry in an advanced area and in a primitive location is marginal. We may consider here whether it is necessary to impose the new activity in the primitive area even if it shatter its economy or we can be satisfied for the time being with the second choice of location and in the meantime, take necessary steps for building up the human capital in the hinterland of the most favourable site. Thus, if it is clear that 'technical' considerations are not immutable and the local socio-economic situation is accepted as one of the important constraints in location of an industry the time phasing and location-choice can be more rationally worked out. However, these constraints should not be interpreted narrowly and in a static sense. In other words, it

need not be taken into consideration only at a point of locational decision making. The local socio-economic situation has to be an important initial condition of planning both for the region and the industry and will need to be reviewed from time to time.

15. A similar logic can be extended to the projects having over-riding priority for regional or local considerations. However, these considerations cannot be deemed to have the same compulsive character as in the case of projects of national priority. In their case, local socio-economic constraints should assume a greater force. Thus there may be two location choices for an industrial complex which are neutral in the national context, but may make all the difference at the regional level. In such cases regional 'elitist' pressure may also get built up. Therefore, proper appreciation of the socio-economic constraint will help in a rational choice. Thus, in the face of adverse impact on the tribal economy in one region the alternative location would be preferred. On the other hand, if one choice aids tribal development, that location should be accorded a higher priority. In such cases, however, certain superficial casual relationships taken for granted will need to be tested for their validity. For example, the statement 'a steel mill should be established for developing the economy of backward area because it has a large tribal population' makes a presumption that the industrial complex will generate employment potential, enable regional economy to grow at a higher pace and, therefore, the tribal community will naturally take advantage of the new opportunities. The possibility of a dualistic structure with detrimental impact on the tribal economy setting in is not recognised.

Socio-Economic Constraints for Industrial Development

16. (i) *Preparedness of the local community*: This brings us a question of appropriate strategy for industrial development for the tribal area. The very first consideration is that the industry has to match the preparedness of the tribal community. However, both 'industry' and 'preparedness of the tribal community' cannot be treated as immutable or as independent variable both of them can be suitably manipulated. Here we may take up the community's preparedness first. A conscious intensive effort designed for a specific growth path can raise the level of preparedness of local groups, within certain limits enabling a faster pace of industrialisation. On the other hand, a general developmental effort, without such a clear focus, may require a much longer time for similar results. The minimum time required for the preparatory stages of industrialisation in itself may vary as the tribal communities may be at a different levels of preparedness. Each of them will require different time schedules for bringing them to a level of preparedness to absorb the benefits of comparable technological innovations. Thus, defining the initial conditions as also determining the limits for the pace of change without the loss of balance are the crucial elements at this stage. The existing skill spectrum in the tribal areas and that required by the new industrial activity will need to be matched with suitable adaptation on either side wherever necessary. This aspect has not claimed the attention it deserves so far.

17. (ii) *Skill spectrum and general diversification of economy*: The building up of the skill spectrum referred to in the preceding paragraphs should not be taken in a narrow context. In a backward economy, bulk of the population is agriculturists and there are only a few artisan groups. While identifying the skill-spectrum these select groups will be an important element, yet the larger community itself, which has important skills like tool-

making, housebuilding, spinning and weaving etc., generally lost in the advanced cultures should also be enabled to absorb the benefits of a secondary and tertiary economic activity. Thus, a general diversification of the tribal economy will need to be planned which, however could be with special reference to the specific industrial activity already started or likely to be started. Action will need to be initiated at numerous levels. Educated youngmen may be trained for specific jobs in the industry, traditional artisans may be retrained both for the primary industry or secondary and tertiary sector and special programme may be taken up for introducing simple skills of the modernising sectors like petty trader, organiser of labour force, small contract work etc. A programme of 'citizen education' itself, aimed at giving the tribal community a better understanding of the new processes, will be part of this diversification process because it is on that foundation this new understanding that first step for diversification can be taken. Thus, both the concepts viz., 'industry' and 'skill' will have to be comprehensive in the tribal situation.

18. (iii) *Entrepreneurship*: Entrepreneurship is another crucial factor in defining the industrial policy of an area. It may be remembered here that a mixed economy comprising the industrial and agricultural sectors have a highly differentiated dualistic structure even in advanced areas which share the same social background. This differential between the two sectors at the national level get very much accentuated in the tribal situation because on the one hand, the society has a simple structure and is unable to comprehend the new situation and, on the other hand, the modern sector is stronger and more articulate. The average tribal is not used to the competitive system; he is not familiar with the new social code where higher output, the touch stone of success, justifies every other action. The tribal is not able to discard his traditional relationships; he may not be able to even manage his financial affairs. Thus, entrepreneurship for the new activity is likely to be a crucial missing element even when other inputs may be made available to the tribal system. This is particularly so because the modernised sector generally favours larger units requiring highly articulate entrepreneurship. Even the so called small scale sector is much too large for an average tribal to manage efficiently and effectively.

19. A closer examination of the general approach in relation to entrepreneurship in the tribal context will be useful at this stage. There is a hierarchy of entrepreneurs. In a highly un-differentiated economy, the first specialisation may be in terms of setting up a very small grocery shop. In fact, the simple lending activity will precede this small trader stage. In a traditional tribal economy no interest is charged on money advanced and the period of repayment is indefinite. This system may get more sophisticated as the contact with the modern sector increases; some of the tribals may assume the role of money lender. This may be a comparatively simple affair. But the trading activity of opening a tea shop is a much more complex phenomenon for him. The approach is planned development effort so far has been to establish a co-operative for marketing and supply of consumer commodities. Even very high over-heads are borne by the exchequer for this purpose. Thus the simplest entrepreneurial activity is institutionalised with a view to save the tribal from exploitation and provide him services at a reasonable cost.

20. Sometimes there is conceptual confusion about the role of this institutional support; this will need to be clearly understood. What is the basic purpose of, say, a

co-operative society which caters to the daily requirements of the tribal? Is it planned as a permanent feature of the local economy or is it designed for filling the vacuum till such time as the local community is ready to take up the relevant activities? The Cooperative movement envisages an ideal system where there is no exploitation and the benefit of all economic activity is fully shared by the participating community. It is, however, to be appreciated that such an ideal system cannot be established in certain pockets whereas the larger society may be proceeding on a different model. Therefore, these institutions should be realistically treated as gap-fillers rather than as an ideal institutional structure for a model socio-economic system. If this perspective is clear, the establishment of a cooperative society catering to daily requirements is only the first step and while planning one has to project much beyond this stage. Individual tribal should be prepared to shoulder this responsibility in second stage and in due course the temporary institutional support may not be necessary at all.

21. In the absence of a clear policy frame the role of co-operative institutions is not properly appreciated. Even though they may be looked upon as ideal institutions in a longer time frame, it has to be noted that secondary trading activity gets established with the opening up of the area and diversification of the general economy. But as there is no conscious planning for the direction and form of diversification, it is the immigrant groups which establish themselves in the comparative higher-skill professions. Diversification of the local economy, if examined in the context of tribal development, represents really a growing dualistic structure. The Cooperative Society which in the early stage may be the only institution in the area becomes one of the many establishments, that grow there in due course. This institutional support, thus with the passage of time may become unnecessary or uneconomical and in the course may be withdrawn. Such an institution, even when it succeeds and plays a crucial role at a time, proves to be a passing phase to the local community and the normal competitive system finally overtakes. But the community has not partaken in the diversification process. If local entrepreneurs were trained with a clear and conscious policy frame to substitute the cooperative institution by local entrepreneurs at an appropriate stage the final texture of the socio-economic structure would be different.

22. The above analysis of simple trading activity equally applies to higher industrial activity. It will be necessary to clearly define these areas where institutional arrangements are designed to substitute entrepreneur on a permanent basis and those where it is contemplated as a temporary phase. The experience of some industries is quite encouraging. The bigger industries could be planned with a cooperative or corporate institution in the initial stage under professional management. If it is cooperative, it could be a 'guided cooperative', in the load on a long term basis. The central of the community on the co-operative may gradually become more effective and the professional managements itself may be provided by the local groups in increasing measure. In the smaller industrial ventures however, the approach may be somewhat different. The individual could be provided necessary guidance in setting up the industry and an institutional frame, may be a cooperative institution, could either be envisaged on a protective 'umbrella' to the entrepreneurs or even as a promoter of entrepreneurship. The experience of Xavier Institute of Social Studies, Ranchi in training and guiding small entrepreneurs is encouraging and lays

bare great potential in this area. The small entrepreneur established in grocery shops can in due course flower into a bigger entrepreneurs provided they are given opportunity and protection against competition of more advanced groups in their early period.

Adaptation of Industrial Process

23. We may now turn to the question of adapting of industrial process to the local socio-economic situation: since matching is essentially a two-way affair. In the first instance, 'industrialisation' should not be interpreted in a limited sense and it should be taken as culmination of the process of diversification of the local economy and upgradation of skills all through the spectrum. Conscious linkages will need to be built with the local economy and no undertaking should have an idea that it can treat itself as an independent unit having a specific individual role free to operate in any way it likes. The local constraints of planning should be clearly defined and the process of industrialisation itself should be set within certain limits.

Impact on the Hinterland

24. The management in industrial enterprises, particularly the larger ones, considers itself responsible for achieving the ends of the project and it is presumed that the other factors would automatically get balanced. The presumptions may be valid in the more advanced areas where the socio-economic background and relative strength of different groups is not very difficult. But they do not hold good in the more backward areas. Therefore, it will be necessary that a sense of responsibility is instilled in the management about the implications of industrial activity to its hinterland. Some times this point is appreciated only when a breaking point in its relations with the surrounding areas is reached. For each instance of one breaking point there should be numerous points of varying degrees of tension. The final result may depend on the intensity of the local feeling and the relative strength of the two groups. In most cases, the stronger industrial group has the upper hand and the local communities have to compromise for a subservient position in the new structure. This law of jungle, which prevails in many areas, will need a careful review. A comprehensive planning of the zones of influence of big industrial and mining complexes, therefore, should be taken up.

25. The bigger industrial and mining complexes behave as self-contained units. Thus, the social service infrastructure created by these organisations may be exclusively reserved for the members of the core industry. The result is that one finds highly developed institutions amidst a vast population having almost no social services. Social services can be important links between the industrial and the Tribal society. In fact, medical and educational institutions have generally been the first outposts of modern civilisation in the backward areas. But the very concept of labour welfare, when defined in extremely narrow frame of reference by the industry, becomes responsible for this anomalous situation. It is forgotten that the labour does not constitute the lowest strata of society in these areas; this group itself is super-imposed on the local socio-economic structure and thus has 'elitist' character. The tribal communities, the last group of the economic scale, therefore, cannot be ignored in any scheme of development

or social services in these areas; all organisations together should evolve a suitable strategy so that a 'non-secluded pattern' of social services can be established.

Adaptation to the Local Systems

26. One more point needs to be noted here. An Industry ordinarily expects the local community to adapt itself to the way of new culture almost instantaneously. But the working pattern of these two systems are so different that the tribal cannot be expected to adjust immediately. Therefore, migrant groups are preferred even for the lowest jobs in the industry and the secondary immigration continues unabated for even elementary service sector. It may be recalled absenteeism in the textile industry in Bombay and other western Indian centres, which drew the bulk of their labour force from the north initially, continued to be sizeable for a long time and the industry had to put up with it. The working system of the industry in the tribal areas, therefore, will need to adapt itself to the local social milieu. Perhaps a way could be found by resorting to 'group employment' concept in place of individual employment. Thus, continuity of labour, which is necessary for efficient functioning of an industry, could be ensured in a way, yet at the same time sufficient flexibility would be introduced to enable the tribal to attend to his agricultural and social obligations. It has to be appreciated that the tribal cannot be very sure about his position in the new industrial society; he is unaware of the strength of the group. Therefore, he cannot see an assured future for himself away from his village and his field. His reluctance to join the labour force even at a higher wage is quite understandable. A sense of confidence in the new surroundings can grow only over a period of time.

27. The perception of the distance is another important factor. Scores of miles do not matter much to those who are used to fast means of communications. But the world view of the rural communities in general and the tribal communities in particular is limited to a comparatively smaller areas with which he is personally familiar. Thus, working on the 'modern' concepts of distance and neighbourhood, mobility of labour may be presumed by the industry over a much larger area. But the final outcome may be unexpected non-response from local groups and induced migration. Similarly, the spread effect of the industrial activity may be over a smaller area than what may be presumed in its project report. A project may compute its benefit to the people in the region in terms of a much larger hinterland and in this process may not give due regard to the aspirations and problems of people in the immediate surrounding. These people, in their turn, may have no appreciation of the bigger area. This may lead to disharmony and tensions. Therefore, there should be reasonable consonance between the two views so that they can appreciate the mutual relationship. The industrial planning may be better conceived as a series of micro level plans of gradually enlarging geographical regions.

Locational Factors

28. The perception of distance brings us to another important element, *viz.* the acceptance of an industrial unit by the local community as a part of its own system. Size of an industry and its location are generally determined by economic considerations

and 'harmonising' elements are not taken into account. If such elements are also considered as given conditions in addition to other factors in many cases decisions may be different. The social cost and benefits to the local community will depend on the 'harmonising' effect. Here the tendency of sectoral authorities to decide location on narrow consideration will need to be checked. For example, the effort should be to create a small industrial unit in the midst of raw material producing groups. Such a unit can be under joint ownership so that the benefits of production flow back to the primary producer. This concept has already been well established in co-operative sugar industry in Maharashtra which could be suitably adapted for other industries in relation to the local tribal situation.

Planning for Industrialisation

29. The above analysis helps us in understanding the dynamics of the industrial and the tribal socio-economic systems. It may now be possible to spell out the necessary elements in the industrial development plan of a tribal area. The following are some aspects which should attract attention of planners even at the preliminary stage of programme formulation.

(i) Resource Potential :

It may include marketable agricultural surplus, the level of exploitation and potential of minor and major forest produce, minerals and other natural resources with possible range of economic value in each case etc.

(ii) Local Socio-economic situation—This may include :

- (a) Density of Population;
- (b) Distribution of Hamlets;
- (c) The level of Literacy;
- (d) Occupational distribution;
- (e) The extent of diversification of the social economic and administrative organisations.

(iii) Level of Skills :

Identification of skills of the tribal population in general and higher skill, if any, of artisan groups amongst them in particular. In case of artisans it will be necessary to identify :

- (a) Their concentration, if any, and
- (b) The state of this traditional crafts.

(iv) Local Demand :

This may include the traditional consumption patterns, the new trends in demand for essential and non-essential items and the long-term change in living style leading to newer demands.

(v) *Non-agricultural activity* :

This may include existing major, medium and small scale industries, handicrafts, house-hold industries etc.

(vi) *Infrastructure* :

This may include the existing roads, communications, and electric power lines, credit institution etc.

Correcting the Existing Dissonance

30. Once these basic elements are clearly spelt out, it should be possible to have a suitable strategy for long term diversification of the tribal economy. In some areas we may be starting from the search in relation to the modern industrial activity while in other areas there may already be some industrial activity. It is obvious that the first step has to be to understand the relationship of the existing industrial units with the local community. In these cases, where the new activity is not benefiting the local community, remedial action may be urgently taken. This may involve action at a number of points like influencing the policy of the project, providing for necessary local participation for furtherance of tribal interests, exploring the possibilities of various linkages between the industrial and the rural sector and finally, which is the most important, strengthening the local community by suitable social service inputs.

31. While these steps may be necessary in relation to the industries already existing, the next important aspect will be to identify the basic units which are likely to be set up in future because of their strategic, national or regional importance. It may be examined whether the time schedule for their establishment is fixed or is still flexible. In case it is flexible, it should be adjusted, as far as possible, in such a fashion that the tribal community gets prepared to take the advantage of the new opportunities arising in these areas. Advance training programmes, upgrading of the local skills with reference to the availability of jobs preparing the hinterland economy for the new demands likely to be credited, an intensive citizen education programme within the likely zone of influence of the new enterprises etc., should be taken up.

Building up Traditional Artisan Groups

32. It will be useful if the traditional groups, with comparatively diversified skills are picked up for special treatment. It is they who are exposed to greater variety of situations and who can be easily moulded as contact point between the modern and the traditional. Their skills, in many cases, can be upgraded easily and they can be usefully fitted in the modern industrial sector. But the programmes for traditional artisans so far have been generally formulated as rehabilitational programmes and, therefore, the full potential of their likely role in the socio-economic development of the tribal areas is not appreciated. The welfare approach to such programmes has obvious limitation and when considered in isolation it cannot provide a long term solution. The traditional artisan groups have to be built up as the possible innovator elements in the primitive social structure. They should be treated as linkages between the modern and traditional sectors.

not the exclusive ones. If this dynamics is appreciated the skill upgradation programme will acquire a new dimension.

Planning from Below

33. It may be mentioned at this stage that there is urgent need to plan from below. This holds good for the entire tribal economy but particularly so far the industrial sector. The modern industrial culture is completely alien to the local tradition. The present position is that whatever programmes are formulated are influenced by the needs and experience of more advanced sectors of our economy. Thus, as a matter of fact, the traditional and the modern so far may not have developed any meeting points. Therefore, the two may be operating at different levels and these programmes may be foredoomed to failure. A recent study by the Industries Department of Bihar has brought out that some of the local artisans around Ranchi have already adopted some of the newer practices many more can benefit if only marginal help is available. The inputs which these groups require are extremely small, may be, some improved tools or a small loan for working capital. A schematic approach which is generally adopted, besides, being costly may miss the essential element. If these groups can be helped in a small way, their activities will have a multiplier effect because others can emulate their example and may try to do many other fields with greater confidence. Thus, it is necessary to plan from below on a step by step basis so that whatever programmes are taken up are within the assimilative capacity of the local groups and it is ensured that intended benefits do accrue to them. This will prepare the community for the next dose of innovative investment and upgradation process may gradually become self-sustained.

34. Educated manpower is another potential group which needs to be tapped suitably. It may be possible to make use of this man-power through suitable training programmes. Turn-key projects may be useful for these groups. If an 'Umbrella' organisations were to help these entrepreneurs initially, they may be able to venture in larger areas with greater confidence. Such an organisation may be an independent organisation or it may be subsidiary of a large or medium industry already established in these areas. We have discussed at length the role of core industrial units in the preceding paragraphs.

Local Raw Materials

35. The other important determinant of industrial growth is the available raw material in the area. Much of the raw material from the tribal areas is exported to the more advanced areas in unprocessed form. Therefore, the net benefit of the available raw material to the regional economy is rather small. Industrial programme for a tribal area, therefore, should aim at exporting the raw material in a fully processed or semi-processed form within as short a period as may be possible. This should help in deciding the character and location of the new industry.

Local Demand

36. Another important component is the demand. With the opening of these areas, the consumption needs of the tribal community are getting diversified, new demands

are emerging. Many a time, the character of demand in the same product category may be changing. For example, there is a shift from traditional designs in clothes to new designs. Similarly, the older ornaments may be giving way to cheaper mass-manufactured ornaments. In fact, there may be a conscious under-cutting in some of the important areas by bigger firms just to establish themselves in a new line of trade. These aspects will need to be carefully studied to determine the policy of diversification of the tribal economy. Where the shift in demand is qualitative the first obvious effort should be to retain the traditional groups as far as possible. Where the demand is in an entirely new line, it could be explored whether some of the existing skills can be utilised for meeting the new demand.

37. There is another aspect of demand. Whenever any programme for revitalising local crafts is taken the problems of marketing are considered and even elaborate marketing organisations may be established. But in all such attempts the distant urban market and sometimes the export market has the primary focus. These markets have obviously a limited potential in the context of the overall production potential which can be developed in the rural and the tribal areas; the longer leads will always be a handicap in enabling these crafts becoming self-sustaining. It will, therefore, be necessary to create demand locally for the traditional and even newer articles rather than depending primarily on distant urban centres. Similarly, there are some schemes for encouraging small industries but these concessions are in general terms and may not answer the specific local requirements. For example, in a backward area small industry may not have even developed to claim the concession and the traditional artisan may be struggling hard to find a market. It will help these groups if the arts and artifacts of the local community are used for the decoration of public buildings and other institutions of the area and this provision is made an integral part of the basic building design. This will help creating an automatic linkages between the level of economic activity and demand for some of the traditional crafts.

Phasing of Industrial Plan

38. The variables in the socio-economic situation in the tribal areas are so delicately balanced that a comprehensive industrial development plan keeping in view all aspects discussed above is necessary. This exercise, however, cannot be taken up all at once for the entire tribal areas. Yet earlier such an exercise is taken up, more helpful it will be for achieving balanced development of these regions. The tribal areas can be grouped for the purpose as follows:

(i) *Compulsive Regions* :

- (a) Tribal areas which already have big industrial and mining complexes, and those areas where such complexes are likely to be established on national or strategic considerations;
- (b) Other areas where some intensive economic activity in any sector is proposed to be taken like development of a tourist resort or intensive forestry management programmes on national consideration.

(ii) *Primitive Regions* :

Areas with extremely backward socio-economic situation which may be excluded for intensive industrial activity in the immediate future.

(iii) *Potentia Regions* :

- (a) Population pressure areas.
- (b) Rich natural resources areas.

(iv) *Other Regions* :

Tribal areas other than those in the first three groups. We may discuss each of these groups separately.

39. (i) *Compulsive Regions* : We have already noted that urgent attention will be needed in these areas to softening the impact of sudden industrialisation. Comprehensive plan including that of the industry for these areas should be prepared on a priority basis.

40. (ii) *Primitive Regions* : These areas are those where the level of socio-economic development is very low and large scale modern activity may result in uprooting the local tribal group. Some other examples are Abujhmar region in Bastar, Madhya Pradesh, Bondo hills in Koraput, Orissa and the Paharia region in Santhal Paraganas, Bihar. Economic Development programme of these groups will have to be cautiously prepared assuring that pace of change is not too fast.

41. (iii) *Potential Regions* : (a) *Population Pressure areas* :—There are some tribal areas which are already experiencing pressure of population and the agricultural and forest resources are not sufficient to support the growing numbers. In many tribal areas like those in Rajasthan and Gujarat there is seasonal migration of tribals to the neighbouring urban industrial centres. In such cases, the stages can be considered to be set for diversification on tribal economy in response to the local need. Such areas, therefore, could be identified and comprehensive programme could be taken up on a priority basis.

42. (b) *Rich Natural Resources Areas* :— Areas with specially rich natural resources should get attention on priority basis in the interest of balanced growth. One never knows when the development of such regions may acquire compulsive character. At that stage there may be hardly any time for equipping the local population for meeting the challenges of the fast change. If such regions are identified, a comprehensive development plan should be prepared where industrial activity can be phased strictly according to the level of preparedness of the local community. Programmes aimed at human resource development may be intensified in these areas which could be gradually oriented with the possible skill-mix requirement of the future. Initially it will have to be general programme which will acquire specialisation in due course.

43. (iv) *Other Regions* : In the remaining areas, diversification of tribal economy should be a part of the overall developmental strategy of the region although it should be assigned a special position. Here again priority to each area will have to be given keeping in view the resource potential, the preparedness of the people, level of literacy etc. In these areas industries smaller in size, dispersed and with less sophisticated technology should be preferred. We have already suggested creation of 'umbrella' organisations and preparation of 'turn-key' projects. It will be useful if different national organisations with specialisation in appropriate field take overall view of the potential with regard to relevant raw material. Thus, the Silk Board could assess the potential of 'Kosa' industry and prepare a blue-print for its development. Within the frame we provided, individual schemes may be taken up within the Integrated Tribal Development Programme of the relevant region. Similarly, the exploitation of forest resources could be viewed in the overall context of a resource region. It will be possible to determine *inter se* priorities for different areas and for different industries only if the overall socio-economic constraints are known in the larger frame; such an exercise will be difficult for a smaller area where narrow sectoral views or ignorance of what is happening in the adjoining area may influence the decisions.

44. Besides the above generalised programmes for which planning in larger areas is necessary, smaller programmes aimed at upgrading the skills of the traditional craftsmen should get the highest priority. Even where it will be useful if a broad overview of different skills in larger tribal tracts is prepared and local programmes are evolved within that frame. Caution will be necessary here that in the name of evolving a strategy for larger area no schematic or stereo-typed programmes are set. This may have the same effect as that of super-imposition of programmes from higher levels, a process which is sought to be reversed through 'planning from below'.

Organisation for Industrial Development

45. The organisational structure for industrial growth in the tribal areas is an important aspect requiring special attention. It has to be accepted at the outset that there is already considerable proliferation of organisations in the tribal areas. Therefore, the idea of setting up an independent organisation for industrial development of tribal areas, if at all, will have to stand closest scrutiny. An independent organisation covering a big tribal tract will not be able to reach the deep tribal regions; it may tend to operate generally in certain important centres which are not really a continuum of the tribal economy. Thus, such organisation may appear to be operating in tribal areas yet may not even touch the tribal economy. It may also be a negation of planning from below.

46. The most important element in any developmental programme is a clear understanding of the local situation by those who are responsible for planning and execution. A unified administrative structure which is simple and within the comprehension of the people has already been accepted as one of the essential elements for the new strategy of development. For the credit and marketing side, a credit-cum-marketing organisation, which will be independent but will have a close relationship with the administrative structure has been envisaged. It will be useful if these two organisations are accepted

as providing the basic institutional frame for the entire range of economic development of the tribal areas and, wherever necessary, further expertise could be built up in them for attending to the industrial development aspects as well. In their case, expertise for planning may be provided at appropriate level. But the confidence relationship of these organisations with the tribal should be the most important asset on which the new industrial programme should be built up.

47. In the new strategy, the credit-cum-marketing organisation itself will be generally responsible for collection of bulk of the minor forest produce. Therefore such an organisation will be most suited to start processing of this raw material. Since this organisation is attuned to the needs and aspirations of the tribal it may be expected that the decisions in relation to phasing, technology, location etc., for the industry also will not have a bias against the more backward areas and there will be no tendency to cling to the bigger places. A separate organisation operating from city headquarters is likely to have such a bias. The processing of raw material should be nearest to the collection points, it will be economical to the organisation itself. This organisation can also go into some other smaller consumer industries because it is also responsible for supply of consumer commodities. However, for keeping the two aspects of its operations distinct it may be necessary that certain institutions are built into it, for example, the two accounts may separately be maintained.

48. In those cases where the industrial activity proposed to be taken up is more sophisticated and specialised the first choice should be in favour of subsidiary of the credit-cum-marketing organisation. Such an arrangement will have the advantage of enabling the subsidiary to have the goodwill and services of the parent body yet building up necessary expertise for handling the industrial project. In the case of larger industries however, a separate organisation may be established. These situations, will be exceptions rather than a rule. However, in the neighbourhood of a big industrial complex, it will be useful if the responsibility for integrated industrial development is on that industry itself. It could have a separate small cell which may provide necessary technical know-how. Suitable arrangements for co-ordination between this cell and the project or credit-cum-marketing organisation, as the case may be, can be made in each case.

5. TRAINING PROGRAMMES FOR EDUCATED TRIBAL YOUTH AND ARTISANS

Tribal Cultural Research and Training Institute

This economic development of any region largely springs from the proper exploitation of its own resources aided by level of available technical know-how. Industrialisation in any area generates economic mobility, technological skill and an over-all change in the socio-economic life of the people. In order to bring about transformation of traditional economy to modernity and to provide adequate employment opportunities to un-employed educated tribal youth and under-employed tribals, there is an urgent need for formulation of plans and programmes in the field of training the educated tribal youth and artisans.

OCCUPATIONAL PATTERN

The main occupation of tribals is agriculture. According to 1971 Census there are 2,82,259 cultivators and 3,83,595 agricultural labourers. The remaining 1,16,000/- workers are found to be engaged in non-agricultural activities such as live stock, forestry, hunting, plantations, mining and quarrying, manufacturing processing, servicing, and repairs, construction and trade and commerce. 86.15% of tribal workers are engaged in Agricultural sector. The percentage of workers engaged in non-agricultural activities accounts for 14% only. Collection of minor forest produce, forest labour, agricultural labour, hunting and fishing etc., are the subsidiary occupations. Only 3.97% of tribal workers are engaged in livestock, forestry, hunting and plantation. Most of the workers among scheduled tribe population belong to the age group of 15-60 years.

LEVELS OF EDUCATION

The percentage of literacy among tribals as per 1971 Census is only 5.34%. The level of literacy varies from tribe to tribe and district to district. There are about 88,500 literates and educated persons among tribals. The level of education among the school going children is as follows:

	No. of schoolgoing children
1. Primary Schools ..	.. 92,344
2. Upper Primary Schools ..	.. 10,325
3. High Schools ..	.. 7,061
Total :	<hr/> 1,09,730 <hr/>

Thus most of the school-going tribal children do not seem to have studied beyond matriculation standard. Hence the training programmes are to be designed taking into consideration the existing levels of education of tribal candidates.

TRADITIONAL SKILLS

The Industries programmes initiated by State and central Governments strive to develop the natural and traditional skills of tribals besides promoting the utilisation of available raw material in the tribal areas. Certain tribal groups are well known for their traditional skills. Kolams and Hill Reddis are adepts in bamboo cutting and basket making. Kammaras are traditional blacksmiths who manufacture and repair agricultural implements. Samanthas or Khonds are well versed in mat-weaving, oil-extraction, etc. Gadabas are found to be engaged in stone breaking, earth work etc. They also know the art of weaving a particular type of cloth.

PLANS AND PROGRAMMES

The aim of the industries programme in tribal areas has been three fold viz., (1) to train the local youth in certain important crafts and thus create new artisans, (2) to impart training to existing professional artisans and improve their skills by teaching them the use of improved tools, (3) to organise them in order to provide gainful employment mostly by setting up co-operatives. With these objectives in view, efforts were made during the Plan periods. The Plan-wise expenditure on village and small scale industries in the tribal areas of the state are given below :

Plan	Expenditure (Rs. in lakhs)
I. Five-Year Plan.	0.57
II. Five-Year Plan (including C.S.S.)	1.97
III. Five-Year Plan	5.58

The expenditure incurred for improving the traditional skills of tribals and for promoting village and small scale industries during the Plan periods is very meagre. The physical achievements in the field of small and cottage industries include the establishment of Training-cum-Production Centres, Training Centres for brick laying, carpentry, mat-weaving, bee-keeping, etc. During the First Five-year Plan, a sericulture farm was opened at Ashoknagar in Warangal district to train tribals in sericulture industry. Two Koyas and some scheduled caste persons were trained. During the Second Plan period tribals were trained in bamboo and Rattan basket making, mat weaving, etc. An amount of Rs. 4.97 lakhs was spent for starting 24 Training-cum-Production Centres and Eight Centres during Second Plan period. One hundred tribals were trained in bamboo and Rattan basket making, mat weaving and Tanning. Altogether, 188 persons were trained in Eleven Training-cum-Production Centres which were functioning in the Third Plan period. Fifty seven training Centres, such as common facility centre Bee-keeping, Tanning, Adda leaf, Dress making centres were also functioning in T.D. Blocks to provide training facilities to tribals.

TRAINEES IN VARIOUS TRADES

Though considerable number of persons were trained in various trades, only 35.60 per cent of them have settled in the trade in which they were trained. The number of persons trained in various trades and the number of persons settled in the trade are furnished hereunder.*

S. No.	Name of the Trade	No. of persons trained	No. settled in the trade
1.	Carpentry & Blacksmithy	500	203
2.	Pottery and Brick making	172	70
3.	Spinning and Weaving	183	42
4.	Bamboo and Rattan work	235	71
5.	Adda leaf plate making	72	12
6.	Tanning of hides	50	21
7.	Bee-keeping	35	20
8.	Horn work	8	1
9.	Pottery	66	38
10.	Carpentry	309	105
11.	Tanning	33	14
12.	Basketry	38	16
13.	Leather goods	40	22
14.	Steel trunk manufacturing	8	4
15.	Other trades	155	39
		1904	678

The Training-cum-Production centres in tribal areas were not encouraged in the Fourth Plan period due to certain handicaps, such as lack of adequate follow up programmes, lack of adequate stipend. The training programmes of the TCPCs and other training centres were not related to the local raw materials and the training imparted was mostly useful for preparing the articles which are not in demand in tribal areas. In view of these inherent weaknesses, most of the TCPCs were closed down in the tribal areas.

Only a few are still functioning in the tribal areas of Visakhapatnam, Khammam and Adilabad districts. The list of institutions with training programmes are as follows:

Srikakulam District:

Sreenivasa Carpentry-cum-Blacksmithy Cooperative Society, Ltd., Seethampet.

Visakhapatnam District:

1. Carpentry Training-cum-Production Centre, Paderu.
2. Spinning and Weaving Training-cum-Production Centre, Hukumpet.

A Report on the working of the T.D. Blocks in A.P. published by Tribal Welfare Dept., Govt. of A.P., Hyderabad.

Khammam District :

1. Rural Community Workshop, Vinayakapuram (Aswaraopet).
2. Demonstration-cum-Training Unit in fruit preservation, Aswaraopet.
3. Common Facility Centre (Power operated), Aswaraopet.
4. Common Facility Centre, Bhadrachalam.

Adilabad District :

1. Rural Arts, Crafts and Industries Centre, Uttoor.
2. Common Facility Centre, Wankidi.

The training facilities provided by the TCPCs are inadequate. They did not cover all types of trades namely agro, forest, industrial and service-based trades.

PLAN PROGRAMMES

During the Fourth Plan period, the Tribal Welfare Department has introduced certain new employment-oriented training programmes. These were

- (i) Training of tribals as village officers.
- (ii) Training of Tribals as masons.
- (iii) Training of tribals as Apprentices in public and Private Sector undertakings.
- (iv) Training of Tribals as Motor Drivers.

Under these programmes, 60 tribals were trained as motor drivers and 231 as village officers. 312 tribals underwent training as masons, besides 50 tribals who were trained as apprentices in public and private-sector undertakings. These training programmes were mainly suitable to non-matriculates and matriculates among tribals.

TECHNICAL EDUCATION

Four per cent of the seats are reserved for scheduled tribe candidates in I.T.Is, Polytechnics and other technical institutions which are under the control of Department of Technical Education and the Department of Employment and Training. As reported by Director of Technical Education, 15 tribal candidates in Polytechnics and 4 candidates in other technical institutions were imparted training out of the total of 5,287 trainees and 3,180 in Polytechnics and other technical institutions, respectively, during the year 1972-73. Merit-cum-means stipends Rs. 20/- per month for students of 1st and 2nd year and Rs.30/- per month final year students are sanctioned by the Department of Technical Education besides the scholarships sanctioned by the Director of Tribal Welfare. Exemption from payment of tuition fees is also granted.

Under the Craftsman Training Scheme, seats are reserved for Scheduled Tribes in proportion to their population in industrial training institutes. As on October 31, 1971, out of 8,595 trainees, only 69 belonging to S.Ts were on roll under craftsman training scheme in Andhra Pradesh. Fixed percentage of stipends @ Rs. 25/- per month is also reserved for S.T. candidates besides the additional stipend amount of Rs. 20/- per month sanctioned by the Department of Tribal Welfare. Most of the industrial training institutes are not having attached hostel facilities for S.C. and S.T. students. It is observed that most of the seats are not getting filled up. This indicates that the tribal candidates have to be pursued to avail the opportunities. Further, the qualification required for admission into some of the trades may be relaxed in the interests of tribals.

The ITIs in Andhra Pradesh did not cover all the trades, especially agro and forest-based trades which are essential for the tribals. The trades (courses) in ITIs require to be diversified by adding new trades in which employment opportunities are readily available.

TRAINING FACILITIES FOR RURAL ARTISANS

Apart from the above, efforts have been made by Government of India to provide training facilities and to improve skills mostly of rural artisans, through the following programmes and organisations.

1. Rural Industries Projects.
2. Small Artisans Programmes.
3. Khadi and Village Industries Commission.

There are 49 Rural Industries Projects functioning in various States providing training facilities, common service facilities, technical assistance, marketing facilities etc. It is proposed to start 50 new projects during the Fifth Five-year Plan. Altogether 39,575 candidates were trained under these projects from 1964-65 to 1970-71. Further the Government of India have decided to introduce a training programme for rural artisans for setting up small agro-industries collectively or individually in important village trades like carpentry, blacksmithy, masonry, pottery, repair and maintenance of agricultural implements, machinery, tractors, pumpsets, diesel engines, as a part of SFDA and MFAL Projects. This training will be imparted by the existing as well as by mobile vans and peripatetic training parties. This scheme has a follow-up programme.

Khadi and Village Industries Commission has been conducting training programmes for artisans engaged in 22 village industries such as Khadi, processing of cereals and pulses, ghani oil, leather, cottage, match, gur, khandasari, palm, (Gur), Non-edible oils and soap, hand-made paper, village pottery, bee-keeping, fibre, blacksmithy and Carpentry, manufacture and use of methane gas and ammure, lime-stone and its products, manufacture of shellac, collection of forest plants and fruits for medicinal purposes, fruit processing and preservation, bamboo and cane work, manufacture of household utensils from aluminium, manufacture of gum resins and manufacture of Kattha. The Commission has also introduced, People's Education Programme (PEP) in 1972 to stimulate artisans

in their occupations. The intention of this programme is to give the artisans the 'why and wherefore' of the activities in which they are engaged. The core of the PEP will be with the artisans and they will be approached through organising study circles. The essential feature of the programme is that the same artisans will meet again and again in the study circles and study the different aspects of the industry and thus get a comprehensive picture and understanding of the programme.

The present training facilities conducted by Khadi and Village Industries Commission and by Government of India through central-sector schemes like Rural Industries Projects, SFDA and MFAL did not make any impact on tribal artisans. As these are all-India Projects, specific attention was not paid to the tribal Artisans.

SHORT TERM PROGRAMMES

The important and immediate programmes through which the development and modernisation of secondary sector in tribal areas are as follows :

- (a) Imparting of training in skilled employment to illiterate, semi-illiterate and literate tribal young men and women in various trades like agro, forest, industrial and service-based trades.
- (b) Imparting of training to literate tribal youth in business management, secretarial courses and improving of planning capabilities and skills of identified entrepreneurs.
- (c) Extension of infrastructural facilities to Scheduled tribe artisans for improving their skills.
- (d) Selection of qualified tribal candidates through vocational guidance and imparting training in a suitable trade.
- (e) Forecast of likely vacancies arising in public and private-sector undertakings.

The programmes mentioned above are discussed hereunder with reference to the existing position of tribal manpower and facilities for training of tribal literate youth and artisans.

(a) In tribal areas, there is scope for starting the following industries under the four broad categories of trades viz., agro, forest industrial and service-based trades:

Agro-based Trades:

- (a) Fibre Industry
- (b) Tassar Industry
- (c) Masonry and Brick manufacturing Industry
- (d) Fishing Net making Industry
- (e) Tanning Process of hides and skins
- (f) Bee-keeping

- (g) Pottery making
- (h) Sericulture
- (i) Oil pressing and milling

2. Forest - based Trades,

- (a) Rattan goods making
- (b) Beedi manufacturing
- (c) Saw mills
- (d) Fruit canning
- (e) Mat weaving
- (f) Rope making
- (g) Carpentry including varnishing
- (h) Framing, Bending and weaving, match and allied splinter making etc.
- (i) Gum industry

3. Industrial Trades :

- (a) Fitter
- (b) Turner
- (c) Machinist (Composite)
- (d) Mechanic (Motor vehicle)
- (e) Mechanic (Tractor)
- (f) Winders
- (g) Pumpset repairers
- (h) Composing (Press) Printing.
- (i) Electrification (Wiring, Installation of Pumpsets, Filter points etc.)
- (j) Blacksmithy

4. Service-based Trades :

- (a) House Painting and name board writing
- (b) Packing
- (c) Tailoring
- (d) Laundry

(a) The duration of training varies from trade to trade. The general range in the case of industrial trades is from six months to two years. The duration of training for agro-based and service-trades varies from three to six months. All the trades under forest-based industries require six months duration followed by an intensive course of three months. The minimum qualification required for admission into industrial trades, trade to trade. In general, for all the trades under forest-based and service-based trades, 8th class is the minimum qualification for admission into industrial trades, whereas 8th standard as the minimum qualification for courses like fibre industry, pottery making, oil pressing and milling, and S.S.C. is the qualification for tassar

industry, masonry and Brick making, fishing, tanning process, bee-keeping and sericulture under agro-based industries. This type of industries are more suitable and a good number of tribal candidates are available with the required qualification. There are about 702 matriculates and 991 under-matriculates unemployed and they are in need of jobs.

A close examination of the requirements of various public and private-sector undertakings reveal that man-power is in great demand as signallers, Scientific assistants, machinists, fitters, etc., in the Railways and the public sector undertakings like Praga Tools, Electronic Corporation of India Limited, Bharath Heavy Electricals Ltd., Indian Drugs & Pharmaceuticals, Port Trust etc., require men with technical qualifications and experience to man certain specialised technical posts. Many a time, these Organisations were informed that qualified tribal candidates are not available. This situation needs to be tackled by providing training to tribal educated youth, if necessary even by relaxing the minimum prescribed qualifications.

(b) In Andhra Pradesh certain major industries such as Singareni Collieries (Khammam), A. C. C. Cement Factory (Adilabad), Iron Ore mines (Visakhapatnam) are located in and around tribal areas. D. B. K. Railway project passes through the tribal areas of Visakhapatnam district. All these units require people in various technical fields. But it is observed that the tribals who are employed in these industries are all unskilled labourers. As a matter of policy, the authorities of such unit should give preference to local tribals and absorb them in suitable posts by providing training facilities both in technical and non-technical fields. None of the tribals are working as engineers or Managers in higher level positions in such industries. Efforts are to be made by all concerned to provide training facilities to tribals in business management and in secretarial courses. Middle-level managerial posts are not at all occupied by tribals in industrial organisations located in and around tribal areas. Tribal candidates are to be trained as Managers, Assistant Managers, Office Assistants, Accounts Assistants etc., to manage the day-to-day-affairs of industries even by relaxing the minimum educational qualifications prescribed for such posts.

Another problem which requires greater attention in tribal areas is the promotion of entrepreneurial talents among the enlightened and educated tribals. Identification of tribal candidates with entrepreneurial abilities and planning capabilities is a great task which can be tackled through vocational guidance and psychological tests. The creative faculties of such entrepreneurs have to be improved by imparting training in organisation, financial and technical management productivity skills, marketing intelligence, etc.

(c) The tribals who underwent training in Training-cum-Production Centres may be provided further opportunities to improve their skills by way of giving *Ad hoc* grant. They may be admitted into Industrial Training Institutes under Craftsmen training scheme to improve their skills or they may be imparted training in improved techniques of production in their respective trades by a specialised organisation.

(d) Tribal boys may be selected through vocational guidance and they may be admitted into suitable courses of ITIs. The Study Team on Tribal Development poin-

ted out that tribal candidates could not avail of the facilities provided in technical institutions due to inadequate knowledge of Science and Mathematics which are not given special attention in tribal schools. It is, therefore, essential that Scheduled Tribe Students should be encouraged to acquire adequate knowledge in science and mathematics which will enable them to take up training in technical subjects in ITIs. Follow-up action is also necessary for settling them in the trained trade and to provide them suitable jobs. Further, apprenticeship programmes for tribal boys have to be undertaken on a large scale in collaboration with private and public-sector undertakings. This Institute has been deputing tribal candidates to undergo apprenticeship with public-sector undertakings. So far, 50 tribal candidates were deputed to derive benefits from Apprenticeship programme with Electronic Corporation of India Limited.

(e) It is essential to forecast the likely vacancies arising in public and private-sector undertakings and steps should be initiated to organise suitable training programmes. This forecast would ensure the trained Scheduled Tribe candidates to secure suitable posts whenever they are advertised.

LONG TERM STRATEGY

Long-range planning involves an appropriate action programme for improving the skills and knowledge of tribals. Strenuous efforts will have to be made by the state government to equip the tribal youth to work as skilled and semi-skilled workers in the industrial establishment in large numbers through 'appropriate technology'.

The long-range development planning involves the judicious selection and application of technology so as to suit the existing socio-economic conditions of tribal areas. As a matter of fact, technology has an inter-play in each section of human enterprise. Modern technology is capital intensive and labour saving which does not suit the conditions of tribal areas in our state. 'Appropriate Technology' suited to the socio-economic conditions of tribal areas has to be developed which will be more labour intensive and capital saving to tackle the problems of unemployment, underemployment, malnutrition and consequent sub-standard living conditions of tribals. The local communities can reap the fruits of economic development, if they are equipped with the requisite background of technology and education. As the modern production techniques are multidisciplinary, mere teaching of a skill for livelihood becomes incomplete unless right knowledge and correct attitudes are imparted. This type of 'Appropriate Technology' can be developed through 'Education for Modernity'.

Now-a-days, planners and people cannot ignore the impact of modernity in the process of 'economic development' of any type of society since 'Modernism' and economic development are complementary. This concept takes shape through a revolutionary approach. The content of this type of education would include 'a scientific and pragmatic attitude towards the World in which we live in and beyond'; apart from a basis grounding of the 'three R's'. An educational system with a positive stance towards building up of a scientific attitude towards life, is the education for modernity. Thus this education for modernity comprises technical education with special emphasis on agriculture, animal husbandry and poultry-farming on scientific lines. Imparting skills in

useful modern small-scale and cottage industries may add another dimension to this scheme of education. However, the studies of essentials of humanities and culture shall not be ignored.

Long and short-term training programmes in the field of industries have to be brought into alignment with the strategies of our Five-year Plans. Technique-based strategy is the need of the hour in industrial planning. The industrialisation of tribal areas can be achieved by intensive and effective training programmes which aim at improving the traditional skills of tribal artisans and creative faculties of tribal literate youth.

6. SCHEMES FOR IMPROVING TECHNICAL AND OTHER SKILLS OF TRIBALS

*Andhra Pradesh Small Scale
Industries Development
Corporation*

The Andhra Pradesh Small Scale Industries Development Corporation was called upon to give suitable schemes/suggestions for improving the technical know-how, skills and entrepreneurial abilities among the tribals in Andhra Pradesh. It is a fact that the tribal people living in remote and agency areas have neither educational nor technical qualifications to any appreciable extent. The great majority of them do not have even the facilities to acquire any reasonable educational or technical qualifications. Even those who do acquire some qualifications do not get opportunities to work in industrial establishments, commercial organisations, etc., to acquire experience or to improve technical know-how or skills or entrepreneurial abilities. This compared to the urban and non-tribal population, the tribal people are highly handicapped in coming by any opportunities to acquire technical and other skills.

With a view to create scope for tribal people to work in small scale industries so that they can benefit by the experience, it is suggested that stipendary scheme may be evolved. A provision can be made by the APSSIDC to take a certain number of tribal workers into its Production Units/Joint Venture Private Limited Companies so that they can work and be trained in these industrial establishments in appropriate fields. It is expected that this type of facility will expose the otherwise isolated tribal population to the urban and industrial atmosphere so that their basic knowledge in various fields can be improved. This training may be in the fields of engineering trades, administrative jobs, production, etc. After this type of training, it is felt that tribals will be able to absorb further entrepreneurial development programme to start small scale industries themselves.

If the Committee of the Tribal Welfare Department can earmark certain amount of finance to meet the expenses on travel, stipends and boarding and lodging facilities during the training, it may be possible to evolve suitable training schemes to meet the requirement of different categories of tribal workers.

If this proposal is acceptable to the Committee, a detailed scheme with organisational and financial aspects can be worked out.

7. PROPOSALS FOR IMPROVING THE SKILLS AND ENTREPRENEURIAL ABILITIES OF TRIBALS

Andhra Pradesh Small Scale Industries Development Corporation

1. According to the criteria accepted by the Planning Commission, 14 out of the 21 districts in the State have been declared as industrially backward and special incentives are being given to the entrepreneurs to set up industrial units in such backward areas. Despite these incentives, entrepreneurs are not always prepared to set up industries in such areas. In the APSSIDC's own experience, despite its preparedness to share the risks involved in the ventures by participating in the risk capital of the SSIs, not many entrepreneurs have come forward to set up industries in the backward areas in collaboration with the Corporation.

2. The Planning Commission also acknowledged that the measures taken to accelerate development of backward areas and to reduce regional imbalances did not have much of an impact. Therefore, the Planning Commission has suggested the area development approach. But experience shows that developing area of a district attracts entrepreneurs from outside leaving very little scope for the growth of local entrepreneurs. This is particularly true for tribal areas.

3. Therefore, it is felt desirable to adopt a different approach for the development of small scale industries in the backward areas. The following strategy can be adopted with advantage for entrepreneurship development:

- (1) Area development shall be taken district-wise in a phased programme to cover all the districts one after another.
- (2) A fairly realistic study for the special socio-economic conditions and natural resources of each district shall be conducted.
- (3) The general direction of small scale industries development in the district concerned may be determined and industries with good potential may be listed. Project profiles have to be prepared and priorities determined in the context of natural endowments and marketing.
- (4) A campaign should be conducted to educate the people regarding the industrial potential in the district, to explain them the need to industrialise and finally to impress on their minds the need and the significance of the local and regional entrepreneurship development.

4. After the above spade work has been done, the entrepreneurship development has to be undertaken.

DEVELOPMENT OF ENTREPRENEURSHIP

5. Entrepreneurship is proposed to be developed through the Development Clinics. The following is the methodology which could be adopted with advantage;

(i) *Identification* :

Persons with evident potential to become entrepreneurs will have to be identified. Qualities such as organisational skill, leadership and courage can be identified in all sections of society. Behavioural science can be of great help at this stage.

(ii) *Motivation* :

After identification of the potential entrepreneur, it is necessary to remould his self-concept, to reshape his thinking process, to re-awaken and redouble his self-confidence, to promote self-reliance and finally to motivate him to undertake new way of life. Therefore, efforts should be made for better motivation with the help of competent behavioural scientists.

(iii) *Education* :

When the potential entrepreneurs are identified, and motivated, it is necessary to provide with adequate education pertaining to the new career, he is about to take. The education should extend to all facets of his industry.

(iv) *Induction* :

The last stage is to induct the trained entrepreneur into an industrial activity. This will be undertaken by the organisation engaged in entrepreneurship development.

6. The work of entrepreneurship development can be undertaken by the Corporation by opening "Entrepreneurship Development Clinics". The MSSIDC has already experimented with such clinics and the results achieved by that Corporation are encouraging.

7. The Entrepreneurship Development Clinic's work is as follows:

(a) Wide publicity is given through official, educational and other local social institutions at the district level about the programme and calling for applications from interested persons on prescribed forms.

(b) Selection of the candidates is done in two stages;

(i) First on the basis of information supplied in the application form. The applications received are screened with a view to ensure that the right person is called for personal test and interview.

(ii) Such of the applicants who are found to be resourceful enough *prima facie* on the basis of information given by them in the application will be called for selection test and interview.

- (c) Only such of these persons getting through the second round of selection will be admitted to the clinic. Not more than 25 to 30 persons will be trained in one clinic.

MOTIVATION AND EDUCATION

8. After the candidates are finally selected, the clinics undertake the job of motivation and education. This takes about 10 to 15 days for the clinic for motivation methodology to be adopted by the clinic for motivation and education is as follows:

9. In the first part of the session, the efforts of the clinic would be to motivate the potential entrepreneur by employing the test methods developed by behavioural science. Time required for this purpose be 4 to 5 days. During the course, the behavioural scientists make use of several business games. The focus is on self. The session will be in the form of discussions and everyone takes active part in them.

10. In the second part of the session, trainees are told how to select an industry how to prepare a project report, what resources and assistance are available to them from various institutions and finally on how to manage the industry. The latter part includes General Management, Finance Management and marketing aspects.

11. The trainees are made to prepare model project reports which are critically discussed in the clinic so that all aspects of running the industry and the implications involved are considered thereafter. The trainees are brought into contact with other officials connected with this activity as well as the successful entrepreneurs.

12. Training in the manufacturing process is outside the purview of the clinic. Thus, the clinic would only provide basic information, knowledge and motivation to the candidate emphasis being on enhancing their self esteem and confidence and inculcating in them a sense of self-reliance.

INDUCTION

13. After the trainees have successfully completed this programme, they are taken in hand by the officials of the APSSIDC and time-bound programme is worked out with their assistance and there is a continuous follow-up until the stage is reached when the venture is set up. The APSSIDC stands behind the entrepreneur till he is well established in his line. This may sometimes necessitate the officials of APSSIDC pleading his case with other institutions and Government Departments.

14. Since the objectives of the clinic are to help venture some people from backward areas, who have no industrial background to become industrial entrepreneurs capable of running their own industries successfully, this clinic is quite different from other types of training institutions. It will be made quite clear to the applicants before hand that the completion of the training programme will not automatically result in the approval of the projects or sanction of necessary finance by any institution.

15. In view of the urgency of industrialisation of tribal areas, part of the EDP will be directed towards inducing tribals into starting small scale industries. To

start with, out of the proposed 25 or 30 participants in the first EDP in Adilabad district, about 5 will be taken from among the tribals. The second phase of the EDP may be specially tailored programmes for tribal areas of the districts. The estimated cost is about Rs. 1500 per trainee. If the Committee approves this type of entrepreneurial development activities of the APSSIDC in tribal areas, a detailed proposals with financial implications will be submitted so that the Committee can earmark the necessary funds.

18. PROVISION OF INFRASTRUCTURE FACILITIES IN TRIBAL AREAS

*Andhra Pradesh Industrial
Infrastructure Corporation
Limited.*

The Corporation has proposed to establish few Industrial Estates in the tribal blocks of the State during the current year to enable entrepreneurs to set up industries for the manufacture of consumer goods as well as products using local raw materials. This will provide employment opportunities of several tribals and also create entrepreneurship among them.

In this direction the corporation has already initiated action for the setting up of an Industrial Estate at Bhadrachalam (Khammam District) and Rampachodavaram (East Godavari District). Necessary land has been procured at the above two places and development works are under way.

The Corporation is prepared to set up similar Estates in the other Tribal Blocks provided there are enough entrepreneurs with viable schemes. At least there should be ten to fifteen entrepreneurs ready to set up industries so that infrastructure facilities could be provided. In view of the foregoing, the Director of Industries will have to conduct Intensive Campaigns in the potential growth centres among the Tribal Blocks so as to assess the demand and entrepreneurial talent before any investment is made for the construction of Industrial Estates by the Andhra Pradesh Industrial Infrastructure Corporation Limited.

The Corporation after identification of entrepreneurs will take up the construction of factory sheds with facilities of road water supply, power supply, storm water drains etc.

9. GUM INDUSTRY PROSPECTS AND PROBLEMS IN ANDHRA PRADESH

*Khadi and Village Industries
Commission*

The State of Andhra Pradesh with dense forest tracts, abound in vast potentialities of Gum hitherto not exploited completely. The very name of Gum may give an impression that it is a minor forest produce with less prominence. But this apprehension is not correct. Easily 3,300 tonnes of Gum values at rupees one crore at purchase price of Rs. 3.25 per Kg. can be collected which on proper drying, grading may easily fetch about Rs. 3 crores and also bring the much needed foreign exchange. The main varieties of Gum available in this State are (1) Gum Karaya or Tapsi (*Sterculia urens* Roxb belonging to family Sterculiaceae) Name: Hindi - Karrai; Telugu - Ponaku; (2) Gum Tirman (*angocissus Latifolia* Wall, belonging to family Combretaceae; Names: Hindi - Bakha Dhaura) (3) Gum Accassia (*Acacia arabica* Family Leguminaceae: Hindi - Kikar; Telugu - Nallathumma); (4) Sambrani Gum (*Boswellia Serrae*; Family, Burseraceae; Hindi - Luban).

Occurrence: Gum Karaya and Tirmane trees are widely spread throughout the State especially in the Forest Belts of Khammam, Warangal, Kurnool, Mahaboobnagar, Nallamalai, Karimnagar and Adilabad. Districts *i.e.*, from Bhadrachalam to Bhainsa bordering Adilabad. The divisions covered by this forest are Bhadrachalam East and West, V.R. Puram, Nugur, Yellandu, Burgampadu, Dammamet, Kothagudem, Warangal East and West (Eturnagaram, Narasampet), Mahadevpur (Karimnagar), Jannaram, Adilabad, Utnoor, Wankidi, Ichoda, *i.e.*, Adilabad, Bellampalli, Nirmal, Mancherial, Kagaznagar divisions. In the above areas gum procurement has been taken up by the primaries of Girijan Co-operative Corporation situated at Bhadrachalam, Dammamet, Yellandu, Narasampet, Eturnagaram, Mahadevpur, Jannaram, Utnoor, Wankidi and Ichoda. Gum Accassia is vastly available in plain pockets of Guntur and Prakasham districts. Gum LOHAN is available in Mahaboobnagar and Srikakulam forest tracts which is to be exploited.

Potentialities: The potentialities of Gum Karaya and Tirman are as follows :

	<i>In tonnes</i>
Bhadrachalam	100
Palwancha	50
Dammamet	50
Yellandu	80
Mannanur	100
Narasampet	200

	<i>In tonnes</i>
Mahadevpur	300
Utnoor	400
Wankidi	600
Ichoda	150
Jannaram	1000
Others	20
Guntur and Prakasham Dists.	200
Other Gums	50
	3,300

Procurements - The area of operation of Primary Societies of Girijan Co-operative Corporation and their procurements are as follows:

1. *Bhadrachalam*: The Girijan Produce Co-operative Marketing Society covers Cherla, Gowridevipeta, Rekahpalli, Alboka, Kutur, Venkatapuram, Chinturu, Marrigudem, Lachigudem, Chinnanellabelli, Yeduguralapalli areas. The distribution of shandies in this area are:

Sunday	Gowridevipeta
Monday	Rekahpalli
Tuesday	Alboka, Kutur, Venkatapuram, Nadikudi
Wednesday	Chinturu, Marrigudem
Thursday	Lachigudem, Suddagudem
Friday	Chinnanallabelli, Yeduguralapalli
Saturday	Nellipaka

During 1973-74 the above society has collected 522 quintals of Gum Karaya valued at Rs. 2,08,800. The main tribe in the area are Koyas.

2. *Palwancha*: The Girijan Produce Co-operative Marketing Society covers Burgampadu, Palwancha, Aswapuram, Manugur, Goddampalli, Karakagudem, Markod, Achapalli, Vegulagudem, Yanambayelu, Bubenepalli, Mulkolapalli, Amaravaram, Nagram areas. The gum is procured from the villages directly as there are no regular shandies in this area. 226 quintals has been procured during 1973-74 in this society. The main tribe in this area is Koyas.

3. *Dammamet*: 56 quintals of gum was procured during 1973-74.

4. *Yellandu*: 282 quintals of Gum was procured during 1973-74. The above 4 societies come under Khammam district. The total population of the district is 13,69,892 on which tribal population is 2,01,670.

5. *Mannanur*: The G.P.C.M. Society, Mannanur of Mahaboobnagar District covers, Mannanur, Amarabad, Achampet and Lingal areas. Gum Anduk is also available in these areas. The main shandy places are Lingal on Sunday, Kodangal on Monday, Amarabad on Wednesday. During 1973-74, 77 quintals of Gum was procured valued at Rs. 30,175. The total population of districts is 19,32,082 of which 5,600 are tribals.

6. *Narasampet*: G.P.C.M. Society, Narasampet covers Narasampet, Kothagudem, Gudem, Mahaboobabad and K. Samudram covering 107 agency villages of Narasampet Taluk, and 9 villages of Mahaboobabad taluk. The society covers a tribal population of 15,076. The main shandies in the area are Gudem, Kothagudem and Narasampet. Gum Tirman and Gum Karaya are procured in this area during 1973-74 to the extent of 355 quintals and 607 quintals respectively.

7. *Mahadevpur*: G.P.C.M. Society, Mahadevpur, Bhopalpalli, Azamnagar, Chintakarni and Manthani ranges. The main shandies in the area are Neelampalli, Beswaralapalli, Nagaram and Jangadu. There are no pucca roads in the area. The area borders Madhya Pradesh and Maharashtra. Mode of transport is by head loads and bullock carts. Here smuggling is a problem as gum is smuggled to Maharashtra and Madhya Pradesh by middle men. Nuxvomica, cleaning nuts and Myrobalams are also available in good quantities. During 1973-74 the society has collected 997 quintals of gum valued at Rs. 3,83,831.

8. *Jannaram*: The G.P.C.M. Society, Jannaram covers Mudhole, Nirmal, Khanapur (Comprising of the forest divisions of Nirmal, Jannaram, Mancherial) and Karimnagar West 9 (constituting Jagtial, Sircilla and Karimnagar Divisions.) The main shandies in the area are

Sunday	Kadam
Monday	Dandepalli
Tuesday	Jannaram
Wednesday	Tallapet, Thungur
Thursday	Sabbapalli, Jagtial
Friday	Pembi
Saturday	Dharmapuri

There are good roads in the area besides cart tracts. During 1973-74 the Society has collected 3,050 quintals of gum valued at Rs. 8,08,051.

9. *Utnoor*: The G.P.C.M. Society, Utnoor covers areas having a tribal population of 47,084. There are 169 villages in Utnoor Taluk alone. The main tribals in this area are Gonds, Nayaks, Kolams, Pradhan and Thoti. The main areas covered are Utnoor, Indravelli, Shampur, Narnur, Jainur, Sirpur, Hasnapur, Birsapet, Vaipet and Mamidipalli.

10. *Wankidi*: The G.P.C.M. Society; Wankidi covers entire Asifabad, Sirpur and Chinnoor Taluks of (4,376 Sq. Kms.) having a tribal population of 23,641 males plus 22,944 females covering 446 villages. Bellampalli, Kagaznagar forest divisions are covered. The following shandies are there in the area:

Sunday	Kerimeri, Kagaznagar
Monday	—
Tuesday	Mowad, Ginnedari, Wankidi
Thursday	—
Friday	Tiryani
Saturday	Asifabad
Rebbana	Daily

The main tribals are Gonds, Naiks, Kolams, Thoti and Manne. During 1973-74 the society has collected 3,342 quintals of Gum valued at Rs. 9.05 lakhs.

11. *Ichoda*: The G.P.C.M. Ichoda covers Boath and Adilabad Taluks covering a tribal population of 42,763. The following shandies are conducted in the area.

Sunday	Kupti
Monday	Ichoda
Tuesday	Boath
Wednesday	Sumala, Bola
Thursday	Bazar, Utnoor
Friday	Wankidi, Thalamadugu, Sirikonda, Ramai, Sangvi
Saturday	Sangvi

During 1973-74 the society has collected 506 quintals of gum valued at Rs. 1,51,800.

Transport: All these societies headquarters and some shandies are connected with pucca roads. Interior areas can be reached either by kucha roads or by foot tracts. The Corporation is having own godowns in some areas like Bhadrachalam and in other places godowns are under construction. From the tribal hamlets and shandies gum is transported by Bullocks carts, Jeeps and Lorries to the godowns. All the societies are having Jeeps with trailers. The Corporation is also having lorries at the Division headquarters.

Prevailing Wage Rates: In all these pockets main occupation of tribals is agriculture or they work as agricultural labour. The main crops cultivated are Jowar, Cotton, Tobacco, Chillies and Paddy in certain areas. The Wage rate varies between

Rs. 2.50 and Rs. 3.50 for males and Rs. 1.75 and 2.50 for females. In the seasons only the tribals are engaged in agricultural activities. In the off season they are engaged in M.F.P. procurement.

Method of Procurement: The shandy inspectors, D.R. Depot salesmen and the purchasing agents appointed by the societies are the main personnel engaged in procurement. The shandy inspectors procure from shandies, purchase agents also visit tribal hamlets for procurement. The gum brought to the D.R. Depot is purchased by the salesman. The present method of tapping by tribal is that they make incisions on the trees at various heights in order to extract maximum quantity. In certain areas Gum that cozes out naturally, is collected. The danger in tapping by the tribal is that the tree dry away and die in due course.

Methods Specified by Forest Department :

1. Gum tapping will be allowed for 9 months commencing from October, as the gum that excluded is washed of in rainy season; the tree will have the gap for growth.
2. Gum tapping should not be done in Tapsi trees having Girth less than 90 cm. or 36 inches;
3. Blazing will be started on the stem 30 cm. above the ground.
4. Initial size of the blaze will be 15 cms. wide 10 cms. long and 2.5 cms. deep. The depth of the blaze should be just deep enough to take out 0.5. cm. deep wool portion below the Cambium.
5. The number of blazes in each row depends on the girth of the tree. A tree of 90 to 140 cm. girth will have only one blaze. For every increase of 50 cms. girth one more blaze will be added in a row around the tree. Blazes should be made horizontally leaving approximately equal space between the blazes. At the end of tapping season the size of the blaze will not exceed 12.5 cms. in width and 47.5 cms. in length. In each freshing 0.5 to 0.75 cm. should be made vertically on the upper end of the blaze and less on sides. In no case the depth of the blaze should be increased much. The lower surface of the blaze should be made slightly sloping outwards to avoid rotting on account of water collection. The surface should be smooth and without loose fibre to avoid contamination of Gum with bark and fibres.
6. The whole tree is divided into three zones for systematic and continuous tapping. Each one will be tapped for one year leaving 5 cms. wide clear space in between two blazes in the same vertical line being in different zones. Within a particular zone the blaze of the subsequent years in horizontal row should be alternative or staggering with the previous years blazes; i.e., the old and fresh blazes will not be in the same longitude. In the fourth year blazing will not be continued in the zone where it was done in the first year; this time the blazes may be in between the previous zones. With this method each blazed region gets complete rest for 2 years. In the seventh year the tapping can be reverted to the blazed area of initial exploitation. Thus each blazed portion will get complete rest for six years, during which period would get healed up and tissue will resume normal activity.

Grading of Gum : The gum will be in semi-dried condition when purchased and will be in lumps. The foreign materials will be twigs, sticks, stones, mud clots, etc. The gum after transportation to the godowns will be dried in open air on mats or gunnies till such time it gets hardened. Then it is cut into small pieces with axes or sickles and dried again so that the moisture content is brought to the minimum. Then these pieces will be cut and dried once again into small pieces. The foreign materials are removed and graded. Generally grading is done by skilled female labour. Cutting is done by male workers. Rs. 2/4 per quintal for cutting the lumps into pieces. The drying in the process ranges from 26 to 29%. The tapsi gum is graded into following varieties.

- | | |
|------------------|--|
| 1. Special Grade | White colour, Crystal Clear, free from impurities. |
| 2. I. Grade | White and grey colour, Crystalline |
| 3. II. Grade | Grey colour |
| 4. III. Grade | Black in colour. |

The other grades are Special Grade Tapsi Chura, First Grade Tapsi Chura, Second Grade Tapsi Chura, Third Grade Tapsi Chura and Tapsi Bukna. Similar Grades are there in Tirman Gum also.

The gum thus graded will be transported to Hyderabad Godowns where it is auctioned periodically. Gum thus auctioned will be purchased by agents of foreign companies. Thus the systematic collection and scientific grading will improve the prospect of the industry in this State.

Problems : The present problems of Gum Industry can be classified as follows:

- (1) Collection
- (2) Organisation
- (3) Marketing

Collection: The trees are located in the interiors of forest and some times they are not accessible. This results in the wastage of national wealth. Secondly the indiscriminate tapping of trees that are easily accessible, will result in the death of trees which is more harmful. This is prevalent in the forest area of Janneram, Wankidi etc. Some times the Forest Department officials are forced to go to the extent of imposing penalties on the contractors. The tribals are to be educated in the systematic tapping of Gum as suggested by the Forest Department, which brings them constant income without harming the trees. Moreover that tribals should be made conscious of bringing dry Gum by paying a better procurement rate, which avoids constant drying at the godowns. At present there is no link between the procurement rate and sales rate. Even when better rates were realised the same rate was paid to the tribals as in the case of realising low sales rate.

Organisation: Smuggling is rampant which is to be dealt with a heavy hand, otherwise it will rain away the procurements of Corporation. New areas are to be tapped, grading methods are to be improved. This is because the merchants after purchasing the gum from the Corporation are grading it once again. Some standards in Gum grading are to be evolved.

Marketing: At present there are uncertainties regarding market as well as rate. It depends on the advice the middle men receive from foreign traders. Here the middle men are to be eliminated. The State Trading Corporation and our Trade Missions abroad should involve themselves in the marketing of this valuable product. Similarly the utility of this edible Gum should be increased within the country. The State Trading Corporation can help a lot in the marketing of this product abroad, which will help in the increased procurements, less stagnation of product in the godowns, better sales rates and better procurement rates to the tribals. Similarly the market has to be found out for the Gum Andhuk which is not exploited. If the Corporation is assured of the ready market and better price they can enhance the present procurement with full confidence.

10. FOREST BASED INDUSTRIES IN TRIBAL AREAS

Forest Department

Economic Advantages

The development of forest based industries is one of the basic objectives of the national plan as well as the desideratum of the State. A high priority is given to the development of forest based industries because of the following economic advantages derived from establishing them.

(1) Forest based industries offer the incentive to develop the infrastructure in the tribal areas, to induce the construction of roads, the laying of powerlines, the creation of communication facilities and the building of township with schools, shopping areas, medical centres and recreational facilities within tribal areas. Thus a sizeable social overhead capital is created in the most backward of the areas in the State.

(2) The capital employment ratio in forest based industries is probably one of the highest. For example, on an average for every Rs. 1.00 lakh investment about 20 jobs are created compared with an investment of Rs. 4 lakhs for just one job in several other industries with similar capital requirements. Besides direct employment on the shop floor, the generation of indirect employment in these industries is more significant in numerical terms. Large numbers are employed in such operations as felling, logging, extraction and transport of forest raw materials and in the subsequent operations of raising plantations. These are mostly tribals who belong to the weaker sections of our population and whose welfare is the primary objective of our national plan.

(3) Forest based industries have pronounced backward and forward linkages and the scope for development of both upstream and downstream ancillaries is vast. Consequently the location of one major forest based industry in any area will help triggering the establishment of other industries.

There will be a spurt in commercial and tertiary activity in the villages with large number employed in trade and in providing service facilities. Due to the availability of additional purchasing power in the region the level of consumption will increase. Construction activity will grow. Eventually the base for developing a growth centre is created.

(4) It is accepted in principle that a policy which gives priority to the processing of locally available raw materials will in the long run make for the creation of a self-reliant industrial base within the State.

(5) Another set of arguments in favour of forest industries rests on the characteristics of the technologies in use in the industries themselves. First in the production of raw materials, expensive mechanisation can often be postponed and unskilled labour

used instead. Secondly not only wood but the other forest materials (e.g: barks, seeds, leaves) make it possible for small units to be economical in the manufacture of such basic products as saw timber, essential oils, alkaloids, non-edible oils, tennin extracts oxalic acid etc. Thirdly, even when more sophisticated products are planned, e.g: pulp and paper, plywood, fibre board, particle board etc., it is possible to adopt technology whose sophistication can be increased by additional capital and the induction of qualified men. This possibility of growth by degree is useful in planning the development of rudimentary economies the like of which are seen in the tribal regions.

(6) Forests are a renewable resource and their liquidation is generally followed up by the creation of man-made forests (Plantations) on a perpetual basis. This regenerating cycle means sustained employment, especially of unskilled tribal labour, in such operations as felling, extraction and plantation. This is in addition to direct employment in the industry, which in the case of forest industries, is substantial.

(7) Forest industries are generally financially profitable and given an adequate return on capital employed. The products have a ready market; in 1973 both paper and plywood industries operated in sellers market and made sizeable profits.

(8) Finally forest products can be classified as mass consumption goods satisfying the social needs (i.e., housing and education) as against luxury goods like airconditioners, refrigerators, tape-recorders etc. They also substantial export earning import substitution potential.

1.2. Forest Based Industries now under implementation in the State:

In view of the above marked and significant benefits that flow from the establishment of forest based industries, the Andhra Pradesh Industrial Development Corporation has in recent years with the active co-operation of the Forest Department who are the suppliers of the raw material identified four large scale forest based industries which are located within tribal areas and one located at Pattancheruvu, Medak District, but whose development has an impact on the tribal people in the raw material supply zone.

All these industries are conceived and developed especially to benefit the tribal economy.

Some of the figures relating to these industries that have an impact on the economy are given below:

1.2.1. Paper and Paper Boards mill near Bhadrachalam, Khammam District.

1. Capital cost of the Project	Rs. 60.00 Crores
2. Production:	50,000 tonnes of paper and paper board, Per year.
3. Requirement of forest Raw materials:	
Bamboo	60,000 tonnes
Wood	74,000

4. Annual Turnover : Rs. 25 crores.
5. Taxes to Government (Annually)
 - (a) Central excise Rs. 6.00 crores
 - (b) Central Sales tax Rs. 1.00 crores
 - (c) State Sales tax Rs. 0.30 crores
6. Direct employment 3,000 persons
7. Indirect employment Around 15,000 jobs
8. Target date of production September, 1978.

1.2.2. Writing and Printing Paper Mill at, Kurnool :

1. Capital Cost of the Project Rs. 36.00 crores
2. Production: Writing & Printing Paper 35,000 Tonnes.
3. Requirement of forest raw materials :
 - Bamboo 45,000 tonnes
 - Wood 45,000 tonnes
4. Annual turnover Rs. 18.00 crores
5. Taxes to Government
 - (a) Central Excise Rs. 4.50 crores
 - (b) Central Sales tax Rs. 0.80 crores
 - (c) State Sales tax Rs. 0.30 crores
6. Direct Employment 2,000 jobs
7. Indirect employment 10,000 jobs
8. Target date of production: March, 1978

1.2.3. Rayon Grade Pulp Mill at Eturnagaram, Warangal District :

1. Capital cost of the project Rs. 20.00 crores
2. Production 25,000 tonnes of Rayon Grade Pulp.
3. Requirement of forest raw materials:
 - Wood: 85,000 tonnes
4. Annual Turnover Rs. 10.00 crores

5. Taxes to Government:
- (a) Central Excise Rs. 2.50 crores
 - (b) Central Sales tax Rs. 0.50 crores
 - (c) State Sales tax Rs. 0.10 crores
6. Direct employment 1,500 persons
7. Indirect employment 7,500 persons
8. Target date of production April, 1979
- 1.2.4. *Plywood Mill at Rampachodavaram, East Godavari District:*
- 1. Capital cost of the Project: Rs. 1.50 crores
 - 2. Production: 15 lakhs square metres of plywood/flush doors/black boards.
 - 3. Requirement of Forest Raw Materials: 10,000 cum. of ply logs.
 - 4. Annual turnover: Rs. 1.00 crore
 - 5. Taxes to Government:
 - (a) Central Excise Rs. 20 lakhs
 - (b) Central Sales tax Rs. 15 lakhs
 - (c) State Sales tax Rs. 5 lakhs
 - 6. Foreign-exchange earning: Rs. 20.00 lakhs
 - 7. Direct employment 350 persons
 - 8. Indirect employment 1,500 persons
 - 9. Target date of production:
 - First phase December, 1975
 - Final July, 1976
- 1.2.5. *Particle Board Mill at Pattancheruvu:*
- 1. Capital Cost: Rs. 4.50 crores
 - 2. Production: 20,000 Tonnes of Particle Board
 - 3. Requirement of Forest raw material:
 - Wood: 33,000 tonnes.

4. Annual Turnover:	Rs. 5.00 crores
5. Taxes to Government:	
(a) Central Sales tax	Rs. 45.00 lakhs
(b) State Sales tax	Rs. 5.00 lakhs
6. Foreign Exchange earning	Rs. 2.00 crores
7. Direct Employment	300 persons
8. Indirect Employment	1,000 persons
9. Target date of production:	July, 1977

1.2.6. Summary :

The total impact on the economy of the region through the development of the five above medium and large scale industries can be gauged from the summary figures given below :

1. Capital Cost	Rs. 122 Crores
2. Annual Turnover	Rs. 59 Crores
3. Annual taxes to Government	Rs. 17 Crores
4. Foreign exchange earning	Rs. 2.20 Crores
5. Direct employment	7,000 persons
6. Indirect employment	35,000 persons

2. Role of Forest Department in Developing the above Industries :

The role of Forest Department in the development of the above industries is highly significant. The Forest Department has adopted a progressive and outgoing policy in encouraging the development of these industries through supply of the necessary raw material. The Department has taken steps to prepare Pre-investment Studies for all the contiguous forest areas which have the potential to support forest based industries. It is the availability of this strong data base that has enabled the planning and the development of forest based industries in the state. Obviously the patterns of management adopted by the Forest Department will have a significant impact on the continued viability of the industries using wood as raw material.

In the interests of enabling the Forest Department to maintain a sustained supply of raw material to those industries it is necessary that :

- (1) The pernicious practice of podu cultivation in which the tribals are engaged to, should be done away with immediately. The urgent need for decision on this has been pointed out in with reply to the Governor's inspection notes (copy of which is enclosed). It is very essential that a committee at the highest level should examine the problem and take a policy decision. A copy of the Chief Minister's assurance on this problem is also enclosed.

- (2) The disreservation of forest areas for one purpose or the other should be prohibited summarily.
- (3) Adequate financial resources should be made available for raising of forest plantations which is the only guarantee for maintaining sustained supply of raw material to the industries that are planned or to be planned.

3. Industries based on Minor Forest Produce :

The tribal areas famous for minor forest produce such as gum, Chironji, Tuniki leaf, adda leaf, tamarind, marking nuts, gantu barangi, nuxvomica etc. Several of these minor forest produce form the base product for chemical, pharmaceutical and cosmetic industries. There is scope for starting minor industries based on these raw materials in the tribal areas.

The Girijan Co-operative Corporation which has been functioning since 1956 in the tribal areas and has made sporadic efforts in this field. Many of the minor forest products which are being transacted by the Girijan Cooperative Corporation from the basic raw materials for these industries. The Girijan Co-operative Corporation started the following small scale units in the tribal areas:

1. Sheekaj Grinding Plant
2. Honey pasturisation unit at Narsipatnam
3. Myrabolam Crushing unit at Srungavarapukota
4. Niger Seed Oil Mill at Paderu
5. Manufacturing Unit for washing soap from non-edible oils at Seethampeta
6. Plant for extraction of Fibre from Sisal Leaves at Araku.

It also contemplates establishing the following units based on minor forest produce in future.

1. Honey Pasturisation Plant at Warangal
2. Extraction of Alkaloids from Nuxvomica at Palavancha
3. Tartaric Acid and Pectin from Tamarind Pulp at Madugula
4. Starch extraction plant from Tamarind Seed at Gumma Laxmipuram
5. Gum Grading unit at Adilabad

In addition to above, the following small scale units can be located within the tribal areas.

1. Tannin Extraction units from Myrabolams and barks;
2. Oxalic acid from barks;
3. Concentrated tamarind pulp unit.

4. Ancillaries to Coffee estates like;

- (a) Caffein manufacturing
- (b) Processed Coffee Units

5. Bamboos Splints for Agarbathis.

4. *Training of Tribals for Skilled Jobs*: It is possible to absorb tribals in skilled jobs in the above industries if S.S.L.C. qualified tribal boys are sent for training to specialise training institute like:

- (a) The Institute of Paper Technology, Sahranpur (UP) for certificate course.
- (b) The Indian Plywood Research Institute, Malleswaram, Bangalore.

11. INCENTIVES AND CONCESSIONS FOR INDUSTRIES IN TRIBAL AREAS

The 33 Scheduled Tribes of Andhra Pradesh with a population of 16 lakhs live at different levels of development and in different social environment both in Scheduled areas and in the Non-Scheduled areas in almost all the districts of this State. The Scheduled areas are distributed in the tribal development blocks of the following seven districts :

Name of the District	Name of the T.D. Block	Year of starting	Area in Sq. Miles	No. of villages (including hamlets)
(1)	(2)	(3)	(4)	(5)
Srikakulam	(a) Bhadragiri	1958	270-00	289
	(b) Sæthampeta	1962	197-73	157
	(c) Pachipenta	1962	104-71	262
Visakhapatnam	(a) Paderu	1958	272-00	486
	(b) G. Madugula	1962	272-00	370
	(c) Pedabayalu	1962	220-00	252
	(d) Chintapalli	1960	839-00	267
	(e) Koyyuru	1962	181-11	138
	(f) Ananthagiri	1962	280-00	479
	(g) Araku	1956	265-00	384
	(h) Kiloguda	1961	170-00	258
East Godavari	(a) Maredumilli	1964	590-00	131
	(b) Rampachodavaram	1961	190-00	104
	(c) Addateegala	1961	560-00	385
	(d) Rajavommangi	1962	293-00	91
West Godavari	(a) Polavaram	1959	202-00	112
	(b) Buttayagudem	1963	102-30	110
Khammam	(a) Bhadrachalam	1961	300-00	122
	(b) Kunavaram	1962	301-00	123
	(c) V. R. Puram	1962	310-00	122
	(d) Aswaraopet	1958	436-00	208
Warangal	Eturnagaram	1964	814-00	164
Adilabad	(a) Utnoor	1957	723-49	169
	(b) Wankidi	1961	359-00	127

The Scheduled areas are sources of Forest wealth with plenty of timber, bamboo, grasses, fibres, minor forest produce like Honey, Tamarind, Gum, Myrabolams, Medicinal plants etc., and minerals important of which are Iron Ore, Manganese, Raw Phosphate, Graphite, Kankar, Coal and a variety of Clays like Red Ochre Limestone etc. The Government is keen on utilising these valuable resources for development industries in those areas and providing direct and indirect employment to the Tribal people.

Though the Government is pursuing a policy of attracting Industrial Units to the State by offering various facilities and incentives to the new industrial undertakings started on or after 1-1-1969, it is felt that the incentives already announced by the Government are not adequate to stimulate the local entrepreneurs and more so to set up industries in tribal areas in view of certain inherent disadvantages of these areas. The incentives presently offered by the Government are :

(1) *Concession of Sales Tax* : Refund of Sales Tax on raw materials, machinery and finished goods by State Government subject to a maximum of 10% on equity capital, paid up capital of Public limited Companies or the capital outlay (excluding working capital) in the case of others. The ceiling of 10% shall be for whole period of 5 years for which this concession is available and not on annual ceiling.

Power Subsidy : Subsidy on power for production to the extent of 10% in the case of medium and large scale industries and 12½% in the case of small scale industries. This concession will not apply to the cases where concessional tariffs are allowed by the Andhra Pradesh State Electricity Board.

Exemption from payment of Water Rate : Exemption from payment of water rate on water drawn from sources not maintained at the cost of Government or local body.

Refund of Water rate : In respect of water drawn from a Government source or from a source maintained by local body but returned purified to it.

Liability on account of assessment of land revenue or taxes on land used for establishment of an industry : Liability on account of assessment of land revenue or taxes on land used for establishment of an industry shall be limited to the amount of such taxes payable immediately before the land is so used.

In view of the following inherent disadvantages for setting up of Industries in the backward Scheduled areas inhabiting the tribals, such as :

- (1) Poor transport
- (2) Non-availability of power
- (3) Non-availability of skilled workers and servicing workshop
- (4) Non-availability of credit facilities
- (5) Distance from producing centres to consuming urban areas
- (6) Want of welfare facilities like medical, educational, hostel, communication and cultural.

As long as the incentives offered are uniform throughout the State, all industries whose capital investment (excluding working capital) does not exceed 5 crores would find it more disadvantageous, except for the easy availability of raw material which is the only facility and which may not sufficiently enthruse the development of industries. To compensate for the many negative factors arising on account of the poor infrastructure it is necessary that the Government should give it lease for a number of years, incentives and concessions at a higher rate than those set up in backward areas to metropolitan centres.

It may be said that the impact of such concessions would not be very much. But if we take note of the cumulative effect of these concessions, the picture that would emerge there would be bright enough to attract a number of entrepreneurs to the above areas.

With a view to stimulating rapid industrialisation in these remotely backward areas the following effective incentives and concessions are produced in the scheduled areas.

(1) 20% subsidy on the fixed capital investment is proposed to be given to all types of industries on the non-corporate sector and 15% to all types of industries in the Corporation sector, where capital investment does not exceed Rs. 1 crore. The maximum amount which could be paid will, however, be limited to 15 lakhs in each case. Even the industries whose capital investment on fixed assets exceed Rs. 1 crore may be considered on selective basis for purposes of granting subsidy which again may be limited to Rs. 15 lakhs.

Sales Tax : Complete exemption or refund of sales tax on the purchase of raw materials, machinery and equipment and also on the sale of finished products.

(2) **Power subsidy :** On Electricity Tariffs the extent of 50% on the amount charged by the Andhra Pradesh State Electricity Board, power lines should be laid at the cost of the Government to the periphery of the site occupied by the industry.

(3) Complete exemption from the Municipal and Panchayat Taxes.

(4) **Land :** Land should be made available at 50% of the cost of acquisition by large and medium scale industries at 25% of the cost to small scale industries.

(5) **Transport concessions :** 50% subsidy on the cost of transport charges incurred by the Unit to transport raw materials and components from the place of purchase within India to the work site of the unit. Similarly 50% subsidy should be given for transport of finished products from the work site to any destination within India. The Unit will be eligible for such subsidy only on production of Railway Receipts or Lorry Receipts from a reputed Road Transport Company as the case may be.

(6) Exemption from payment of stamp duty.

(7) Exemption from payment of the cost of the water drawn from a source maintained by Government or a local body.

(8) Liability on account of assessment of land revenue or taxes on land, used for establishment of an industry shall be limited to the amount of such taxes payable immediately before the land is so used.

Additional Incentives: The following special incentives will be allowed to new industrial units set up in the ayacut areas of Nagarjunasagar, Pochampad, K. C. Canal, Ramagundam, Kothagudem area and in the Fourteen districts already declared as backward.

1. Sale or lease of Government land at concessional rates.

2. Grant of financial assistance on the priority basis by the State Financing Institutions.

In this context, it is necessary that the tribal areas of the State should be considered on a specialised criteria, if not on par with the different ayacut areas and declared backward districts for giving the special incentives also. Since there are already restrictions for the occupation of the lands in the tribal areas by the private parties the Government will have to necessarily step-in for providing the land either on lease at concessional rates or on sale to such of these private parties, who would eagerly come forward to set up industries.

The tribal areas are conditioned by the hilly and forest terrain. The difficult nature of the terrain and the absence of the infrastructure will not enthruse the private sector to establish industries unless incentives are offered preferably on a special consideration at the least besides these already being offered by the Government.

12. CO-ORDINATION OF INDUSTRIES FOR TRIBAL AREAS OF ANDHRA PRADESH

*Andhra Pradesh Small Scale
Industries Development Corporation*

Introduction :

That Industrialisation in tribal areas which will insure to the benefits of tribals is a challenging task on account of the lack of infrastructural facilities there, non-availability of skilled labour, the poverty and the backwardness of tribal people has already been taken note in the proceedings of the meeting of the expert committee. Despite these factors, the scope for the industrialisation of tribal areas for promoting forest based, mineral-based and agro-based industries has been appreciated. The need for participation of tribal people in industrial programmes at the grass root level is essential if these programmes are to be successful and were to ensure that the tribal people benefit from these programmes. However, such participation by the tribal people in the industrial programmes cannot easily be achieved if the responsibility for the promotion of industrial programmes is entrusted solely to the private entrepreneurs from other regions who are made to locate their industries in tribal areas.

At the same time, the tribal people themselves may not have the where-withal awareness of benefits of industrialisation and technical skills to take up the industrial programmes by themselves. It is in this context that this paper has been prepared to highlight the extent to which the co-ordination of the industrial programmes for tribal areas can be undertaken by APSSIDC with the assistance of the Girijan Co-operative Corporation and the Tribal Cultural Research and Training Institute, Hyderabad.

Difficulties in Industrialisation of tribal Areas and the steps proposed by APSSIDC to overcome Them

Poverty and backwardness of the tribal people is the greatest stumbling block in the utilisation of the natural and manpower resources in these regions. Imposition of modern technology in the industrial programmes of these regions will be initially impossible because of the lack of educational background and skills of the tribal people. We presume that tribal students drop out of educational and industrial training programmes because such programmes do not provide them with opportunity for employment in their own environments. Since industrial training programmes of tribal people is likely to have fairly long gestation, private entrepreneurs from other regions may not have the necessary motivation to make investments for industries to be situated in tribal areas. It is therefore, essential for a Government Agency like APSSIDC to prepare feasibility reports for various industrial schemes to be promoted in tribal areas utilising the resources of these regions and motivate the tribal people to set up small units on proprietary and co-operative

basis after giving them the requisite training in the various processes of production and management. Simultaneously, the infrastructure facilities for housing the units have to be planned. The loan applications for the schemes may have to be sponsored to banks and financial institutions for the procurement of machinery, working capital, etc. The tribal people would also need technical assistance and counselling during the gestation period for production start-up and to attend to other administrative matters.

APSSIDC had successfully transformed a number of technocrats and draftsmen into industrial entrepreneurs by undertaking for them and co-ordinating the following activities:

- (a) Identification of products and processes.
- (b) Preparation of feasibility reports.
- (c) Sponsoring their applications to banks for financial assistance.
- (d) Provision of infrastructure facilities.
- (e) In-house technical assistance and consultancy in the technocrats and craftsmen's guild, industrial estates under the direct supervision of technical officers of the Corporation. The 103 technocrats, schemes at Balanagar and 153 craftsmen guild schemes established by APSSIDC at Mallepally, Hyderabad and Warangal offer testimony to the success of programmes.

APSSIDC would be in a position to implement similar programmes in the tribal areas by effectively co-ordinating with various agencies like A.P. Industrial Infrastructure Corporation, Girijan Co-operative Corporation, Tribal Cultural Research and Training Institute, Banks, etc., if required by augmenting suitable staff within the organisation provided necessary funds are made available to APSSIDC and long term programmes for this purpose are evolved and approved.

It would also be possible for APSSIDC to implement some of the programmes in the joint sector under the Capital Participation Scheme of APSSIDC subject to the progressive members in tribal communities coming forward for implementing the schemes jointly with the Corporation.

A.P.S.S.I.D.C. may be given suitable capital participation to promote such industries. If the Capital of A.P.S.S.I.D.C. is increased by Rs. 1 crore, projects can be taken up each on the basis of joint venture or as a sole share capital to the tribals as when the later one capable of acquiring the shares.

We are afraid that without proper identification of industrial schemes which could be implemented in these regions and provision of co-ordinated entrepreneurial and technical training, any attempt to plan other inputs like infrastructure in tribal areas may be fruitless. A co-ordinated attempt may have to be made if the scheme is to be successful even on long term basis. For the implementation for various industrial scheme in the craftsmen guild, technocrats industrial estates and in joint venture units, APSSIDC

had been playing the dominant co-ordinating all during the last six years and hence the Committee may recommend to the Government entrusting to APSSIDC the task of co-ordination of industrial programmes in tribal areas. After this is agreed in principle, APSSIDC will be in a position to open a branch office in tribal areas to conduct a technical economic survey of the tribal regions, prepare profiles of small schemes that could be promoted in these regions with the active participation of tribal people and arrange for the training and assistance extended to them by the Tribal Cultural Research and Training Institute, preparing plans for the infrastructural requirements to be provided by A.P. Industrial Infrastructure Corporation, sponsoring the loan applications to the financial institutions and helping tribal people to implement the programmes under the direct supervision and assistance of an officer to be posted at the tribal centres.

13. AGENCY FOR INDUSTRIAL DEVELOPMENT OF TRIBAL AREAS

Industries Department

With a view to achieve rapid industrial developments of tribal areas, creation of an exclusive industrial division in Girijan Co-operative Corporation is considered necessary. The main functions envisaged are as follows :

1. Quick survey of industrial potentialities and possibilities.
2. Preparation of feasibility studies for small industrial projects.
3. Co-ordination with different industrial development agencies.
4. Identification of growth centres.
5. Preparation of project profiles (schemes)
6. Promotion of industries through:
 - (i) Joint sector
 - (ii) Co-operative sector
 - (iii) Private sector
 - (iv) Small business ventures
7. Marketing assistance.

The proposed industrial division may consist of the following :

1. General Manager : (The Joint Director on deputation with Girijan Co-operative Corporation may be redesignated as General Manager).
2. Technical Officers
 - (i) Technical Officer, Village Industries.
 - (ii) Technical Officer, Chemical Industries.
 - (iii) Technical Officer, Engineering Industries.
 - (iv) Technical Officer, Marketing.
 - (v) Technical Officer, Survey and Planning (to be drawn from T.C.R. & T.I.)
 - (vi) Technical Officer, Research, Evaluation and Co-ordination (to be drawn from T.C.R. & T.I.)

3. Industrial Promotion Officers: Eight (in the cadre of Supervisors of Industries Department and Research Assistants of Tribal Cultural Research and Training Institute)

4. Office Staff :

(i) Co-operative Sub-Registrar (Office Manager)	One
(ii) Senior Inspectors	Two
(iii) Commercial Accountant	One
(iv) L.D. Clerks	Two
(v) Steno	One
(vi) Typist	One

II. *Action Plan*: On the basis of the information available which is gathered by various agencies including that of Industries Department an action programme may be drafted and implemented immediately. This action programme will comprise of such items which can be implemented fully and necessary financial resources and man power will have to be provided by the Andhra Pradesh Girijan Co-operative Corporation and other Financing agencies. Each Branch Bank may be induced to adopt a growth centre located in its vicinity. This will be the focal starting point from which other industrial activities will radiate to other adjoining areas. An industries plan with growth models can be prepared only after considerable work has been done on it, which will naturally take some time meanwhile an action programme can be put into implementation as a short time measure which will fit in the overall industrial sub-plan.

Small industries can be promoted in the tribal areas as indicated below.

1. *Joint venture projects*: The industrial ventures with a capital outlay of more than Rs. 5.00 lakhs can best be promoted by Girijan Co-operative Corporation in collaboration with a co-promoter either in private sector or public sector unit, well established in the line. For instance in the case of Chemical and other industries with sophisticated technology the project on the Alkaloids from Nuxvomica is being taken up as a joint venture with M/s Biological Evans Limited, Hyderabad.

2. *Co-operative Sector*: Small industries can also be started in co-operative sector with tribal artisans or educated unemployed as the promoters. Even here collaboration can be had from District Co-operative Marketing Societies or other Co-operative ventures.

The promotion of Co-operative Sector industries is the primary responsibility of Industries Department and an immediate action can be initiated straight away. A quick plan can be prepared for each of the tribal districts i.e., Visakhapatnam, Srikakulam, East Godavari, West Godavari, Khammam, Warangal and Adilabad Districts and the district industries administrations may be asked to achieve the plan targets in a time bound programme. To begin with the Registration of 2 Industrial Co-operatives may be fixed for each district.

3. *Private Sector Units* : Small Industries/business ventures can be taken up by the initiative of the local tribal entrepreneurs by offering appropriate incentives from Self Employment Scheme and other institutions. In this sector small business centres are also included :

Small Industries to be taken up immediately

1. Sago
2. Mangalore tiles
3. Soap nut and Shikai powder
4. Non-edible oil seed crushing
5. Starch from tamarind seed
6. Wood cutting units
7. Rope making with koperi grass
8. Hand made paper
9. Splints and veneers etc.
10. Bee keeping
11. Cow dung plant and wind mills

Small business ventures

1. Cycle Taxi
2. Small hotel at shandy centre
3. Hide exchange
4. Medical shop
5. Tailoring
6. Grocery shop
7. Dairy
8. Gum Collection

The Andhra Pradesh State Financial Corporation, Infrastructure Corporation, Andhra Pradesh Small Scale Industrial Development Corporation, Leather Industries Development Corporation of Andhra Pradesh, Andhra Pradesh Mining Corporation, Andhra Pradesh Women's Co-operative Finance Corporation will act in close collaboration with the Tribal Action Plan Agency. The Andhra Pradesh Industrial Infrastructure Corporation will put up industrial estates/buildings at all points where industrial units are being put up in the growth centres. The Andhra Pradesh Small Scale Industrial Development Corporation, Leather Industries Development Corporation, Andhra Pradesh Mining Corporation will assist the industries either taken up by the individuals or in Co-operative Sector taken up in a Joint Venture. The Industries Directorate, the Tribal Welfare Department, Small Industries Service Institute and the SIET Institute will also conduct technical survey to identify resources, possibilities of growth centres and entrepreneurs.

14. ACTION-CUM-RESEARCH PROGRAMME FOR DEVELOPMENT OF ENTREPRENEURSHIP AMONG TRIBALS OF VISAKHAPATNAM DISTRICT

Small Industry Extension Training Institute, Hyderabad

The proposed action-cum-research programme for entrepreneurial development among tribals will have the following five phases and this is not purely time-and-operation sequential. Some times more than one phase will be in operation.

Phase I

It consists of training of Tribal Cultural Research Institute personnel of Hyderabad and other officials from banks and the Girijan Co-operative Corporation (Vizag) and other officials connected with tribal development in the area as trainers at the SIET Institute. It could be a general but comprehensive course of four weeks. A special course with all inputs for entrepreneurial development will be designed. Though this course will be of general nature, the trainers will, depending on their disciplines, orientation and earlier work-experience specialize in certain areas like feasibility studies, techno-economic surveys, preparation of industrial profiles, entrepreneurial development, marketing etc.

Phase II

This relates to the basic physico-psycho-socio-cultural and economic study and understanding of the area where the programme is to be implemented. In this phase for locating and promoting entrepreneurship an area approach is to be made. The work in this phase will serve the purposes of developing of action-programme and strategy for identifying and developing entrepreneurship among the tribals keeping in view the tribal culture. The approach suggested in this phase is the understanding of the socio-cultural traits of the clientele group and working through the various institutions of the community for entrepreneurial development and it is to be tested for its usefulness in the given area over a period of time. Data on the following aspects are to be collected in respect to the geographic region and the population in question.

Aspects:

1. Physical conditions-rainfall-terrain, quality of soil enterprises which can be undertaken in the locality.

2. The Economic structure of the community:-

The types of production within the community

— The organisation of the producing units

- The method in which labour and capital resources are applied.
 - The make-up of the family's occupational structure.
 - How the local marketing system functions.
 - Farm organization.
 - Land tenure.
 - Capital and labour resources
 - Occupational structure
3. Human resources: Literates, etc.
4. Cultural patterns
- Historical analysis of the community
 - Historical patterns of diffusion and change.
5. The social structure of the community.
- understanding of tribal/rural social structure.
 - The family-its structure-the decision making process in the family, functional aspects of the family-typology of the families based on occupation and division of functions.
 - The kin group-its structure and functions-intraclan, interclan and inter-tribal relationships-role of certain kin in the kinship circle.
 - Tribal Council (Caste council)-its constitution and functions-the role and influence of the chief of the council - the council's influence over the members and the degree of their dependence on the council in matters economic and social.
 - The nexus of relationship between tribals and non-tribals.
 - The traditional village Panchayat (in certain cases) its functions-the influence of the Panchayat Chief on potential innovators and entrepreneurs.
6. The ecclesiastical structure - the institution of sacred functionaries - their status as leaders in the group-their influence and their usefulness in locating and promoting entrepreneurship.
- The status and the role and the influence as promotor or helper of the tribal medicineman in entrepreneurial development.

7. The political structure of the community.
- Leadership patterns in the community.
 - The elected village Panchayat-utilising this formal institution as a source of information and as a lever of influence over potential entrepreneurs in the local community.
 - The Tribal Panchayat Samithi at the block level and its usefulness as an institution for promoting entrepreneurship.
 - The village cooperative as a means and as an agency for locating and developing entrepreneurship.
 - Other feeder tribal and non-tribal organisations in the community and utilising them for entrepreneurial promotion (Youth and Women's traditional informal and formal organisations)
 - The village school teacher as a promotor and as a change agent of entrepreneurial development.

The work in Phase II will help agency in locating potential entrepreneurs or enterprisers and this leads to the third Phase of training tribal entrepreneurs.

Phase - III

Selection and training of tribal entrepreneurs will be undertaken by the trained staff of the Tribal Cultural Research Institute and other trainers in (TCRI) agencies which have a functional link with tribal entrepreneurial development. These training programmes are to be arranged at district or block headquarters. The duration of this training programme may be four months.

Phase - IV

This phase consists of the agency guiding and helping the trained tribal entrepreneurs in establishing their enterprises, industry individually, in small groups and through industrial cooperatives.

Phase - V

As a follow-up measure, there will be an evaluation of the training programme. The details and the cost involved for this will be worked out later.

The findings of the evaluation study will go into the training inputs. Besides the evaluation study there will be followup work of the trained entrepreneurs.

Time Frame:

1. Training of trainers at SIET 4 weeks
2. Physico-socio-psycho-cultural and economic study of the tribal area of the target population. 4 months^B

3. Processing to data and report writing.	3 months
4. Location and selection of first batch of entrepreneurs.	1 month
5. Training of entrepreneurs (first batch)	4 months
6. Evaluation study (six months after the first batch of entrepreneurs were trained)	3 months
Total period of the First-round of the action-cum-research programme including the interval period of six months.	22 months

II. PROCEEDINGS OF THE SEMINAR
On Industrialisation of Tribal Areas

II. PROCEEDINGS OF THE SEMINAR ON INDUSTRIALISATION OF TRIBAL AREAS

Chairman: Sri S. R. Rama Murthy, I.A.S.

A Seminar on industrialisation of Tribal Areas in Andhra Pradesh was conducted on 12-11-1975 at 10-30 A.M. in the Library Hall of Tribal Cultural Research and Training Institute, Hyderabad. The Expert Committee Members and Deputy Directors of Industries participated in the Seminar. The list of participants in the Seminar is as follows :

1. Sri P. S. Krishnan, I.A.S.,
Director of Industries,
2. Sri K. Krishna Murthy,
Regional Development Officer,
Khadi and Village Industries Commission,
Hyderabad.
3. Sri J. K. Manga Raju,
Deputy Development Officer,
Andhra Pradesh Industrial Infrastructure Corporation.
4. Sri I. Madhusudhan Rao,
Assistant Development Officer,
Khadi and Village Industries Commission,
Hyderabad.
5. Sri D. R. Pratap,
Director,
Tribal Cultural Research & Training Institute,
Hyderabad.
6. Sri K. Venkateswara Rao,
Regional Development Officer,
Visakhapatnam.
7. Sri P. Sreenivasa Rao,
Deputy Director,
Srikakulam.
8. Sri V. V. Prasada Rao,
Deputy Director,
East Godavari.
9. Sri Bhaskar Rao,
Assistant Director,
West Godavari.

10. Sri Krishna Murthy,
Deputy Director,
Warangal.
11. Sri Raj Reddi,
Deputy Director,
Khammam.
12. Sri Anantha Rao Dasaradh,
Deputy Director,
Mahaboobnagar.
13. Sri Yogeswara Rao,
Deputy Director,
Adilabad.

The scope of the Seminar is confined to the industrialisation of Tribal Areas of Srikakulam, Visakhapatnam, East Godavari, West Godavari, Khammam, Warangal, Adilabad and Mahaboobnagar Districts. Discussions in the Seminar mainly centred round on following points:

1. Factors promoting industrial growth in Scheduled Areas.
2. Identification of growth centres.
3. Identification of raw-material resource based industries.
4. Industries based on local skills.
5. Identification of Entrepreneurship.

The Seminarists while discussing the above points, made the following recommendations:

1. *Factors promoting Industrial growth in Scheduled Areas:*

A. The Government of India declared certain areas in 14 Districts of Andhra Pradesh as subsidy tracts. Out of these 14 Backward Districts, only 2 Districts viz. Srikakulam and Khammam are having Scheduled Areas. For rapid industrialisation of the subsidy tracts, several incentives and concessions are extended by Central Government. The Seminarists felt that the incentives and concessions extended to subsidy tracts in backward districts should be got extended to the Scheduled Areas of Visakhapatnam, East Godavari, West Godavari, Warangal, Adilabad and Mahbubnagar Districts also.

B. Some growth points like Koyyuru in Visakhapatnam District, Mannanur in Mahboobnagar District are not having power supply which is a crucial factor impeding the progress of industrialisation. The Seminarists strongly recommend the electrification of all identified growth centres not having power supply and if necessary the rules are to be relaxed.

C. As regards the supply of minor forest produce to the Entrepreneurs in Scheduled Areas, it is recommended that Girijan Cooperative Corporation should first meet the requirements of the entrepreneurs among tribes in Scheduled Areas and remainder may be disposed of to the plains areas. Secondly, the Girijan Cooperative Corporation should supply the raw-material to the Scheduled Tribe entrepreneurs at concessional rate.

D. It is estimated that about 2½ lakhs acres are available for plantation crops in Scheduled Areas. This area is eminently suitable to grow plantation crops like Coffee, Tea, Cocoa, Rubber, Pepper etc. As plantation crops require huge investments which are beyond the scope of private entrepreneur, the Seminararians felt that a plantation corporation for scheduled areas may be established.

E. Basic engineering skills are essential for promotion of industries in scheduled areas which are totally lacking among Scheduled Tribes. The training in engineering skills will go a long way in taking up industries by tribes. Hence the Seminararians recommend that a training institute with condensed courses in trades like Smithy, Turning, Welding, Simple foundry practice, Drilling, Repairs to agricultural implements, Pumpsets, Rewinding of motors etc., may be established exclusively for Scheduled Tribes in one of the Districts preferably at Visakhapatnam. Minimum qualifications for admission into this Institution should be relaxed to the candidates who know reading and writing besides having efficient knowledge and genuine interest. In the first instance, the admission may be preferred to Konda Kammaras and other Scheduled Tribe artisans, who are engaged in Carpentry and Blacksmithy.

2. Identification of Growth Centres :

For rapid industrialisation, it is felt necessary to identify certain growth centers in Tribal Areas. The criteria adopted by the Seminararians for identification of growth centres is as follows :

- (a) Good communication facilities;
- (b) Availability of Power;
- (c) Bank facilities;
- (d) Availability of Land;
- (e) Suitability of Water;
- (f) Social Infrastructure;
- (g) Entrepreneurial response;
- (h) Hinter land supplying raw-material;
- (i) Adequate human resources.

On the basis of the above criteria, the following growth centres are identified by the Seminararians in each District:

1. Srikakulam District
 1. Bhadragiri
 2. Seethampeta
 3. Pachipenta

2. *Visakhapatnam District*

1. Paderu
2. Araku/Araku Valley
3. Chintapally
4. Koyyuru
5. Ananthagiri
6. Sileru

3. *East Godavari District*

1. Rampachodavaram
2. Addateegala
3. Kutravada

4. *West Godavari District*

1. Polavaram
2. Buttaigudem
3. Pragadapalli
4. Kannapuram
5. K. Ramachandrapuram

5. *Khammam District*

1. Bhadrachalam
2. Yellandu/Sudimalla
3. Boorgamphad
4. Cherla

6. *Warangal District*

1. Eturnagaram
2. Govindaraopeta

7. *Adilabad District*

1. Utnoor
2. Jainoor
3. Indervelli
4. Hasnapur
5. Ichoda
6. Naredikonda
7. Wankidi

8. *Mahboobnagar District*

1. Mannanur

The Seminaris opined that the above mentioned list of growth Centres in scheduled areas is not exhaustive. Careful scrutiny and investigation has to be carried out for further identification of growth centres in scheduled areas with an ultimate aim of speedy promotion of industrialisation.

3. *Identification of raw-material resources based Industries*

Certain resource based industries are identified in each district on the basis of the availability of raw material. Besides identifying the industries, the project profiles are also worked out by Seminaris. The following Agro-

Forest and livestock based industries are identified in each District :

1. **Srikakulam District**
 1. Tamarind Starch
 2. Oil Rotary
 3. Sago Factory
 4. Coconut and Coir Complex
 5. Saw-mill
 6. Bee-Keeping
 7. Power Looms and Handlooms
 8. Ready Made Garments
 9. Khandasari Unit
2. **Visakhapatnam District**
 1. Bee-keeping
 2. Tamarind De-seeding Unit
 3. Sago Unit
 4. Saw Mill
 5. Washing Soap
 6. Splints and Veneers
 7. Cane furniture
 8. Crushing of Non-edible oil
 9. Niger seed oil extraction
 10. Dehydration of Ginger
 11. Card Board
 12. Safety Matches
 13. Starch from Tamarind Seed
 14. Lemon Grass Oil.
3. **East Godavari District**
 1. Bamboo Splints for Agarbathis and Bomboo Chicks
 2. Furniture
 3. Tamarind seed dhal
 4. Soap nuts and Sheekai Powder
 5. Rope making
 6. Oil Expeller
 7. Kisan Rice Mill
 8. Jaggery making
 9. Bricks manufacturing
 10. Unit Based on Annata Seed
 11. Essential Oils Unit
 12. Bilwan Oil Extraction (Marking nuts)
4. **West Godavari District**
 1. Furniture Unit
 2. Saw Mill

5. *Khammam District*

3. Slate Frame Unit
4. Adda Leaves
5. Washing Soap Unit
1. Mohwa Seed oil
2. Safety Matches
3. Oil Rotary
4. Sun flower seed crushing
5. Charcoal
6. Dhal Mill
7. Rope Making
8. Adda Leaf
9. Kisan Rice Mill
10. Beedi Manufacturing

6. *Warangal District*

1. Beedi Manufacturing
2. Washing Soap
3. Beedi Oil Expeller
4. Kisan Rice Mill
5. Rope Making
6. Tractor Servicing
7. Adda Leaf

7. *Adilabad District*

1. Splints and Veneers
2. Matches
3. Mohwa Seed Crusher
4. Washing Soap
5. Gum Paste
6. Linseed Oil
7. Dhal Mill
8. Clay roofing Tiles
9. Lime Kiln
10. Dehydration of Onions

8. *Mahbubnagar District*

1. Bee keeping.

The location aspect of each unit is given in Project profiles. As regards power loom unit, one of the growth centres in the district of Adilabad/Visakhapatnam/Srikakulam is suggested for selection.

4. *Industries based on Local skills*

Certain Scheduled Tribe groups are possessing hereditary skills, basing on which certain industries are suggested below :

1. *Srikakulam*

1. Aluminium and Brass Utensils

- | | |
|-------------------------|--|
| | 2. Bullock Carts and Agricultural Implements |
| | 3. Palm Fibre extraction |
| 2. <i>Visakhapatnam</i> | 1. Basket Making |
| | 2. Mat weaving |
| | 3. Agricultural implements |
| 3. <i>East Godavari</i> | 1. Palm fibre extraction |
| | 2. Agricultural implements |
| 4. <i>West Godavari</i> | 1. Palm Fibre extraction |
| | 2. Slate Frames for carpenters |
| | 3. Basket Making |
| 5. <i>Khammam</i> | 1. Basket Making |
| | 2. Mat weaving |
| 6. <i>Warangal</i> | 1. Mat weaving |

5. *Identification of Entrepreneur :*

While selecting entrepreneurs among Scheduled Tribes, the Seminararians felt that the following factors may be taken into consideration.

1. Profit Motive
2. Smartness
3. Unemployed Youth
4. Skilled Artisans

Scheduled Tribes are not devoid of entrepreneurship. An intensive campaign to identify entrepreneurs among Scheduled Tribes has to be taken up.

III. PROJECT PROFILES

(Annexure IV)

1. WASHING SOAP

1. No. of Units 3
2. Location :
 1. Visakhapatnam District - Koyyuru
 2. West Godavari District - Buttayagudem
 3. Adilabad District - Itchoda.
3. Assumptions :
 - (a) No. of working days in a month - 25 days
 - (b) No. of working hours in a day - 8 hours
 - (c) Production capacity - 50 Tonnes per annum
4. Land and Buildings — Rs. 15,000/-
5. Machinery and Equipment — Rs. 10,000/-
 - (a) Full boiling Khadai
 - (b) Semi boiling pan
 - (c) Rosin melting drum
 - (d) Soap moulds - 6 Nos.
 - (e) Drying Racks - 4 Nos.
 - (f) Cutting table
 - (g) Baume Meter
 - (h) Spanner set, Mugs, Goggles, Gloves, Buckets, etc.
6. Recurring Expenditure : (3 months)
 1. Raw-material - Rs. 16,130/-
 - (a) Neem oil
 - (b) Mohwa
 - (c) Castor
 - (d) Rosin
 - (e) Coconut
 - (f) Caustic soda
 - (g) Silicate

(h) Colour	
(i) Tallow	
(j) Perfumes	
(k) Fuel	
(l) Wrappers	
2. Salaries and Wages — Rs. 3,300/-	
(a) Chemist.- 1 @ Rs. 350/- p.m.	Rs. 1,050
(b) Store Keeper-cum-Accountant @ Rs. 300/- p.m.	Rs. 900
(c) Watchman-cum-Peon -1 @ Rs. 150/- p.m.	Rs. 450
(d) Labour charges - 3 @ Rs. 4/ per day (3×4×75)	Rs. 900
	Total : Rs. 3,300
3. Miscellaneous :	
(a) Transport	Rs. 1,060
(b) Postage	Rs. 650
(c) Packing	Rs. 500
(d) Other expenses	Rs. 460
	Total : Rs. 2,670
4. Working Capital :	
(a) Raw-materials	Rs. 46,130
(b) Salaries and Wages	Rs. 3,300
(c) Miscellaneous	Rs. 2,670
	Total : Rs. 52,100
5. Total Investment :	
(a) Land and Buildings	Rs. 15,000
(b) Machinery and Equipments	Rs. 10,000
(c) Working Capital for 3 months	Rs. 52,100
	Total : Rs. 77,100
6. Manufacturing cost :	
(a) Working Capital for 3 months	Rs. 52,100
(b) Depreciation on Land and Building @ Rs. 10% 3 months	Rs. 40

- (c) Depreciation on Machinery @ 10% - 3 months Rs. 2,313
- (d) Interest @ Rs. 12% Rs. 2,313

Total: Rs. 54,478

- 7. Cost price per Kg. Rs. 4.36
- 8. Receipts :
 - (a) Sale price @ Rs. 5.20 per Kg. 50 Tonnes annual production. Rs. 2,60,000

- (b) Cost of production Rs. 2,44,000
 - Rs. 2,18,000 +
 - 10% Commission to Agent Rs. 26,000

Net Profit per year Rs. 16,000

Raw Material Formula:

- Neem oil 55%
- Mohwa oil 25%
- Caster oil 5%
- Karanja 5%
- Rosin 10%
- Coconut oil 18%
- Caustic soda 100
- Sodium Silicate Yellow or Blue
- Colours recommended Lemon grass blend
- Perfumes recommended 1 : 2 of 25% moisture
- Oil Yield of soap

2. MANUFACTURE OF STARCH FROM TAMARIND SEED

- 1. No. of units
- 2. Location
- 3. Capital Outlay :
 - (a) Land & Buildings
 - (b) Machinery
 - (c) Working Capital

Two Scheduled areas of Srikakulam and Visakhapatnam Districts.

- Rs. 0.40 lakhs
- Rs. 0.52 lakhs
- Rs. 0.63 lakhs

- 4. Raw material required: Tamarind Seed
- 5. Power required: 30 H.P.
- 6. Production Capacity: 300 tonnes per annum
- 7. Profitability: 30%
- 8. Employment: 20
- 9. Demand Out-look: Fair

3. TAMARIND SEED DALL

I. Introduction

Tamarind Seed Dall is used after making it into Powder as starch in Jute Mills as adhesive in Plywoods manufacturing and also in Textile Mills. Tamarind Seed is cleaned with the help of sieves and then is fed into the roasting drums which works on a Motor and are thus roasted. The roasted seeds allowed to be cooled for a couple of days. After cooling, seed is loaded into the wooden tub and sent into the disintegrator after cleaning through elevators. The seed dall obtained is separated from the dust and other impurities by hand operations and is graded.

II. Land & Buildings (Own or Rented)

Land (area)	1 Acre	}	Rs. 35,000/-
Building (area)	30' 60" 20' 35'		

III. Machinery and Equipment :

S.No. (1)	Name of Machinery (2)	Nos. Reqd. (3)	Rate (4)	Total
1.	Roasting Drums			Rs.
2.	Disintegrator 22"	1 No.		3,000
3.	Motors 15 HP, 5 HP	1 No.		2,500
4.	Fabrication Equipment like elevators, Sieves loading tubs etc.	2 Nos.		6,000
5.	Erection & Electric installations			20,000
6.	Furniture etc.			3,000
				500
				Total : Rs. 35,000

IV. Recurring Expenditure :	Rs.
Raw Materials required (PM)	25,000
500 Bags of Tamarind Seed = 500 × 50	
(100 Kgs. each bag @ Rs. 50/- bag)	
Total :	<u>Rs. 25,000</u>
V. Salaries & Wages (PM)	150/-
1. Manager 1	125/-
2. Driver 1	75/-
3. Assistant	900/-
4. 15 workers (15 × 60)	
Total :	<u>Rs. 1,250</u>
VI. Other Misc. expenses (PM)	25/-
Postage & Stationery	200/-
Power & Fuel	450/-
Transport & Conveyance	-
Miscellaneous - Rent	50/-
Consumable stores etc.	
Total :	<u>Rs. 725/-</u>
VII. Working Capital (Months)	25,000
Raw Materials	1,250
Salaries & Wages	725
Misc. Expenses	
Total :	<u>Rs. 26,975</u>
	27,000
	35,000
VIII. Total Investment, Land & Buildings	35,000
Machinery & Equipment	27,000
Working Capital (Please work out for 3 months)	
Total :	<u>Rs. 97,000</u>
	27,000
IX. Manufacturing Cost (PM)	460
Working Capital (One month)	825
Depreciation on machinery 10%	
Interest 10%	
Total :	<u>Rs. 28,285</u>

X. Receipt	
By Sale of 300 Quintals of Tamarind Seed Dall @ Rs.130/- per Quintal.	39,000/-
XI. Profit and Loss :	
1. Receipts as per head X	39,000/-
2. Manufacturing cost as per head IX	28,285/-
3. Profit per month	10,715/-

4. MANUFACTURE OF HANDMADE PAPER 250 KG. PER DAY

1. Introduction indicating the market potential and manufacturing process (Brief)

In this period of acute shortage of paper establishing handmade paper units based on rag, tailor cuttings, waste paper, cotton waste etc., has a bright future. Handmade papers has special uses like permanent records, document papers, filter papers, insulation papers etc.,

2. Land and building (Own or rented)
 - Land (area) One acre.
 - Building (area) 3000 Sq.ft.
3. Machinery and equipment :

Rs. 8,000/-
Rs. 1,20,000/-

S.No.	Name of the Machinery	Total
		Rs.
1.	Hollander Benter Machine 30" × 30"	
2.	Hydraulic press 50" × 46"	16,900-00
3.	Calendering Machiner 12" × 36"	18,000-00
4.	Rag chopper 10" blade	16,900-00
5.	Digestors, paper cutting machine, knife grinder coaching trolleys, Drying chamber 20 KV capacity Auto vats.	4,500-00
6.	Motor - 30 H.P., 7.5 H.P., 3 H.P., 2. H.P., 1 H.P.	45,700-00
7.	Well and Water arrangements :	21,000-00
	a. Erection and electric installation	20,000-00
	b. Other Items	8,000-00
	Office furniture etc.	9,000-00
	Transportation.	2,000-00
		7,000-00
4.	Recurring expenditure.	1,09,000-00
	Raw materials required (PM)	
	White tailor cuttings, white press cuttings	
	China clay dyes, Resin, Alums etc.	
		18,250-00

5. Salaries and Wages (PM)		Rs.
(1) Manager	1 No.	300-00
(2) Supervisors	2 Nos.	400-00
(3) Maistries	21 Nos.	300-00
(4) Accountant	1 No.	150-00
(5) Skilled labour	21 Nos.	2,625-00
(6) Unskilled labour	13 Nos.	950-00
		<u>4,725-00</u>
6. Other Misc. Expenses (PM)		100-00
Postage and Stationery		1,250-00
Power and fuel		1,000-00
Transport and conveyance		1,300-00
Misc. rent		<u>3,650-00</u>
Consumable stores etc.		
7. Working Capital (Months)		18,250-00
Raw materials		4,725-00
Salaries		3,650-00
Misc. Expenses:		<u>26,625-00</u>
8. Total investment :		1,28,000-00
Land and Building		1,69,000-00
Machinery and equipment		26,625-00
Working capital (Please work for one month)		<u>3,23,625-00</u>
9. Manufacturing cost (PM)		26,625-00
Working capital (1 month)		1,408-00
Depreciation on Machinery 10%		6,000-00
Depreciation on building		3,236-00
Interest 12%		<u>37,269-00</u>
10. Receipts		43,750-00
By sale 6250 Kgs. at Rs. 7/- per Kg.		48,750-00
11. Profit and loss:		37,269-00
Receipts as per head - 10		6481-00
Manufacturing cost as per head - 9		
Profit per month		<u>6481-00</u>
12. Any other information.		

The machinery and know how is supplied by M/s Coromondal Hydraulics 6-7, Industrial Estate, Dindigul-6 (Tamilnadu) on turn-key basis.

5. PROFILE OF A BAN MAKING PRODUCTION CENTRE (Koperi Thread Making)

In the Districts of East Godavari, Srikakulam, Visakhapatnam, Khammam and Warangal.

General: A grass called Saben grass (Koperi grass in Telugu) is widely grown in the forests ranging from Adilabad, Warangal, Khammam, in the West and East Godavari, Visakhapatnam and Srikakulam. This grass is used for making a thin rope called "BAN" which is used for light cordages. It is also used for tying the Bamboo Bundles while feeding the bundles into breaking machines, for making paper pulps in paper mills. The grass has got a property of mixing into paper pulp. Some Mills are using this grass exclusively for making Sabow grass based paper pulp. In the areas where people use cots for sleeping purposes mainly in Northern States like Punjab, Haryana, Bihar, Uttar Pradesh and Madhya Pradesh. The Sabow grass is being exclusively used for cot cordages. The Ban is used by hand twisting in the entire tribal belt. It is being procured by Girijan Cooperative Corporation for the Tribals. The Joint bundle is called K.T. Bundles and sold to merchants for sales in North India.

Availability of Raw Materials: The Girijans are collecting this fibre from the Agency Forest area free of cost and preparing the Ban by hand twisting. The hand twisted process is slow, laborious and the production is far less, for a day it does not exceed about 2 Kgs.

Proposed Production Centres:

Ban making production centre can be started in the following places:

1. Pasara
2. Etunagaram
3. Gudur
4. Ellandu
5. Burgampadu
6. Bhadrachalam
7. Rajavommangi
8. Addateegala
9. Jangareddigudem

Warangal District

- do -

- do -

Khammam District

- do -

- do -

East Godavari District

- do -

West Godavari District

- | | |
|---------------------|------------------------|
| 10. Gummalaxmipuram | Srikakulam District |
| 11. Bhadragiri | - do - |
| 12. Pachipenta | - do - |
| 13. Paderu | Visakhapatnam District |
| 14. Chintapalli | - do - |

Demand of the Products and Marketing :

Two important and big paper Mills are, one Sirpur Paper Mills in the District of Adilabad and Andhra Pradesh Paper Mills at Rajahmundry, consume about 2,000 tonnes of Sabow ropes. At present the paper mills are procuring Sabow grass ropes from outside States like Orissa. Annually the Girijan Cooperative Corporation procure about 15 tonnes of K.T. Bundles or the sales for outside market.

Introduction of Ban Making :

The Khadi Commission has introduced a simple implement called Ban making machine for mechanically converting sabow grass into Ban (Ropes). The machine can be operated by pedal, where there is no electricity supply. The daily production per machine would be 10 Kgs. Costing about Rs. 10/-. Where power is available, a Ban making unit with 20 machines can be run on 3 H.P. Motor and the daily production would be about 250 Kgs. per day.

Procurement of Raw Materials :

The season for cutting grass and stocking for the rest of the year is from December to April. The required quantities of grass have to be procured from the Agency areas. The Girijan Cooperative Corporation have got a monopoly over the cutting of grass as this grass is as minor forest produce and collected by the Tribals of the area.

Detailed schemes are enclosed for a Ban making centre and also for self employment in Ban making.

Ban Making Scheme

(Using mechanical hammer and power-driven ban making machine)

I. Introduction :

2-Ply yarn made out of grass fibres like Moonj and Bhabhar is the Coir industry in Northern India. The grasses are available in abundance and demand for ban is great. Large number of artisans ply the industry with traditional implements like charka. Good number have now taken to pedal driven ban machine popularised by the Commission. Recently mechanical hammer for softening the fibre is introduced and ban machines operated with electric motors.

II. Process of Manufacture:

Moonj and Bhabhar grasses are purchased and stocked in the season. They are made soft by hammering and 2-plyies made of ban machines. The processes are simple and can be picked up in a couple of days by any worker.

III. Assumptions :

- 1. No. of working days per month 25
- No. of working days per year 250
- 2. No. of working hours 8 hours
- 3. Annual Capacity of the unit 30 tonnes
- 4. Daily Wages of artisan - Skilled worker @ Rs. 5/10 and helper @ Rs. 3/- per day.

IV. Capital Investment :

- A. Land
- B. Building
- C. Machinery and Equipment
 - (i) Power Hammer (1) Rs. 1,000
 - (ii) Ban making machines (6) Rs. 2,400
 - (iii) Electric motor (5 H.P.) with switch and starter and wiring. Rs. 2,000
 - (iv) Shafts, pulleys etc., Rs. 1,000
 - (v) Packing and transport Rs. 600

Work will be carried on in rented building. However, funds for works may be sanctioned where buildings are not available on hire.

Working Capital :

- (i) Raw material Rs. 9,375
- (ii) Salaries and Wages Rs. 13,400
- (iii) Miscellaneous Rs. 3,250

4 turnovers, i.e., working capital requirement: Rs. 6,500

4. Estimate of Manufacturing cost per annum:

- (a) Raw materials: Average 25 Kg. bhabhar per machine per day at 15 paise per Kg. Rs. 9,375

b. Salaries and Wages :

(i) Salary of Instructor-cum-manager at Rs. 200 p.m. Rs. 2,400

(ii) Wages of 6 spinners and 1 hammer-man at Rs. 5/- per day and 3 helpers at Rs. 3/- per day. Rs. 11,000

Rs. 13,400

c. Miscellaneous :

(i) Rent and contingencies Rs. 1,200

(ii) Repairs and replacements Rs. 300

(iii) Power and Lubrication Rs. 750

(iv) Unforeseen Rs. 1,000

Rs. 3,250

d. Overheads :

(i) Depreciation at 10% Rs. 700

(ii) Interest at 4% (Capital Expenditure Loan Rs. 3,500 + Working Capital Loan Rs. 6,500 = Rs. 10,000/-) Rs. 400

Rs. 1,100

VI. Total Manufacturing Cost. Rs. 27,125

VII. Selling Price :
Average 20 Kgs. ban per day per machine at Rs. 11/- per Kg. ban. Rs. 30,000

Rs. 2,875

VIII. PROFIT

Self-Employment in Ban Making

Production of 2-ply yarn, popularly known as 'BAN' made mostly out of grass fibres like Moonj and Bhabhar, is an important fibre industry in northern parts of India. Ban is used for 'Charpai' (cot) Weaving and for general typing purposes. It is the coir of the North.

The traditional method of preparing ban is to twist them on palms and charka. Khadi and Village Industries Commission introduced ban-making machines some 15 years back. The machines have become very popular in Himachal Pradesh, Punjab, U.P., Rajasthan, Bihar and Orissa. The machine helps artisans to earn double of what they were earning by traditional method. This industry is very well suited for self-employment.

Financial requirement of an artisan and the economics of a home unit is given below :

Funds Required :

- | | |
|--|-----------|
| 1. Cost of 1 ban making machine (including accessories, packing, transport charges etc.) | Rs. 400 |
| 2. For stocking raw-material average 37.50 Quintals bhabhar grass per day at 40 paise per Kg. (300 working days) | Rs. 1,500 |

1,900

Annual Expenditure :

- | | |
|--|-----------|
| 1. Raw-material | Rs. 1,500 |
| 2. Repairs and replacements | 25 |
| 3. Depreciation (20%) | 90 |
| 4. Interest on loan of Rs. 1,900 at 4% | 76 |
| 5. Miscellaneous | 50 |

1,731

Annual Income :

- | | |
|----------------------------------|-------|
| 10 Kg. ban per day (20% wastage) | 3,750 |
| Provision for repayment | 400 |

Rs. 3,350

Rs. 1,629

6. DEHYDRATION OF GINGER

- | | |
|--------------------------|---|
| 1. Number of units | one |
| 2. Location | G. Madugula/Paderu in Visakhapatnam District. |
| 3. Capital Outlay : | |
| (a) Land and Buildings | Rs. 0.36 lakhs |
| (b) Machinery | Rs. 0.66 lakhs |
| (c) Working Capital | Rs. 0.30 lakhs |
| 4. Raw material required | Raw Ginger |
| 5. Power required | Nil |
| 6. Production Capacity | 100 tonnes per annum |
| 7. Profitability | 20% |
| 8. Employment | 25 |
| 9. Demand Outlook | Bright |

7. EXTRACTION OF CITRONELLA, PALM ROSA AND PIPPERMINT OILS

I. *Introduction* : It is forest based unit having internal and export market.

II. *Land and Buildings*
(Own or Rented) :

Land (Area) }
Building (Area) } Rs. 10,000.

III. *Machinery and Equipment*

S.No.	Name of Machinery	Nos. Required	Rate Rs.	Total Rs.
1.	Distribution stills complete with condensor and a spare charge container of 100 Kgs. Capacity.	500 Nos.	7,000	35,000
3.	Pump of Capacity 15 C	1 No.	4,000	4,000
	Cutting Machine	1 No.	1,500	1,500
	a. Erection and electric installations.			6,000
	b. Office furniture			
				46,500

Recurring Expenditure :

IV. *Raw Materials Required (PM)*

1. Citronella Grass	600 Kgs.	9,000
2. Palma rosa	600 Kgs.	4,200
3. Pippermint	600 Kgs.	12,000
	Total :	35,200

V. *Salaries and Wages (PM)*

Supervisor/and 3 Labourers and Watchman	1,600
Total :	1,600

VI. *Other Misc. Expenses (PM)*

Postage and Stationary	1,500
Power & Fuel	4,500
Transport & Conveyance	1,500
Miscellaneous, consumable stores, maintenance	1,500
Total :	9,000

VII. Working Capital (Months)

Raw materials	Rs. 35,200
Salaries and Wages	1,600
Misc. Expenses	9,000
Total :	45,800

VIII. Total Investment :

Land and Buildings	10,000
Machinery & Equipment	46,500
Working Capital (Please work out for 2 months)	91,600
Total :	1,50,100

IX. Manufacturing Cost (PM)

Working Capital (One month)	45,800
Depreciation on machinery 10%	750
Interest 16%	2,000
Depreciation on building 5%	50
Other Miscellaneous	5,000
Maintenance of building, Machinery and other Miscellaneous etc.	7,000
Total :	60,600

X. Receipt

By Sale of Citronella oil	Rs. 75/- per Kg.	36,000
By Sale of Palmarosa	Rs. 150/-	21,466
By Sale of Peppermint	Rs. 200/-	42,000
Total :		99,466

XI. Profit and Loss :

1. Receipts as per Head X	99,466
2. Manufacturing Cost as per head IX	60,600
Profit per month	33,866

8. MANUFACTURE OF SPLINTS & VENEERS

I. Introduction :

As large quantities of soft wood is available in the Forests, it is envisaged to set up units for manufacture of Splints and Veneers with an installed capacity of 4 Tonnes of the finished product to cater the needs of the Match Units.

II. Land and Buildings (Own or Rented)		Rs.
Land (area)	Own	
Building (area)	50 Cents	4,000
6000 Sq.ft. coverd area @	- Rs. 20/-per Sq.ft.	1,20,000

III. Machinery and Equipment :

S.No.	Name of the machinery	No. Reqd.	Rate	Total Rs.
1.	Peeling machine 28"	1 No.		6,000
2.	Peeling machine 18"	1 "		4,500
3.	Standard chopping machines	2 Nos.	4,000	8,000
4.	Table grinder with two stones motorised model with 33 HP. 3 Phase motor	1 No.		900
5.	Electric Motor 20 HP 3 Phase starter	1 "		9,000
6.	Electric Motor 2 HP. with Starter etc.	1 "		2,500
7.	Peeling & Chopping blades	12 Nos.	200	2,400
8.	Levelling machine	1 No.		4,000
9.	Veneers cutting machine	1 "		2,000
10.	Miscellaneous tape of equipment, Taxes, Electrification, Transit and Insurance.		15%	6,045
			Total :	46,345

Recurring Expenditure :

IV. Raw materials required (PM)

1. Soft wood @ Rs. 8/- cft. (1 quintal of splints would require 8 cft/1 Bundle of Veneer would require 6 cft.) for month :

34,000

V. Salaries and Wages ((PM)

1. Manager 1 No. @ Rs.300/- p.m.	300
2. Foreman 1 No. @ Rs. 300/-	300
3. Clerk-cum-Accountant 1 No.	200
4. Skilled workers 6 Nos. Rs. 5/- day	750
5. Unskilled workers 70 Nos. Rs. 3/-	5,250
	<u>7,300</u>

VI. Other Misc. Expenses (PM)

Postage and Stationery	100
Power & Fuel,	1,000
Transport and Conveyance	200
Consumable stores etc. Misc. Rent	200
	<u>1,500</u>

VII. Working Capital (Month)		
Raw Material		34,000
Salaries		7,300
Misc. Expenses		1,500
		<u>42,800</u>

VIII. Total Investment		
Land and Machinery		1,24,000
Machinery & equipment		46,345
Working Capital (2 months)		85,600
		<u>2,55,945</u>

IX. Manufacturing Cost (PM)		
Working capital (1 month)		42,800
Depreciation on machinery 10%		387
Depreciation on Building 5%		500
Interest 12%		2,559
		<u>45,246</u>

X. Receipts:		
By Sale of Splints 500 Quintals @ 100 per month		50,000
By Sale of Veneers @ Rs.60/- per bundle 250 bundles per month		15,000
		<u>65,000</u>

XI. Profit and Loss		
Receipts as per head X		65,000
Manufacturing cost as head IX		45,246
Profit per month		<u>19,754</u>

XII. Any other information :

Source of supply of machinery :

1. M/s. M.S.C. Engineering Works, Madurai
2. M/s. Alapat Industries, Trichur
3. M/s. Standard-Engineering Co, Amritsar.

9. MATCH INDUSTRY

I. Introduction :

Match manufacture is a labour intensive industry and all the processes can be done by hand with a training extending over a period of 6 months. Scheduled Tribes can be made to take up this industry. Obviously Cooperative Organisation in this industry have got more advantages as facilities like training, financial assistance, concessions in excise, interest can be made available. On an average 40 people can be given gainful employment in an average sized unit with a capacity of 50 gross models per day.

II. Land and Buildings :

Rs. 30,000

III. Machinery and Equipment :

- | | |
|---|------------|
| 1. Match frames | |
| 2. Paraffin plate with hot plate | |
| 3. Chemical grinder | |
| 4. Diffing plate with leveller | |
| 5. Side paint frames | |
| 6. Inner and outer blocks for bor making | |
| 7. Frame | |
| 8. Weighing balances, dieves, glass, side paint, brushes,
levelling table for splints, mugs, utensils, trays etc., | |
| 9. Office furniture | |
| | Rs. 16,500 |

IV. Recurring : (Raw materials for 3 months)

- | | |
|-------------------------|-------------|
| 1. Splints | |
| 2. Veneers | |
| 3. Blue paper | |
| 4. Craft paper | |
| 5. Potassium chlorate | |
| 6. Glue | |
| 7. Bed manganese | |
| 8. Glass | |
| 9. Red phosphorous | |
| 10. Sulphur | |
| 11. Resin | |
| 12. Potassium | |
| 13. Antimonium Sulphate | |
| 14. Maize | |
| 15. Copper sulphate | |
| 16. Black manganese | |
| | Rs. 15,000/ |

Formula for 50 tonnes per day

1. Clue	750 grams
2. Manganese dioxide	1 Kg.
3. Iron oxide	200 grams
4. Glue	1 kg.
5. Sulphur	1 kg.
6. Potassium chlorate	31 kgs.
7. Rosin	50 grams
8. Bichromate	75 grams
9. Red phosphorus	250 grams
10. Colour	1 kg.
11. Paraffin wax	3 kgs.
12. Tapioca powder	5 kgs.
13. Splints	30 kgs.
14. Blue paper	3 Reams
15. Craft paper	25 yards
16. Veneers	60 grams
17. Copper sulphate	25 grams
18. Labels	25 grams

VII. Salaries and Wages for 3 months

1. Dipper Rs. 150/- p.m.	1	Rs.	450-00
2. Manager-cum-Accountant	1	Rs. 200/- p.m.	600-00
3. Helpers -	1	@ Rs. 100/-	300-00
4. Frame filling 0-25 np per gross			937-50
5. Bor making			
(a) Inner 10 np per gross			375-00
(b) Outer 7 np per gross			262-50
6. Watchman @ Rs. 100/- p.m.			300-00

Total : 3,225-00

VI. Miscellaneous Expenses :

1. Postage	Rs. 100-00
2. Contingencies	Rs. 200-00
	<u>Rs. 300-00</u>

VII. Total Investment :

	Rs.
1. Land and Buildings	30,000
2. Machinery and Equipments	16,500
3. Working Capital for 3 months :	
a. Raw material	Rs. 15,000
b. Salaries and wages	3,225
c. Misc. Expenditure	300
	18,525
	65,025

VIII. Manufacturing Cost :

1. Raw material for 3 months	15,000
2. Salaries and Wages	3,525
3. Depreciation on building @ 10%	750
4. Depreciation on Machinery and Equipment @ 10%	412
5. Interest on capital @ 12%	1,950
6. Excise duty Rs. 3.75 per gross	14,062
7. Sales Tax at 3% Rs. 1,350	
	35,699

IX. Cost price per gross

9.90

X. Receipts

1. Sale price @ Rs. 11.00 per gross - 15,000 grosses annual production	1,65,000
2. Cost of production	1,45,000
Net Profit per year :	Rs. 20,000

10. MANUFACTURE OF SOAP NUT AND SHEEKAI POWDER

I. Introduction :

It is forest and demand based industry. Sufficient soap nut and Sheekai is available in the agency areas. There is sufficient demand for this product.

II. Land and Building own or Rented.

Rented @ Rs. 150/- p.m.

III. Machinery and Equipment

S.No.	Name of Machinery	No. Reqd.	Total Rs.
1.	Disintegrators 17	1 No.	2,000
2.	Flour Mill	1 No.	1,000
3.	10 H.P. Motor with starter	1 No.	5,000
4.	Counter Shaft, Pullies etc.		1,000
5.	Brestion and Electric Installation		1,000
IV. Raw Materials required (P.M.):			10,000
	Soap Nut and shikai 50 quintals		5,000
V. Salaries and Wages (P.M.)			
1.	Manager-cum-Accountant	1 No.	200
2.	Operator	1 No.	200
3.	Workers	4 Nos. Rs. 75/- p.m.	300
VI. Other Misc. Expenses (P.M.):			700

	Postage and Stationery	Rs.	
	Power and Fuel	25	
	Transport and Conveyance	300	
	Misc. Rent.	100	
	Consumable stores	150	
		125	
VII. Working Capital (Months)			700
	Raw materials	5,000	
	Salaries and Wages	700	
	Misc. Expenses	700	
			6,400

VIII. **Total Investment :**

Machinery and Equipment	10,000	
Working Capital	12,800	
	<u> </u>	22,800

IX. **Manufacturing cost P.M.**

Working Capital	6,400
Depreciation on Machinery	85
Interest 10%	300
	<u> </u>
	6,785

X. **Receipts :**

By Sale of 2,000 kgs. of soap Nut and Shikai powder at Rs. 4-50 per kg. 9,000-00
X

XI. **Profit and Loss :**

Receipts as per head X	9,000.00
Manufacturing cost as per head IX.	<u>6,785.00</u>
Profit per month.	<u>2,215.00</u>

II. FURNITURE WORKSHOP

I. **Introduction :**

There is demand locally.

II. **Land & Buildings (Own or Rented)**

Land (area) Rs. 50 p.m
 Building (area)

III. **Machinery and Equipment :**

S.No.	Name of Machinery	Nos. Reqd.	Rate.	Total
			Rs.	Rs.
1.	Tools (Clamps, Hand Saws, Chisels, Bench vice, Leg vice etc.)			1,500
a.	Erection and electric installations			
b.	Office furniture etc.			
	Recurring Expenditure :	Total	Rs.	<u>1500.00</u>

	Rs.	Rs.
IV. Raw Materials required (P.M.):		
Other Materials.	500	3,000
	Total :	3,500
V. Salaries and Wages (PM) :		
Self		250
Wages		750
	Total :	1,000
VI. Other Misc. Expenses (P.M).		
Postage & Stationery, Power & Fuel		
Transport & Conveyance	50	
Miscellaneous - Renty, Consumable stores etc.	50	
	Total :	100
VII. Working Capital (Months):		
Raw Materials	3,500	
Salaries & Wages	1,000	
Misc. Expenses	100	
	Total :	4,600
VIII. Total Investment :		
Machinery & Equipment	1,500	
Working Capital (Please work out for 2 months).	9,200	
	Total :	10,700
IX. Manufacturing Cost (P.M) :		
Working Capital (one month)	4,600	
Depreciation on machinery 10%	15	
Interest 10%	105	
	Total :	4,720

Receipt.
By sale offurniture. 5,200

XI. Profit & Loss :

1. Receipts as per head X	5,200
2. Manufacturing cost as per head IX	4,720
3. Profit per month	480

12. FURNITURE UNIT

With the chief aim of imparting training in Carpentry to the local people both in Polavaram and Buttayagudem Samithi areas, two training cum production centres at Pragadapalli and Buttayagudem villages in Polavaram and Buttayagudem Panchayat Samithis respectively were started in the year 1962-63, with the financial facility obtained from the Tribal Welfare Department. Two workshops for the two centres were got constructed in those two villages. The required machinery and equipment were also purchased.

The duration of the training is 11 months and the permitted capacity of trainees per each batch is 16. Both the centers were closed during 1969 due to paucity of funds. In total, Pragadapalli centre trained 108 candidates while the Buttayagudem centre 106 candidates.

Out of the equipment available in the closed centres, the tools available at one centre will be surplus and it is proposed to distribute the surplus tools at 75% subsidised rates to the ex-trainees and local artisans of other two Samithis. The sanction of the Government is required in this respect.

When viewed from the angles of the availability of the Ex-Trainees within a reasonable distance, the availability of Band Saw and other machinery and equipments and the availability of the power, the Pragadapalli Centre can be chosen for revival as production unit. There are about 10 tribal ex-trainees within a radius of 3 miles and another batch of ex-trainees numbering 10 from scheduled caste people are available within the reasonable distance. There will be no difficulty in regard to the availability of workers having skill in the proposed unit.

The object of the scheme aims at due production of office furniture, school furniture and household furniture, and other household requirements by duly employing the ex-trainees from tribes community.

The cost of the scheme is worked out keeping in view the existing building facilities, Machinery, equipment and hand tools on hand. The existing building may not be sufficient to accommodate the working for 15 workers at a time and hence, an

additional workshed is suggested for construction, the existing hand tools may not be sufficient to carry out the work with 15 workers. Hence an additional amount is provided in the scheme for the purchase of required tools.

By implementing this scheme full employment to 15 ex-trainees and one watchman and one Attender from Tribal community can be shown.

II. Land and Buildings (Own or Rented) :

Land (area) 40 Cents of private land orally
donated by private party. Rs.

Building (area) Existing building
(workshed) 15×30 proposed workshed 20×60= Rs. 25,000-00

III. Machinery and Equipment :

S.No.	Name of Machinery	Nos. Reqd.	Total Rs.
1.	Band Saw 36" with 7.5 H.P. Motor Switch-Starter	1 No.	2,712.00
2.	Wood working lathe 4½' with motor	1 No.	923.00
3.	Bench Grinder	1 No.	425.00
4.	12" Circular saw with Motor	1 No.	1,000.00
5.	Hand tools	1 No.	1,085.00
6.	Work benches X	4 Nos.	2,000.00
7.	Provision for new hand tools (a) Erection and electric installations. (b) Office furniture etc.		1,000.00 500.00
Total :			10,142-00

Recurring expenditure :

IV. Raw Materials required (P.A.)

Wood required at Rs. 170. Q. Mt.	25.7510 Q. Mt.	41,693.00
Hardware required, with finishing materials		6,374.00
Total :		48,067.00

V. Salaries and Wages (PM) :

1. Workers Superintendent 360-700	5,400.00	
2. L.D. Clerk cum Accountant	4,800.00	
3. One Attender	2,440.00	
4. One Watchman	1,800.00	
5. Total wages for Labour	8,905.00	
Total :		23,425.00

VI. <i>Other Misc. Expenses (PM)</i> Rs.	
Postage and Stationery	5,500.00
Power and Fuel	5,200.00
Transport and Conveyance	1,200.00
Miscellaneous—Rent.	1,200.00
Consumable Stores etc. }	1,200.00
Total :	8,100.00

VII. <i>Working Capital (P.A.)</i>	
Raw materials	23,425.00
Salaries and Wages	8,100.00
Misc. Expenses	7,142.00
Total :	79,592.00

VIII. <i>Total Investment</i>	
Machinery and Equipment	10,142.00
New Building	25,000.00
Working Capital (Please work out for 3 months)	19,898.00
Total :	55,040.00

Out of this equipment and machinery worth Rs. 6,142 is already existing with the closed down Carpentry Centre at Pragadapalli.

IX. <i>Manufacturing cost (PM)</i>	
Working Capital (one month)	6,633.00
Depreciation on Machinery 10%	85.00
Depreciation on building	104.00
Interest 10%	688.00
Total :	7,510.00

X. *Receipts:*

By sale of Wooden furniture at 15% on the cost of furniture i.e. Rs.8,636.00.

XI. *Profit and Loss :*

- | | |
|--------------------------------------|--------------|
| 1. Receipt as per head X | Rs. 8,636.00 |
| 2. Manufacturing cost as per head IX | Rs. 7,510.00 |
| 3. Profit per month. | Rs. 1,126.00 |

13. TAMARIND KERNEL POWDER (TEP) PHOSPHATES & TKP BORATE

1. Background :

Tamarind seed kernel has certain inherent defects and as such finds only limited application for textile sizing. TKP has been phosphorylated and borated and the modified TEP resembles hydrolysed maize starch. This will result in the effective utilisation of TKP and substitute hydrolysed maize starch.

2. NOL Process :

A solution of phosphoric acid and caustic soda is sprayed on TKP. The product is mixed well and dried at 50°C. It is then powdered in ball mill, sieved through 100 mesh and then heated at 150°C.

For making TKP borate, a solution of Boric acid, caustic soda and urea is sprayed on TKP. The rest of the steps are same as mentioned above.

3. Market :

Large quantities of starch are used for textile sizing. It is not possible to assess the demand for modified TKP. However, a 300 TPA unit has been assumed for our cost calculations.

4. Price :

Ex-factory selling price of both TKP Phosphate & TKP borate work out around Rs. 1.67 per Kg.

5. Terms and conditions for release :

For terms and conditions and for release of the process interested parties are requested to get in touch with the Secretary, National Research Development Corporation of India, 61, Ring Road, Lajpatnagar-III, New Delhi-24.

Cost Estimates to produce - 300 TEP of TKP Phosphates of Borate

Basis : 300 Working days - 1 Ton per Day.

1. Raw Materials :

TKP	Qty/T	Rate Rs./T.	Value
Phosphoric acid	300	700	2,10,000
Caustic Soda (Mach)	12	6,500	78,000
On cost 8% of raw material bill for handling, transport etc.	6	1,200	7,200
Raw material cost per Kg. of finished product works out to be Rs. 1.06.	—	—	25,600
		3,18,800	18,800

2. Services :

@ 2% if the raw material bill

6,400

6,400

3. *Labour & Supervision :*

1. Chemist @ Rs. 700 p.m.	8,400
2. Skilled workers @ Rs. 500 p.m. 24 Nos.	12,000
3. Unskilled workers @ Rs. 250 p.m. 48 Nos.	12,000
	<u>32,400</u>

33½% of labour and supervision for PF &
Other benefits.

10,800

43,200

4. *Maintenance :*

5% on plant cost.
2% on building.

5,000

600

5,600

5. *Insurance :*

2% on plant, building one month raw material
and one month finished product.

4,000

4,000

6. *Overheads :*

50% of item 2 to above

29,600

7. *Depreciation :*

10% on plant
2½% on building

10,000

750

10,750

4,18,350

Cost of production for 300 TPA

Cost of production about Rs.1.40 Kg.

Packing @ Rs. 50/-Ton in gunny bags.

Return on capital @ 5% of total capital

15,000

68,250

5,01,600

Ex-factory selling cost of 300 tonnes.

Ex-factory selling price works out - Rs. 1.67/ kg.

NOTE : TKP - Borate

<i>Raw material</i>	<i>Qty./T</i>	<i>Rate Rs./T</i>	<i>Value</i>
TKP	300	700	2,11,000
Boric acid	7.5	3,000	22,500
Urea	24.00	2,500	60,000
Caustic soda	0.09	1,200	1,080
On Cost @ 8% on raw material bill to cover transport handling etc.			<u>23,500</u>
			3,17,080

8. Raw material cost per Kg. of this finished product - Rs. 1.06.

Raw material cost for both TKP Phosphate and TKP borate work out to be same. Hence the selling price of T.K.P. - borate also will be around Rs. 1.67 kg.

Fixed Working Capital Requirements

Sigma blade mixer.

Ball mill.

Sewing machine

Oven.

Installed plant to process

300 TPA may cost about :-

Building.

Land.

Know-how fees

Rs.

1,00,000

30,000

10,000

1,40,00

5,000

1,45,000

Working Capital :

One month raw material

One month Services

One month labour & Supervision

One month finished product

1 1/2 months accounts receivable.

26,500

500

3,600

35,000

62,000

Total capital say = Rs. 2,73,000

Percentage break up of ex-factory selling price

Raw material

Services

Labour and Supervision

Maintenance

Insurance

Overheads

Depreciation

Packing

Return on capital

63.6

1.3

8.6

1.1

0.8

5.9

2.1

3.0

13.6

Capital turnover ratio:

$$\frac{\text{Sales turnover}}{\text{Total capital}} = 1.8$$

14. MANUFACTURE OF ABSOLUTE ALCOHOL FROM MOLASSES AND MOHWA FLOWER

The development of the Alcohol industry is closely linked to the problem of utilisation of molasses from Sugar Factories. The Mohwa Flower, abundantly available in the Agency areas of G.L. Puram, Seethampeta, K.R. Puram, Dammapeta, Palwancha etc., can be utilised for the production of alcohol. The Corporation has procured about 1.72 lakhs of Mohwa Flower in 1968-69. The corresponding purchase in 1969-70 has fallen because of difficulties in marketing and the subsequent restriction placed on purchase possession and sale of this commodity under the Andhra Pradesh Mohwa Flower Rules 1971. The setting up of a distillation unit, an increased earning capacity of about Rs. 2 lakhs per year. The production of alcohol from Mohwa Flower will be a source of employment and income to the tribal and in addition will help to alleviate the acute alcohol shortage in the country. It is possible to set up a small distillation unit, with a capacity of 1,000 gallons of absolute alcohol, as an adjunct to the Khandasari sugar factory.

2. Alcohol is used as a raw material for plastics, like Polythene, Polyestances, cellulose, acetate, polyvinyle chloride, and solvents like bataanol ether and acetone. It is also used in the manufacture of items like synthetic rubber and insecticides.

3. Type of Orientation and location

This is a resource-based industry using the raw material of the Khandasari Sugar Factory as well as Mohwa Flower of the Bhadravari Agency tract, the unit can conveniently be located at Gummalaxmipuram.

4. Anticipated output capacity

The anticipated output capacity is about 3,000 gallons of alcohol each year. There is a steady demand for this alcohol from the chemical and industrial users.

Accordingly sales prospects are good.

4. Availability of Projects, Processing and Feasibility Reports

The scheme report for the manufacture of alcohol from molasses is available with the Gurijan Co-operative Corporation Limited. The processing details from the Government Distilleries functioning at Kamareddi in Nizamabad District. The project Reports can be developed by commissioning a competent technical authority.

6. Investment in the Industry :

The draft investment report indicates the following investments:

	Rs. 1.10 lakhs
a. Land and Building	
b. Machinery and Equipment	4.18
c. Working capital	1.99 "
Total :	Rs. 7.27

7. *Anticipated annual turnover* : The anticipated annual turnover is Rs. 3.48 lakhs as against an expenditure of Rs. 2.98 lakhs.

8. *Anticipated annual return* : The anticipated percentage of return on total investment is 8.7% while the percentage of profit is approximately 14%. However, the income of the tribals gathering Mohwa flower will increase by Rs. 2 lakhs per year. The Unit, therefore, can be taken up with a high degree of priority.

9. *Employment potential* : This industry provides employment to 30 supervisory and skilled workers in addition to 30-40 unskilled casual tribal labourers.

10. *Source of Finance* : The National Co-operative Development Corporation, New Delhi or the Andhra Pradesh Small Scale Industries Development Corporation* may be approached to finance this Project along with normal patterns of assistance.

15. DESEEDING OF TAMARIND

The Girijan Co-operative Corporation Limited, buys about 5,000 tonnes of de-seeded and seeded tamarind each year. The tribals normally bring the tamarind along with its seed. However, in the areas of East Godavari the tribals are accustomed to bring de-seeded tamarind. If deseeding centres are organised in the Agency areas it will compensate the tribal for his labour as de-seeded tamarind fetches a higher value than the seeded tamarind. Further, the tamarind seeds so culled-out can be used in this starch industry and will compensate for the labour charges to be paid to the tribal.

2. *Location* : A number of these units can be started at Gummalaxmipuram Salur, Seethampeta, S.Kota and Madugula of Srikakulam and Visakhapatnam Districts.

3. *End Product* : De-seeded tamarind and tamarind seed, produced by this operation, have a ready market in various uses already described.

4. *Investment in the Industry* : This industry will not require any investment under land and building and machinery. However, capital of an amount of Rs. 1.80 lakhs would be required to meet the expenses of daily wages.

5. *Anticipated annual output capacity* : The annual output capacity is estimated at Rs. 5.40 lakhs.

6. *Source of Finance* : The Girijan Co-operative Corporation Limited, can provide the finance as an advance of raw material from its own funds, in pursuance of its normal activities.

7. *Employment Potential* : This programme can provide employment for 500 persons.

*Andhra Pradesh State Finance Corporation.

16. NON-EDIBLE OILS

I. Introduction :

The Mohwa seed is available plenty in forest area. The Mohwa seed is being collected by tribals. The Mohwa seed oil is used for manufacturing of washing soap and lubrications.

II. Land & Building (Own or rented)

Land (Area) — Rented Rs. 150/- per month.
 Building (Area) —

III. Machinery and Equipment :

S.No.	Name of Machinery	Nos Reqd.	Rate	Total
			Rs.	Rs.
(1)	One Baby expeller bolts size with 7.5 H.P.			10,800.00
(a)	Erection and electric installation			2,000.00
(b)	Office furniture, etc.			—
				<u>12,800.00</u>

Recurring Expenditure :

IV. Raw material required (PM)

Mohwa Seed 50 Quintals @ Rs. 180/- per Qtl. 9,000.00

V. Salaries and Wages (PM)

1. Skilled worker one @ Rs. 200/-	200.00
2. Unskilled workers two @ Rs. 100/-	200.00
	<u>400.00</u>

Other Misc. Expenses PM	Rs. 10.00
Postage and Stationery	10.00
Power & Fuel	100.00
Transport & Conveyance	50.00
Misc. Rent Consumable stores etc.	200.00
	<u>370.00</u>

VII. Working Capital (months) :

Land & Building-Raw Material	9,000.00	
Salaries & Wages	400.00	9,770.00
Misc. Expenses	370.00	
	<u>9,770.00</u>	

VIII. Total Investment :

	Rs.	Rs.
Machinery & Equipment	12,800.00	
Working Capital (Please work out for 3 months)	29,310.00	
	<u>42,110.00</u>	42,110.00

IX. Manufacturing cost (PM)

Working Capital (1 Month)	9,770.00	
Depreciation on Mach. @ 10%	107.00	
Interest 10%	188.00	
Other Misc.	50.00	
	<u>10,115.00</u>	10,115.00

X. Receipts :

By sale of 1500 Kgs. of Mohwa oil @ 6.75	10,120.00	
By sale of 3000 Kgs. of Mohwa cake @ Rs. 0-20 p.a.	600.00	
	<u>10,720.00</u>	

XI. Profit and Loss :

1. Receipts as per head X.	10,720.00
2. Manufacturing cost as per head IX.	<u>10,115.00</u>
Profit per month :	<u>605.00</u>

17. CHARCOAL UNIT

I. Introduction :

This scheme is feasible in Forest areas where fire wood is available. There is good demand for the charcoal which is used as fuel.

II. Assumptions :

- | | |
|-----------------------------------|--------------------|
| 1. No. of working days in a month | 25 days |
| 2. No. of working hours in a Day | 8 Hours |
| 3. Production capacity | 40 Tonnes p.m. |
| 4. Selling price | Rs. 500/- per ton. |
| 5. Storage percentage | 75% |

III. Land and Buildings

IV. Machinery equipment

1. Kiln 10 Nos.

V. Raw materials P.M.

1. Fire wood @ Rs. 100/- 150 Tonnes.

Rented — Rs. 50/-p.m.

Rs. 5,000/-

Rs. 15,000/-

VI. *Salaries & Wages P.M.*

1. Clerk-cum-Accountant	Rs. 250/-
2. Fireman-2 persons	Rs. 400/-
3. Labourers-6 persons	Rs. 900/-
	<hr/>
	Rs. 1,550/-

VII. *Miscellaneous P. M.*

1. Rent	Rs. 50/-
2. Transport & Conveyance	Rs. 50/-
3. Unforeseen & contingencies	Rs. 50/-
	<hr/>
	Rs. 150/-

VIII. *Total Investment :*

Machinery and Equipment working capital	Rs. 5,000/-
for one month	Rs. 15,000/-
Raw Material	Rs. 1,550/-
Salaries & Wages	Rs. 150/-
Miscellaneous	
	<hr/>
	Rs. 21,700/-

IX. *Operating expenses P.M. :*

1. Raw materials	Rs. 15,000/-
2. Salaries and Wages	Rs. 1,550/-
3. Miscellaneous	Rs. 150/-
4. Interest on Capital @ 16% p.a.	Rs. 290/-
5. Depreciation on Machinery 10% p.a.	Rs. 125/-
	<hr/>
	Rs. 17,115/-

X. *Receipts P.M. :*

1. By way of Sale of 37.5 Tonnes of coal @ Rs. 500/- per ton.	Rs. 18,750/-
--	--------------

XI. *Gross profit per month :*

Rs. 18,750/-	
Rs. 17,115/-	
<hr/>	
Rs. 1,635	Rs. 1,635/-

18. LINSEED OIL AND DOUBLE BOILING

(One Tonne per day)

	Rs.
I.	
Land & Building	25,000.00
Machinery & Equipment	40,000.00
Raw Materials (One Month).	30,000.00
Salaries & Wages (PM).	2,200.00
Miscellaneous Expenses.	6,000.00
II. Working Capital (One Month) :	
Raw Materials.	30,000.00
Salaries and Wages.	2,200.00
Miscellaneous Expenses	6,100.00
	<u>38,300.00</u>
IV. Total Investment :	
Land & Building.	25,000.00
Machinery & Equipment	70,000.00
Working Capital	38,300.00
	<u>1,33,300.00</u>
V. Manufacturing Cost (One Month) :	
Working Capital	38,300.00
Depreciation on Machinery etc.	600.00
Investment	2,220.00
	<u>41,120.00</u>
V. Receipts : By	
(a) Linseed Oil	40,000.00
(b) Linseed Cake	7,500.00
	<u>47,500.00</u>
VI. Profit and Loss :	
Receipts	47,500.00
Manufacturing cost	41,120.00
Profit per month	<u>6,380.00</u>

19. PLANTATION OF SISAL HEMP FIBRE

There is an all round shortage of natural fibre. Varieties of fibres like Koperi, Addanara, Peddanara and sisal are abundantly available in the agency areas of Andhra Pradesh, have bright chances for development commercial utilisation. One of the major occupations of the tribals in these areas is to collect the fibres and sell it either as a raw commodity or after processing the same and making hand ropes. Amongst the various fibres, the aloe "Agave Rigida Var Sisalana" is well known to yield a larger percentage of fibre of a better quality than any other species. Land of gravelly and stoney nature is reported as specially suitable for sisal. It is therefore considered advantageous to aim at a suitable location in the agency areas during the next 5 years at 700 acres in the first year and 100 acres each year in the succeeding four years. It is continated that on average the yield of fibre from sisal plants will be 700 Kgs. per acre annum at a sale value of Rs. 1500/- Regarding the cost of establishing a sisal hemp plantation, it may work out to Rs. 300/- per acre. The amount required to take up this sisal fibre plantation, works out as follows.

S.No.	Item	1976-77	1977-78	1978-79	1979-80	1980-81
1.	Plantation of sisal hemp in agency areas.	Acres 700 Rs. 2,10,000	100 30,000	100 30,000	100 30,000	100 30,000

20. PLANTATION OF MISCELLANEOUS FIBRE

Miscellaneous fibres like Moonj, Sabai and other grasses are being collected from the agency tracts of Eturunagaram, Rangapura, Gudur and Narasampet, Adda Teegala, Rajavommangi and Bhadrachalam areas of the Godavari forests. These miscellaneous fibres are well suited for the manufacture of ban, rope and brooms, the demand of which is increasing for the different agricultural, domestic and other purposes in the local and neighbouring areas. As at present, there is no systematic growth of these fibres attempted. The collection of these fibres is being done in a sporadic manner in a number of scattered areas.

It is therefore proposed to attempt a plantation of 1000 acres of some of the useful grasses in selected spots in the agency areas to put not only the collection of the grasses but the processing of the fibre on a rational scale. The cost of establishing this plantation is estimated to work at Rs. 200 per acre. To start with in the first year, an area of 700 acres will be taken up and in the succeeding four years it will be followed by 100 acres each. The financial implications are as follows:

		1976-77	1977-78	1978-79	1979-80	1980-81
1.	Plantation of Miscellaneous fibres.	Acres 700 Rs. 1,40,000	100 20,000	100 20,000	100 20,000	100 20,000

21. PLANTATION OF FOOD FORMING TREES FOR TASSAR CULTURE

The Tassar can be called as wild silk. This is the famous handspun "TASSORE" popular in the U.S.A. and Europe. Strangely enough, this silk is the product of the remote forest areas and the agency tract bordering the Godavari River in Andhra Pradesh is a rich Tassar producing area. The Tassar silk worm rearing and silk reeling is now mostly confined to Warangal District and therefore it is proposed to extend this activity to Khammam, Karimnagar and Adilabad districts by introducing a thousand acres in those three districts by way of utilising existing food trees and by additional plantation of the 'Nallamaddi' and Arjuna plants and other food forming trees and imparting skills to the local tribals in the operations of the Tassar silk worm rearing. The cost of planting the Nallamaddi trees is estimated at Rs. 300 per acre. As far the rearing activity, trained tribals particularly 'Koyas' are already available who have to be given necessary facilities.

	1976-77	1977-78	1978-79	1979-80	1980-81
Extension of 'Nallamaddi & Arjuna' Acres.	700	100	100	100	100
Plants cultivation in the agency areas of Khammam, Karimnagar, and Adilabad districts.	Rs. 2,10,000	30,000	30,000	30,000	30,000

22. ESTABLISHING AN EXPERIMENTAL DEMONSTRATION FARM FOR IMPROVED VARIETIES OF COTTON AND SETTING UP ONE GINNING UNIT IN THE AGENCY AREAS OF ADILABAD DISTRICT

There are potentialities for increasing the already existing trend of cotton cultivation in agency area of Adilabad district. There is shortage of cotton and cotton yarn at present and it is therefore worthwhile to plan an extent of 5000 acres of improved varieties of cotton and induce the tribals to take up this as a plantation crop. Besides helping the tribal to get an assured higher income than what he is getting hitherto, the tribal may find it easy to pick up this activity, since this will be only an extension of an existing activity only and not a new one altogether in that district.

It is proposed to introduce the improved strains of KAC 122 and MUC 5 varieties which are reported to yield on average of 1000 K.Gs of Kapas per acre fetching a value of Rs. 2,500 per annum. Against this out turn, the cost of cultivation is estimated at Rs. 1200 per acre. It is therefore felt that an experimental demonstration farm covering an area of 500 acres be established for introducing the improved strains of cotton in the agency area of Adilabad district. This would serve to propagate the usefulness of these improved strains and induce the tribal cultivation for growing cotton of these varieties.

Cost of setting up one Demonstration Farm for the improved varieties of cotton
500 acres . Rs. 6,00,000

23. PLANTATION OF FOOD TREES FOR LAC CULTURE AND SHELLAC AND DEPUTATION OF CANDIDATES FOR TRAINING IN THE MANUFACTURE OF REFINED LACS

Lac is the resinous protective exudation of a tiny insect *LACCIFER LACCA* (generally known as the lac insect) parasitic on certain trees. The minute larva of the insect draw their nutrient from the sap which they suck through their long probosis, inserted into the bark of tender sheets. Lac found numerous uses in industry and has continued to enjoy a prominent place in trade and commerce. Lac is used in plastics, electrical insulations, adhesives, cements, leather and shoe dressings, wood finishing and in many other industries. Films of lac on wood metal and other surfaces possess excellent gloss, and resistance to abrasion, water and electric current, and even chemicals.

Over 80% of the world production of lac comes from India. It is cultivated as subsidiary cash crop in the hill tracts of Bihar, Orissa, MP, West Bengal, Assam and Mysore. Efforts should be made to raise this cash crop in the agency tracts of A.P. also. Cultivation of lac is initiated from broodlac which is the twig of the host tree carrying the lac encrustation at the time when the larvae are about to emerge from the mother insects. For infecting a tree, broodlacs are cut from the host tree, and tied at convenient places so that fresh succulent shoots may readily be accessible to the insect larvae. Lac is usually collected from trees which are self or naturally infected. The lac bearing twigs of the host trees are cut and the encrustation removed. The resins encrustation removed from the cut twigs is sold as stick lac.

Two main strains of lac insect are the Kusmi insect which thrives on Kusum (*Schleishera Oleosa* oken) trees and produces a fairly thick encrustation of light coloured lac. The Rangeeni insect which grows on palas (*Butea monosporma* lam) bor (*zizyphus mauritiana* lam) and Ghont (*zizyphus Klepyra* wild) and produces thinney encrustation.

The neighbouring State of M.P., is reported producing about 300,000 mds or 12 tonnes (as per 1951 reports available).

As production of lac gains speed and tempo, it will be necessary to depute selected candidates either at the Indian Lac Research Institute, Namkum, Ranchi (Bihar) or some of the established shellac industries in Calcutta.

Taking the cost of establishing a plantation of Kusum and palas trees at Rs. 300 per acre, and if one thousand acre plantation is aimed at, the financial implecation will work out as follows :-

S.No.	Item	1976-77	1977-78	1978-79	1979-80	1980-81
	Acres	600	700	100	100	100
1.	Plantation of acres & Palas trees.	Rs. 1,80,000	30,000	30,000	30,000	30,000
	Total	1000 acres		Rs. 3,00,000		

Further the cost of deputation of 6 candidates per year in the methods of raising lac culture and manufacturing of refined lacs works out as follows:

	1976-77	1977-78	1978-79	1979-80
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Deputation of six candidates each year for training in raising lac culture and manufacturing of refined lacs at Rs. 125/- stipend per month.	Rs. 9000	9000	9000	9000
	Total: Rs. 36,000			
	(125 × 6 = 750 × 2)			

24. TWO HERBARIUMS FOR MEDICINE PLANTS AT WARANGAL AND VISAKHAPATNAM

A variety of useful plants could be made available from agency areas which can be treated for manufacturing drugs and pharmaceuticals on indigenous sources. The indigenous drugs and cosmetics are proving very effective these days. The abundant availability of suitable herbs which can be grown year after year, season after season, in the tribal areas is thus a valuable source for these pharmaceutical industry.

As such there is need to establish two herbarium units one at Visakhapatnam district and the other at Warangal district which can develop the locally available species of plant in an organised manner along with nurseries. This scheme has to be worked out in coordination with Agriculture Department and Forest Department. This scheme will cost about Rs. 2 lakhs at a cost of Rs. 1 lakh per unit.

It is also understood that some varieties of tribals particularly Gonds have very improved know-how about indigenous herbs grown in forest areas.

25. SCHEME FOR SUGAR CANE CRUSHING AND JAGGERY MAKING

I. Introduction indicating market potential and manufacturing process (Brief):

There is a good demand for sugar cane crushing and Jaggery making.

II. Land and buildings

Own or Rented Land (area)

Building (area)

Rs. 3,000/-

III. Machinery and Equipment :

S.No.	Name of Machinery	Nos.	Regd.	Rate Rs.	Total Rs.
1.	Crusher 10 HP.	1	No.	4,000/-	4,000/-
2.	Oil Engine 10 HP	1	No.	6,000/-	6,000/-
3.	Jaggery Pan, Pots, Other things etc.,			2,000/-	2,000/-
					<u>12,000/-</u>

IV. Recurring Expenditure :

Raw Materials required (PM) :

1.	Sugar cane $8 \times 25 = 200$	20,000/-
2.	Lime etc.	500/-
		<u>20,500/-</u>

V. Salaries and Wages (PM) :

1.	Salary of Pan man @ Rs. 300/- p.m.	300/-
2.	Wages to 10 workers @ Rs. 5/- per day for 25 days	1,250/-
		<u>1,550/-</u>

VI. Other Misc. Expenses (PM) :

Postage and Stationery	10/-
Power and Fuel	300/-
Transport & conveyance	50/-
Miscellaneous - Rent	50/-
Consumable stores etc.	410/-
	<u>410/-</u>

VII. Working Capital (Months) :

Raw Materials	20,500/-
Salaries and wages	1,550/-
Misc. Expenses	410/-
	<u>22,460/-</u>

VIII. Total Investment :

Land and Buildings	3,000/-
Machinery and Equipment	12,000/-
Working Capital) Please workout for 1 month)	22,460/-

 37,460/-

IX. Manufacturing Cost (PM) :

Working Capital (One month)	22,460/-
Depreciation on machinery 10%	100/-
Interest 10%	418/-
Depreciation on Bldgs. 5%	25/-

 23,003/-

X. Receipts :

By Sale of 110 M.Tons of Jaggery.

27,500/-

XI. Profit and Loss

1. Receipts as per head X
2. Manufacturing cost as per head IX.
3. Profit per month

27,500/-

23,003/-

 3,497/-

IX Any other information :

26. MANUFACTURE OF SAGO

I. Introduction

It is agro based industry. The tapioca root is available in Agency Area of East Godavari District. There is market for this product country wide.

II. Land and Buildings (Own or rented) :

Land area $2\frac{1}{2}$ Acres

Drying plat form

15,000/-

15 Tanks

20,000/-

Building (area) 1,15,000,60 x 40' Contains crushing,

Ball making, Polishing,

Frying with godowns.

60,000/-

I. 50' x 60' Circulating Channels

20,000/-

III. Machinery and Equipment.

Sl. No.	Name of Machinery	Nos. Regd.	Total Rs.
1.	Crushers	4 Nos.	
2.	Pump sets	5 Nos.	
3.	5' x 8' sieves P.S. Sheet	3 Nos.	
4.	5' x 8' sieves with Hilon cloth	3 Nos.	
5.	Ball making stands	2 Nos.	
6.	Separators	2 Nos.	80,000/-
7.	Polishing Machine	1 No.	
8.	Frying Pans	14 Nos.	
9.	Motors of 30, 10 and 5 H.Ps.	3 Nos.	

IV. Raw materials required per season of 100 days :

All Kinds of Spares, Raw materials	4,00,000/-
10,000 Putties of Tapioca	

V. Salaries and Wages per season

Self contract 1 labour per peeling Rs. 1.80 per putti.	18,000/-
60 workers @ Rs. 3/- per day for 150 days.	27,000/-
One Clerk @ Rs. 150/- p.m. for one year	1,800/-

 46,800/-

VI. Other Misc. Expenses per season.

Postage and Stationery	1,000/-
Power and Fuel	30,000/-
Transport and Conveyance	15,000/-
Misc. Rent.	4,000/-
Consumable stores.	

 50,000

VII. Working Capital per season

Raw Materials	4,00,000/-	
Salaries and Wages	46,800/-	
Misc. Expenditure	50,000/-	
		<u>4,96,800/-</u>

VIII. Total Investment

Land and Buildings	1,15,000/-	
Machinery and Equipment	80,000/-	
Working Capital for season	4,96,800/-	
		<u>6,91,800/-</u>

IX. Manufacturing cost per annum (Season)

Working capital per season	4,96,800/-	
Depreciation on Mach. 10%	13,750/-	
Interest 10%	35,000/-	
		<u>5,45,550/-</u>

X. Receipts

By Sale of 4,500 bags of Sago @ Rs. 120/-	5,40,000/-	
300 bags of Brokers @ 75/-	22,500/-	
500 Bags of 2nd grade starch @ Rs. 60/-	18,000/-	
700 Quintals of Root Waste @ Rs. 40/-	28,000/-	
		<u>6,08,500/-</u>

XI. Profit and Loss

1. Receipts as per Head X	6,08,500/-
2. Manufacturing cost as per head IX.	<u>5,45,550/-</u>
3. Profit per month	<u>52,950/-</u>

27. COCONUT AND COIR COMPLEX

I. Introduction

Konaseema is famous for coconut gardens. At present copra making industry is being carried out on traditional lines. The Burma Repatriates Development Industries and Trading Co., Ltd., Razole proposed to start a mechanical copra making unit to produce quality products.

PROCESS :

Split nuts are loaded above the weldness platform and hot air is blown from the bottom of the weldness through the split nuts of copra stocked above it. Hot mid air escapes through top of the chamber. Loading and unloading of nuts and copra are done through the doors provided. Hot air from the dryer is blown into the chamber, through the ducts fixed below the weldness platform. The valves provided for the ducts helps to admit hot air into drawing chamber as and when required. If good quality nuts are used the quality of copra produced will be excellent, with good colour and free from fungus.

II.	Land	2000 Sq. Yds.	6,000/-
	Buildings	1000 Sq. Ft.	17,000/-
			<u>23,000/-</u>

III. Machinery and equipment :

i)	Premier dryer with complete equipment capable of processing 2 lakhs nuts/p.m.	25,000/-
ii)	Tools	500/-
iii)	Erection and electrification charges.	1,500/-
iv)	Furniture	1,000/-
v)	Baby oil expeller may be added.	11,000/-
		<u>39,000/-</u>

IV. Raw material per month :

Riped coconuts @ Rs. 800/- 1000 nuts for 1,25,000, Nos. delivery at site.	1,00,000/-
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V. Salaries and Wages P. M.

i)	Supervisor	250/-
ii)	Operators 4 Nos. @ Rs. 200/	800/-
iii)	Store Keeper-cum accountant	200/-
iv)	Loading and unloading workers 10 Nos @ Rs. 120/- per day	1200/-
v)	Dehusking workers 10 Nos. @ Rs. 250/- per day	2,500/-
vi)	Watchman	100/-
		<u>5,100/-</u>

VI. *Other Misc. Expenditure*

i) Postage and Stationery	50/-
ii) Power and Fuel	700/-
iii) Transport	150/-
iv) Other consumables (gunnies)	950/-
	<u>1,850/-</u>

VII. *Working Capital (PM)*

i) Raw materials Rs. 1.25 lakh	1,00,000/-
ii) Salaries and Wages	5,100/-
iii) Other Misc.	1,850/-
	<u>1,06,950/-</u>

VIII. *Total Investment :*

i) Land and buildings	23,000/-
ii) Machinery and equipment	39,000/-
iii) Working Capital per month	1,06,950/-
	<u>1,68,950/-</u>

IX. *Manufacturing cost (PM) :*

i) Working capital	1,06,950/-
ii) Depreciation on machinery 10%	325/-
iii) Depreciation @ 5% (on building)	702/-
iv) Interest on total investment	1,810/-
	<u>1,09,064/-</u>
	(+) 91/-
	<u>1,09,115/-</u>

X *Receipts :*

i) By sale of dried copra of 7,500 Kgs. @ 125 Kgs./ 1000 nuts @ Rs. 7/- Kg.	54,687.50
ii) By sale of 4250 Kgs. of coconut oil @ Rs. 12/- per Kg.	51,000.00
iii) By sale of coco shell @ Rs. 10/- 1000 shells for 1,25,000 shels.	1,250.00
iv) By Sale of Cake 3250 @ Rs. 1/- Kg.	3,250.00
v) By Sale of husk @ Rs. 30/- 1000 Nos for 1,25,000/-	5,625.00
	<u>1,15,812.50</u>

XI Profit :		
Receipts as per head X		Rs. 1,15,812.50
Manufacturing Cost as per head - IX		Rs. 1,09,064.00
		<u>Rs. 6,748.50</u>

Scheme for Mechanical Defibring

I. Introduction :

In view of the abundant availability of coconut husk in central delta area, Razole Taluk Burma Repatriates Development Industrial and Trading Company, Razole proposed to establish one mechanical defibring unit. This unit will utilise the coconut husk which hitherto is being wasted as fuel, for the extraction of fibre.

Process :

The coco husks after they are dehusked from the matured nuts are subjected to the crushing machine to facilitate for early penetration of water into the layers of the husk in order to reduce the period of soaking from a month to a week. The husks will be feeded into the crushing machine by hand and while passing through rollers arranged in the crusher the husk will be processed. Then these husks will be submerged in water for about a week in a soaking tank. The soaking tank with the cut-lets and inlet arrangements will drain the muddy water and admit fresh water periodically for better soaking of the husks. After soaking for one week, the husks will be subjected to the defibring drums rotating at a speed of 300 to 400 RPM and separate the bristle, mill and mattress fibre. These fibres are separated from the pith contents by means of a shifter and then dried till the moisture is evaporated. The average yield of the fibre for 1000 full husks is about 100 Kgs. and out of which nearly 20 Kgs. bristle fibre and 80 Kgs. mattress fibre.

II	(a) Land 3000 Sq. yards	10,000/-
	(b) Building 1500 Sq.ft.	30,000/-
	(c) Soaking pits, well and pump	10,000/-
		<u>50,000/-</u>

III. Machinery :

Combing drums 8 Nos. (self driven) capable of defibring 3000 full husks/8 hours	32,000/-
Shifter 1 No.	2,000/-
Crushing machinery (4 rollers) 1 No.	7,500/-
Balling press 1 No.	2,000/-
5 HP Motor, Shaft and Pulleyes	10,000/-
Erection and electrification charges	5,500/-
Office furniture	1,000/-
Typewriting machine	3,000/-
	<u>63,000/-</u>

IV. Raw material :

Coconut full husks 75,000/- No. @ Rs. 25/-1000.	2,250/-
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V. Salaries and Wages :

(i) Superintendent	300/-
(ii) Accountant-Cum-Store Keeper I	250/-
(iii) Mechanic—Maistry	200/-
(iv) Typist	200/-
	<u>950/-</u>

V. Workers :

(i) Machine Operators 12 Nos. @ Rs. 5/- Day	1,500/-
(ii) Unskilled labour (Women) 20 Nos. @ Rs. 2.50	1,000/-
(iii) Watchman (the watchman of the copra making unit will look after this unit also)	2,500/-
	<u>950/-</u>
	<u>3,450/-</u>

VI. Misc. Expenditure :

(i) Postage and Stationery	50/-
(ii) Power and Fuel	300/-
(iii) Transport and Conveyance & Handling	200/-
(iv) Consumable Stores (Yarn)	400/-
	<u>950/-</u>

VII. Working Capital :

(i) Raw material	2,250/-
(ii) Salaries and Wages	3,450/-
(iii) Misc. Expenditure	950/-
	<u>6,650/-</u>

VIII. Total Investment :

(i) Land and Building	50,000/-
(ii) Machinery and Equipment	63,000/-
(iii) Working Capital for 3 months	19,950/-
	<hr/>
	1,32,950/-

IX. Manufacturing Cost P.M.

(i) Working Capital 1 P.M.	6,650/-
(ii) Depreciation on machinery @ 10%	525/-
(iii) Depreciation on building @ 5% on 4000	167/-
(iv) Interest @ 15%	1,662/-
	<hr/>
	8,904/-

X. Receipts :

By Sale of 2500 Kgs. B.F @ 2.50 Kg.	6,250.00
By Sale of 8750 Kgs. M.F. @ Rs. 0.80. Kg.	8,000.00
	<hr/>
	14,250-00

XI. Profit :

Receipts	14,250.00
Manufacturing cost	8,904.00
	<hr/>
Profit.:	5,346-00 P.M.

28. SCHEME FOR KISAN RICE MILL

It is demand based Industry which can be set up in tribal areas where there is power supply.

I. Introduction

II. Land and Buildings (own or rented)

Land (area) Building (area)

Rented Rs. 75/- P.M.

III. Machinery and Equipment :

1. Kisan Composite Unit (i. e., Dehusking and polishing) with 5 H.P. Motor etc. 250 Kgs. per hour.

- (a) Erection and electric installations.
- (b) Office furniture etc. and others

Rate	Total
Rs.	Rs.
7,500/-	7,500/-
500/-	500/-
	<hr/>
	8,000/-

Recurring Expenditure :**IV. Raw materials required (P.M.)**

No raw material is required as it is servicing Unit

V. Salaries and Wages (P.M.)

	Rs.
Operator (Self)	200/-
Assistant	50/-
	<u>250/-</u>

VI. Other Miscellaneous Expenses (P.M.)

Postage and Stationery	10/
Power and Fuel	50/
Repairs and Maintenance	40/-
Miscellaneous - Rent consumable stores etc.	150/-
	<u>250/-</u>

VII. Working Capital (months)

Raw materials	250/-
Salaries and wages	250/-
Miscellaneous Expenses	250/-
	<u>500/-</u>

VIII. Total Investment :

Machinery and Equipment	8,000/-
Working capital	500/-
	<u>8,500/-</u>

IX. Manufacturing Cost (P.M.) :

Working Capital (One month)	500/-
Depreciation on machinery 10%	70/-
Interest 12%	85/-
	<u>655/-</u>

X. Receipt :

By dehusking of paddy @ Rs. 2/- per
100 Kgs. of Paddy i.e., $250 \times 8 \times 25 \times \text{Rs. } 2$ Rs. 1,000/-

XI. Profit and Loss

1. Receipts as per Head X 1,000/-
2. Manufacturing cost as per head IX 655/-
Profit per month : 345/-

29. SCHEME FOR MANUFACTURE OF POWER LOOMS FABRICS

I. Introduction indicating market potential and manufacturing (brief)

II. Land and Building (own or rented)

Land (area)
Building (area) $53' \times 12'$

III. Machinery and Equipment

Sl.No.	Name of the machinery	Nos. Reqd.	Rate Rs.	Total Rs.
1.	Power looms of 56' reed space	2	5,000	10,000
2.	Loom Motor 1 HP starter switch etc.	2	2,175	4,350
3.	Loom accessories	sets 8	200	1,600
4.	Loom bearing with flanged	1	—	1,500
5.	Winding machine	1	—	3,000
(a)	Erection and electric installation including S.T.			2,000
(b)	Office furniture			23,700

IV. Recurring Expenditure :

Raw material required

Grey yarn 32, 20s and 40s count at
Rs. 21/- per Kg. on an average at 3 Kgs.
per loom per day of single
shift for 25 Days sizing and transport packing.

3,150
800
80
4,030

V. Salaries and Wages :

	Rs.
Manager at 250/- P.M.	250/-
Skilled workers at 250/- P.M. 2	500/-
Women workers at Rs. 120/- P.M. 2	240/-
	<hr/>
	990/-

VI. Other Miscellaneous Expenses (P.M.)

Postage and Stationery	10/-
Power and Fuel	80/-
Transportation and Conveyance	100/-
Miscellaneous, Rent	200/-
Consumable stores etc.	<hr/>
	390/-

VII. Working Capital :

Raw material	4,030/-
Salaries	990/-
Miscellaneous Expenses	390/-
	<hr/>
	5,410/-

VIII. Total Investment :

Machinery and Equipment	23,700/-
Working Capital (Please workout per month)	16,230/-
	<hr/>
	39,930/-

IX. Manufacturing cost (P.M.)

Working Capital (one month)	5,410/-
Depreciation on machinery 10%	200/-
Interest 10%	330/-
	<hr/>
	5,940/-

X. Receipts 1800 mts. pf. plain power loom cloth at Rs. 4/- per metre

XI. Profit and Loss :

Receipts as per head X	7,200/-
Manufacturing cost as per head IX	5,940/-
	<hr/>
Profit per month Total :	1,260/-

30. BRICK AND TILES MANUFACTURING

I. *Introduction* : Suitable Clay is available with local demand for the Products.

II. *Land and Buildings* :

Building shed 30' x 60' = Rs. 2,500/-

III. *Machinery and Equipment* :

Sl.No.	Name of Machinery	Nos. Reqd.	Rate Rs.	Total Rs.
1.	Wooden Brick Moulds	12	5	60
2.	Wooden Tile moulds	12	5	60
3.	Masons Tools	20 sheets	50	1,000
4.	Tools and equipment for water drawing and earth digging			300
5.	Bullock carts with bulls			1,500
6.	Construction of Batte (Country Type)			1,500
7.	Erection and Ele. Installation and Office Furniture etc.			200
				<u>4,620</u>

IV. *Raw Material required (P.M.)*

14400 Cft. Red earth Tank silt of 500 Cart Loads	3,000
Fuel (Firewood or Paddy husk 250 Cart loads)	3,000
	<u>6,000</u>

V. *Salaries and Wages (P.M.)*

20 workers at the rate of Rs. 5/- each = 2,500

VI. *Other Miscellaneous Expenses*

VII. *Working Capital*

Raw Materials 6,000/-

Salaries and Wages 2,500/-

8,500

VIII. Total Investment		Rs.	Rs.
Machinery and Equipment		4,620	
Working capital		8,500/-	13,120
IX. Manufacturing Cost :			
Working Capital :		8,500	
Depreciation on machinery @ 10%		38	
Interest @ 10%		167	
X. Receipts :			8,705
By sale of 2,20,000 bricks per month @ Rs. 50/- per 1,000/-			11,000
XI. Profit and Loss :			
1. Receipts as per Head X		11,000	
2. Manufacturing cost as per head IX		8,700	
Profit per month		2,300	

31. KHADI INDUSTRY (COTTON : KHADI) FOR DEVELOPMENT OF TRIBAL AREA

General Preamble :

Among the essential human requirements cloth being next to food, production of cloth with natural fibre such as cotton, silk and wool has got significant bearing on the rural economy of the country. It is well known that with our all efforts to reduce the pressure on land, it remains to be a fact that even by the end of Fourth plan population will still depend on the land/agriculture and the whole economy of the country is directly linked with agricultural production.

Now in the present context of tribal development in the Agency area, the position of involvement of tribal people remains the same as overall position of the country. Of course the means and methods adopted by the tribal in cultivation may be traditional type which do not give any advantage of improved methods of agriculture which have been adopted in plains and other places, thereby restricting their income which do not raise their living condition from the subsistence level or below subsistence level. More so because, agriculture being what it is, say for example that it has totally to depend on the vagaries of nature and that it does not provide them any gainful subsidiary employment during the off season, the tribals have remained in the present condition as nomads.

Keeping this background in view, if we think of creating any anvil for ushering these tribals into a study, decent and main stream of Indian life, the only solution should be through the process of involving them into production system, industry which do not

impose sudden change for their social structure, nor it strains their primitive technical skills but create psychological improvement under Khadi programme, we can ensure that they maintain their individuality and create a sense of partnership rather than converting them into labourers in other programmes. While they are engaged in Khadi production work, they can very well attend to their agricultural work, without disturbing either of the two.

On this analogy, the Dhebar Committee, Elwin Committee and the Ashok Mehta Committee have stressed the need for development of Khadi in rural India and particularly with reference to development of tribals. The need of the country in relation to our rural economic backwardness is production by masses and not mass production.

Organisation :

Before going into the details of the scheme enumerated below, it is suggested that there should be a proper organisation to carry this programme to the best advantage of the tribals. Most suited set up would be a block level co-operation, Registered institution registered on the lines envisaged by the Commission under Industrial Development Programme.

Availability of Raw Material and Infrastructure :

The cotton is grown abundantly in Adilabad district and also in plains as well as in foot hills of Srikakulam, East Godavari and Visakhapatnam districts. The present Khadi institutions in Srikakulam district are getting their red cotton from tribals only and with the help of research wing at Agricultural University. Sri M. Kodandaramaswamy of Srikakulam has developed some new strains of white cotton to be grown on the slopes and foothills which is converted into Andhra Fine Khadi. So also a Khadi institution (Z.G.S.S. Mandali) from Kakinada has already introduced Khadi work in Rampachodavaram, Addateegala blocks but could not do any effective work due to lack of finances planning required initially, to attract the tribals into this programme. Still the climate is created and in these places viz., Srikakulam East/West Godavari Districts and Adilabad the Khadi work can be immediately started by picking out the people among tribals who have been either associated with the programme or trained in spinning on N.M.C. charkha. This will form the nucleus of the programme.

Demand/Marketing :

As cloth is next to food and also unique traditions built up in Andhra, among all the southern states, khadi produced in these areas will be locally consumed. Stress should be given on the local consumption as this will appeal to the minds that they can produce and show their requirement be self sufficient. Over and above whatever remains can be sold anywhere in Andhra Pradesh with pride that it is produced by our tribals.

Implements and Process :

The Khadi and Village Industries Commission itself will supply the N.M.C. Charkha units. One unit consist of 25 charkhas and 10 other pre-processing implements. One such unit will engage 35 persons under spinning and 20 persons under

weaving. One unit of N.M.C. will produce 10 kgs. of yarn per day of 30/32 metric count. This yarn in turn will produce 60 Sq. Metre of plain cloth. Thus, one unit of N.M.C. with 10 looms (This combined unit is called Rural Textile centre) will employ 55 persons in production system and another 2 or 3 persons in supervisory capacity. The earning capacity of persons engaged in spinning process will be from Rs.1.50 to Rs.2.50 per day and weaver will get about Rs. 4 to 5 per day.

Scheme for 1 Unit

I. Employment :

- (a) Spinning process 35
 - (b) Weaving process 20
 - (c) Supervisory 3
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II. Equipments :

- (a) One N.M.C. Unit of 25 charkhas with pre-processing unit.
- (b) 10 looms with accessories.

III. Targets of Production :

- per annum. (a) production of yarn (hanks) 30/33s 60,000 hanks
- (b) Cloth 12,000 Sq. Mts.

(A). Capital Investment :

- (a) N.M.C. Unit will cost round about inclusive of transportation, installation and fittings of electricals, operated pre-processing machines etc. incidental charges 30,000-00
- (b) 10 looms and accessories (improved looms) 250-00
- (c) construction of spinning and weaving sheds (8,000/- + 8,000/-) 10,000-00
- (d) 16,000-00

(Note :-- For tribals the capital expenditure on initial equipments as stated above will be provided by Khadi and Village Industries Commission on 75% grant and 25% loan, the transport and installation charges should be met by agency. For construction of sheds the land should be procured free of cost and the above assistance will be in the form of 50% grant and 50% loan)

(B) Working Capital requirement :

This will be cent per cent interest free at present.

(i) Purchase of raw material @ 25% of anticipated production.	Rs. 15,000.00
(ii) Working capital for production @ 40%	Rs. 24,000.00
(iii) W.C. for retail sale @ 40%	Rs. 24,000.00
(iv) Processing @ 5%	Rs. 4,800.00
	Rs. 67,800.00

(C) Other Assistance :

(a) Training : Spinning.

(i) Rs. 15/- per trainee for 6 months, for spinners only (25) as stipend.	Rs. 2,250.00
(ii) Rs. 15/- per trainee per month for six months to institution as tuition fees.	Rs. 2,250.00

(b) Resettlement of weavers in case of necessity only or assistance: @ Rs. 1,000/- per weaver family under training to weavers should only apply.	Rs. 10,000.00
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(c) Managerial assistance : For salary T.A./Contingency etc. Rs. 3,000/- per year for 5 years, in case no assistance for this purpose any other source Govt. or Semi Govt. or from Khadi and V.I. Commission under I.D.P. programme. This will be further subject to terms and conditions of the Commission.	Rs. 3,000.00
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(D) Cost structure of Production and trading results :

(a) Cost of 60,000 Rs. hanks/yarn 2,000 kgs.

(i) Wages to spinners	Rs. 9,000.00
(ii) Wages to pre-processors	Rs. 2,800.00
(iii) Supervisory charges	Rs. 2,780.00
(iv) Repairs and replacement	Rs. 2,770.00
(v) Repayment of capital expenditure loan	Rs. 2,440.00
(vi) Cost of raw material	Rs. 21,310.00
	Rs. 40,700.00

Rs. 40,700.00

(b) Weaving wages for 12,000 metres @ Rs. 0.65 per metre.	7,800.00
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(c) Margin for Trade/Establishment expenditure @ 20%.	9,610.00
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(d) Sale value @ Rs. 5/- per metre.

Rs. 60,000.00

However the costing of each variety of cloth is specified in the Cost chart approved by Certification Committee of Khadi and V.I. Commission from time to time and prices will be computed as per cost chart.

As Khadi is considered as no profit and no loss basis the rebate/subsidies given by the Government through Khadi & V.I. Commission are to be passed on to the consumer by reducing the price of end product here, cloth suitably. Whatever balance remain from the margins earned after meeting the trade/establishment expenses are to be capitalised/appropriated to various funds such as price fluctuation building, bad debts and artisans benefit fund and should not be spent without prior sanction of Khadi and Village Industries Commission.

32 PROFILE FOR A BAMBOO DOMESTIC ARTICLE AND BASKET MAKING UNIT IN THE TRIBAL AREA IN THE DISTRICTS OF MAHABOONNAGAR, KURNOOL AND PRAKASHAM

General :

Bamboo is a versatile, fibrous plant widely available in the reserve forests of the State and used in the fields of Industry, Agriculture and Commerce.

Availability of Raw-Materials :

Bamboo is available in plenty in Mahaboobnagar, Kurnool and Prakasam Districts. There are wide forests in the districts covering Nallamalai range of hills and in the Districts of East Godavari, West Godavari, Adilabad, Warangal and Khammam. This Bamboo is used in Industries, like, Paper, Card Board making, low cost housing etc. Its uses in the village economy is wide. The Bamboo is used for Basket making, containers, Store drums, household articles, mats, handicrafts making etc.

Proposed Centres :

There is concentration of tribal labour force in the above districts at the following places : Mannanoor in Mahaboobnagar District - Vatavarlapally, Pencheruvu and Srisailam in Kurnool District and Bairluty in Prakasam District.

The centres will be pilot centres for the entire Chenchu inhabited tribal area and pave way for the growth of more centres in entire belt for creating employment to tribals.

Demand and Marketing :

The proposed Centres being established amidst thick forest coups have the advantage of getting the Bamboo raw materials at about 25% of its original cost in urban areas. The coal baskets are needed in greater quantity in coal mine areas and also in other mines. The basket carriers are also needed in Hydro Electric Project, Srisailam. All the Godowns of Food Corporation of India required Bamboo mat flooring. In addition to this heavy

demand every household in neighbouring urban areas and plain villages requires bamboo made containers, carrier, Baskets, mats etc. The products can also be marketed through Girijan Co-operative Corporation Branches.

Extensive and enormous quantity of Bamboo reserve forests are grown in these areas by forest Departments. The Government may allot certain portion of the forest depending upon the quantity to be utilised by the proposed production centres. This will enable the proposed centres in tribal areas, to get the raw materials at a nominal price; so that articles produced will be cheaper than the ruling market price and easily marketed.

33. SCHEMES FOR KORA GRASS MAT WEAVING

I. Introduction :

Kora Grass mat weaving is an important village industry in Tamilnadu, Kerala, Andhra Pradesh, Karnataka and Bengal, where the grass is available. Varieties of mats are woven. The finest of them come from Pattamadai in Tamilnadu. Superior Kora Grass mats find market all over the country. They are exported also.

II. Process of manufacture :

Artisans purchase Kora grass from agriculturists, process them and weave on simple looms manufactured locally. There are regular contractors also supplying fibre to artisans and purchases their mats. It is a traditional industry not requiring special training. Younger generation of weavers learnt it from their parents.

III. Assumptions :

1. No. of working days per month and year	: 25 and 300
2. No. of working hours per day	: 8 hours
3. Annual Capacity of the Unit	: 7500 mts.
4. Daily wages of artisan	: Rs. 2/-

IV. Capital Investment :

(a) Land	} Work will be carried on in rented building. Area: 1200 Sq. ft.	
(b) Building		
(c) Machinery and equipment :		
(i) Mat weaving looms at Rs. 75/- per loom (25)		Rs. 1,875
(ii) Sewing machine for stitching edges of mats.		Rs. 1,000
(iii) Miscellaneous tools like Scissors, Balance, Dying vats etc.		Rs. 300
(iv) Packing, Transport etc.		Rs. 325
		<u>Rs. 3,500</u>

D. Working Capital :		
(i) Raw-materials		Rs. 15,375
(ii) Salary and Wages		Rs. 17,400
(iii) Miscellaneous		Rs. 1,500
		<hr/>
Turnovers, i.e., W.C. Requirement		Rs. 34,275
		Rs. 8,500
V. Estimate of manufacturing cost per annum :		
(a) Raw-materials :		
(i) Kora Grass: 1 Kg. per loom per day at Rs. 1.50 per Kg.	Rs. 11,250	
(ii) Yarn 30 gms., per loom per day at Rs. 10 per Kg.	Rs. 2,250	
(iii) Dyes 25 Paise per mat	Rs. 1,875	
	<hr/>	Rs. 15,375
(b) Salaries and Wages :		
(i) Salary of Manager-cum-Instructor at Rs. 200/- P.M.	Rs. 2,400	
(ii) Wages of 25 Weavers at Rs. 2 per day.	Rs. 15,000	
	<hr/>	Rs. 17,400
(c) Miscellaneous :		
(i) Rent and contingencies	Rs. 1,250	
(ii) Repairs and renewals	Rs. 250	
(iii) Travelling expenses	Rs. 300	
	<hr/>	Rs. 1,800
(d) Overheads :		
(i) Interest at 4% (Capital Expenditure loan): Rs. 1,750/- Working Capital : Rs. 8,500 = Rs. 10,250		Rs. 410
(ii) Depreciation at 10%		Rs. 350
		<hr/>
		Rs. 35,235
VI. Total manufacturing cost :		
VII. Selling Price :		
1. Mat on loom per day at Rs. 5/- per mat.	75000 mts.	Rs. 37,500
VIII. Profit		
		<hr/>
		Rs. 2,265

Profiles for a Kora Grass Mat Weaving

General :

Kora Grass mat (Tunga Mat) Industry is introduced to the Yenadi tribals in the District of Nellore, by Andhara Pradesh Adimajathi Sevak Sangh. Many tribals were trained in Tunga mat weaving and they are making a living out of this trade in Nellore District. This weaving is also practised in the districts of Prakasham and Cuddapah by tribals.

Availability of Raw Materials :

There are 5 important varieties of Kora grass, which are used for mat weaving. It grows in wild in Ponds, Lakes, low lying swamps and saline lands, where no other cultivation is possible. This grass is available in Chela in Bhadrachalam in Khammam District and some other places, Udayagiri Taluk in Nellore District; Kandukur and Kanigiri in Prakasham district. The harvesting season of the grass is in September to October and February to March in the years on 2 spells.

Proposed Centres :

The Industry is suitable for the tribals living in plain areas like Yenadi, Yerukula and some Nomadic tribals like Puchaguntala. The mats are used in every household for squatting, and sleeping purposes.

Variety of mats with colour and design can be made out of this grass. There is possibility of starting production centres in the following places, where tribals are living:

Siddapuram	...	Nellore District.
Kanakadrinagar	...	Bapatla, Guntur District.
Chinna Avalapadi	...	Prakasham District.
Anayampalli	...	Cuddapah District.

Demand and Marketing :

There is good demand in all villages and urban areas of the State for the Kora Grass mat. There cannot be any difficulty in marketing.

The following scheme may be implemented, where there is concentration of 30 artisans. The plain tribals may be trained first and employed in production centres for working Kora grass mats.

34. SISAL

PROFILE OF SISAL FIBRE PRODUCTION AND ROPE MAKING CENTRES IN VISAKHAPATNAM, SRIKAKULAM AND EAST GODAVARI DISTRICTS

General :

Sisal is a leaf fibre. It is available in the districts of Rayalaseema where it is grown as a protection for the fields on fencings. It is also grown wild in the forests of

Visakhapatnam and Srikakulam districts and also grown in the districts of East Godavari and West Godavari. A strong fibre can be extracted from the stocky leaves by water retting and also by mechanical extraction. The fibre is used for making strong ropes and it has got a greater resistance to micro organisms of sea water and widely used as marine curdages. It is also used for the manufacture of hessians, sacs, carpets and base for floor mattings, sarshes legs and novelty article makings. Its bi-products are also used in Chemical Industry.

Demand :

Most of the Sisal leaves available in the forest and plain lands are not exploited or Fibres and it is going as waste in Andhra Pradesh. Most of the requirements of Sisal is being imported as the Fibre available in the country is insufficient for our needs. Only in Penukonda in the district of Ananthapur the fibre is extracted both mechanically and fby water retting. There is great demand for the Fibre in Bombay, Madras and Calcutta markets and also for indigenous rope making in Agriculture and Commerce.

Financial Requirement :

A meagre sum of Rs. 10,000/- for capital expenditure and a sum of Rs. 6,250/- for working capital is sufficient to run Sisal Fibre Production Centre for Fibre extraction.

Raw Material and Infrastructure Requirements :

About 20,000 Plants are required to feed a Respedor machine for 250 days. The machine is run on 5 H.P. power or diesel engine. It is estimated that about 25 watered leaves are available for each plant. A matric ton of leaves per day can yield 30 Kg. of white and bustican Fibre per 8 hours day of extraction.

Extraction of Fibre :

The leaves are fed by hand to the mouth of Respedor which is a Cylindrical drum rotating at a speed of 900 R.P.M. having steel blades. When the leaves are fed they are scraped between the rotating blades and fixed roller. The leaves are with after half the position is scraped and reintroduced to scrap the remaining position. The Fibre thus extracted is washed in water and dried in open yard. The process require strength and skill of the operator and it is strenuous physically.

Two schemes, one for extraction of Sisal Fibre and the other for making Ply yarn and Ropes, out of the Sisal Fibre extracted are enclosed.

Fixed Capital

1. Mechanically fed respador machine with diesel engine.	Rs.
2. Puckets, Knives, drying and other equipments.	9,000
3. Temporary shed	500
	500
	<hr/> 10,000 <hr/>

Working Capital**Manufacturing cost per annum (250 Days)**

(a) Raw Materials		
(1) Royalty for Sisal Plants		Rs. 2,500
(2) Labour charges for cutting and transporting of leaves		Rs. 3,750
		<u>Rs. 6,250</u>
(b) Wages for extraction		
(1) Operator. Rs. 6/- Per day		Rs. 3,500
(2) Helpers. Rs. 4/- each per day	Rs. 14 × 250	Rs. 2,000
(c) Fuel and oil charges Rs. 8/- per day		Rs. 500
(d) Repairs and maintenance		
(e) Miscellaneous		Rs. 1,200
Rent, contingencies etc.		
Other Charges:		Rs. 1,500
1. Interest on Rs. 15,000 at 10%		
2. Depreciation 10% on machines and 20% on shed and equipments		Rs. 1,100
		<u>Rs. 16,050</u>

Selling Price:

At Rs. 2,750/- per Ton...7-50 tons.	Rs. 20,625
Net profit	Rs. 4,575

Scheme for 2-Ply Yarn Making (Sisal)**I. Introduction:**

In Southern India sisal is spun like Coir and 2 Plies are made. Such plies are in good demand for mat weaving, rope making and general typing purposes as country twine.

II. Process of manufacture:

Sisal fibre is purchased from local merchants and fibre producing workers. It is carded and spun on coir wheel type charkhas. No training is required for carding or spinning. The processes are in vogue for a pretty long time.

III. Assumptions :

1) No. of working days per month and year	25 and 3000
2) No. of working hours per day	8 hours
3) Annual Capacity of the Unit	11.40 tons.
4) Daily wages of artisan	Rs. 2/-

IV. Capital Investment

A. Land }
 B. Building } Spinning is generally done in the open during fair season. During the rainy season work is carried on under shed obtained on rental basis.

C. Machinery and equipment

(i) Carding machine (power driven) (1)	Rs. 1,200
(ii) 1. H.P. Electric Motor with Switch, Starter and wiring	1,000
(iii) Coir spinning wheel type charkhas (10) at Rs. 200/- each	2,000
(iv) Rope making machine (1)	300
(v) Packing, transport and installation expenses	500
	<u>5,000</u>

(D) Working Capital :

(i) Raw-materials	Rs. 24,000
(ii) Salary and Wages	Rs. 20,000
(iii) Miscellaneous	Rs. 1,800
	<u>Rs. 46,200</u>

4 Turnovers, i.e., W.C. Requirement

Rs. 11,500

V. Estimate of manufacturing cost per annum

(a) Raw-materials ;

(i) Sisal fibre: 4 Kg. per charka per day at Rs. 2/- per Kg.	Rs. 24,000	Rs. 24,000
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(b) Salaries and Wages ;

(i) Salary of a Manager-Cum-Instructor at Rs. 200/- per month	2,400	
(ii) Wages of 30 artisans at Rs. 2/- per day.	18,000	
	<u>20,400</u>	Rs. 20,400

(c) <i>Miscellaneous :</i>		Rs.	
(i) Rent and contingencies		1,250	
(ii) Repairs and renewals		250	
(iii) Travelling expenses		300	
			Rs. 1,800
(d) <i>Over heads :</i>		Rs.	
(i) Interest at 4% (Capital Expenditure Loan Rs. 2,500 + W.C. Rs.10,500)		520	
(ii) Depreciation at 10%		500	
			Rs. 1,020
VI. Manufacturing Cost :			Rs. 47,220
VII. Selling Price :			
38 Kg. Yarn per day (Wastage 7%) and at a Rs. 4.50 per Kg. yard.			Rs. 51,300
VIII. Profit:			Rs. 4,080

35. MANUFACTURE OF ADDA LEAF PLATES

Introduction :

Adda leaf is a minor forest produce available in Tribal areas.

At present the Girijan Cooperative Corporation has got the monopoly over the Adda Leaf purchases in the areas. The public who are in the habit of manufacturing Adda Leaf plates will purchase leaves from the Corporation for onward production activity.

This is a good subsidiary occupation for those ladies and children who got a few hours of spare time and skilled full time job for those who got plenty of leisure. Generally this activity is taken up by ladies and children.

It is proposed to provide full time employment to 43 tribal ladies and children. This will go a long way in improving the economic condition of the tribals.

I. Land and Buildings (own or rented)

Land (area) 0-50 Cents Building (area 20' × 40')

Rs. 20,000

II. Machinery and Equipment

Wooden racks

4 Nos. 800-00

(a) Erection and electric installation

200-00

(b) Office furniture etc.

500-00

1,500-00

*Recurring Expenditure :*III. *Raw materials required (P.M.)*

Raw Adda Leaf 6 M.T. 0.400 Np; per Kg.	Rs.
Broomsticks	2,400-00
Packing	25-00
	25-00
	<u>Rs. 2,450-00</u>

IV. *Salaries and Wages (P.M.)*

One Manager-Cum-Accountant Rs. 250/-P.M.	250-00
40 skilled workers piece rate Rs. 2/- per 100 Leaf plates (for 25 days in a month)(with each worker making 150 plates a day)	3,000-00
One Helper Rs. 100/- P.M.	100-00
One Watchman Rs. 100/- P.M.	100-00
	<u>Rs. 3,450-00</u>

V. *Other Misc. Expenses (P.M.)*

Postage and Stationery	Rs.
	20-00
Power and Fuel	10-00
Transport and Conveyance	50-00
Miscellaneous Rent	—
Consumable stores etc.	—
	<u>20-00</u>
	<u>Rs. 100-00</u>

VI. *Working Capital (Months)*

Raw materials	Rs.
Salaries and Wages	2,450-00
Misc. Expenses	3,450-00
	100-00

VII. *Total Investment*

Land and Building	20,000-00
Machinery and Equipment	1,500-00
Working capital (Please work out for 3 months)	18,000-00
	<u>39,500-00</u>
Total	<u>Rs. 39,500-00</u>

VIII. *Manufacturing Cost (P.M.):*

Working capital (one month)	6,000-00
Depreciation on Machinery 10%	13-00
Interest 15%	404-00
Depreciation on building 5%	83-00
	<u>6,590-00</u>

IX. *Receipts :*

By sale of 1,50,000 leaf plates Rs. 5/- per 100 plates	7,500-00
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X. *Profit and Loss :*

1. Receipts as per Head IX	7,500-00
2. Manufacturing cost as per Head VIII	6,590-00
3. Profit per month	910-00

36. OIL EXPELLOR

I. *Land and Buildings (own or rented) Own*

Land (area)	1.5 acres		Rs. 8,000	
Building (area)	80' × 40'	3,200		
Godown	60' × 40'	2,400		
		<u>5,600</u>	@ Rs. 22/-	1,23,200

II. *Machinery and Equipment :*

Sl.No.	Name of machinery	Nos.Reqd.	Rate Rs.	Total Rs.
1.	Expellers complete	2 Nos.	15,000	30,000
2.	40 H.P. Electric Motor Starter etc.	1 No.	20,000	20,000
3.	Decurtication with 30 HP	1 No.	15,000	15,000
4.	Boiler	1 No.	5,000	5,000
5.	Fitter press			4,250
6.	Erection and electric installations	5%		4,250
7.	Frieght and Insurance	5%		4,250
8.	Taxes @ 5%			<u>97,750</u>

*Recurring Expenditure :***III. Raw materials required (PM)**

	Rs
Groundnut kernal @ Rs. 280/- per quintal 20 quintals per day from 25 days (280 × 20 × 25 = Rs. 1,40,000)	1,40,000
Total Rs.	<u>1,40,000</u>

IV. Salaries and Wages (PM)

Manager	1 No. @ Rs. 400/- P.M.	400
Mechanic	1 No. @ Rs. 300/- P.M.	300
Accountants	2 Nos. @ Rs. 300/- P.M.	600
Skilled workers	4 Nos. @ Rs. 150/- P.M.	600
Unskilled labour	10 Nos. @ Rs. 100/- P.M.	1,000
Watchman	1 No. @ Rs. 100 P.M.	100
Total Rs.		<u>3,000</u>

V. Other Misc. Expenses (MP)

Postage and Stationery	200
Power and Fuel	2,000
Transport and Conveyance	1,000
Miscellaneous rent consumable stores etc.	2,000
Total	<u>5,200</u>

VI. Working capital (Months)

Raw materials	1,40,000
Salaries and wages	3,000
Misc. Expenses	5,200
Total	<u>1,48,200</u>

VII. Total Investment

Land and Buildings	1,31,200
Machinery and Equipment	97,750
Working Capital (Please work out for 2 months)	2,96,400
Total	<u>5,25,350</u>

VIII. Manufacturing Cost (PM)

	Rs.
Working capital (one month)	1,48,200
Depreciation on machinery 10%	815
Depreciation on building 5%	747
Interest 15%	6,56,8
	1,56,330

IX. Receipts

By Sale of Groundnut oil at 45% of the kernal weight 225 quintals Rs. 700 per quintal.	1,57,500
Oil Cake — 52% on kernal weight 260 quintals — Rs. 100/- per quintal	26,000
	1,83,500

X. Profit and Loss :

1. Receipts as per head IX	1,83,500
2. Manufacturing cost as per head VIII	1,56,330
	27,170

37. BEEDI MANUFACTURING UNIT

Assumptions :

- (a) The unit is to be accommodated in a rented building.
- (b) Artisan labour to be engaged; 20 members at the initial stage.
- (c) Working days in a month; 25 days manufacturing 1000 beedies per head per day.

Non-Recurring Expenditure :

(a) Cost of Batti construction	1,500.00
(b) Beedi measuring tools	100.00
(c) Spender 4 Nos.	200.00
(d) Furniture	
One table	500.00
One Almirah	
One Chair	
Stools 4 Nos.	500.00
(e) Boxes for pressing Tobacco and Drying of Beedies	200.00
(f) Miscellaneous	3,000.00
	3,000.00

Recurring Expenditure for (2) Months :

	Rs
1. 300 Kgs. of Tobacco yields beedies of 12.5 lakh beedies	3,000.00
2. Beedi leaf	2,825.00
3. Rough paper lable	1,000.00
4. Wages @ t.4.60 per 1000 beedies	5,750.00
5. Payment of Bonus	500.00
6. Central excise duty	750.00
7. Expenditure on Management and salaries to the employees	750.00
8. Ring or Langoti	750.00
9. Threads	65.00
10. Transportation charges	75.00
11. House Rent	100.00
12. Bhatti expenses (fire wood etc.)	100.00
13. Transportation charges for sales of beedies	200.00
14. Gunny bags	200.00
15. Gum paste and packing expenses	500.00
16. Unforeseen expenditure.	55.00
	<u>16,650.00</u>

Total Expenses

Non-Recurring	3,000.00
Recurring expenditure	16,650.00
	<u>19,650.00</u>

Total working capital for (2) months	16,650.00
Interest on working capital and capital investment — Rs. 12% p.a.	40.00
	<u>17,050.00</u>

Profit for 2 months	17,707.00
	<u>17,050.00</u>
	<u>657.00</u>

Profit for one month Rs. 328-50

38. BAMBOO SPLINTS FOR AGARBATTHIS AND BAMBOO CHICKS

I. Introduction

It is Forest based and ancillary Industry for agarbatthis manufacturing Industry. Sufficient bamboo is available in agency areas of East Godavari District.

II. Land and Buildings (own or Rented)

Land (area) Rented Rs. 75/-
Building (area)

III. Machinery and Equipment

Sl.No.	Name of Machinery	Nos. Reqd.	Total Rs.
1.	Circular saw 12" with 1 HP Motor	10 Nos.	3,000/-
2.	Bamboo Stitching Machine	40 Nos.	4,000/-
3.	Chapping Machinery		
4.	Blow Lamp and other hand tools etc.		1,000/-
	(a) Erection and electric installations		
	(b) Office furniture, etc.		
		Total.	8,000/-

IV. Raw Materials required (PM)

Bamboo 300 Nos.

300/-
Total. 300/-

V. Salaries and Wages (PM)

1. Manager
2. Workers @ Rs. 100/- PM 13

Rs.
200/-
1,300/-
Total. 1,500/-

VI. Other Misc. Expenses (PM)

Postage and Stationery.
Power and Fuel
Transport & Conveyance
Miscellaneous - Rent
Consumable stores etc.

Rs.
10/-
35/-
25/-
75/-
15/-
Total. 160/-

VII. Working Capital (Months) Rs.

Raw Materials	300/-
Salaries & Wages	1,500/-
Misc. Expenses	160/-
	1,960/- or Total. 2,000/-

VIII. Total Investment :

Machinery & Equipment	8,000/-
Working Capital (Please workout for 3 months)	4,000/-
	Total. 12,000/-

IX. Manufacturing Cost (PM)

Working Capital (One month.)	Rs. 2,000/-
Depreciation on machinery 10%	70/-
Interest 10%	150/-
	Total. 2,220/-

X. Receipt:

By Sale of 1800 Kgs. of Splints @Rs. 1.50/- per Kg.
 $1800 \times 1.50 = 3,050/-$

XI. Profit and Loss :

1. Receipts as per head X	2,700/-
2. Manufacturing cost as per head IX	2,220/-
3. Profit per month.	480/-

39. SCHEME FOR DAIRY FARM WITH 5 (FIVE) BUFFALOES

(A) 1. Cost of 5 Murrah she buffaloes (Giving 8 Kgs. average milk) @ Rs. 3,000/-	Rs. 15,000
2. Shed for the above 5 she buffaloes 184 Sq.ft. @ Rs. 6/- per Sq. ft.	1,104
3. Cost of the one temporary shed with thatched roof for keeping feed etc.	500
4. Cost of dairy equipment such as bucket etc.	500
	17,104

(B) 1. Feeding charges for 3 milk animals giving 8 Kgs. of milk on an average 4 Kgs. + 1½ Kg. maintenance comes to 5 Kg. Per day = 5 × 5 × 300	Rs. 8,250/-
2. Labour charges - for 1 labour @ Rs. 80/- per month for 1 year	960/-
3. Cultivation charges for 10 acres of land @ Rs. 400/- per acre.	600/- 250/-
4. Contingencies and medicines etc.	
Total.	<u>10,060</u>

ANTICIPATED RECEIPTS

(C) 1. By sale of 1200 Kg. of milk produced by buffaloes at 8 Kgs. average per day for 300 days @ Rs. 2000 (Rupees: two only per Kg.)	24,000
2. Anticipated receipt for the year by sale of 1200 Kgs. of milk @ Rs. 2/- per Kg.	24,000
3. Anticipated receipt for the 3rd year by sale of 1200 Kgs. of milk @ Rs. 2/- per Kg. and sale of 1 beirfers breadable age Rs. 1,000/- (Rs. 24,000 @ 1,000 + 25,000)	25,000
Total.	<u>73,000</u>

Working Scheme for Revenue and Expenditure for 5 years

1. Interest on capital investment of Rs. 17,104/- @ 13% for 3 years.	Rs. 6,672
2. Total expenditure for 3 years @ Rs. 10,060/- per year	30,180/-
Total.	<u>36,852</u>
Total receipts for 3 years	Rs. 73,000/-
Total expenditure for 3 years	<u>Rs. 36,852/-</u>
Net Profit.	<u>Rs. 36,148</u>

40. SCHEME FOR POULTRY FARM OF 1,000 LAYERS

- (1) Introduction indicating market potential and manufacturing process (Brief)

(2) Land & Building (Own or Rented)

Land (area) 550 sq. yards

Building (area) 25 yards

Own land

(3) Machinery and Equipment :

		Rs.	Rs.
1. Breeders	4 Nos.	110/- each	440-00
2. Chick Feeders	25 Nos.	30/- each	750-00
3. Chick waterer	30 Nos.	7/- each	210.00
4. Feeders	60 Nos.	30/- each	1,800-00
5. Adult Waterer	25 Nos.	30/- each	750-00
6. Egg Laying nests	25 Nos.	40/- each	1,000.00

Erection & Electric Installations:

I. Poultry shed with 200 sq. ft. for 1000 Birds @ Rs. 10/- per feet.		20,000.00
II. Egg. room & Office		4,000.00
III. Office Furniture etc.		1,000.00
IV. Electric Fitting with Material		800.00
Total:		30,750.00

Recurring Expenditure :

1. Chicks 110 (Allowing 10% towards Narity & culling) Rs. 3.75/- each.		4,125.00
2. Feed & Medicines (Rs. 11/- per bird upto 6 month of age)		12,770.00
3. Salaries & Wages (Upto 6 months)		1,800.00
4. Litter		300.00
5. Electricity		200.00
6. Transport & Conveyance		200.00
7. Water		100.00
8. Postage and stationery		75.00
Total:		17,570.00

V. Total Investment :

1. Machinery & Equipment	Rs. 30,750.00
2. Working Capital (for 6 months)	17,570.00
Total:	48,320.00

Distribution of Feed from one day old chicks to laying :

I Month	Rs. 750.00
II Month	1,250.00
III Month	1,250.00
IV Month	2,250.00
V Month	2,250.00
VI Month	2,270.00
VII Month	2,250.00
Total :	<u>12,770.00</u>

Profit and Loss Account

A) Expenses :

i) Chicks	Rs. 4,125.00	
ii) Feed and Medicines		
(i) Chicks and Grower	Rs. 12,570.00	54,570.00
(ii) Layer (12 months)	Rs. 42,000.00	700.00
(iii) Litter		600.00
(iv) Electricity		200.00
(v) Water		5,400.00
(vi) Salaries and wages		700.00
(vii) Misc. Expenses		670.00
(viii) Depreciation on equipment 10%		2,400.00
(ix) Depreciation on building 10%		4,977.00
(x) Interest on capital		
Total :		<u>70,217.00</u>

B) Receipts :

(i) By sale of eggs 240 per bird $240 \times 1000 = 2,40,000$	Rs. 79,200.00
(ii) Eggs. (Rs. 33/- per hundred)	6,650.00
(iii) By sale of old Birds (1000) Rs. 7/- per bird	300.00
(iii) By Sale of Manure	
Total :	<u>86,150.00</u>

Receipts	86,150.00
Expenses :	70,217.00
Net Surplus Including Interest	15,933.00

41. SCHEME FOR CYCLE TAXI SHOP (of 12 Cycles)

I. Introduction indicating market potential and manufacturing process (Brief)

With increased bus fare many people have started using taxi cycles. The Cycle Taxi shops can therefore run successfully and profitably.

II. Land & Buildings (Own or Rented).

Land (Area)	
Building (Area) Rented shop	Rs. 50.00

III. Machinery & Equipment

Sl.No.	Name of machinery.	Nos. Reqd.	Rate Rs.	Total Rs.
1.	12 Atlas cycles @ 330/- each,	12	330	3,960.00
2.	Tools & Equipment			50.00
	(a) Erection and Electric installations.			
	(b) Office furniture, etc.			
	Total.			4,010.00

Recurring Expenditure :

IV. Raw Materials Required (PM)	
Spokes, spare parts and Misc. items.	50.00

V. Salaries & Wages (PM)

Self	150.00
Helper	40.00
Total.	190.00

VI. Other Misc. Expenses (PM)

Power & Fuel Postage & Stationery	10.00
Transport & Conveyance	50.00
Miscellaneous-Rent	
Consumable stores, etc.	
Total.	60.00

VII. Working Capital (Months)

	Rs.	Total Rs.
Raw Materials	50.00	
Salaries & Wages	190.00	
Misc. Expenses	60.00	
	<u>300.00</u>	300.00

VIII. Total Investment.

Machinery & Equipment	4,010.00	
Working Capital (Please work out for 1 month)	300.00	
	<u>4,410.00</u>	4,410.00

IX. Manufacturing Cost (PM)

Working Capital (One month)	300.00	
Depreciation on machinery 10%	34.00	
Interest 10%	46.00	
	<u>380.00</u>	380.00

X. Receipt

By sale of hire @ 1/50 each cycle per day for 12 cycles and for 30 days.	540.00	
By Repairing Rs. 3/- for 30 days	90.00	
	<u>630.00</u>	630.00

XI. Profit & Loss

(1) Receipts as per head X	Rs. 630.00
(2) Manufacturing cost as per head IX	<u>380.00</u>
(3) Profit per month	<u>Rs. 250.00</u>

42. SCHEME FOR IRONING AND LAUNDRY SERVICE

I. Introduction : Indicating market potential and manufacturing Process (Brief)

As the laundry charges are going up and synthetic cloth is being mostly used most of the persons wash their clothes at home and give them for washing. In the proposed laundry cotton clothes can also be washed and ironed. The cotton cloth is given on sub-contract basis to washermen.

II. *Land and Buildings (Own or rented)*

Land (Area)

Building (Area) Rent Rs. 100/-

III. *Machinery & Equipment.*

S.No.	Name of Machinery	Total
1.	Furniture show Cases	3,000/-
2.	Three Ironing Tables Rs. 150/-each	450/-
3.	Three Irons 150/- each	450/-
4.	Erection and Electric Installations	200/-
5.	Office Furniture etc.	—
		<u>4,100/-</u>

*Recurring Expenditure :*IV. *Raw Materials required(PM)* NilV. *Salaries & Wages(PM)*

1.	Manager Cum-Iron Man (Self)	150/-
2.	One Assistant Iron Man	150/-
3.	One helper	100/-
		<u>400/-</u>

VI. *Other Misc. Expenses (PM)*

Postage & Stationery	—
Power & Fuel	100/-
Transport & Conveyance	20/-
Misc. Rent	100/-
Consumable Stores etc.	100/-
	<u>320/-</u>

VII. *Working Capital (Months)*

Raw Materials	—
Salaries & Wages	400/-
Misc. Expenses	320/-

720/-

VIII. Total Investment :

Machinery & Equipment	4,100/-	
Working Capital (Please work out for 3 months)	2,160/-	6,260/-

IX. Manufacturing Cost (PM)

Working Capital (One month)	720/-	
Depreciation on Machinery 10%	10/-	
Interest 14%	58/-	788/-

X. Receipt :

By serving like Ironing of Synthetic Fibre clothes for 100 clothes at 25 ps. per cloth per day.	25/-	
200 Cotton cloth washing at 8 ps. per pieces after giving 12 paise for washerman.	16 per day	
		Rs. 1,230/- per month.

XI. Profit & Loss :

1. Receipts as per head X	Rs. 1,230/-
2. Manufacturing cost as per head IX	Rs. 788/-
3. Profit per month	Rs. <u>442/-</u>

43. SCHEME FOR MEDICAL SHOP (SMALL).**I. Introduction indicating market potential and manufacturing process (Brief)**

As there is good demand for medicines, it is proposed to set up a Medical Shop.

II. Land and Buildings (Own or Rented)

Land (Area) Rented at Rs. 100/- p.m.
Building (area)

III. Machinery & Equipment

Sl.No.	Name of machinery	Nos.Reqd.	Rate Rs.	Total Rs.
	Refrigerator and accessories			4,500.00
	(a) Erection and electric installations.			2,500.00
	(b) Office furniture, etc. (show cases, tables, chairs etc.)			2,500.00
			Total :	7,000.00

Recurring Expenditure

IV. Raw Materials required (PM)

Various types of Medicines

10,000.00

V. Salaries & Wages (PM)

Proprietor (self)

Helper (One)

400.00

150.00

Total :**550.00**

VI. Other Misc. Expenses (PM)

Postage & Stationery

Power & Fuel

Transport & Conveyance

Miscellaneous—Rent

Consumable stores etc.

50.00

50.00

100.00

100.00

50.00

Total :**350.00**

VII. Working Capital (Months)

Raw materials

Salaries & Wages

Misc. Expenses

10,000

550

350

Total :**10,900.00**

VIII. Total Investment.

Machinery & Equipment

Working Capital (Please workout for one month)

Rs.

7,000-00

10,900-00

17,900-00

IX. Manufacturing Cost (PM)

Working Capital (One month)	10,900.00
Depreciation on machinery 10%	91.00
Interest 15%	225.00
Total :	<u>11,216.00</u>

X. Receipt

By Sale of Medicines	12,000.00
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XI. Profit & Loss

(1) Receipts as per head	12,000.00
(2) Manufacturing cost as per head IX	<u>11,216.00</u>
(3) Profit per month	<u>784.00</u>

XII. Any other Information :

As the profit envisaged is Rs. 780.00 the loan can be returned within 3 years. Provision is already made for the candidate under col.5.

44. SCHEME FOR TAILORING SHOP

I. Introduction indicating market potential and manufacturing process (Brief)

II. Land and Buildings (Own or Rented)

Land (area)

Building (area) Rented Rs. 50/-

III. Machinery & Equipment :

Sl.No.	Name of machinery	No.Regd.	Rate Rs.	Amount Rs.
1.	Sewing machines	1	475/-	475/-
2.	Misc. tools etc. (including Iron Cutting Table, Scissors etc.)			225/-
	(a) Erection and electric installations			100/-
	(b) Office furniture (Chair and Table)			
	Total :			<u>800/-</u>

Recurring Expenditure

IV. Raw materials required PM.

Thread, lining cloth and other Misc.	Rs.
	100/-
Total:	<u>100/-</u>

V. Salaries and wages per month

Self	200/-
Assistant	75/-
Total:	<u>275/-</u>

VI. Other Misc. expenses (PM.)

Postage and stationery	
Fuel and power	
Transport and conveyance	25/-
Miscellaneous-Rent consumable stores	50/-
Total:	<u>75/-</u>

VII. Working Capital

Raw materials	
Salaries and Wages	100/-
Misc. expenses	275/-
Total:	<u>75/-</u>

VIII. Total Investment

Machinery and Equipment	
Working capital (Please work out for 3 months)	800/-
Total:	<u>900/-</u>

IX. Manufacturing cost (PM).

Working capital (One month)	
Depreciation on machinery 10%	450/-
Interest 12%	7/-
Total:	<u>17/-</u>
Total:	<u>474/-</u>

X. Receipts

By way of stitching charges Rs. 600/-

XI. Profit and loss

	Rs.
(1) Receipts as per head X	600/-
(2) Manufacturing cost IX	474/-
Profit per month	126/-

XII. Any other information

Net surplus available P.M. for repayment of	Loan	126/-
	Plus	7/-
	Total :	133/-

The total cost of the scheme is Rs. 1700- and 90% of this (i.e.) Rs. 1530; is advanced by the Bank and SES funds can be repaid in 12 monthly instalments out of Rs. 133 available P.M.

45. SCHEME FOR PAN SHOP**I. Introduction indicating market potential and manufacturing process (Brief)**

People are increasingly habituating to chew pans, scented suparies and smoke cigarettes. The demand for these items is increasing very fast. The suitable place of location would be near by to hotels, cinema theatres, colleges, bank offices, bus stops and busy localities.

II. Land & Buildings (Own or Rented)

Land (area) (Rented) at Rs. 75/- p.m.
Building (area) (Buddi or Bunk will be sufficient)

III. Machinery & Equipment

Sl. No.	Name of Machinery	Nos.	Total Rs.
	1. Show cases and decoration		1,500.00
	2. Equipment and tools like Brass cups, plates and lotas		400.00
	(a) Glass Jars, Scissors, Mirrors etc.		100.00
	(b) Erection and electric installation		100.00
	(b) Office furniture, etc.,		100.00
	Total :		2,000.00

Recurring Expenditure :

IV. Raw Materials Required (PM)		Rs.
1. Pan Masala		600.00
2. Zarda		300.00
3. Cigarettes of different brands		3,000.00
4. Scented supari		200.00
5. Beedies & Cigars		500.00
6. Matches		100.00
7. Candles		50.00
		4750.00
V. Salaries & Wages (PM)		
(1) Proprietor cum Manager		350-00
(2) Boy assistant		75-00
		425-00
VI. Other Misc. Expenses (PM)		Rs.
Postage & Stationery		Total Rs.
Power & Fuel	25-00	
Transport & Conveyance	30-00	
Miscellaneous-Rent	75-00	
Consumable stores, etc.	30-00	
		160-00
VII. Working Capital (Months)		
Raw materials	4,750-00	
Salaries & Wages	425-00	
Misc. Expenses	160-00	
		5,335-00
VIII. Total Investment		
Machinery & Equipment	2,000-00	
Working Capital (Please work out for 1 week)	1,334-00	
		3,334-00
IX. Manufacturing Cost (PM)		
Working Capital (One month)	5,335-00	
Depreciation on machinery 10%	17-00	
Interest 10%	41-00	
		5,393-00

X. Receipts

By sale of goods

Rs. 5,655-00

XI. Profit & Loss

(1) Receipts as per head X

Rs. 5,655-00

(2) Manufacturing cost as per Head IX.

Rs. 5,393-00

(3) Profit per month

Rs. 262-00

XIII. Any Other Information

The candidate will be in a position to repay the amount to Bank at the rate of Rs. 200/- towards loan instalment besides an interest of Rs. 41/- per month.

46. SCHEME FOR BOOK DEPOT WITH STATIONERY

I. Introduction indicating market potential and manufacturing process (Brief)

Books and Stationery are absolute necessities due to the increase of educational facilities and educational institutions. These shops can be located near High Schools and Colleges with profit.

II. Land & Buildings (Own or Rented)

Land (Area)

Building (Area)

Rented

Rs. 60-00

Rate Rs.

Total Rs.

1,800-00

Racks

100-00

(a) Erection and electric Installations

100-00

(b) Office furniture etc.

2,000-00

Recurring Expenditure:

IV. Raw Materials Required (PM)

1. Text Books

2,000-00

2. Exercise Note Books & Stationery articles

2,000-00

4,000-00

V. Salaries & Wages (PM)

Manager (Self Salesman)

100-00

100-00

VI. <i>Other Misc. Expenses (PM)</i>	Rs.	Total Rs.
Postage & Stationery	—	
Power & Fuel	10-00	
Transport & Conveyance	20-00	
Miscellaneous - Rent	50-00	
Consumable stores, etc.	—	
		80-00
VII. <i>Working Capital (Months)</i>		
Raw materials	4,000-00	
Salaries & Wages	100-00	
Misc. Expenses	80-00	
		4,180-00
VIII. <i>Total Investment</i>		
Machinery & Equipment	2,000-00	
Working Capital (Please workout for 3 months)	12,540-00	
		14,540-00
IX. <i>Manufacturing Cost (PM)</i>		
Working Capital (One month)	4,180-00	
Depreciation on machinery 10%	5-00	
Interest 15%	40-00	
		4,225-00
X. <i>Receipt</i>		
By Sale of goods.	5,000-00	
XI. <i>Profit & Loss</i>		
1. Receipts as per head X	5,000-00	
2. Manufacturing cost as per head IX.	4,225-00	
3. Profit per month	<u>775-00</u>	

47. SCHEME FOR CROCKERY AND FANCY GOODS STORES

I. *Introduction indicating market potential and manufacturing process (Brief)*

Glassware and fancy goods are popular in all the sections of the community. There will be a good demand for those products if the latest arrivals are maintained.

II. *Land & Buildings (Own or Rented)*

Land (Area)
Building (Area) Rented at Rs. 200/- p.m.

III. *Machinery & Equipment*

<i>Sl.No.</i>	<i>Name of the Machinery</i>	<i>Nos. Reqd.</i>	<i>Rate Rs.</i>	<i>Total Rs.</i>
	Show cases	5 Nos.	500-00	2,500-00
	One big showcase in front of the counter	1 No.	1,000-00	1,000-00
	Stools	6 Nos.	25-00	150-00
	Fans	2 Nos.	300-00	600-00
	(a) Erection and electric installations		—	150-00
	(b) Office furniture etc.		—	—
			Total :	4,400-00

*Recurring Expenditure*IV. *Raw Materials Required (PM)*

Glassware and Fancy goods 10,000-00

V. *Salaries & Wages (PM)*

One Manager (Self) at Rs. 300/- p.m. 300-00
One Salesman at Rs. 200/- p.m. 200-00
One boy at Rs. 100/- p.m. 100-00
600-00

VI. *Other Misc. Expenses (PM)*

Postage & Stationery Rs. 60-00
Power & Fuel 30-00
Transport & Conveyance 50-00
Miscellaneous - Rent 200-00
Consumable stores, etc. —
340-00

VII. *Working Capital (Months)*

Rs.
10,000-00
600-00
340-00
10,940-00
or
11,000-00

VIII. Total Investment

Machinery & Equipment	4,400-00	
Working Capital (Please workout for 3 months)	11,000-00	15,400-00

IX. Manufacturing Cost (PM).

Working Capital (One month)	10,940-00	
Depreciation on machinery	37-00	
Interest 15%	138-00	
		11,115-00

X. Receipt

By Sale of goods	12,500-00
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XI. Profit & Loss.

(1) Receipts as per head X	12,500-00
(2) Manufacturing cost as per head IX.	11,115-00
(3) Profit per month	1,385-00

48. SCHEMES FOR CLOTH STORES (SMALLER SIZE)**I. Introduction Indicating market potential and manufacturing process (Brief)**

The scheme aims at purchasing different varieties of cloth from the wholesale dealers at Hyderabad, Bombay, and Ahmedabad and sell the same to the customers on retail basis.

II. Land and Buildings (Own or Rented)

Land (area)

Building (Area)

Rented at Rs. 150/-p.m.

III. Machinery & Equipment

Sl. No.	Name of Machinery	Nos. Reqd.	Rate Rs.	Total Rs.
1	Show cases	4 Nos.	300/-	1,200-00
2	Wooden racks	2 Nos.	200/-	400-00
	(a) Erection and electric installations			300-00
	(b) Office furniture, etc.			200-00
				<u>2,100-00</u>
	Recurring Expenditure			

IV. Raw Materials Required (PM)

Cloth (Both mill as well as handloom) 7,000-00

V. Salaries & Wages (PM)

One Salesman at Rs. 200/- p.m. 200-00
 One helper boy at Rs. 80/- p.m. 80-00

280-00

VI. Other Misc. Expenses (PM)

Postage & Stationery 30/-
 Power & Fuel 30/-
 Transport & Conveyance 50/-
 Miscellaneous - Rent 150/-
 Consumable stores, etc. 260-00

VII. Working Capital (Months)

Raw Materials 7,000/-
 Salaries & Wages 280/-
 Misc. Expenses 260/-
Total Rs. 7,540-00

VIII. Total Investment

Machinery & Equipment 2,100-00
 Working Capital (Please workout for one month) 7,540-00
Total Rs. 9,640-00

IX. Manufacturing Cost (PM)

	Rs.	Rs.
Working Capital (One month)	7,540/-	
Depreciation on machinery 10%	18/-	
Interest 15%	120/-	
		7,678-00

X. Receipt

By sale of cloth at 20%

8,400-00

XI. Profit & Loss

1. Receipts as per head X

8,400-00

2. Manufacturing cost as per head IX.

7,678-00

3. Profit per month

722-00

XII. Any other Information

Cloth can be obtained directly from the mills and wholesale dealers. Handloom cloth can be obtained from the handloom weavers cooperative societies.

49. TRAINING IN TRIBAL EMBROIDERY, DRESS MAKING, AND ARTISTIC ARTICLES SUCH AS SHOULDER BAGS, PURSES ETC.

The Tribal Embroidered garments are more folk arts which have a popular appeal and good demand both in the country and abroad. Since the export of the articles of this nature has assumed a greater importance in the context of earning foreign exchange it is essential to develop the tribal art.

At present, a few tribal women of "Banjara" community are producing attractive articles of decorative and utility in the Tribal Embroidery. Greater skill is shown in preparation of these embroidered garments established with mirrors and beads. These articles are being marketed through the Lepakshi Handicraft Emporium in the State and some in the Private Sector. The Government of Andhra Pradesh has implemented a training scheme during the year 1974-75 and the scheme is functioning at the Research and Designs Institute, Industries Department, Hyderabad.

As the trade is well popularised and in order to develop the artistic work in the rural areas, schemes for training in the Tribal Embroidery work are to be implemented.

"Banjaras" are well spread in the Twin Cities, Warangal and surrounding areas of these places. Further it was noticed that those tribals are skilled and hard workers.

In view of the above, Training schemes may be set up for the welfare of the Tribal communities in the Twin Cities, Warangal Town, Mahaboobabad Tq., and Narasampet Tq., Warangal District.

The staffing pattern and probable expenditure for running the training Scheme for one year would be as follows :-

I. Recurring : **Expenditure per annum.**

1. Craftsman 3 @ Rs. 300/- on consolidated salary	10,800-00
2. Trainees 30 @ Rs. 100/- Stipend P.M.	36,000-00
3. L.D. Clerk for maintenance of stores, Accounts etc., 250-10-430	4,400-00
4. Contingencies	
a) Wages to watchman, water, Electricity charges, other @ 500/- p.m.	6,000-00
b) Rent of the building @ 400/- p.m.	4,800-00

V. Raw Materials:

Binny cloth different colours, Mirrors, Square & Round various sizes, Shells, Beads, Metal coins	
Metal beads, Thread Beads, Mukhmul cloth, Embroidery thread, Thread Reels of different colours Skailing various colours.	14,000-00
Recurring Total : 76,000-00	

II. Non-Recurring :

1. Machinery & Equipment, Sewing Machines, Scissors, Needles, Timbale etc.,	2,400-00
2. Furniture for office, Steel Almyrah & Cash Chest etc., Seating arrangements for trainees 3 wooden Almyrahs 30 boxes.	6,000-00
Total Non-Recurring : 8,400-00	

Abstract :

I. Recurring	76,000-00
II. Non-Recurring	8,400-00
Total : 84,400-00	

(Rupees Eighty Four thousand and Four hundred only)

50. TRAINING IN TRIBAL JEWELLERY AND COSTUME JEWELLERY

The Articles of tribal jewellery made out of brass, silver, and white metal (known as German Silver) are used by Banjara Community as ornaments. The items with tribal characteristic have got an excellent export market. Only a few craftsmen are engaged in the production of Tribal jewellery articles. There is a very good demand for these traditional articles in various parts of the country and foreign market. Hence it is imperative to develop the trade of tribal jewellery.

With a view to encourage their own motifs, by considering the popularity and demand in market, and for the welfare of the tribal communities, schemes may be implemented for imparting training in manufacture of tribal jewellery and costume jewellery.

Since the Banjara Community is well spread in Hyderabad, Warangal Town and Mahaboobabad, Narasampet, Mulug in Warangal district, the training Scheme may be set up in these areas. The duration of the training period should be for one year.

The staffing pattern and the probable expenditure for one year would be as follows:-

I. Recurring :

	<i>Expenditure per annum Rs.</i>
1. Craftsman 3 @ Rs. 500/- consolidated.	
2. Skilled workers. 3 @ 300-00 consolidated.	18,000-00
3. L.D.Clerk (for maintenance of Stores, Accounts etc.) 250-10-430	10,800-00
4. Trainees. 30 @ 100/- p.m. stipend	4,400-00
5. Contingencies :	36,000-00
(a) Wages to watchman, water and electricity charges @ Rs. 400/- p.m.	
Misc. office contingencies.	4,800-00
(b) Rent of the building @ Rs. 300/- p.m.	3,600-00
6. Raw Materials :	
White metal sheet, & wire, pure silver for soldering & Placing copper & brass sheets, coal, acids etc.	18,000-00
	Recurring total :-
	89,600-00

II. Non-Recurring :

1) Tools & Equipment, 30 sets of tools etc., for Trainees.	18,000-00
2) Furniture for office steel almyrah low level desks for trainees 30 cash chest, wooden almyrah for store.	6,500-00
	Non-Recurring total :
	24,500-00

Abstract :

I. Recurring	Rs. 89,600-00
II. Non-Recurring	Rs. 24,500-00
Total :	Rs. 1,14,100-00

N.B.: 1. The scheme is estimated for imparting training 30 tribal personnel for a period of one year in the trade. On completion of training, production centres may be set up with the tribal artisans.

2. In case the persons to be appointed as Craftsmen in the above scheme are not available from the tribal communities, persons from the goldsmith community have to be appointed as Craftsmen since they are well acquainted with the work in sheet metal and moulding etc. Hence they must be provided with higher salary, as greater skill is involved in trade. Keeping these points in view, the salary @ Rs.500/- is proposed.

51. TRAINING IN BASKET WEAVING WITH DATE PALM LEAVES AND VEINS

The weaving of Baskets and Mats with Date Palm leaves is the traditional craft of the Tribal communities. Mostly, the community known as 'Erukula' is engaged in preparation of these articles. As these articles are being used by the public and they have registered a significant purpose, it is necessary to develop this craft.

If these items are produced by adopting scientific methods in dyeing with various colours and restyling the items into artistic, decorative and utilitarian value, there would be much demand for these articles in and around the country. Indeed the handicraft articles with tribal characteristics have got a name in the export market, hence there is need to develop this craft in the context of earning foreign exchange, and to assist the tribal communities for their better position.

The tribal communities 'Erukulas' etc., may be trained in this craft by setting up training schemes at various parts of the State.

The Duration of the training programme may be for a period of one year and the following areas are suggested to implement the scheme as the 'Erukula' community is seen there.

1. Adilabad District.
2. Warangal District.
3. Nellore District.
4. Cuddapah District.
5. Krishna District.

The probable expenditure for running the scheme for one year would be as follows:

I. Recurring :	Expenditure per annum Rs.
1. Craftsmen 2 @ 300/- p.m. consolidated.	7,200-00
2. Skilled workmen 2 @ 150/- p.m. consolidated.	3,600-00
3. Trainees 20 @ 75/- stipend	18,000-00
4. L.D. Clerk for maintenance of office and Stores, etc., 250-10-430.	4,400-00
5. Contingencies :	
(a) Watchman, Wages, Water, Elec. charges, Misc. Office Contingencies @ 400/- p.m.	4,800-00
(b) Building rent Rs. 200/- p.m.	2,400-00

6. Raw Materials :

Date Palm leaves, Lining Cloth, Elastic, Show Buttons, Sewing thread, Dyeing colours etc.	800-00
Recurring Total	41,200-00

II. Non-Recurring :

(1) Tools & Equipment, sewing machine (2) Knives, Scissors etc., colour dyeing tub (2)	1,800-00
(2) Furniture for Office and Stores	2,000-00
Steel Almyrah, Cash Chest	1,000-00
Wooden Almyrah 2	600-00
Rack 1	600-00
Tool Boxes 10	600-00
Non-Recurring Total :-	6,000-00

Abstract :

I. Recurring.	41,200-00
II. Non-Recurring.	6,000-00
	<u>47,200-00</u>

52. TRAINING IN SHEET METAL AND METAL CASTING PROPOSED FOR ADILABAD DISTRICT

The Brass ware and Sheet Metal Articles such as Lamps, Hanging lamps, bells for Bulls, figures of deities, animals and human figures with tribal characteristics have got a good commercial potential and export market.

In view of the good demand for the Brassware artistic articles in the country and foreign markets and with a view to develop the livelihood of the tribal communities, it is proposed to implement a scheme for imparting training in sheet metal and metal casting work in Adilabad District.

The Training scheme is proposed with the following staff and probable expenditure for one year will be as shown below

I. Recurring :	Expenditure per annum Rs.
1. Craftsmen 3 on consolidated salary of Rs. 300/- p.m.	18,000-00
2. Skilled workers (to assist the Craftsmen) 3 on consolidated salary of Rs. 200/- @ 220 p.m.	7,200-00
3. Trainees: 30 Stipendary basis @ 100/- per head.	36,000-00
4. L. D. Clerk (for maintenance of store, accounts etc.) 1 pay scale of Rs. 250-10-430	4,000-00
Total Recurring :	65,200-00

5. Contingencies :

Wages to Watchman, Building rent, 500/- p.m. water, Elec.	6,000-00
Charges and Misc. Office expenses etc.	6,000-00
6. Raw Materials :	
a) Solid metal & Sheet Metal	20,000-00
b) Moulding soil, graphite coke, fire-wood, coal crucible etc.,	10,000-00
	<u>30,000-00</u>
Total Recurring :	1,01,200-00

II. Non-Recurring :

(i) Machinery & equipment (Moulding Boxes, Blowers Hand tools etc.)	9,000-00
(ii) Furniture for workshop & office, stores, Steel Almyrah	7,000-00
Cash Chest 3 wooden Almyrah and 30 tool boxes	7,000-00
Total Non-Recurring :	16,000-00

Abstract:

I. Recurring.

Rs. 1,01,200-00

II. Non-Recurring.

Rs. 16,000-00

Total : Rs. 1,17,200-00

(Rupees One Lakh Seventeen thousand and two hundred only).

Note: (1) The Scheme is estimated for imparting training 30 Tribal personnel for a period of one year in the trade. On completion of training, production centres may be set up with the Tribal Artisans.

(2) In case the persons to be appointed as Craftsmen in the above scheme are not available from the tribal communities, persons from the Goldsmith Community have to be appointed as Craftsmen since they are well acquainted with the work in sheet metal and moulding etc. Hence they must be provided with higher salary, as greater skill is involved in the trade. Keeping these points in view, the salary @ Rs. 500/- p.m. is proposed.

53. TRAINING IN PREPARATION OF HAND STICKS AND WALKING STICKS

The hand sticks and walking sticks, made out of Palmyrah wood and white wood with carving work and highly polished, are very attractive and utility articles. These sticks are being manufactured by a few craftsman at present and there is very good demand for these articles.

As this craft has got its own importance as traditional artistic carving work, it may be considered to develop the artistic work as per the changing needs of the public.

The two Tribal communities known as "Koyas" and 'Hillreddys' are reported to be engaged in making wood carving articles.

As the wood carving work is being done in the West Godavari district, by a few people of the Tribal Communities, and since there is scope for collection of abundant palmyrah wood, schemes may be set up in West Godavari District for imparting training to "Koyas" and 'Hillreddys' in manufacturing hand sticks and walking sticks of Artistic nature.

The Training period should be one year. Staffing pattern and probable expenditure for the scheme for one year would be as follows :

I. Recurring :		Expenditure per annum Rs.
1. Craftsmen	2. @ Rs. 400/- on consolidated basis	9,600-00
2. Skilled workers	2. @ Rs. 200/- consolidated	4,800-00
3. Trainees	20 @ 100/- stipend	24,000-00
4. L.D. Clerk for store and maintenance of Accounts. etc.	Rs. 250-10-430	4,400-00
5. Contingencies :		
a) Watchman, Wages, Water Elect. charges, Office contingencies.	@ Rs. 400/- per month.	4,800-00
b) Building Rent	@ 200/- p.m.	2,400-00
6. Raw Materials		
Palm tree wood and white wood, polish, sand paper etc.,		5,000-00
Total Recurring		55,000-00

II. Non-Recurring :

(i) Wood turning lathe, band saw	7,000-00	
(ii) Wood turing Tool kits carving chissels and Hand tool, Hand drilling & Drinding machine 1/4" (power).	5,000-00	12,000-00
2. Furniture for office and Work shop. 4 Nos.	2,000-00	4,000-00
Big size Racks 2 Nos.	1,000-00	8,000-00
Wooden Almyrah 20 Nos.	1,000-00	
Total Non-Recurring		20,000-00

Abstract :

I. Total Recurring	55,000-00
II. Total Non-Recurring	20,000-00
	<u>75,000-00</u>

Note :- If horn work handles have to be fixed to walking sticks an additional amount of Rs. 1,000/- has to be provided under item no. 6 for raw materials.

54. TRAINING IN KORA GRASS (TUNGA) MATS WEAVING

Kora Grass Mats are very attractive and utilitarian articles every where in India and foreign countries. Mats tangled with fine Kora Grass (Tunga) dyed with various colours and adopting different designs are most fascinating and durability in their quality.

'Vanadi' community in Nellore district is also engaged in production of the mats as the surrounding areas of Nellore district are the places for availability of raw material from the tanks.

There is every possibility and necessity to develop this craft by adopting scientific methods in dyeing the Kora grass and with attractive designs while tangling.

In order to develop the craft by reviving and restyling, tribal personnel may be trained at first instance in this craft. This step would be more helpful for the denotified tribal communities and weaker sections.

It is therefore suggested to set up the training schemes at the following places where the tribal communities are wide-spread.

1. **Khammam District.**
 - i) Vara Ramachandrapuram
 - ii) Kuna varam
 - iii) Aswaraopet
 - iv) Bhadrachalam.
2. **Nellore District.**
 - i) Kovuru taluk
 - ii) Buchireddypalem area.
3. **Mahaboobnagar District.**
 - i) Mahaboobnagar
 - ii) Amarabad.
 - iii) Mannanur.

The probable expenditure to implement the above training scheme for one year may be as follows :-

I. Recurring :

		Expenditure per annum
1. Craftsmen	2 @ Rs. 300/- p.m. consolidated.	7,200-00
2. Skilled workers	2 @ Rs. 150/- p.m. consolidated.	3,600-00
3. L.D. Clerk for maintenance of stores & accounts etc.	250-10-430	4,400-00

4. Stipends for 20 persons @ Rs. 75		18,000-00
5. <i>Contingencies</i> :		
(a) Watchman wages, Water and electricity charges, Misc., Office contingencies.	— Rs. 400/- p.m.	4,800-00
(b) Building rent	@ Rs. 200/- p.m.	2,400-00
6. <i>Raw Materials</i> :		
Kora grass (Tunga) Twisted cotton, dyeing material.		3,800-00
Fire wood		1,000-00
	Recurring Total.	<u>45,200-00</u>

II. *Non-Recurring* :

i) <i>Machinery and Equipment</i>			
Mat looms	22 Nos.	100/- each	} 3,700-00
Hand tools		1,000/-	
Tubes for dyeing	@ 4 Nos.	500/-	
ii) <i>Furniture for office tables, steel almyrah, cashchest etc.</i>		2,000-00	
Big size racks 4		3,200-00	
Wooden almayrahs. 2 nos		1,000-00	
Tool boxes (600-00)		600-00	6,800-00
	Non-Recurring total.		<u>10,500-00</u>

ABSTRACT

1. Recurring	45,200-00
2. Non-Recurring	10,500-00
Total.	<u>55,700-00</u>

IV ANNEXURES

ANNEXURE—1

DISTRIBUTION OF S. T. POPULATION - TALUKWISE — 1971

District/Taluk	Total Population	Schedule Tribes	% of Sch. Tribes to Total Population
1	2	3	4
I. Srikakulam :			
1. Srikakulam	2,57,281	669	0.26
2. Cheepurupalli	3,61,292	3,102	0.86
3. Bobbili	2,81,707	5,937	2.11
4. Salur	1,59,610	37,835	23.70
5. Paryathipuram	2,50,509	72,501	28.94
6. Palakonda	3,65,052	29,768	8.15
7. Pathapatnam	2,61,587	44,812	17.13
8. Narasannapet	1,80,963	686	0.38
9. Tekkali	2,12,037	6,369	3.00
10. Sompeta	1,60,754	9,060	5.65
11. Ichapuram	99,199	1,722	1.74
Dist. Total.	25,89,991	2,12,459	8.20
II. Visakhapatnam :			
1. Visakhapatnam	4,70,666	1,449	0.31
2. Anakapalli	2,78,593	304	0.11
3. Yellamanchili	2,82,710	704	0.25
4. Narsipatnam	2,69,168	17,144	6.37
5. Chintapalli	68,204	55,991	82.90
6. Paderu	1,83,090	1,71,271	93.54
7. Chodavaram	3,27,950	23,179	7.07
8. Srungavarapukota	2,38,219	16,155	6.78
9. Gajapathinagaram	1,43,219	10,703	7.47
10. Vijayanagaram	2,73,247	2,145	0.70
11. Bheemunipatnam	2,70,300	925	0.80
Dist. Total :	28,05,366	2,99,970	10.00

1	2	3	4
III. <i>East Godavari</i> :			
1. Kakinada	4,83,773	1,712	0.36
2. Amalapuram	2,63,412	2,080	0.79
3. Mummidivaram	1,53,171	873	0.57
4. Razole	2,16,240	1,326	0.61
5. Kothapeta	1,99,422	896	0.45
6. Alamur	1,73,435	758	0.44
7. Ramachandrapuram	2,67,229	1,109	0.41
8. Rajahmundry	4,64,958	4,613	0.99
9. Rampachodavaram	54,325	39,292	72.33
10. Yellavaram	83,610	51,951	62.13
11. Peddapuram	2,25,896	1,644	9.73
12. Prathipadu	1,59,100	11,319	7.11
13. Tuni	1,53,692	1,055	0.69
14. Pithapuram	1,88,998	399	0.21
Dist. Total :	30,87,262	1,19,027	3.86

IV. *Guntur* :

1. Guntur	7,35,815	18,545	2.52
2. Tenali	4,46,947	13,742	3.07
3. Repalle	2,65,821	7,194	2.71
4. Bapatla	2,99,345	14,608	4.88
5. Narasaraopet	3,10,937	11,230	3.61
6. Vinukonda	1,53,111	8,341	5.45
7. Palnad	3,00,425	17,945	5.97
8. Sattenapalle	3,32,087	13,873	4.18
Dist. Total :	28,44,488	1,05,478	3.71

1	2	3	4
V. Ongole :			
1. Ongole	3,11,055	8,190	2.63
2. Kandukur	2,74,644	11,557	4.21
3. Kanigiri	1,81,762	2,315	1.27
4. Giddalur	2,01,148	3,873	1.93
5. Markapur	1,74,977	7,281	4.16
6. Podili	1,13,893	1,236	1.09
7. Darsi	1,42,113	1,965	1.38
8. Chirala	2,65,406	12,215	4.60
9. Addanki	2,54,997	6,479	2.54
Dist. Total :	19,19,995	55,111	2.87
VI. Nellore :			
1. Nellore	3,63,166	30,848	8.49
2. Gudur	1,73,465	20,575	11.86
3. Sullurpet	1,34,694	11,867	8.81
4. Venkatagiri	1,12,871	9,440	8.36
5. Rapur	1,12,192	11,252	10.03
6. Atmakur	1,59,567	5,843	3.66
7. Udayagiri	1,36,781	2,450	1.79
8. Kavali	1,79,416	8,822	4.92
9. Kovur	2,37,465	29,180	12.29
Dist. Total :	16,09,617	1,30,277	8.09
VII. West Godavari :			
1. Eluru	3,71,361	2,565	0.69
2. Chintalapudi	1,49,157	4,953	3.32

1	2	3	4
3. Polavaram	1,35,880	31,450	23.15
4. Kovvur	3,03,664	3,617	1.19
5. Tadepalligudem	3,06,678	1,872	0.61
6. Tanuku	3,74,138	2,282	0.61
7. Narsapur	3,94,887	2,188	0.55
8. Bheemavaram	3,38,541	2,795	0.83
Dist. Total :	23,74,306	51,723	2.18
VIII. Krishna :			
1. Machilipatnam	3,10,619	3,678	1.18
2. Divi	2,80,758	4,629	1.65
3. Gannavaram	2,33,270	4,273	1.83
4. Vijayawada	6,04,822	12,500	2.07
5. Nandigama	2,04,074	6,128	3.00
6. Jaggayapet	79,425	4,933	6.21
7. Tiruvur	1,86,152	6,629	3.56
8. Nuzvid	1,53,727	2,162	1.41
9. Gudivada	2,53,149	4,730	1.87
10. Kaikalur	1,97,578	1,080	0.58
Dist. Total :	24,93,574	50,742	2.03
Rayalaseema Region			
IX. Chittoor :			
1. Chittoor	2,71,420	2,121	0.78
2. Bangarupalem	1,32,402	3,493	2.64
3. Palmnor	1,36,247	3,467	2.54
4. Kuppam	1,13,821	1,750	1.54

1	2	3	4
5. Punganur	2,01,409	3,513	1.74
6. Madanapalle	2,84,615	8,924	3.14
7. Vöyalpad	2,54,115	7,014	2.76
8. Chandragiri	2,71,007	5,614	2.07
9. Srikalahasthi	2,03,975	15,900	7.80
10. Satyavedu	1,52,831	7,869	5.15
11. Puttūr	2,63,694	7,136	2.67
Dist. Total :	22,85,536	66,801	2.92
X. Cuddāpah :			
1. Cuddāpah	2,23,286	3,307	1.48
2. Rayachoti	2,63,663	7,220	2.74
3. Pulivendla	1,48,515	2,049	1.38
4. Kamalapuram	94,779	782	0.83
5. Jammalamadugu	1,57,138	1,925	1.23
6. Proddatur	2,21,772	2,300	1.04
7. Badvel	1,42,083	1,525	1.07
8. Siddout	95,815	1,321	1.38
9. Rajampet	2,30,216	6,181	2.68
Dist. Total :	15,77,267	26,611	1.69
XI. Kurnool :			
1. Kurnool	3,34,533	3,836	1.15
2. Nandikotkur	1,18,512	1,093	0.92
3. Atmakur	1,26,159	4,511	3.58
4. Nandyal	1,99,942	3,472	1.74
5. Allagadda	1,59,127	2,183	1.37

1	2	3	4
6. Koilkuntla	1,31,583	2,534	1.93
7. Banganapalle	69,542	1,924	2.77
8. Dhone	1,96,698	4,542	2.31
9. Pathikonda	1,82,945	4,775	2.61
10. Alur	1,40,301	1,684	1.20
11. Adhoni	3,22,748	1,853	0.57
Dist. Total:	19,82,090	32,407	1.63

XII. Anantapur :

1. Ananthapur	2,86,709	7,681	2.68
2. Kalyandrug	1,62,406	5,273	3.25
3. Rayadurg	1,69,099	2,205	1.30
4. Uravakonda	1,09,995	3,270	2.97
5. Gooty	1,95,365	4,112	2.10
6. Tadpatri	1,82,393	1,541	0.84
7. Dharmavaram	1,72,780	5,638	3.26
8. Kadiri	3,04,611	19,464	6.39
9. Hindupur	2,17,427	4,900	2.25
10. Madakasiri	1,48,262	2,379	1.60
11. Penukonda	1,66,269	8,415	5.06
Dist. Total:	21,15,321	64,878	3.07

Telangana Region

XIII. Mahbubnagar :

1. Mahbubnagar	2,22,356	485	0.22
2. Shadnagar	1,65,583	—	—
3. Kalvakurthi	2,00,007	147	0.07

1	2	3	4
4. Achampeta	1,11,079	3,512	3.16
5. Kollapur	1,48,615	778	0.52
6. Nagarkurnool	1,77,698	141	0.08
7. Wanaparthi	1,65,746	11	0.01
8. Alampur	1,22,836	11	0.01
9. Gadwal	1,61,906	51	0.03
10. Atmakur	1,24,041	356	0.28
11. Makthal	1,58,399	108	0.07
12. Kodangal	1,73,816	—	—
Dist. Total :	19,32,082	5,600	0.29
XIV. Hyderabad :			
1. Hyderabad (urban)	17,76,805	3,641	0.20
2. Medchal	1,02,836	47	0.05
3. Hyderabad (East)	1,16,433	79	0.07
4. Ebrahimpatnam	1,46,940	13	0.01
5. Hyderabad (West)	1,15,721	3	—
6. Chevella	1,17,438	25	0.02
7. Pargi	1,31,935	802	0.61
8. Tanduru	1,19,699	18	0.02
9. Vikarabad	1,63,955	39	0.02
Dist. Total :	27,91,762	4,667	0.17
XV. Medak :			
1. Sangareddy	2,04,795	21	0.01
2. Zaheerabad	1,89,028	70	0.04
3. Narayanabad	1,22,027	1	—

1	2	3	4
4. Andole	1,95,460	—	—
523 Narsapur	1,39,341	—	—
620 Medak	2,01,081	6	0.01
710 Gazvel	1,63,391	—	—
810 Siddipet	2,52,821	22	0.01
Dist. Total :	14,67,944	120	0.01

XVI. Nizamabad :

1. Nizamabad	3,04,811	151	0.05
2. Armur	2,98,140	197	0.07
3. Kamareddy	2,01,501	—	—
4. Yellareddy	1,03,283	8	0.01
5. Banswada	1,24,715	23	0.02
6. Madur	87,792	9	0.01
7. Bodhan	1,93,026	190	0.10
Dist. Total :	13,13,268	578	0.04

XVII. Adilabad :

1. Adilabad	1,49,810	22,774	15.20
2. Utnoor	93,823	47,084	50.18
3. Asifabad	1,39,368	24,470	17.56
4. Sirpur	1,75,675	22,115	12.59
5. Chinnur	1,12,402	9,837	8.80
6. Lakshettipet	1,74,801	11,195	6.40
7. Kanapur	66,237	5,925	8.90
8. Boath	89,248	19,989	22.4

	1	2	3	4
9. Nirmal		1,72,147	5,193	3.00
10. Mudhol		1,14,837	607	0.58
Dist. Total :		12,80,348	169,299	13.00
XVIII. Karimnagar :				
1. Karimnagar		3,90,282	46	0.01
2. Sircilla		3,02,043	36	0.01
3. Metpalli		1,97,403	460	0.23
4. Jagthial		2,83,781	3,215	1.13
5. Peddapalli		3,55,498	1,118	0.31
6. Manthani		1,19,154	11,558	9.70
7. Husurabad		3,15,767	—	—
Dist. Total :		19,63,928	16,433	0.84
XIX. Warangal :				
1. Warangal		6,50,312	660	0.10
2. Parkal		2,13,443	2,865	1.34
3. Mulug		1,31,236	20,741	15.80
4. Narsampet		2,04,586	13,497	6.60
5. Mahboobnagar		3,21,715	4,378	1.36
6. Janagam		3,49,641	1,146	0.33
Dist. Total :		18,70,933	43,287	2.31
XX. Khammam :				
1. Khammam		3,52,822	199	0.06
2. Yellandu		2,29,345	47,863	20.87
3. Burgampadu		1,14,882	32,777	28.53
4. Nugur		52,535	22,735	43.28

	1	2	3	4	5	6	7	8	9	10
17. Adilabad	31,078	10,141	41,219	16,191	15,976	32,167	73,386	43,34		
18. Karimnagar	2,163	418	2,581	3,196	1,598	4,794	7,375	44,87		
19. Warangal	8,189	2,067	10,256	4,383	5,419	9,802	20,058	46,33		
20. Khammam	39,686	7,534	47,240	18,896	25,944	44,840	92,080	45,65		
21. Nalgonda	644	103	747	58	46	104	151	29,09		
Total :	2,23,350	58,889	2,82,239	2,07,379	1,76,216	383,595	6,65,834	440,416		

ANNEXURE II(B)

OCCUPATIONAL PATTERN OF SCHEDULED TRIBES—DISTRICT - WISE 1971

NON - AGRICULTURAL SECTOR

Sl.No.	District	Livestock, Forestry Hunting and Planta- tion activities.			Mining and Quarrying.			Manufacturing, Processing, Servicing and repairs			Constructions		
		M	F	T	M	F	T	M	F	T	M	F	T
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Srikakulam	2721	632	3353	55	34	89	1068	490	1558	64	14	78
2.	Visakhapatnam	1140	126	1266	41	19	60	1552	265	1817	54	26	80
3.	East Godavari	1729	329	2058	15	7	22	1430	429	1859	172	129	301
4.	West Godavari	1926	587	2513	24	18	42	1117	569	1686	62	19	81
5.	Krishna	1307	331	1638	31	13	44	2480	1615	4095	264	172	436
6.	Guntur	2081	589	2670	91	19	110	4627	3065	7692	275	67	342
7.	Prakasam	1989	535	2524	63	43	106	2462	1459	3921	353	146	499
8.	Nellore	3041	713	3754	236	109	345	2443	1313	3756	397	52	449
9.	Chittoor	1609	415	2024	44	33	77	1670	666	2336	92	58	150
10.	Cuddapah	908	261	1169	8	3	11	2217	1042	3259	21	2	23
11.	Ananthapur	1665	253	1918	30	17	32	2238	1095	3333	103	23	126
12.	Kurfoo	862	197	1059	15	7	22	2408	1525	3933	56	5	61
13.	Mahaboobnagar	185	8	193	..	..	..	21	5	26	11	..	11
14.	Hyderabad	117	53	170	1	5	6	134	56	190	100	44	144
15.	Medak	1	2	3	..	..	..	1	..	1	1	..	1
16.	Nizamabad	29	..	29	..	..	..	26	..	38	3	2	3
17.	Adilabad	1634	88	1722	67	8	75	644	221	865	216	35	251
18.	Karimnagar	337	..	337	40	30	70	38	38	76	91	1	92
19.	Warangal	669	26	695	13	11	24	149	89	238	31	12	43
20.	Khammam	1784	154	1938	725	83	808	661	138	799	112	43	155
21.	Nalgonda	19	8	27	..	..	..	9	..	9	..	..	..
Total :		25753	5307	31060	1499	444	1943	27436	14092	41528	2476	850	3326

Annexure—II(B) contd.....

Sl.No.	District	Trade and Commerce				Transport, Storage and communications				Other Services				Grand Total
		M	F	T	M	F	T	M	F	T	M	F	T	
15	2	15	16	17	18	19	20	21	22	23	24			
1.	Srikakulam	4303	2484	6787	1007	50	150	572	82	654	12669			
2.	Visakhapatnam	1012	510	1522	275	31	306	983	224	1207	6258			
3.	East Godavari	353	165	518	148	28	176	360	283	643	5577			
4.	West Godavari	338	126	464	88	3	91	312	318	630	5507			
5.	Krishna	566	207	773	510	1	511	591	349	940	8437			
6.	Guntur	1074	590	1664	1692	11	1703	1306	990	2296	16447			
7.	Prakasam	523	305	828	591	52	643	756	574	1330	9851			
8.	Nellore	794	336	1130	1241	41	1282	1646	1296	2942	13658			
9.	Chittoor	411	190	601	163	9	172	713	317	1030	6390			
10.	Cuddapah	110	30	140	57	3	60	185	58	167	4829			
11.	Ananthapur	260	258	518	63	1	64	185	243	243	6234			
12.	Kurnool	680	354	1034	146	11	157	199	39	238	6504			
13.	Mahabubnagar	113	5	118	16	1	17	28	11	39	287			
14.	Hyderabad	438	211	649	322	6	328	170	109	279	1766			
15.	Medak													
16.	Nizamabad	1	2	3	2	5	7	16	12	18	82			
17.	Adilabad	191	68	259	128		128	962	241	1203	4503			
18.	Karimnagar	63	1	64	35		35	32	95	127	801			
19.	Warangal	30	17	47	34	3	37	140	19	129	1213			
20.	Khammam	287	236	523	140	25	165	381	148	529	4917			
21.	Nalgonda	4	4	8	1	3	4	11	6	17	61			
Total:		11451	6093	17544	5736	283	6019	9366	5318	14584	116104			

OFFICE OF THE DISTRICT COLLECTOR, KARIMNAGAR

1992/90/119

ANNEXURE III
TRIBAL & NON-TRIBAL INDUSTRIAL WORKERS—T. D. BLOCK-WISE

Sl. No.	District	Block	Blacksmithy		Carpentry		Pottery		Brassmithy		Goldsmith	
			T.	N.T.	T.	N.T.	T.	N.T.	T.	N.T.	T.	N.T.
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Srikakulam	Seethampeta										
2.	Srikakulam	Pachipenta										
3.	Khammam	Aswaraopet	50	100	50	100		100	nil	25	nil	200
	Khammam	V. R. Puram	25	nil	50		50					
	Khammam	Bhadrachalam	20	36	30	61		87				140
	Khammam	Kunavaram	200	150	25	50	5	35				20
4.	Visakhapatnam	Paderu			58		65		88			
	Visakhapatnam	Aanthagiri	15				10					
	Visakhapatnam	Munchingiputu	167		152		114					
	Visakhapatnam	Araku	15				250					
	Visakhapatnam	Pedabayalu										
	Visakhapatnam	Koyyuru	66		16					16		73
	Visakhapatnam	Chintapalli										
	Visakhapatnam	G. Madugula	245		30							
5.	West Godavari	Buttayagudem	15	176	60	80		148				15
	West Godavari	Polavaram										
6.	Warangal	Eturnagaram	78		74		86					
7.	Adilabad	Utnoor	30	100	125	54	148					
Total:			926	403	670	345	728	240	88	41	1	358

ANNEXURE III (Contd.)

Sl. No.	District	Block	Basket Weaving		Mat Weaving		Cloth Weaving		Other Total Works Tribals	Non-Tribes	Total		
			T	N.T	T	N.T	T	N.T					
			14	15	16	17	18	19	20	21	22	23	
1	2	3	14	15	16	17	18	19	20	21	22	23	
1.	Srikakulam	Seethampeta	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	
2.	Srikakulam	Pachipenta	..	..	..	..	..	..	..	..	..	..
3.	Khammam	Aswaraopet	50	..	30	..	nil	..	..	180	525	705
	Khammam	V.R. Puram	150	..	..	..	..	..	..	275	nil	275
	Khammam	Bhadrachalam	5	4	5	10	..	2	..	60	240	300	
	Khammam	Kunavaram	..	..	5	6	..	..	..	235	261	496
4.	Visakhapatnam	Paderu	22	..	..	..	..	..	92	233	nil	325
	Visakhapatnam	Ananthagiri	30	..	20	..	..	..	*30	75	nil	105
	Visakhapatnam	Munchingiputu	140	..	..	..	..	..	..	573	nil	573
	Visakhapatnam	Araku	50	..	10	..	5	..	**40	331	nil	371	
	Visakhapatnam	Pedabayalu	..	..	..	..	..	..	..	..	..	..
	Visakhapatnam	Koyyuru	..	..	5	..	300	..	..	387	94	481
	Visakhapatnam	Chinthapalli	..	..	..	..	..	..	..	..	..	..
	Visakhapatnam	G. Madugula	..	..	..	..	..	..	..	275	..	275
5.	West Godavari	Buttayagudem	250	70	..	..	..	..	..	325	200	525
	West Godavari	Polavaram	..	..	..	..	..	..	..	..	..	..
6.	Warangal	Eturnagaram	..	..	..	..	..	..	..	..	..	..
7.	Adilabad	Utnoor	..	..	90	..	..	..	†82	238	..	320
			..	..	..	..	..	..	††15	383	165	573
			Total :		697	74	165	16	7	259	3580	1464	5324

* = spinning & weaving Addaleaf, ** = DBK Rly. Carpentry † = Spinning & wearings †† = Tailoring.

ANNEXURE - IV
(Refer Project Profiles 276 - 429)

ANNEXURE V

A. TRAINING PROGRAMMES OF KHADI AND VILLAGE INDUSTRIES COMMISSION

A. *Khadi Industry :*

Training programme under Commission can be broadly classified into two. One is Artisans training course, meant for training unskilled personnel and the other for organisational staff of the programme.

1. In Khadi, for Artisans training there is one course called Spinning and Weaving course - which can be imparted to the raw candidates in different N.M.C. (New Model Cherkhas) Centres and other processing units aided by the Commission.

2. For supervisory technical staff there are different types of courses such as (i) Management and Accountancy course, (ii) Salesmanship of Khadi, (iii) Training of Spinning and Weaving Instructors and (iv) Refreshed courses in Khadi and Wool.

3. Training Institutions for the above courses are:

1. Khadi Gramodyog Vidyalaya, Khadi and Village Industries Commission P.O. Trayambak Vidyamandir, Nasik.

2. Regional Training Centre, Bangalore.

B. *Village Industries :*

1. *Non-Edible Oils and Soap Industry :*

i) For artisans Training : Minimum educational qualifications is matriculation/SSLC.

Duration of Course : 9 months.

Places of Training : 1. National Education Society, Shimoga, Karnatak State.

2. Tamilnadu Sarvodaya Sangh, Tirupur, Tamilnadu State.

ii) *For Supervisory technical personnel course:*

Qualifications : Science Graduate.

Duration of the Training : One year.

Place of Training : Khadi Gramodyog Vidyalaya, Trayambak Vidyamandir, Nasik.

Note :- About 200 tribals were trained in oil pressing operation by screw press at Bhadrachalam and Gummalaksmipuram Agency Areas.

2. *Medicinal Plant Industry :*

Qualifications : Minimum Matriculation or its equivalent.
 Duration of the Training : 2 months.
 Place of Training : Pharmaceutical laboratory, Govt. of U.P.,
 Ranikhet, Dist. Almorah (U.P.)

3. *Katha manufacturing and Shellac Industries :*

Commission arranges training in Central Lac Research Institute, Ranchi (Bihar) for lac training and for Katha Industry, Commission organises training programme in Rajasthan State in one of its production Centres.

4. *Bee-keeping Industry :*

i) For new persons there is Bee Fieldman course of three months duration Commission arranges training in Bee-keeping areas. Offices situated in different areas of the State. Qualifications for admission: 7th Class relaxable in certain cases.

ii) *Apiarist Course :*

This is six months course for graduates-imported at Central Bee Research Institute 839/1, Shivajinagar, Poona-4.

Note : So far about 50 tribal candidates were trained in bee fieldman course at Narsimpatnam in the Bee keeping area office of the Commission and some of them are absorbed by Girijan Cooperative Corporation as fieldmen in Honey Procurement. About 1500 bee boxes were distributed to the tribals in Vizag District at subsidised rates through Girijan Cooperative Corporation, Visakhapatnam.

5. *Fibre Industry :*

There is only one course, Fibre Instructors Training Course

Qualifications for admission : Matriculates.
 Duration of the Course : 6 months.
 Training Centre : Fibre Research Centre, Khadi and Village
 Industries Commission, Kora Gramodyog
 Kendra, Borivili, Bombay-92.

Note :- Demonstration in rope making, mat weaving etc., can be arranged by the Commission in tribal areas whenever required, the art can be picked up very easily by the raw hands.

6. *Lime Manufacturing Industry :-*

- | | |
|--------------------------------------|--|
| 1. Artisan Training Qualifications : | To read and write in any regional language and Hindi/English. |
| 2. Training period : | 2 months. |
| 3. Place of Training : | 1. Technical Extension Service Centre, Lime Manufacturing Industry, Khadi and Village Industries Commission, Dehradun (U.P).
2. Technical Extension Service Centre, Arpoorkara, Kothayam-1.
3. Technical Extension on Service Centre, Mohal Dist., Sholapur. |

7. *Match Industry :-*

Supervisory Course :-

- | | |
|-------------------|--|
| Training period : | 3 months. |
| Qualifications : | Matriculation. |
| Training Centre : | Kora Gramodyog Kendra, Khadi and Village Industries Commission, Borivili, Bombay.
Vallior, Tirunalveli Dist., Tamilnadu.
Kurukshetra, Haryana. |

8. *Pottery Industry :-*

- | | |
|-------------------|---|
| Training Centre : | Central Village Pottery Institute, P. O. Khanapur, Dist. Belgaum. |
|-------------------|---|

9. *Carpentry and Blacksmithy Industry :-*

- | | |
|-------------------|--|
| Training Centre : | Carpentry and Blacksmithy Workshop, Post Dhahanu, Maharashtra. |
|-------------------|--|

Note :- T.A., D.A., and Stipend will be given by the Commission for the candidates selected for the above training course.

B. PROPOSED TRAINING PROGRAMMES

Traditional Skills :

S.No.	Trade	Tribals to be trained	Period of Training	Stipend	T.A., D.A. etc.	Total	Place and Agency of Training
1.	Blacksmithy	100	3 Months	27000	5000	32000	
2.	Mat Weaving	100	3 Months	27000	5000 @ 90 P.M.	32000	Industries Wing G.C.C.
3.	Basket Making	100	3 Months	- do -	5000	32000	- do -
4.	Agri. Implements	100	3 Months	- do -	5000	32000	- do -
5.	Palm Fibre	50	3 Months	13500	5000	18500	Nidadavolu Palm Gur Federation
6.	Carpentry	100	6 Months	54000	86000 @ 90 P.M.	7000	

I. Promotion of new skills :

1.	Tamarind Starch (Operators Trg.)	10	3 Months	2700	1300 @ 90 P.M.	4000	Industries wing.
2.	Oil Rotary (Operators Trg.)	10	- do -	- do -	- do -	- do -	
3.	Bee keeping (Fieldmen Trg.)	50	- do -	13500	5000	18500	- do -
4.	Match Industry (Organisation Trg.)	6	2 Months	1080	1000	2080	K.V.I.C. Hyderabad.
5.	Artisan In-service Trg.	120	6 Months	54000	6000 @ 75 P.M.	60000	Industries Wing K.V.I.C
6.	Rope Making (Artisan Training)	100	3 Months	27000	5000 @ 90 P.M.	32000	- do -

1	2	3	4	5	6	7	8
7.	Soap Making Chemist (Artisan Trg.)	5	9 Months	4050 @ 90 P.M.	1000	5050	- do -
8.	Expeller Opera- tors Training	5	6 Months	2700 @ 90 P.M.	1000	5050	K.V.I.C., Hyderabad.
9.	Card-board Train- ing	5	6 Months	- do	- do -	- do -	
10.	Lemon Grass Oil	5	- do -	- do -	- do -	- do -	
11.	Bamboo Splints	6	3 Months	1620 @ 90 P.M.	1000	2620	- do -
12.	Bricks Manufac- turing	30	- do -	8100 @ 90 P.M.	1000	9100	- do -
13.	Tractor Servicing	4	6 Months	3100 @ 150 P.M.	600	4200	- do -
14.	Lime manufactur- ing Artisan Trg.	3	3 Months	810 @ 90 P.M.	390	1200	- do -
15.	Dehydration of Onions & Gingers	4	3 Months	1800 @ 150 P.M.	1000	2800	Industries Wing G.C.C.
16.	Dairy Farming	50	3 Months	13500 @ 90 P.M.	5000	18500	A.H.Dept.
17.	Poultry Farming	50	3 Months	13500 @ 90 P.M.	5000	18500	- do -
18.	Feed Mixing	5	- do -	1350	500	1850	- do -
19.	Katha Manufac- turing	3	- do -	810 @ 90 P.M.	390	1200	K.V.I.C. Hyderabad
20.	Gum Grading Training	10	- do -	900 @ 90 P.M.	4000	5000	- do -
21.	Medicinal Plants Training	10	- do -	2000 @ 100 P.M.	3000	5000	- do -
22.	Fruit Preservation	5	- do -	1350 @ 90 P.M.	650	2000	Agri. Dept.

1	2	3	4	5	6	7	8
<i>III. Non-formal Training Programmes :</i>							
1. Book Binding	25	6 Months	13500 @ 90 P.M.	2500	16000	Industries Wing G.C.C.	
2. Gauge making	10	- do -	5400 @ 90 P.M.	1600	7000	- do -	
3. Tractor Driving	10	- do -	- do -	1600	7000	- do -	
4. Pumpset Repairs	10	- do -	- do -	1600	7000	- do -	
5. Cycle Repairing	25	3 Months	6750 @ 90 P.M.	1600	7000	- do -	
6. Grocery and Fancy, Cloth shop Appren- ticeship in Super- Bazars	50	3 Months	13500 @ 90 P.M.	2500	16000	- do -	
<i>IV. Managerial and Secretarial Courses</i>							
1. Business Management							
2. Marketing Management							
3. Finance Manage- ment	10	6 Months	9000 @ 150 P.M.	3000	12000	- do -	
<i>V. Entrepreneurial Training</i>							
279							
<i>VI. Feasibility Studies</i>							
3.00 lakhs							

ANNEXURE — VI

SCHEME FOR PROMOTION OF ENTREPRENEURSHIP AMONG
SCHEDULED TRIBES

*(Action-cum-Research Programme for Entrepreneurial Development among the Tribals
of Visakhapatnam Dist.)*

*S.I.E.T. Institute
Extension Education Department*

As part of Integrated Tribal Development Programme in Andhra Pradesh, the Tribal Cultural Research Institute of Andhra Pradesh proposes to develop entrepreneurship among the Tribals in Visakhapatnam district to begin with and cover other tribal pockets in State over a period of time. It will be an action-cum-research programme. The SIET Institute will play the role of a consultant and design and analyse the research part of the programme besides training personnel of Tribal Cultural Research Institute and formulating strategy and guiding the Tribal Cultural Research Institute in the entrepreneurial development among the tribals.

The proposed action-cum-research programme will have the following five phase and this is not purely time-and-operation sequential. Some times more than one phase will be in operation.

Phase-I

It consists of Training of Tribal Cultural Research Institute personnel of Hyderabad and other officials from banks and the Girijan Cooperative Corporation (Vizag) and other officials connected with tribal development in the area as trainers at the SIET Institute. It could be a general but comprehensive course of four weeks. A Special course with all inputs for entrepreneurial development is to be prepared by the SIET Institute. Though this course will be of general nature, the trainers will, depending on their disciplines, orientation and earlier work-experience specialize in certain areas like feasibility studies, techno-economic surveys, preparation of industrial profiles, entrepreneurial development marketing etc.

Phase-II

This relates to the basic physico-psycho-socio-cultural and economic study and understanding of the area where the programme is to be implemented. In this phase for locating and promoting entrepreneurship an area approach is to be made. The work in this phase will serve the purposes of developing of action-programme and strategy for identifying and developing entrepreneurship among the tribals keeping in view the tribal culture. The approach suggested in this phase is this understanding of the socio-cultural

traits of the clientele group and working through the various institutions of the community for entrepreneurial development and it is to be tested for its usefulness in the given area over a period of time. Data on the following aspects are to be collected in respect of the geographic region and the population in question.

Aspects :

1. Physical conditions-rainfall-terrain, quality of soil enterprises which can be undertaken in the locality.
2. The economic structure of the community
 - The types of production within the community.
 - The organization of the producing units.
 - The method in which labour and capital resources are applied.
 - The make-up of the family's occupational structure.
 - How the local marketing system functions.
 - Farm organization.
 - Land tenure.
 - Capital and labour resources.
 - Occupational structure.
3. Human resources—Literates etc.
4. Cultural patterns :
 - Historical analysis of the community.
 - Historical patterns of diffusion and change.
5. The social-structure of the community.
 - Understanding of tribal/rural social structure.
 - The family - its structure - the decision making process in the family, functional aspects of the family - typology of the families based on occupation and division of functions.
 - The kin group - its structure and functions - intraclan, intraclan and inter-tribal relationships - role of certain in the kinship circles.
 - Tribal Council (Caste council) - its constitution and functions the role and influence of the chief of the council - the council's influence over the members and the degree of their dependance on the council in matters economic and social.
 - The nexure of relationship between tribals and non-tribals.
 - The traditional village panchayat (in certain cases) its functions - the influence of the Panchayat (in certain cases) its functions - the influence of the Panchayat Chief on potential innovators and entrepreneurs.

6. The ecclesiastical structure-the institution of sacred functionaries - their status as leaders in the group - their influence and their usefulness in locating and promoting entrepreneurship.

— The status and the role and the influence as promoter or helper of the tribal medicinemen in entrepreneurial development.

7. The political structure of the community.

— Leadership patterns in the community.

— The elected village Panchayat - utilising this formal institution as a source of information and as a lever of influence over potential entrepreneurs in the local community.

— The tribal Panchayat Samithi at the block level and its usefulness as an institution for promoting entrepreneurship.

— The village cooperative as a means and as an agency for locating and developing entrepreneurship.

— Other feeder tribals and non-tribal organisations in community and utilising them for entrepreneurial promoting (Youth and Women's traditional information and formal organisations).

— The village school teacher as a promoter and as a change agent of entrepreneurial development.

The work in Phase II will help the agency in locating potential entrepreneurs of enterprisers and this leads to the Third Phase of training tribal entrepreneurs.

Design, Supervision, Analysis of Data and preparation of the report on Action Strategy will be done by SIET Faculty. Data Collection is to be done by Tribal Research Centre under the Supervision of SIET Faculty.

Phase- III

Selection and training of tribal entrepreneurs will be undertaken by the trained staff of the Tribal Cultural Research and Training Institute and other trainers in (TCRI) agencies which have a functional link with tribal entrepreneurial development. These training programmes are to be arranged at district or block headquarters. The duration of this training programme may be four months. The course content for training the tribal entrepreneurs will be formulated after discussion with TCRI trainers in the course of their training programme at SIET.

Phase-IV

This phase consists of the agency guiding and helping the trained tribal entrepreneurs in establishing their enterprises; industry individually, in small groups and through

industrial cooperatives. In phase III and IV SIET Faculty will provide over-all guidance as may be required from time to time.

Phase-V

As a follow-up measure, there will be an evaluation of the training programme. The details and the cost involved for this will be worked out later.

The findings of the evaluation study will go into the training inputs. Besides the evaluation study there will be followup work of the trained entrepreneurs.

The preceding action-cum-research programme is subject to modification in the light of further discussion between SIET and the Tribal Cultural Research Institute.

Time Frame :

- | | |
|---|------------|
| 1. Training of trainers at SIET | 4 weeks. |
| 2. Physico-Socio-Psycho-Cultural and economic study of the tribal area of the target population. | 4 weeks. |
| 3. Processing of data and report writing. | 3 months. |
| 4. Location and selection of first batch of entrepreneurs. | 1 month. |
| 5. Training of entrepreneurs (First batch). | 4 months. |
| 6. Evaluation study (six months after the first batch of entrepreneurs were trained) | 3 months. |
| Total period of the first-round of the action-cum-research programme including the interval period of six months. | 22 months. |

The budget details will be worked out after discussion with the Tribal Cultural Research Institute.

ANNEXURE-VII

PROMOTION OF ENTREPRENEURSHIP AMONG TRIBALS *Andhra Pradesh Small Scale Industries Development Corporation.*

1. According to the criteria adopted by the Planning Commission, 14 out of the 21 Districts in the State have been declared as industrially backward and special incentives are being given to the entrepreneurs to set up industrial units in such backward areas. Despite these incentives entrepreneurs are not always prepared to set up industries in such areas. In the Corporation's own experience, despite its preparedness to share the risks involved in the ventures by participating in the risk capital of the SISOs not many entrepreneurs have come forward to set up industries in the backward areas in collaboration with the Corporation.

2. The Planning Commission also acknowledged that the measures taken to accelerate development of backward areas and to reduce regional imbalances did not have much of an impact. Therefore the Planning Commission has suggested the area development approach. But experience shows that the developing area of a district attracts entrepreneurs from outside leaving very little scope for the growth of local entrepreneurs.

3. Therefore, it is felt desirable to adopt a different approach for the development of small scale industries in the backward areas. The following strategy can be adopted with advantage for entrepreneurship development.

- i) Area development shall be taken up district-wise in a phased programme to cover all the districts one after another.
- ii) A fairly realistic study of the social, socio-economic conditions and natural resources of each district shall be conducted.
- iii) The general direction of small scale industries development in the district concerned may be determined and industries with good potential may be listed. Project profiles have to be prepared and priorities determined in the context of natural endowments and marketing prospects.
- iv) A campaign should be conducted to educate the people regarding the industrial potential in the district, to explain them the need to industrialise and finally to impress on their minds the need and the significance of the local and regional entrepreneurship development.

4. After the above spade work has been done, the entrepreneurship development has to be undertaken.

Development of Entrepreneurship :

5. Entrepreneurship is proposed to be developed through the Development Clinics. The following is the methodology with advantage to be adopted for this purpose.

i) Identification :

Persons with evident potential to become entrepreneurs will have to be identified. Qualities such as organisational skill, leadership and courage can be identified in all sections of society. Behavioural science can be of great help at this stage.

ii) Motivation :

After identification of the potential entrepreneurs, it is necessary to remould his self concept, to reshape his thinking process, to re-awaken and redouble his self-confidence to promote self-reliance and finally to motivate him to undertake a new way of life. Therefore, efforts should be made for better motivation with the help of competent behavioural scientists.

iii) Education :

When the potential entrepreneurs are identified and motivated, it is necessary to provide with adequate education pertaining to the new career he is about to take. The education should extend to all facets of his industry.

(iv) Induction :

The last stage is to induct the trained entrepreneur into an industrial activity. This will be undertaken by the organisation engaged in entrepreneurship development.

6. The work of Entrepreneurs development can be undertaken by the Corporation by opening 'Entrepreneurship Development Clinics'. The MSSIDC has already experimented with such clinics and the results achieved by the Corporation are encouraging.

7. The Entrepreneurship Development Clinics work as follows :

a) Wide publicity is given through official, educational and other local social institutions, at the district level about the programme and calling for applications from interested persons on prescribed forms.

b) Selection of the candidates is done in two rounds :

i) First on the basis of information supplied in the application form. The applications received are screened with a view to ensure that the right person is called for personal test and interview.

ii) Such of the applicants who are found to be resourceful enough *prima facie* on the basis of information given by them in the application will be called for selection test and interview.

c) Only such of those persons getting through the second round of selection will be admitted to the Clinic. Not more than 25 to 30 persons will be trained in one clinic.

Motivation and Education :

8. After the candidates are finally selected, the Clinics undertake the job of motivation and education. This takes about 10 to 15 days for the Clinics. The methodology to be adopted by the Clinic for motivation and education is as follows.

9. In the first part of the session, the efforts of the Clinic would be to motivate the potential entrepreneurs by employing the latest methods developed by behavioural science. Time required for this purpose will be 4 to 5 days. During the course, the behavioural scientists make use of several business games. The focus is on self. The session will be in the form of discussions and everyone takes active part in them.

10. In the second part of the session, trainees are told how to select an industry, how to prepare a Project Report, what resources and assistance are available to them from various institutions and finally how to manage the Industry. The latter part includes General Management, Finance Management and Marketing aspects.

11. The trainees are made to prepare model Project Report which are critically discussed in the Clinic so that all aspects of running the industry and the implications involved are considered thereafter. The trainees are brought into contact with other officials connected with this activity as well as the successful Entrepreneurs.

12. Training in the manufacturing process is outside the purview of the Clinic. Thus the Clinic would only provide basic information, knowledge and motivation to the candidates - emphasis being on enhancing their self esteem and confidence and inculcating in them a sense of self-reliance.

Induction :

13. After the trainees have successfully completed this programme, they are taken in hand by the officials of the A.P.S.S.I.D.C. and a time-bound programme is worked out with their assistance and there is a continuous follow-up until the stage is reached when the venture is set up. The A.P.S.S.I.D.C. stands behind the entrepreneur till he is well established in his line. This may sometimes necessitate the officials of A.P.S.S.I.D.C. pleading his case with other institutions and Government Departments.

14. Since the objectives of the Clinic are to help venture some people from backward areas, who have no industrial background to become industrial entrepreneurs capable of running their own industries successfully, this clinic is quite different from other types of training institutions. It will be made quite clear to the applicants before hand that the completion of the training programme will not automatically result in the approval of the Projects or sanction of necessary finance by any institution.

Financial Implications :

15. It is proposed to implement this programme as an experimental in the first instance in Adilabad District. It is also proposed to fix the duration of the clinic for 15 days and to restrict the number of trainees to 30. It is estimated that running the clinic at Adilabad would cost a sum of Rs. 50,000/- as per the details given below :—

16. So as to inculcate a feeling of seriousness and involvement by the participants it is proposed to collect a sum of Rs. 100/- and entrance fee from each trainee. In the case of entrepreneurs from Scheduled Caste/Scheduled Tribe and Backward Communities it is proposed to charge an entrance fee of Rs. 50/- each.

ANNEXURE — VIII

ESTIMATED OUTLAY FOR DIFFERENT PROGRAMMES SCHEME WISE FINANCIAL IMPLICATIONS

(Rupees in Lakhs)

Sl. No.	Scheme	Apportionment between various agencies												
		Total outlay	S. F. C.	Enterprener share	Sub Plan	Industries	K. V. I. C.	Banks	G. C. C.	A. H. Dept.	T. W. Dept.	A. P. I. C.		
1	2	3	4	5	6	7	8	9	10	11	12	13		
1.	Tamarind Starch 2 Units	4.18	1.32	..	0.66	1.20	..	1.00	..	..	..	..
2.	Washing Soap 3 Units	2.31	..	..	1.00	0.15	1.16	..	..	..	..	..
3.	Safety Matches 3 Units	1.95	..	..	0.90	0.15	0.90	..	..	..	..	..
4.	Beedi Manufacturing - 2 Units	0.39	..	..	0.36	0.03	..	..	..	..	..	..
5.	Saw Mills - 3 Units	2.53	1.23	..	1.12	0.18	..	..	..	..	..	..
6.	Splints and Vaneers - 3 Units	7.61	3.34	..	1.80	0.46	..	2.01	..	..	..	..
7.	Non-edible Oils - 5 Units	2.10	..	..	1.05	..	1.05	..	..	..	..	..
8.	Bee-keeping of Boxes - 2 Units	1.10	..	..	..	..	0.55	..	0.55	..	..	..
9.	Readymade Garments - 2 Units	0.40	..	..	0.36	0.04	..	..	..	..	..	..
10.	Khandasari Unit	8.00	..	..	4.00	..	..	..	..	4.00*	..	..
11.	Tamarind Descending - 3 Units	1.80	..	..	..	..	..	1.80	..	..	..	..
12.	Adda leaf - 3 Units	0.15	..	..	0.27	0.03	..	0.50	..	..	..	..
13.	Sago Unit	6.91	1.33	..	3.00	0.58	..	2.00	..	..	..	..
14.	Dehydration of Ginger	1.50	0.75	..	0.26	0.20	..	0.29	..	..	..	..

* Government have already granted Rs. 4.00 lakhs towards the setting up of Khandasari Unit in Srikakulam.

(ANNEXURE VIII contd.)

1	2	3	4	5	6	7	8	9	10	11	12	13
15.	Hand made Paper Unit	3.92	..	..	1.00	0.20	1.86	0.86	..	..	..	..
16.	Lemon Grass (Citrella etc) - 2	2.98	0.86	..	1.15	..	..	0.97	..	..	..	..
17.	Bamboo Splints and Bamboo Chicks	0.12	..	..	0.10	0.02	..	..	..	..	..	..
18.	Furniture Unit	0.10	..	..	0.09	0.01	..	..	..	..	..	..
19.	Tamarind Seed Dhall	0.97	..	..	0.40	0.05	..	0.52	..	..	..	..
20.	Soap Nuts and Sheekai	0.23	..	..	0.15	0.03	..	0.05	..	..	..	..
21.	Rope Making - 3 Units	0.97	0.13	..	0.30	0.06	0.61	..	..	..	..	..
22.	Kisan Rice Mill - 3 Units	0.26	0.13	..	0.13	..	..	..	..	..	..	..
23.	Brick Kiln - 1 Unit	0.16	..	..	0.08	..	..	0.08	..	..	..	..
24.	Furniture 1 Unit (including Slate Frame)	0.45	..	..	0.30	..	..	0.15	..	..	..	..
25.	Charcoal Unit	0.22	..	..	0.20	0.02	..	..	..	..	..	..
26.	Modified Tamarind Kernal	2.73	1.16	0.50	0.10	..	0.97	..	..	..	..	..
27.	Absolute Alcohol	7.27	4.00	1.00	2.05	2.22	..	..	..	..	..	..
28.	Jaggery Making	0.38	..	0.20	0.05	..	0.13	..	..	..	..	..
29.	Khadi Industry	1.41	..	..	..	..	1.41	..	..	..	..	..
30.	Coconut and Coir Complex	3.02	1.00	..	0.50	0.05	..	1.47	..	..	..	..
30.	Power Looms	0.40	..	0.05	0.20	..	..	0.15	..	..	..	..
31.	Ghani Oil	0.15	..	..	..	0.02	0.13	..	..	..	..	..
32.	Pottery	0.15	..	..	..	..	0.15	..	..	..	..	..
33.	Aluminium Utensils	0.30	..	..	0.05	0.10	0.15	..	..	..	..	..
34.	Agri. implements	0.40	..	..	0.07	0.05	0.28	..	..	..	..	..

	1	2	3	4	5	6	7	8	9	10	11	12	13
35. Dehydration of onions	10.00	4.00	1.00	2.00	..	..	..	..	..	..	..	5.00	..
36. Training Programmes	7.00	..	..	7.00	..	..	..	..	..	..	..	..	..
37. Incentives and Concessions	7.50	..	..	7.50	..	..	..	..	..	..	..	..	..
38. Credit Guarantee Schemes	10.00	..	..	10.00	..	..	..	..	..	..	..	..	..
39. Industrial Estates	25.00	..	..	10.00	..	..	..	..	..	..	..	..	15.00
40. Feasibility Studies	3.00	..	..	3.00	..	..	..	..	..	..	..	..	..
41. Handicrafts	2.00	..	..	2.00	..	..	..	..	..	..	..	..	..
42. Plantations	20.00	..	..	14.00	..	..	6.00	..	..	..	..	..	..
43. Livestock based Industries	20.00	..	..	..	..	..	..	..	..	..	20.00	..	..
44. Self Employment Schemes	1.50	..	..	..	..	1.50	..	..	..	..	..	..	..
Total :	173.52	19.12	2.75	75.00	5.35	9.50	9.45	8.35	24.00	5.00	15.00		

ANNEXURES

Background Paper—

Tribes of Andhra Pradesh

I-20x

ANNEXURE—I

LIST OF INSTITUTIONS IN SRIKAKULAM, VISAKHAPATNAM,
KHAMMAM AND ADILABAD DISTRICTS

Srikakulam District :

1. Srinivasa Carpentry-cum-Blacksmithy Cooperative Society Ltd., Sompeta.
2. Kuddapalli Bamboo Rattan Works Cooperative Industries Society, Seethampeta.
3. The Bricks and Building Material Cooperative Productive Industrial Society Ltd., Gondi.
4. Sree Venkateswara Khandasari Production Industrial Cooperative Society Ltd., Rasta Kuntubai.
5. The Girijan Brahmi Amla and Bhringa Raj Hair Oil Cooperative Society Ltd., Seethampeta.
6. The Fibre Products Cooperative Industrial Society Ltd., Kadagandi.

Visakhapatnam District :

1. Carpentry Training-cum-Production Centre, Paderu.
2. Spinning and Weaving Training-cum-Production Centre, Hukumpet.
3. Pottery and Brick Making Training-cum-Production Centre, Hukumpet.
4. Carpentry Training-cum-Production Centre, Araku.
5. Servicing-cum-Training Centre in the manufacture of Steel Trunks, Koyyuru.
6. Common facility Centre for Carpenters, Sarabannapalem, Koyyuru.
7. Myrobalam Crushing Unit at S. Kota.
8. Tassar Silk Industry.
9. Chowki Rearing Unit.

Khammam District :

1. Rural Community Workshop, Vinayakapuram (Aswaraopet).
2. Demonstration-cum-Training Centre, Bamboo and Rattan Products, Narvaigudem (Aswaraopet).

3. Bamboo and Rattan Products Unit at Bhadrachalam.
4. Fruit Preservation Unit at Aswaraopet.
5. Saw Mill at Aswaraopet.
6. Production-cum-Training Centre, Village Pottery, Mallaram, Aswaraopet.
7. Common Facility Centre (Power Operated).
8. Common Facility Centre, Bhadrachalam.
9. Demonstration-cum-Training Centre, Bamboo and Rattan Products, Bhadrachalam.

Adilabad District :

1. Rural Arts, Crafts and Industries Centre, Utnocr.
2. Common Facility Centre, Wankidi.

ANNEXURE—II

INDUSTRIAL WORKS

Sl. No.	District	Block	Blacksmithy		Carpentry		Pottery		Brassmithy		Goldsmith	
			T.	N.T.	T.	N.T.	T.	N.T.	T.	N.T.	T.	N.T.
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Srikakulam	Seethampeta	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	Srikakulam	Pachipenta	..	..	..	..	..	..	..	..	..	..
2.	Khammam	Aswaraopet	50	100	50	100	Nil	100	Nil	25	Nil	200
	Khammam	V.R. Puram	25	Nil	50	..	50	..	..	..	..	..
	Khammam	Bhadrahalam	20	36	30	61	..	87	..	..	..	40
	Khammam	Kunavaram	200	150	25	50	5	35	..	..	..	20
3.	Visakhapatnam	Paderu	..	..	58	..	65	..	88	..	..	..
	Visakhapatnam	Ananthagiri	15	..	..	..	10	..	..	..	..	..
	Visakhapatnam	Munchingiputtu	167	..	152	..	114	..	..	..	..	..
	Visakhapatnam	Araku	15	..	..	..	250	..	..	..	1	..
	Visakhapatnam	Pedabayalu	..	..	..	..	..	..	..	..	..	..

1	2	3	4	5	6	7	8	9	10	11	12	13
	Visakhapatnam	Koyyuru	66	..	16	..	..	..	..	16	..	73
	Visakhapatnam	Chintapalli	..	..	..	..	..	..	..	..	..	..
	Visakhapatnam	G. Madugulu	245	..	30	..	..	..	..	..	..	..
4.	West Godavari	Buttayagudem	15	17	60	80	..	18	..	..	..	15
	West Godavari	Polavaram	..	..	..	..	..	..	..	..	..	..
5.	Warangal	Eturnagaram	78	..	74	..	86	..	..	..	..	..
6.	Adilabad	Utneor	30	100	125	54	148	..	..	..	..	..
	Total:		926	403	670	345	728	240	88	41	1	359

(Contd.)

ANNEXURE—II

Sl. No.	District	Block	Basket Weaving		Mat Weaving		Cloth Weaving		Other works		Total Total (T+NT+Others)	
			T	NT	T	NT	T	NT	T	NT	T	NT
1	2	3	14	15	16	17	18	19	20	21	22	23
1.	Srikakulam	Seethampeta	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
	Srikakulam	Pachipenta	..	..	..	..	..	..	..	..	..	..
2.	Khammam	Aswaraopet	50	nil	30	..	nil	nil	..	180	525	705
	Khammam	V.R. Puram	150	..	..	..	..	..	..	275	nil	275
	Khammam	Bhadrachalam	5	4	5	10	..	2	..	60	240	300
	Khammam	Kunavaram	..	..	5	6	..	..	..	235	261	496
3.	Visakhapatnam	Paderu	22	..	..	..	..	..	92	233	nil	325
	Visakhapatnam	Ananthagiri	30	..	20	..	..	..	30	75	nil	105
	Visakhapatnam	Munchingiputtu	140	..	..	..	..	..	..	573	nil	573
	Visakhapatnam	Araku	50	..	10	..	5	..	40	331	nil	371

ANNEXURE—III

LIST OF PROPOSED SMALL SCALE INDUSTRIAL PROCESSING UNITS

1. Myrobalam Crushing Unit at Srungavarapukota.
2. Niger Seed Oil Mill.
3. B Class Soap Unit.
4. Honey Plant for Pasturising Honey.
5. Starch from Tamarind.
6. Tamarind Juice concentrate.
7. Tanning extracts from Myrobalam.
8. Prectin and Tatrade from Tamarind Pulp.
9. Alkaloids from Nuxvomica.
10. Fruit Preservation Unit.
11. Khandasari Sugar Unit.
12. Hand Made Paper Unit.
13. Match Industry.
14. Dehydration of Ginger and Ginger Products.
15. Rope and Ban Making Unit.
16. Sago Pellets from Tapioca.
17. Grading and Processing of Gum Karaya.
18. Lemon Grass Oil by Distillation.
19. Wood Cutting (Saw Mill).
20. Annattee Seed Processing for Extraction of Colour.
21. Splints and Veneers Manufacture.
22. Modified Tamarind Kernal Powder TKP Phosphate or TKP Borate.
23. Tartaric Acid from Tamarind leaves.
24. Manufacture of Absolute Alcohol from Mohwa Flower.

ANNEXURE—IV

LIST OF VILLAGE AND COTTAGE INDUSTRIES

1. Cane Making Industry.
2. Bamboo and Basket Making.
3. Mat Weaving.
4. Fibre Production Industry
5. Stitching of Adda Leaf.
6. Deseeding of Tamarind.
7. Bee-keeping Industry.
8. Ghani Oil Industry.

Fibre development in respect of Sisal, Miscellaneous Fibres etc. Under this programme the following units are proposed :

- (i) Scheme for Plantation of Sisal Hemp Fibre.
- (ii) Scheme for Plantation of Miscellaneous Fibre.
- (iii) Scheme for establishing or experimental demonstration farm for improved varieties of cotton and setting up of one ginning unit in the tribal areas of Adilabad District.
- (iv) Scheme for Plantation of Feed Trees for lac culture and shellac-training in the manufacture of refined lac.
- (v) Scheme for intensive cultivation of pineapples and other fruit trees.
- (vi) Scheme for the Herberiums for Medicinal plants at Warangal and Visakhapatnam.
- (vii) Scheme for plantation of feed trees for Tassar culture.

ANNEXURE—V

LIST OF PROPOSED AGRO-FOREST BASED INDUSTRIES

West Godavari District :

1. Bee-keeping.
2. Palm Fibre Extraction and Brush Making Centres.
3. Palm Leaf Products Manufacturing Centres.
4. PLAN GUM MAKING CENTRES
5. Semi-Machinised Brick and Tile making Unit.
6. Starch Extraction Unit.
Cottage Industries Cluster.
7. Manufacture of Plastic Toys.
8. Manufacture of Guage and Bandage Cloth.
9. Shikai Grinding.
10. Manufacture of Agricultural implements.

Visakhapatnam District :

1. Fibre Production Industry.
2. Ghany Oil Industry.
3. Starch Industry.
4. Fruit Products Processing.
5. Paints.
Cottage Industries Cluster.
6. Binding Works.
7. Manufacture of Guage and Bandage Cloth.
8. Manufacture of Plastic Goods.
9. Match Splinters and Tooth Picks manufacturing Units.

10. Adda Leaf Stitching.
11. Myrobolam Crushing.

East Godavari District :

Cottage Industries Cluster

1. *Plains Cluster :*

1. Snake Skin Tanning Unit for Yanadis
2. Plastic Cane Articles manufacturing Unit
3. Binding Unit
4. Guage and Bandage Manufacturing Unit

2. *Agency :*

1. Myrobolam Processing Unit
2. Match Box and Splint making Unit
3. Oil Expeller
4. Popcorn Unit
5. Binding Unit
6. Guage and Bandage Manufacturing Unit

Srikakulam District :

1. Bee-keeping Industry
2. Scheme for Development of Tassar Culture Centres
3. Training Programme to Tribals in Reeling and Spinning of Cocoons and Weaving.

East Godavari District :

1. Rope Making from Kopire (Sabai) Grass
2. Government Silk Farm
3. Tamarind Starch
4. Palm Fibre Extraction Centre
5. Engineering Workshop for repairing Oil Engines Motors, Agricultural implements etc.
6. Manufacturing of Roofing Tiles
7. Cottage Industries Cluster

Adilabad District :

1. Training of Tribal Artisans in Carpentry and Blacksmithy
2. Supply of improved hand tools to Tribal Artisans
3. Parapetitic Demonstration Unit in Tape Weaving (Navar) at Wankidi
4. Manufacturing of Roofing Tiles
5. Katha Industry
6. Beedi Manufacturing
7. Wooden Toys

Khammam District :

1. Mini-steel Plant at Kothagudem with the assistance of United Nations Development Project.
2. Manufacture of Polyester Fibre.
3. Development of Tassar Silk Industry.
4. Bee-keeping Industry.
5. Hand Pounding of Paddy.
6. Aala Leaf Stitching Centre.
7. Manufacture of Matches.
8. Manufacture of Beedies.
9. Bamboo Articles Manufacturing.
10. Palm Leaf Articles and Palm Gur Manufacturing.

Warangal District :

1. Extraction of Non-Edible Oil Seeds.
2. Rope Making Centre.
3. Improved Tools to Tribal Artisans.
4. Beedi Manufacturing Unit.
5. Cluster of Cottage Industries.
6. Tooth Pick and Match Stick Making Industry.
7. Popcorn Industry.
8. Pottery.
9. Brick and Tile.
10. Rattan Goods.
11. Net Making.

Copy :-

GOVERNMENT OF ANDHRA PRADESH

ABSTRACT

TRIBAL WELFARE - Industrialisation of Tribal areas in Andhra Pradesh - Constitution of an Expert Committee - Orders - Issued.

EMPLOYMENT AND SOCIAL WELFARE DEPARTMENT

G.O.Ms.No. 19.

Dated : 3rd January, 1975.

ORDER :

Government consider that the industrialisation of Tribal areas along with intensive development of Agricultural sector is very essential for the overall economic Development of Tribals and Tribal areas. For formulating the policies, programmes and organisation of industries, in the Tribal areas, it is felt necessary to constitute a high level committee consisting of the following :

- (i) Secretary to Government, Industries Department, Government of Andhra Pradesh, Hyderabad. **Chairman**
- (ii) Director of Industries, Government of Andhra Pradesh, Hyderabad. **Member**
- (iii) Managing Director, Andhra Pradesh Industrial Development Corporation, Hyderabad. **Member**
- (iv) Managing Director, Small Scale Industrial Development Corporation, Hyderabad. **Member**
- (v) Director, Khadi and Village Industries Commission, Hyderabad. **Member**
- (vi) Managing Director, Industrial Infrastructure Corporation, Hyderabad. **Member**
- (vii) Deputy Secretary to Government (in charge of Tribal Welfare), Employment & Social Welfare Department, Government of Andhra Pradesh, Hyderabad. **Member**
- (viii) Director, Tribal Cultural Research and Training Institute, Hyderabad. **Convenor**

12. The terms of reference of the Committee are as follows :

- 1) To assess the potentials and examine the scope of establishing agro-forest large scale, small scale and cottage industries in Tribal areas;
- 2) To formulate a guided and promotional industrial development policy for the Tribal areas;
- 3) To initiate a continuing dialogue between the different promotional agencies and the entrepreneurs in different sectors viz., public, private and cooperative;
- 4) To suggest suitable schemes for improving technical know-how, skills and entrepreneurial abilities among tribals;
- 5) To consider the role of State Government, Industrial and financial institutions such as Andhra Pradesh Industrial Development Corporation, Andhra Pradesh Industrial Infrastructure Corporation, Andhra Pradesh Small Scale Industrial Development Corporation, Andhra Pradesh State Financial Corporation, Khadi and Village Industries Commission, Girijan Cooperative Corporation Limited, Visakhapatnam, Small Industries Service Institute etc., for the Development of Industries in Tribal areas.
- 6) To consider the nature of concessions to be given for promoting the industries in Tribal Areas and in particular to examine the procedural financial and fiscal and other incentives for private sector etc.
- 7) To examine the scope for starting industrial estates in Tribal areas on Cooperative lines.
- 8) To suggest self employment schemes for the educated unemployed among tribals;
- 9) To examine the scope for establishing Girijan Industrial Development Corporation for the Tribal Areas exclusively.

3. The duration of the Committee will be six months. The Committee is requested to submit a comprehensive report to Government within six months from the date of this order.

4. The expenditure on the Committee shall be debited to the relevant sub-heads of Appropriation under "288 Social Security and Welfare- C. Welfare of Scheduled Castes, Scheduled Tribes and other Backward Classes-I. Direction and Administration (i) Headquarters office".

5. The Director of Tribal Welfare is requested to take necessary action for providing necessary funds in the budget for the purpose.

6. This issues with the concurrence of Finance and Planning. Vide their U.O. No. 2/FPSP/75, dated 1-1-1975.

BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH

M.A. HALEEM,
Secretary to Government.

To

The Director of Tribal Welfare, A.P. Hyderabad.
The Director, T.C.R. & T.I., Hyderabad.
All Members through Director, T.C.R. & T.I., Hyderabad.
The Managing Director, Girijan Co-op. Corporation, Visakhapatnam.
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Copy to D. Section.

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Copy of :

GOVERNMENT OF ANDHRA PRADESH
EMPLOYMENT AND SOCIAL WELFARE(F) DEPARTMENT

Memo No: 148-F1/75-1.

Dated: 19-5-1975.

Sub :- Tribal Welfare - Industrialisation of Tribal Areas in Andhra Pradesh
Constitution of an Expert Committee - Nomination of the Director of
Tribal Welfare as Member - Orders - Issued.

Ref :- 1. G.O.Ms.19, E & S.W.Dept., dated 3-1-1975.

2. From the Director of Tribal Welfare Letter Rc. No. 890-H2/75, dated
13-1-1975.

Government hereby nominate the Director of Tribal Welfare also as Member
of the Expert Committee constituted in the G.O. 1st cited.

M. HAALEEM,
Secretary to Government.

To

The Director of Tribal Welfare, Hyderabad.
The Director, T.C.R. & T.I., Hyderabad.
All Members through Director, T.C.R. & T.I., Hyderabad.
The Managing Director, Girijan Co-operative Corporation Ltd., Visakhapatnam.
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Copy to D. Section.

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ERRATA

PART—I

<i>Page</i>	<i>Para</i>	<i>Line</i>	<i>For</i>	<i>Read</i>
vi	4	5	Deliberntions	Deliberations
9	1	3	Suh	Such
34	3	3	tapes	types
41	7	4	L.C.D.C.	N.C.D.C.
47	1	5	Coopertive	Cooperative
48	3	3	Conditions	Condition

PART—II

68	3	14	estabiishing	establishing
74	3	2	prodvce	produce
78	—	C(ix)	Moiassess	Molasses
80	—	Sub title	As per	— as a
80	1	9	Introducing	In introducing
80	8	1	Cooperatvie	Cooperative
81	1	2	econmy	economy
81	3	5	term	terms
83	3	5	displeased	dispersed
83	3	7	accompained	accompanied
83	4	7	induce	induced
84	1	2	is	arise
84	1	5	the	this
84	1	14	will	will be
88	2	11	the	due
89	2	6	ceonomy	economy
92	4	8	credited	created

<i>Page</i>	<i>Para</i>	<i>Line</i>	<i>For</i>	<i>Read</i>
93	2	14	try to	try to enter
93	2	18	immovative	innovative
94	5	2	esort	resort
95	(iii)	—	potentia	potential
95	5	2	and	and any
96	1	8	take	take an
97	2	10	becasuse	because
98	Title	—	Antisans	Artisans
98	1	1	This	The
99	2	4	adopts	adepts
99	3	10	1.97	4.97
99	4	5	opend	opened
109	6	1	amall	small
113	1	4	of	to
114	1	3	no	not
115	5	2	tribe	tribes
116	1	5	districts	district
118	2	7	cozes	Oozes
122	3	3	opetated	operated
125	4 (1)	4	(Copy of which is enclosed)	delete
		6	A copy of C.M's assurance on this problem is also enclosed	
126	3	1	areas	delete
127	3	3	specialise	areas are specialised
129	8	5	ana	and
132	3	4	tribl	tribal
133	4	4	ointly	jointly

<i>Page</i>	<i>Para</i>	<i>Line</i>	<i>For</i>	<i>Read</i>
133	6	5	for	of
135	1	1	developments	development.
138	5	1	terrin	terrain
141	1	1	to	of
146	3	3	schedulad	scheduled
148	3	1	raw-matreial	raw-material.
153	—	title	project profiles (Annexure iv).	Project profiles
159	VIII	3	(Please work out for 3 months)	delete
160	—	title	250 k.g. perday	250 k.gs. per day
163	2	5	or	for
168	VII	—	(Months)	(Month)
168	XI	profit per month	33866	38866
176	—	VII	(Months)	(Month)
180	—	13	(TEP)	(TKP)
181	—	6	50% of item 2 to above	50% of item 2 to 5 above
182	—	14	1,40,00	1,40,000
183	1	5	1.72 lakhs	1.72 lakhs K.Gs.
184	5	4	Agency	Agency
189	1	10	Continated	estimated
191	6	2	Implecation	implication
193	—	—	(Months)	(Month)
194	XI	3	3,497	4,497
197	V	(iv)	1,200	1,250
198	IX	—	109115	109155

<i>Page</i>	<i>Para</i>	<i>Line</i>	<i>For</i>	<i>Read</i>
199	3	3	Scaking	soaking
202	VII	—	(Months)	(Month)
205	—	Title	Brick	Bricks
206	5	5	Population	65% of the population
207	6	2	Consist	consists
207	3	3	Cooperation	cooperative
209	(D)	(a)	Rs. 40,700	Rs. 41,100
210	4	5	uses	use
211	—	title	schemes	scheme
213	2	3	Chela	Cherla
214	2	2	or	for
214	2	4	extracted	extracted
218	VI	—	(Months)	(Month)
219	36	—	oil expellor	oil expeller
220	V	—	(MP)	(PM)
220	VI	—	(Months)	(Month)
222	2	4	40.00	400.00
224	VII	—	(Months)	(Month)
229	VII	—	(Months)	(Month)
230	VII	—	(Months)	(Month)
232	VII	—	(Months)	(Month)
234	VIII	—	for 3 months	for 2 months
236	VII	—	(Months)	(Month)
239	VII	—	(Months)	(Month)
240	VIII	—	(Please work out for 3 months)	delete
242	6	3	established	embellished
245	2	1	scheme	scheme

<i>Page</i>	<i>Para</i>	<i>Line</i>	<i>For</i>	<i>Read</i>
250	1	3	durablity	durability
251	5	5(a)	contingenies	contingencies
261	XV	3	Narayanabad	Narayanakhed
263	XVIII	7	Huzurabad	Huzurabad
263	XIX	5	Mahaboobnagar	Mahaboobabad
265	16	9	240	140
271	—	—	Annexure-IV (Refer Project Profiles 276-429)	delete
273	—	—	Annexure V	Annexure IV
273	B	1(i)	Qualifications	Qualification
274	4(ii)	1	imported	imparted
275	6(3)	2	Extention	Extension
276	6	—	86,000	16,000
278	IV	3	Finnace	Finance
279	—	—	Annexure VI	Annexure V
279	4	6	this	the
281	7	10	promoting	promotion
283	—	—	Annexure VII	Annexure VI
283	1	5	industrie	industries
283	3	(ii)-2	reach	each
283	3	(iv)-2	ndustrialise	Industrialise
284	5	(i)-2	identify	identified
284	6	3	ochieved	achieved
286	—	—	Annexure VIII	Annexure VII
286	12	col 6 & 9	0.27 0.50	0.07 0.05
293	Title	—	Industrial Works	Industrial Workers
298	—	(iii)	or	an
299	4	—	Plan gum	Palm Gur
304	—	—	M. Haaleem	M. A. Haleem

ABBREVIATIONS

D.B.K.Railway Project	=	Dandakaranya, Bolangir, Kiruburu Railway Project
T.D.B.	=	Tribal Development Block
A.C.C.	=	Associated Cement Company.
K. Ramachandrapuram	=	Kota Ramachandrapuram
APPSC	=	Andhra Pradesh Public Service Commission
UPSC	=	Union Public Service Commission
R.S.C.	=	Railway Service Commission
S.F.D.A.	=	Small Farmers Development Agency
M.F.A.L.	=	Marginal Farmers & Agricultural Labourers
I.T.Is.	=	Industrial Training Institutes
K.V.I.C.	=	Khadi and Village Industries Commission
S.I.E.T.I.	=	Small Industry Extension Training Institute
APSSIDC	=	Andhra Pradesh Small Scale Industries Development Corporation
I.D.B.I.	=	Industrial Development Bank of India
I.F.C.	=	Industrial Finance Corporation
N.C.D.C.	=	National Cooperative Development Corporation.
K.C.Canal	=	Kurnool, Cuddapah Canal
A.P.I.D.C.	=	Andhra Pradesh Industries Development Corporation.
A.P.I.I.C.	=	Andhra Pradesh Industrial Infrastructure Corporation.
G.C.C.	=	Girijan Cooperative Corporation
A.P.S.E.B.	=	Andhra Pradesh State Electricity Board
T.W.D.	=	Tribal Welfare Department
S.I.S.I.	=	Small Industries Service Institute
TCR & TI	=	Tribal Cultural Research and Training Institute.
A.P.S.F.C.	=	Andhra Pradesh State Finance Corporation.

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