SOCIO-PSYCHOLOGICAL FACTORS INFLUENCING INDUSTRIAL ENTREPRENEURSHIP IN RURAL AREAS

A Case Study in Tanuku Region of West Godavari, Andhra Pradesh

V. R. GAIKWAD
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national institute of
community development
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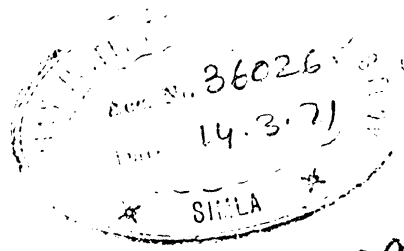

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FOREWORD

I am happy to see that the National Institute of Community Development in collaboration with the Directorate of Industries have made a detailed study of the causes which have led to the industrial development in West Godavari district particularly in and around Tanuku. It is good that the study had evaluated in depth the sociological and economic factors which led to this particular area developing at a faster rate than the surrounding areas. The study gives valuable insights to officials and non-officials working for industrial development and enables them to identify the strong points for industrial development in particular areas.

The National Institute of Community Development has to be commended on bringing out the study in a remarkably quick time. I hope they will be able to undertake further studies of this nature and help us in achieving our objectives of improving the economic standards in rural areas.

25th April, 1970

J. V. Narsing Rao
Deputy Chief Minister
Andhra Pradesh

PREFACE

Economic planning as such offers no infallible recipe for achieving a high rate of growth. In every case, the specific characteristics of growth, stagnation or retrogression, must be carefully studied in an attempt to isolate casual factors. One such factor closely dependent on the socio-psychological environment of the community is the type, extent and distribution of entrepreneural talent. This will influence, although not necessarily determine, the mode of economic development for which the government chooses to plan.

In the post-independence era, the structure of India's traditional agriculture was threatened with reforms of far-reaching consequences and actually underwent drastic changes either in compliance with the resultant legislation or in partial circumvention of the same, affecting in either case the fortunes of the landed aristocracy. In the context of traditional agriculture it was this section of the community which displayed signs of enterprise and efficiency.

These erstwhile leaders of the agricultural community, having perceived the limited scope of agriculture in the changed context, tended to divert their resources, energies and entrepreneurial talents to industrial enterprises. In this their efforts were reinforced by accumulated surpluses generated over long years of traditional agricultural activity as also by the break-up and parcelling out their latifundia under the threat of agrarian reforms. This frame of analysis explains the phenomenon of the rise of entrepreneurship in Tanuku taluk of West Godavari district.

The present study was undertaken by the National Institute of Community Development in June, 1969, at the instance of the Andhra Pradesh Government. The chief motivation for the study came from Shri Syed Abid Hussain, IAS, the then director of Industries and Commerce who, after observing the phenomenal growth of small industries in this area was anxious to understand the processes and problems so that the experience gained in one place can be successfully utilized elsewhere in the state.

The subject of rural industrialisation was also of considerable interest to the NICD in the context of community development and agricultural growth, and was discussed several times in the syndicates of

the orientation courses. It was, therefore, a happy coincidence when the state government asked the NICD to take up an empirical study to examine the pattern of industrial growth in Tanuku and to identify the factors that have played a decisive role in moulding the industrial entrepreneurship there.

The fieldwork for the study was somewhat delayed by the cyclonic havoc which affected this part of the state in May 1969; but with the co-operation of the department of Industries and Commerce as well as its district counterpart the fieldwork was successfully completed. The study was undertaken along interdisciplinary lines, so that the different facets of the phenomenon could be perceived in their totality.

The Institute is grateful to the Government of Andhra Pradesh for defraying a part of the expenses by making a grant of Rs. 10,000/- and for giving clearance to the publication of this report. We are also beholden to Shri J. V. Narsing Rao, Deputy Chief Minister of Andhra Pradesh for the kind foreword written by him.

National Institute of
Community Development, Hyderabad
25th April, 1970

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ACKNOWLEDGMENTS

We record our grateful thanks to D. Karunakara Rao, R. Jagannadh Rao, K. Ramaswamy Sastri and T. G. Ramakrishna who worked as investigators in this project and to Md. Agbar for the secretarial help. We are indebted to Sri M. Harischandra Prasad for the assistance he gave us in conducting the study. We also record our grateful thanks to all the respondents in Tanuku taluk for the co-operation extended by them during the fieldwork.

Authors

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I. INTRODUCTION

A. Terms of Reference

On April 4, 1969, Abid Hussain, director of Industries and Commerce, Government of Andhra Pradesh invited the National Institute of Community Development to undertake an interdisciplinary research on industrial entrepreneurship in rural areas. The specific objectives agreed to after discussions were : (1) to examine the pattern of industrial growth in Tanuku taluk in West Godavari district; (2) to identify factors that have played decisive role in moulding the industrial entrepreneurship in Tanuku taluk ; and (3) to suggest steps for effective utilisation of identified factors for industrial growth in rural areas.

B. Scope and Areas of Enquiry

It was decided that the study would be essentially a microscopic depth study that would concentrate on the founder entrepreneur M. Harischandra Prasad of the fast expanding concern, The Andhra Sugars Ltd. To understand the relative importance of different factors, the study was also to cover a number of other entrepreneurs of the region. While the main focus was to be on industrial entrepreneurship, it was thought that, as an exercise, a small number of those in business should also be covered by the study so as to get a comparative picture of emerging entrepreneurship in industry and trade. The broad areas of enquiry were : (1) personal profile of the entrepreneur and his socio-economic background ; (2) external factors such as political factors, governmental policies, outside contacts that have played important role in influencing the entrepreneur's decisions ; (3) nature of enterprise, its organisation and growth ; and (4) methods used by the department of Industries for promotion of industries in rural areas.

C. Study Design and Methodology

Physical factors such as location, communication network, crop patterns, etc. influence the growth of industries in a region. Similarly, socio-economic and political factors, such as concentration of economic and political power in a few families or lineages or a caste also determine

the nature of entrepreneurship that is likely to develop in a region. Hence, it was decided to give a broad profile, covering the above factors, of the Tanuku region. This is given in Appendix 1.

Existence of industries in a region, their nature, past experiences and achievements often determine the further industrial growth of the region. Hence, it was thought necessary to have an idea about broad pattern of industrial growth in Tanuku region. Accordingly, data pertaining to all types of industries small as well as large, were collected from the office of the director of Industries, Hyderabad, and also from the office of assistant director of Industries, Eluru, West Godavari district. The analysis of data is given in Appendix 2.

This being an intensive depth study and not a broad survey, only a small number of entrepreneurs were covered in this project. The growing large-scale concern, the Andhra Sugars Ltd., was the main focus of the study. In addition to this, ten other entrepreneurs who had started industries after 1947 were covered. These were selected to cover three categories of industries, viz (1) traditional agro-based processing industries such as rice mills and *khandasari* sugar mills; (2) general engineering works and iron and steel fabrication works manufacturing locally-sold consumer products such as buckets, common agricultural implements, steel trunks, etc ; and (3) manufacturing or assembling units producing non-traditional products such as transistor radios.

Category (1) industries are not registered as small-scale industries with the assistant director of Industries, except for one unit, the Venkateswara Gur and Khandasari Sugars Limited. Information about category (1) industries was obtained from the 1961 Census. [see Appendix 3 (a), 3 (b), and 3 (c).].

In the list of registration of small-scale industries, made available by the office of the director of Industries, covering 102 industries that could be classified under category (2) and 17 under category (3), the number of industries selected randomly from each category for intensive study are : category (1) ... 4 ; category (2) ... 4 ; and category (3) ... 2. List of the sample industries is given in Appendix 4.

Of the 11 entrepreneurs, five are from Tanuku town, four from Penugonda town, one from Peravali and one from Neggipudi.

In Tanuku taluk, there are also a large number of small-scale industries manufacturing brass and copper domestic utensils. These being small, traditional, well-established industries, were not covered by the study.

A purposive sample of 15 entrepreneurs in trade was selected. These cover different fields of business. The sample business concerns selected are given in Appendix 5.

The case study method was followed in this research. Unstructured interview was the main tool of study. This was mainly used to get the life-histories of the informants. To get the personal information systematically, the interview was further supplemented by a schedule with open-ended questions. This is given in Appendix 6. Extensive methodical probing was done to get as many details as possible. Data collection was not done in one sitting, but was spread over a number of sittings; each informant being visited at least three times. This approach, though time-consuming, not only proved highly successful in eliciting frank and reliable responses, but also helped in checking of the data and in filling the missing details in the course of interviews. In addition to the above mentioned two research tools, genealogical method was also used to get a proper idea about the family structure, size of family, extension of marital ties and such other information. A structured schedule was also used to collect general information such as organisation, personnel, investment pattern, etc. about the industry. This is given in Appendix 7. A different set of schedules was administered to those in trade. These are given in Appendix 8.

Profile of M. Harischandra Prasad, based on an analysis of his life-history data is given in Appendix 9.

Case material collected from the office of the assistant director (Industries), Eluru, is used to illustrate certain pertinent points in this report. Case material covers one case of failure, and a number of cases dealing with the promotional efforts made by the department of Industries, at the district level. Material was collected from office records and, in one case, from the entrepreneur himself. The cases are given in Appendix 11.

Preliminary preparation on the study started on April 15, 1969. Research team went to field on May, 3, 1969. Data collection was over by August 15, 1969. In all, a total of 142 man-days were spent in field-work. But for the cyclonic fury to which the coastal districts of Andhra Pradesh were exposed in the month of May, and the Telangana agitation, this study would have been completed within the stipulated period of three months i.e., by July 15, 1969.

II. FINDINGS

A. Profile of Tanuku Taluk

Tanuku taluk is one of the rich taluks in West Godavari district. It has very fertile alluvial soil. The whole region is irrigated by Godavari canal system which was developed more than hundred years ago.

Today, Tanuku has most of the necessary infrastructure which could be effectively utilised for achieving a high rate of industrial growth. The land is rich. Due to high agricultural productivity, capital formation has been high. Though the common farmer in the region is well-to-do, due to socio-historical reasons there has been concentration of wealth in a few families or cluster of allied families. Transport and communication facilities are well developed. Literacy is on the increase. General level of development is high when compared with any part of the district. Skilled labour for basic trade is locally available and technically qualified persons looking out for opportunities are also in good number (for details on this section, see Appendix 1.)

B. Pattern of Industrial Growth in Tanuku Region

West Godavari district on the whole is not industrially so developed, when compared with some of the other districts of the state such as Krishna and East Godavari. Tanuku taluk is the main region of the district that shows signs of development of modern industries.

The main cottage and small-scale industries are: handloom weaving, cotton dyeing and bleaching, vegetable oil-pressing, *gur* manufacture, tobacco products other than *beedies*, copper, brass and bell-metal works manufacturing domestic utensils, pottery, basket-making, manufacture of leather slippers and shoes, and milling of cereals. As regards the large and medium-scale industries, the taluk has sugar factories, *khandasari* sugar mills, a cycle industry, a fertilizer factory, textile mills, brass rolling mill, and a number of rice mills. According to 1961 Census, there were 121 small-scale industries in Tanuku. In 1962, under the operation of the Factories Act, there were also 47 large industrial establishments in rural areas and 37 in urban areas. The major concentration of small and large-scale industries is in and around three centres, namely, Penugonda, Ajjaram and Tanuku.

In Tanuku taluk, industries are coming up at an increasing rate. The most important breakthrough was achieved in the year 1947 when a major sugar mill was started by M. Harischandra Prasad. It seems that because of this entrepreneurship, a sort of change in the attitude towards industry has taken place in the region. Since the last decade, there is a shift from the traditional brass and metal works and rice milling industries towards diversification of industries. This has occurred even when the traditional industry enjoys a comparatively high turnover on a relatively low capital investment and fetches good profits. In the Second Five-Year Plan period, the process of industrialisation got a further impetus. Diversification of industry is also accompanied by medium to large initial capital investment, increasing use of power in industry, marked shift from individual to partnership concerns, and emergence of new growth centres such as Tanuku town for new type of industries (for details on this section, see Appendix 2).

C. Prerequisites for Successful Entrepreneurship

A brief life-history of Harischandra Prasad is given in Appendix 9. Some of the salient factors and situations that have contributed to his impressive success in the field of industry are given here. From the analysis of these factors and situations would emerge some of the possible prerequisites for successful entrepreneurship in rural India.

The Mullapudi family, belonging to *Kamma* caste, was already well-to-do and influential in the first half of the 19th century. Construction of the Godavari anicut in 1848 greatly contributed to the prosperity of that region. M. Venkatarayudu (*b.* 1860), the grandfather of Harischandra Prasad, was an adopted son. *He was a man of great vitality, a strict authoritarian and of demure nature and simple living.* With his hard work he increased manifold the already substantial ancestral property. He had his only son, Thimmaraju, at the prime of his life when he was just over 40 years old. *Under the energetic, active dominating father, Thimmaraju lived a secure and peaceful life without ever being bothered much by property matters.* A man of unassuming, charming nature and of literary taste, apart from his love for social relations, he was interested in local politics. He never imposed his will on his children. He married at an early age and before he was 21 years old had a daughter and a son, Harischandra Prasad. Harischandra Prasad's mother died when he was one and a half years old. Thimmaraju married again, and from this marriage he had a son and three daughters. This son died at a young age of 16. *And, again in the family for the third consecutive generation, there was a single male heir.*

Harischandra Prasad was the sole heir of the accumulated wealth of the two earlier generations.

M. Venkatarayudu, the grandfather, was over 60 years of age when Harischandra Prasad was born. From his childhood, Harischandra Prasad was greatly attached to his grandfather, and *spent his formative years under the training and direction of his grandfather*, and learnt about the management of family property and agriculture. In the process, he acquired many traits of his grandfather. From his childhood he was bold, dashing and hard-working. *From his father's side he acquired a taste for politics.*

M. Venkatarayudu died in 1943. Thimmaraju was over 40 years by that time. *Twenty-two years old, energetic, dashing Harischandra Prasad took over the management of family property* consisting of nearly 2,500 acres of rich farm land.

At an age of 24, Harischandra Prasad fought a tough election in 1945 and became a member of the Provincial Congress Committee. *In the course of his political life, he became acutely aware of the impending socio-economic and political changes.* Independence was inevitable and it was in the air that in the wake of independence would come abolition of zamindari and land reforms which were important programmes of the Congress. He used to discuss the repercussions of these with Ranga Rao, the rich zamindar of Dommeru, who married Harischandra Prasad's elder sister and whose younger sister was married to him.

At this crucial juncture, Ranga Rao and Harischandra Prasad contacted Ramakrishna, a senior I. C. S. officer who had good experience of industries, especially sugar mills. He was a distant relative of Ranga Rao. *Under his guidance and direction, they floated the company, the Andhra Sugars Limited, in Augus 1947. He also helped them in the selection of site in Tanuku. In 1949 he took Harischandra Prasad with him to the U.K., Continent and U.S.A., and there placed orders for machinery for a small plant of 600 M. tons capacity.* On the 20th September, 1949, there was devaluation of rupee. Ramakrishna sent back Harischandra Prasad to Delhi to get import licence and letter of credit. He gave letters of introduction for various officers in different ministries.

Harischandra Prasad did not have any experience of administrative procedures but as he had an acumen to learn the things and procedures, he learnt them and after hard work managed to get the necessary clearance.

The estimated cost of the factory was 14 lakhs. But by the time the factory reached production stage in 1952, *the cost went up to Rs. 40*

lakhs. This was mainly due to devaluation of rupee and, to some extent, due to faulty calculations at the time of planning.

At that time, due to failure of two industries in nearby towns, it was difficult to raise share capital. And so, initially, Harischandra Prasad was able to raise only a small amount. *Due to pressing need of raising capital, he decided to sell the land, even against the wishes and advice of his grandmother and other well-wishers.* He sold land discretely, whenever the land could fetch good price. *The accumulated wealth of generations came to his rescue.* Ranga Rao sold a major part of his land. *Many of his kith and kin also extended their help* because of their faith in the family. Thus, he managed to keep the flow of capital in time.

At the time of erection of the factory, Ramakrishna again gave his help. He sent technical and experienced persons from his sugar factory to help in the erection of the factory.

The teething troubles were quickly over. The factory commenced operation in 1951–52 and declared dividend within two years. After this, the company's progress was phenomenal. *Due to its initial success, in the following years it was able to increase its capital manifold through subscriptions, fixed deposits, and loans from banks, the Industrial Finance Corporation, and the state government.* It took advantage of the favourable industrial climate in the Second Five-Year Plan period (1957–62). *In 1955, Harischandra Prasad again went to Europe* to place orders for machinery for the expansion programme of the sugar factory. The factory expanded its capacity from 600 M. tons to 1250 M. tons by 1958, and to 2500 M. tons by 1968. In the same period, it also developed an integrated chemical complex consisting of heavy chemicals, organic chemicals, plastics and fertilizers. A combined unit of Industrial Alcohol-Acetic Acid-Acetic Anhydride-Ethyle Acetate and Sodium Acetate was built over a period of eight years from 1960. These went into production one after another between 1961 and 1966. Superphosphate factory and Sulphuric Acid plant, both at Kovvur, went into production in 1960–61. The Caustic Soda-Chlorine plant started production in 1965. In addition to these, it also started a number of sister concerns for textiles, machine foundry, rice-bran oil, flour mills, fertilizer mixtures, animal and poultry feed, and cycles and cycle parts.

Harischandra Prasad had no technical education or background. *But in the course of his association with Ramakrishna and in the course of erection of sugar factory, he developed a deep understanding of technical matters.* However, the phenomenal expansion and proliferation of the industries in a short span of 20 years would not have been

possible but for the availability of a number of reliable, dynamic persons with high degree of technical and managerial competence. *And from his large network of consanguinal and affinal relations he was able to pick and choose and train talented young persons, and put them in key positions in his fast expanding industrial interests.* For example, his mother's brother's son, B. B. Ramaiah, who was married to Ranga Rao's daughter, is joint managing director (Technical). He has a post-graduate degree in chemical technology of Wisconsin University, U. S. A. Harischandra Prasad's eldest son looks after the textile mills. His cousin, who is a chemical engineer, is plant manager for chemicals and fertilizer division at Kovvur. Andhra Foundry and Machinery Company at Hyderabad is looked after by Bhanu Prasad, B.E. (Mech.), M. S. (Chemical and Industrial Engineering), who is late Ranga Rao's son-in-law. In recent years, connections have also been developed through marital ties with other families who are in industries.

To-day, for all practical purposes, Harischandra Prasad is the acknowledged head of the large "family" consisting of more than 300 close-knit affinal and consanguinal relatives and commands their undivided loyalty.

Factors and situations that have contributed to Harischandra Prasad's success could be isolated and broadly grouped in a logical and sequential order as follows :

A. The Foundation

1. Historical and socio-economic factors :
   - (*i*) A dominant, influential position in the local community for generations.
   - (*ii*) A large well-knit kin group which could provide support at the time of crisis.
   - (*iii*) Marital ties with a number of rich, dominant families.
   - (*iv*) Prosperity due to the construction of Godavari anicut in 1848.
   - (*v*) Expansion of property due to hard work and simple living of the grandfather.
2. Socio-biological factors :
   - (*vi*) Early marriage, but son born late at the prime of life; secure, peaceful life for the son under the authoritarian father of great vitality.

(*vii*) Early marriage of the son and early birth of grandson who could get training under the grandfather.

3. Biological-Legal-Economic Factors :

(*viii*) No division of property for the last three generations, due to single male heir each time, and consequent accumulation of wealth.

4. Socio-Psychological Factors :

(*ix*) An ambitious, bold, dashing, hard-working personality developed under the training and guidance of the hard-working authoritarian, disciplinary, but ageing grandfather.

(*x*) Aptitude for and deep understanding of property matters, and pragmatic attitude towards life, developed under the training of hard-working and disciplined grandfather.

(*xi*) Opportunity to take responsibility at an early age mainly because of the non-dominating father who has lived a secure, peaceful life without ever being bothered much by property matters.

(*xii*) Motivation for maintaining the dominant socio-economic power position enjoyed for generations in the community.

B. The Crisis

5. Political Factors :

(*xiii*) National independence movement; active membership in political party ; awareness of impending changes ; fear of abolition of zamindari after independence, and consequent loss of socio-economic power.

6. Government Policies :

(*xiv*) Initial favourable climate for the development of industries after independence due to encouraging policies of the government.

C. The Transition

7. Contacts at Political and Governmental levels :

(xv) Contact with a senior I. C. S. officer, having practical experience of industries, belonging to the same caste, and also having relationship.

(*xvi*) Co-operation of various government departments due to high level social contacts, as well as due to contacts with high government officers.

8. Exposer to Modern Technology :

(*xvii*) Visit to western countries; widening of vision.

9. Expert Technical Advice and Guidance :

(*xviii*) Availabilty of expert technical advice and guidance at each and every stage of development of the industry—at the time of floating of company, planning, purchase of machinery, selection of site, erection of plant and, lastly, at the time of expansion and diversification of industry.

D. The Growth

10. Availability of Technical and Managerial Personnel :

(*xix*) Availability of technical and managerial skills within the family circle at the time of expansion and diversification of industry.

11. Timely Availability of Capital :

(*xx*) Due to initial success and the credibility of the person and the institution, availability of large capital for expansion programme from the state government and other sources.

It could be seen from the above that Harischandra Prasad's impressive success is the result of a number of socio-economic, psychological and situational factors. However, it is not a mere mixture of factors, but a combination of factors which have appeared in a sequential order at the most appropriate points of time.

Broadly speaking, it could, however, be said that *apart from a distinct personality and high motivation, the two crucial factors were: (i) a very strong economic position founded on very large agricultural landholding, and (ii) expert technical advice and guidance at all stages of development of industry.*

For a quick perusal, the above mentioned factors could be summarised as follows :

1. Bold, dashing, pragmatic personality.
2. Managerial competence, especially pertaining to property matters.
3. Opportunity to take responsibility at an early age.
4. Strong economic base and strong support from rich kins throughout the period.
5. High motivation for maintaining, under the changing circumstances, the dominant socio-economic power enjoyed by the family.

6. Favourable governmental policies about industrial development.
7. Contacts at higher social and governmental levels.
8. Exposure to modern technology in the course of visits to western countries.
9. Availability of expert technical advice and guidance at all stages of development of industry.
10. Availability of reliable technical and managerial persons from the family circle.
11. Timely availability of institutionalised finance for expansion of industry due to credibility of the person and the institution.

The above eleven factors could be considered the prerequistes for achieving a high level of success in establishment and growth of industry. It could be seen that each factor has a distinct change-inducing capacity and that capacity varies from factor to factor, and according to changing situations. Presence or absence of the factors at particular points of time would determine the level of achievement of an entrepreneur. The levels of achievement of the ten sample entrepreneurs could now be broadly examined in the light of the factors mentioned above.

General background information about the ten sample entrepreneurs is given in Table 8. General information about their enterprises is given in Table 9. A brief description of the entrepreneurs is given below.

Eight out of ten entrepreneurs belong to the district, one to neighbouring Krishna district, while one is an immigrant from Madras. Except one who is Kamma, rest belong to different castes (Telagas—three; Weavers—two; Vysya—two, Brahmin—one; Kshatriya (Maharashtrian)—one. Six out of ten have started the industry as independent individuals, in each case after the death of the father. In four cases, the entrepreneurs belonged to joint families at the time of starting the industry. In six cases, father's occupation was agriculture, in two it was service, (one of them also preparing ayurvedic medicines), and in one case the father had a small industry, while in the remaining cases it was business plus a small-scale metal industry. Break-up of entrepreneurs according to education is as follows: no formal education—one; primary—three; matric—three; B. Sc.—one; B. Com.—one; B. Sc. (Ag.) —one. Occupation prior to starting the industry is as follows : agriculture—three; business—two, (one in yarn trading, and the other having TISCO agency); agriculture plus rice mill—one; working in father's small industry—one; skilled labour (maistree)—one; and the remaining two, in private service. Three entrepreneurs entered industry between the age 15–30; four between 31–35; and three between 36–40.

On the basis of the data collected by depth interviews and supplemented by general information and personal information schedules, the following observations could be made, keeping in mind above isolated 11 factors.

1. From the manner these entrepreneurs have taken the risk, and have started the industries, and the way they have solved the problems faced by them at the initial stages, it could be said that all of them are persons of initiative, drive and hard work (see Tables 10 to 12). Most of them have their worries about raising capital, sale of products, getting permits and quota for raw material from the government, and so on, but they all faced the situation with optimism. Every one of them expected good margin of profit from his enterprise. (Tables 13 and 14.)

2. Three out of four agriculturists had some experience or the other of the industry started by them, since in these cases the industries were agro-based, namely, *khandasari* sugar mills and rice mill. The remaining agriculturist, who started a metal industry, did not have any experience in the line. In remaining seven cases the entrepreneurs had some experience of the industry started by them. Of these, three entrepreneurs had some technical knowledge. It must, however, be said that none of the 10 entrepreneurs had any technical qualification, except, perhaps, the B. Sc. (Ag.) who started the *khandasari* sugar factory.

3. Except three, rest of the entrepreneurs could not enter in the field of industry at an early age either due to lack of finance or lack of proper opportunity.

4. Seven entrepreneurs did not have strong economic base. Prior to starting the industry, five had annual income of about Rs. 6,000 one had about Rs. 2,500 and one had less than Rs. 1,000. Of these seven persons, two were already in business and had some property as well as cash, two had some landed property and, to supplement their capital, they got partners who could provide finance. One did not have any capital and hence started industry in partnership with two persons who provided finance. The remaining two had low annual income and no property. They could not attract any partners and started their industry with very low initial investment. Of the remaining comparatively well-to-do entrepreneurs, one had annual income about Rs. 10,000 while the remaining two had income of nearly Rs. 20,000 per annum. All the three had landed property.

5. In all the cases, the main motive was to improve one's economic condition. The maistree had experience of working for a manufacturer of cement products. So he thought that if he would start his own industry he would earn more. The rich agriculturist

with nearly Rs. 20,000 annual income thought that if he would use the sugarcane grown in his field for making *khandasari* sugar he would get a better return. Another agriculturist thought that rice mills would give him more profit. Assembling radios was the hobby of one of the entrepreneurs. As soon as he got a partner to provide finance he started the industry. In one case there was division of property. The person had experience of selling and dyeing yarn. During business tours he saw hosiery industry at Coimbatore. So he started hosiery industry which would give better returns on his investment.

6. At the time of establishment of industry, none of the entrepreneurs had any definite idea about the governmental policies. But now, five think that there has been a definite change in the policies of the government as could be seen from the encouragement given by it to industries. Two are, however, definite that there is no change, while the remaining three just do not have any idea about it.

7. Except one, none had any contacts at higher political and administrative levels. Only the well-to-do entrepreneur belonging to the dominant Kamma caste has contacts at higher levels. He started the *khandasari* sugar factory. His father was an M. L. A. He is also a relative of Harischandra Prasad, being his father's sister's son.

8. None of them had been abroad. Only three have been to large industrial cities like Bombay, Calcutta, Madras, Hyderabad, and personally seen the working of small-scale industries using sophisticated machines and techniques of production. Rest of them have seen industries which are in the town and those in the adjoining districts of East Godavari and Krishna.

9. In three cases, no outside technical advice was called for as the entrepreneurs themselves have some idea of the work involved or have personal experiences in the matter. In five cases, the industries being the traditional ones, such as rice mills and metal works, the technical know-how was locally available. The superintendent of the government sugarcane demonstration farm gave the idea and technical information to start the *khandasari* sugar factory. After this, the entrepreneur got the technical guidance from technicians from other *khandasari* sugar factories in the region. The entrepreneur who started the hosiery industry got the advice and technical guidance from the secretary of the local textile mills. Wherever technical advice was obtained, it was available only in initial stages. After that the technical problems were solved by the entrepreneurs themselves by trial and error method. Most of them faced the difficulty of getting trained skilled workers. Only in case of hosiery unit, some skilled workers were employed from Coimbatore for a period of three years by which time the local persons were

trained (see Table 15 and 16.).

10. In most of the cases there are young persons in the family of the entrepreneurs, either sons or brothers or both, who are acquiring practical managerial and technical skills. However, at present there are no technically qualified persons in these families. In two cases, one of *khandasari* sugars and other of metal works, the families have sufficient capital for further investment. In both cases, the brothers of the entrepreneurs are thinking of expanding the existing industries and also of starting new industries.

11. Every entrepreneur has expanded his industry manifold, but none has diversified the product, or has started new industries. For expansion of industry seven out of 10 had taken loans from banks; one had taken loan from the Andhra Bank Ltd., while the remaining six had taken loan from the State Bank of India. The amount of loan varies from Rs. 20 thousand to Rs. 2 lakhs.

The above description of ten entrepreneurs is given in a very broad generalised form in Table 17. From this table it becomes clear that none of these entrepreneurs has all the elements essential for achieving high level of growth. It is, however, found that these entrepreneurs do not lack in personal characteristics such as ambition, boldness, hard work, initiative, nor are they less motivated. The lacunae that clearly come out are lack of (*i*) technical know-how and advice, (*ii*) contacts at higher levels, (*iii*) exposure to modern technology and methods of production, and (*iv*) in some cases finance.

A few words could now be added here about tradesmen and their opinions on industries. A List of sample tradesmen is given in Appendix 5. General background information of these 15 tradesmen, and general information about their enterprises are given in Table 18 and 19. A brief description of these tradesmen is given below.

Eleven out of 15 tradesmen were born in Tanuku town itself, while four were born in the nearby villages. Except for five who were Kammas, the rest belonged to different castes (Vysya – four; Telagas – three; Reddys – two; and Brahmin – one). Eight out of 15 have started the business as independent individuals, while in remaining seven cases they belonged to joint family. In 12 cases, father's occupation was agriculture. Three among these 12 also have had another occupation, viz., money-lending, petty business, and service respectively. In the remaining three cases, the father's occupation was business. Break-up of tradesmen according to education is as follows: primary–

one; below matric – two; matric – six; intermediate – three; B. A. – two; and M. A. – one. Regarding the occupation prior to starting the business, six were in agriculture (two out of these six also did business as secondary occupation); five had just completed their education; one was already in the same line of business, though only on a small-scale prior to converting it into a large partnership concern. The remaining three were working in other business firms. At the time of starting the bunsiness, eight were in 20–25 age group; three in 26–30; two in 31–35; and two in 36–40 age group. Except two, the rest of the tradesmen were financially well off before entering into trade. For seven out of 15 tradesmen, agriculture was the only source of income. For three, there were two sources, namely, agriculture and business. For the remaining five, the main source or sources of income was or were as follows: service, business, ancestral property, dividend on shares, and agriculture and dividend on shares in *khandasari* sugar factory, respectively. To supplement their capital, seven have borrowed from banks, two out of these have also borrowed from money-lenders. Eight concerns were individually owned, while the remaining seven were partnership concerns.

The main reasons given by them for taking to business and not industry were as follows : early experience of buniness, or close relatives in business (9), no technical knowledge about any industry (4), industry requires large establishment, investment, and management skills (4). It could be seen that many gave more than one reason for not going for industry. Fourteen of these tradesmen personally knew the local industrialists. The general opinion among these tradesmen was that those who were financially well-off, had management ability and technical experience could only run an industry properly. According to them, industry required more management and organisational skills because of large number of people being employed in industry compared with business. Also, according to them, industry required more long-term capital compared with business. Turnovers in trade are fast and profits start coming in within a short time, but in industry it may take any number of years before the industry starts giving profits. They, however, agreed that compared with business, in the long run, industries gave better returns on the capital invested. Other difficulties which, according to them the industrialists commonly face were, procurement of raw material, market for goods produced, labour problem, difficulty in getting trained personnel, and difficulty in getting licence from the government.

Most of the tradesmen were of the opinion that because of a large number of wealthy persons in the region, more industries could be

established here. Some of the industries they had in mind are : stainless steel, glass products, fruit canning, card-board, alcohol, distilled water, food beverages, ice factory, tractor parts and agricultural implements, fertilizer mixture and pesticides.

Most of them were of the opinion that the government should take the following steps to encourage the establishment of more industries : (*i*) arrange visits to various industries for prospective entrepreneurs, (*ii*) provide long-term loans to those who desire to start industries, (*iii*) help the industrialists in getting proper sites at reasonable price, (*iv*) simplify the procedures involved in getting licences, (*v*) supply of machinery on hire-purchase system, (*vi*) guaranteed supply of raw material, (*vii*) guaranteed market at least in the initial period.

Many of them said that if they have to start all over again, and if they were given capital they would prefer industry. They felt that the industrialists not only earn more profits but enjoy better status in the country than the tradesmen. It is interesting to note that five of these people had at one time or the other thought of starting some industry. The industries they were interested in were: ice factory, glass and mirror works, *khandasari* sugar mills, fertilizers and pesticides. But they dropped the idea because of lack of technical knowledge or because of non-availability of technical personnel. However, six out of 15 wanted their eldest sons to continue the family business. One out of these six wanted his second son also to continue in the family business, while two would like their second sons to go for higher education, and only one would like his second son to start an industry. One of the above six tradesmen, who had only one son, wanted his sons-in-law also to go in for business. Two tradesmen would like their first sons to go for industries. One of these, however, wanted his son-in-law to look after his family business. One would like all his sons to go for higher education and get government service, while one would like his first son to go for government job and the second to industry. Another tradesman wanted all his sons and sons-in-law to go abroad for higer technical education. Two tradesmen do not have any children, while two already have their sons either in government jobs or in schools.

From the above, some broad generalisations could be made as regards to these 15 tradesmen. They are generally local people. They enter their occupation at an early age. Most of them have some link or the other with agriculture. They are comparatively well-off. They are in the profession because either they themselves have some earlier experience in the line, or because their relatives are or were in trade. They are aware of the great scope for industries in the region.

They personally know most of the local industrialists. Some of them even thought of starting some industry earlier, but dropped the idea afterwards. According to them, industry requires large capital outlay, high managerial and organisational skills and technical knowledge. Also, industry, no doubt, gives high profits compared with business but, according to them, investment in industry is for long-term and one has to wait for considerable period for profits. Other problems which they think the local industrialists generally face are shortage of raw material, difficulty in getting trained hands, labour problems, and difficulty in getting licence and permits from the government. They feel that industrialists enjoy better status than the tradesmen. Some of them would like their sons to go for industry.

Two crude indicators of progressiveness and achievement of any industry could be: (*i*) diversification of its activities and products, and (*ii*) increase in capital. Considering these two indicators, none of the sample industries come any where near Harischandra Prasad's industry. Ratio of present capital investment to initial investment is the highest in case of Harischandra Prasad. The only exception is that of the small cement works, the owner of which started the industry about 20 years back with an extremely small capital investment of less than one thousand which now stands at 30 thousand (Table 17).

It was found that lack of diversification was not because of lack of awareness of new possibilities. On the other hand, most of the entrepreneurs were of the opinion that there was great scope for expansion and also for starting new industries. It is *interesting* to note that *most of them suggested non-traditional industries* such as manufacturing card-board from straw, rice bran oil, fountainpen, time-pieces, thermos flask, electronic goods, coir products, fruit canning, alcohol from molasses, pesticides, and so on. Even those who suggested traditional metal industry thought that there was scope for new type of products such as agricultural implements, trailers and tractor parts and accessories (see Table 20). Though most of them are aware of such possibilities, none of the entrepreneurs has any technical know-how for starting such industries. It is seen *that practically everyone of them thought that if government really wanted people to start industries, then it should provide technical know-how.* In addition they want the government to give financial assistance, especially long-term loans, take responsibility for the supply of raw material and help in the

marketing of goods. Many of them also wanted better facilities for getting machinery on hire-purchase.

The low achievement of the sample industries on both the counts could now be attributed mainly to lack of technical know-how about the non-traditional industries. In most cases, diversification would mean going in for altogether new products. Manufacture of new products would require new type of machinery and plants some of them imported. These plants and machinery could not be obtained, and if obtained, could not be effectively put to use, unless technical advice and guidance is available at every step. We have seen that availability of technical advice was one of the most important factors for the success of Harischandra Prasad. Also, non-traditional products carry with them the problem of marketing. Most of the traditional products are easily saleable in local markets in the region itself, or could be sold through well established traditional trade channels. New products often require search of new markets and also more sophisticated sales organisation. Unless guided properly, rural industrialist would find it difficult to set up such sales organisation.

Lack of timely technical guidance and help, especially when new type of machines or plants are involved, could easily ruin an entrepreneur. Trial and error methods are all right for a short period, but if continued for a long period of time, result in great financial loss due to wastage of raw material. Also, throughout the trial period, the non-productive overhead expenses continue to erode the limited capital of the entrepreneur, while unpaid instalments of loans and interest accumulate out of all proportion to the paying-back capacity of the entrepreneur. With delay in production and lack of progress of the industry, the investors become shy, and entrepreneurs become increasingly less attractive to potential investors and financial institutions. Such a situation generally coincides with the time when the entrepreneurs are in dire need of capital to stabilise their enterprises. The devastating effect of the combination of two evils, namely, lack of timely technical guidance and lack of timely financial support, is clearly brought out by the case of coir industry given in Appendix 10. The case in brief is as follows.

A. Sree Rama Murthy, an educated person, had some 12 acres of fertile land in Velpur village which is about six miles from Tanuku town. Since the coconut husk and palm stems were locally available, he decided to start a coir industry. He contacted the National Small Industries Corporation (NSIC), who in turn contacted Small Plant Committee (SPC) of Japan. On the basis of the recommendation of SPC the NSIC asked him to accept the Japanese machinery, even though he requested for Austrian machinery. He ultimately accepted the

Japanese machinery. The cost of machinery was about 1.4 lakhs. He also spent another Rs. 1.5 lakhs on land, construction of buildings, installations, electric fittings etc. Total amount which he was to pay to NSIC in instalments came to Rs. 2·33 lakhs. He also raised about Rs. 60 thousand by selling his land and about Rs 40 thousand by borrowing from his brothers and sisters.

The installation of machinery was over by March, 1966. But he could not get a trial of the machines because till then he had not received the power, even after repeated efforts. So, in July, 1966, he purchased a generator for Rs. 30 thousand. For the generator and for raw material he got loan from the State Bank of India. However, in October, 1966, he got the power connection.

The factory was formally inaugurated in November, 1966, by Mahadevan, the than chief development officer, State Bank of India. After inauguration the factory hardly worked for a day. The machines did not work properly. There were technical and mechanical troubles. He reported the defects to NSIC and to the Japanese company. The company deputed a Japanese engineer, who was luckily working in Bombay, to remedy the defects. The engineer tried for one day, but failed to remove the defects. He suggested to Murthy to try some other engineer and left the next day. Murthy again wrote to NSIC and the company a number of times but did not get any satisfactory replies from any of them. He tried local engineers and also some from Bombay. But nobody was able to remove all the defects.

All this running after the engineers was costing him a lot of money. In trials he wasted a good deal of raw material. The over,-heads were mounting. The interest on loans was mounting. He sold his house and somehow paid part of the first instalment to NSIC, but afterwards failed to pay any further instalments.

Between May to September, 1967, he himself tried to correct the defects by trial and error methods. By September, 1967, he was able to run the machines somewhat satisfactorily. He worked the machines up to January, 1968, and was happy to see that there was good demand foa his products. But the machines were still not working perfectly and he was getting a lot of wastage. By that time, he was also short of funds. He had to suspend production. He again got some loan from the State Bank of India which sympathised with him. But this was exhausted in a short time. In all, the Bank gave him about Rs. 1.25 lakhs including the adjustment of interest.

In the beginning, NSIC was also sympathetic to him and on his request extended the instalment dates. But when he repeatedly failed to keep up his promises for more than a year, and failed to pay the first

three instalments, the NSIC, after repeated reminders, gave him a notice on the 24th April, 1968. Murthy was also getting reminders from the department of Industries for payment of instalments due to NSIC. On appeal, NSIC again gave him some more time.

In the meanwhile, Murthy borrowed some money from his cousins and started the unit. By February 1969, that is *nearly three years after the installation of the machines* he was able to set right the unit. Now all the machines were running properly. But he has no capital for raw material and for payment of wages.

On the 22nd April, 1969, he again received a notice from NSIC. Murthy was desparate and on the 1st June, 1969, again requested the State Bank of India for help. On 8th July, 1969, the Bank, among other things, wrote to him, "The financial assistance extended in November, 1966, amounting to Rs. 50,000 has been gradually enhanced, stage by stage, up to Rs. 1.25 lakhs despite the fact that the industry has registered little or no progress in its operation and its dwindling economic position.....Besides the party has to pay loan instalments to NSIC which are overdue. In the present circumstances, the authorities are exploring all possible avenues of rehabilitating your unit by endeavouring to go behind the techno-economic factors responsible for the present ills. To this end they have deputed one technical officer to go into details and he will submit his report."

The technical officer visited the unit on the 7th July, 1969, even before the above letter was despatched to Murthy.

The production is still suspended. He again received reminders from the NSIC on the 22nd July, and 13th August, 1969. Now he is worried to death that on any day NSIC would take over the plant and institute a case against him. He is deeply frustrated. So far he has not received any communication from the SBI and he does not know what steps the Bank would take.

The department of Industries was continuously involved in the whole process. But it worked merely as a post-office. One officer of the department said that the plight of Murthy is adversely affecting their work of promotion of small-scale industries, especially new type of industries, in the rural areas of the district.

III. SUMMARY AND RECOMMENDATIONS

We have isolated 11 main factors that have contributed to impressive success of an entrepreneur coming from the rural area. We have seen that as a result of certain socio-biological conditions, he acquired distinct characteristics such as boldness, initiative, drive, pragmatism and so on. He learnt about the management of property at an early age. He had strong economic base, and throughout the period received strong support from his rich kins. Fear of loss of landed property and abolition of zamindari system provided high motivation to him. Because of the social standing of the family and his own association with ruling political party, he had contacts at higher political and governmental levels. Expert technical advice and guidance was available to him at all stages of development of his industry. He was also exposed to western world, where he learnt about the vast potentialities of modern technology. This broadened his vision. For him expansion and diversification of industry was possible because of availability of reliable technical and managerial personnel within the family circle. Also, due to his inititial success, further capital for expansion of industry and for starting new industries was readily available to him.

In contrast to this, we have also seen that none of the 10 sample entrepreneurs has all these 11 elements essential for achieving high level of growth. We have, however, found that these entrepreneurs do not lack in such personal characteristics as ambition, boldness, hard work, initiative, drive nor are they less motivated. From this and from the flood of applications and enquiries received by the assistant director, Industries, it is clear that *there is no dearth of young, ambitious persons with high initiative and motivation.* The lacunae that clearly come out are: lack of (*i*) expert technical advice and guidance (*ii*) exposure to modern technology, and methods and (*iii*) timely financial help.

Local entrepreneurs are not ignorant of the great scope for starting new industries. It is interesting to note that most of them suggested many non-traditional industries. The high degree of awareness of such possibilities is clearly brought out by the large number of applications and enquiries received by the assistant director, Industries, (see Appendix 11). This clearly reflects the optimistic, buoyant mood of the young generation. However, most of these prospective entre-

preneurs do not have the requisite technical know-how and competence for starting such industries. What is more, they also do not have any idea where the necessary know-how could be available. Under such circumstances, they look to the government for technical guidance and advice.

Another crucial factor that this study has brought out is the lack of timely availability of finance. The plight of Murthy, who started the coir industry only six miles away from Tanuku, is in sharp contrast with the achievement of Harischandra Prasad. His case clearly brought out the devastating effect of the combination of two evils, namely, lack of timely technical guidance, and lack of timely and sufficient financial support.

Non-traditional products carry with them problem of marketing. New products often require search of new markets and also more sophisticated sales organisation. Unless guided properly, rural industrialist in general finds it difficult to set up such sales organisation. And again they depend considerably on the support of the government for the sale of their products.

We could examine briefly the ways the above-discussed three crucial problems, namely, technical guidance, financial support and marketing, could be effectively tackled.

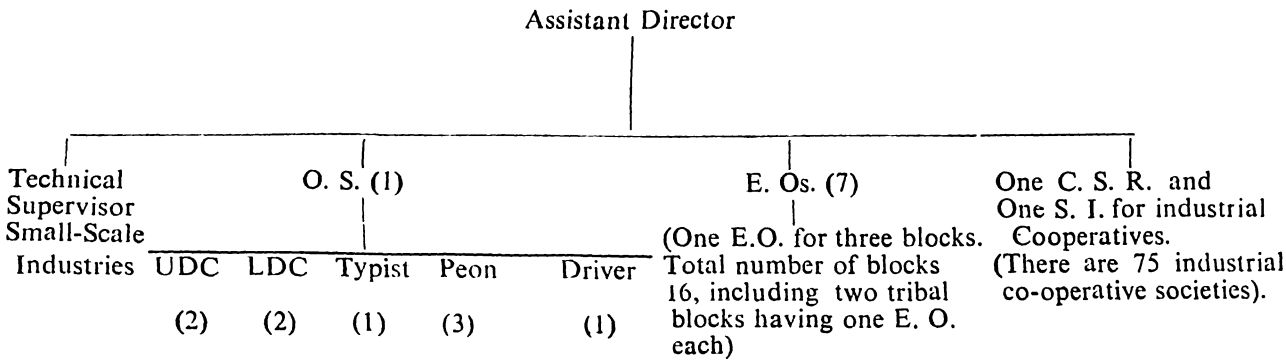
Let us first take the financial matter since it is the most controversial subject. Here we have in mind those prospective entrepreneurs who have all the requisite personal qualities such as drive, initiative, ambition, and so on, but who, because of accident of birth, do not have a strong economic base that could give a sense of security. In a caste-ridden, highly stratified Indian society, the scope of individual initiative and creative ability is often limited by one's ascribed social status. Dominant social status and economic and political power generally go hand in hand. Under such social conditions, there is always a danger of industrial enterprises becoming a monopoly of an erstwhile privileged class or classes. It is clear that in a state which has accepted democratic socialism, it is necessary to check concentration of economic power in a few hands or in privileged groups. Hence, in such a state, wider diffusion of industrial enterprises is absolutely essential. Seen in this light, small industries serve a social purpose. As such, they are entitled to a strong support from the government. Even a dynamic entrepreneur is not likely to go very far in the absence of strong financial support that would give him a sense of security. It is encouraging to note that banking institutions in the country, especially the State Bank of India, have accepted the policy of supporting small industrialists. However, there are at present certain inherent and built-in difficulties in

providing credit to small-scale industries. The policies of banking institutions are generally based explicitly on providing financial inputs for those who are already better of. Also, most of the banking institutions do not have any organisational arrangements which could ascertain the technical feasibility of proposed industry. Because of their ignorance of technical feasibility of the project, often banks hesitate to provide the necessary credit to small-scale industrialists, who are not economically well-off. Secondly, the policy of providing credit to small-scale industrialists is often not implemented in practice due to the presence of 'play-safe' type of officers in these institutions. It is, however, not within the scope of this study to go into the working of banking institutions. But we could suggest the role that the department of industries could play in matters involving credit to industrialists. The State Bank of India considers the technical feasibility report provided by the department before taking decisions on loan applications. However, this study has brought out that in matters of finance, the department has so far played only a passive role. It is suggested that *it should play a more active role and help the small industrialists in getting credit facilities from the banking institutions.* The department personnel are closer to industrialists and hence are generally better aware of the needs of the entrepreneur than any bank officials. It is often found that poor entrepreneurs generally hesitate to put all the facts about their financial condition before the bank officials. It is suggested that *department personnel functioning at district level should work in association with financial institutions and should exert their influence wherever necessary.* It could be recalled here that in Murthy's case the department was merely a passive observer.

The second crucial problem pertains to timely technical advice and guidance. This is equally important to all classes of entrepreneurs, irrespective of their economic base. Here we have in mind non-traditional industries for which technical know-how and competent technical personnel are not locally available. It has to be realised that industrial growth of any region would greatly depend upon the diversification of industries. For growth, it is necessary that people come out of the stereotype traditional industries such as rice mills, and metal works manufacturing utensils and buckets. It must be said that at the district and lower levels the efforts so far made by the department to achieve a breakthrough in this respect have been most pathetic and insignificant. It would not be an exaggeration to say that the energies of the entire staff at district and lower levels are concentrated on traditional industries such as metal works. (Organisation chart of the department of industries is given in diagrams 1 and 2). As it exists and functions to-day, the

Diagram 1

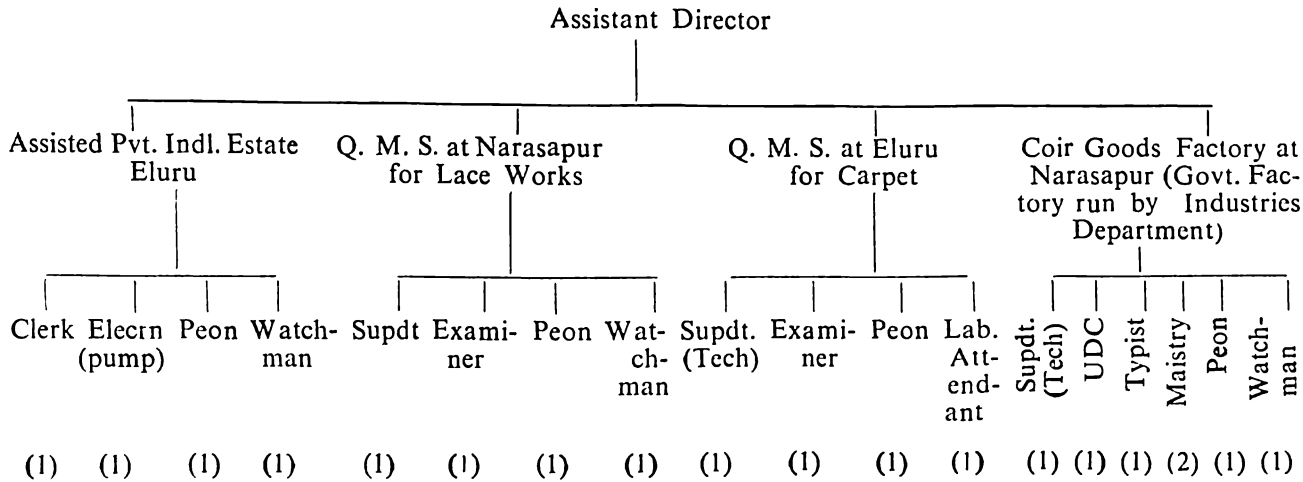
Assistant Director (Industries) – Office Staff Pattern



O. S. : Office Superintendent
E. O. : Extension Officer.
C. S. R. : Co-operative Sub-Registrar.
S. I. : Senior Inspector
UDC : Upper Division Clerk
LDC : Lower Division Clerk

Diagram 2

Special Schemes



(There were posts of Industrial Inspector and Supervisor for loans. These posts were temporary and have not been filled for more than two years. Their jobs were to look after the cottage industries loans).

Q. M. S.	:	Quality Marking Scheme
Supdt.	:	Superintendent
Elecrn.	:	Electrician
Lab.	:	Laboratory

department is essentially a registering and licence-giving body. The extension work done by the department has no doubt helped in creating some awareness as to what the department could do for the entrepreneurs. But so far it has merely scratched the surface. The present-day extension approach is rather unrealistic and hence ineffective. It must be realised that the existing extension approach cannot, and will not give the expected results because of the peculiar Indian conditions. It could be seen from the process of promotional work, as given in Appendices 12. and 13, that often nothing concrete emerges from such efforts. As in financial matters, here also, department at district level functions as a mere post-office. After receiving enquiries from the prospective entrepreneurs it does one of the two things: it passes on to him some stereotype, old, often cyclostyled, and sometimes printed pamphlets or booklets produced may be a decade or two back. More often than not these give cost estimates which have no relevance to the present-day prices of machines, raw material and wage rates. If such literature is not readily available with the department, then it writes to directorate of Industries and to different research institutions and laboratories. These generally take their own sweet time to reply to such enquiries. They either say that they do not have any information on the matter in hand and wash their hands, or send a one-page scheme. The utter callousness of some of the research laboratories and institutions could be understood from the case where one research laboratory did not send the literature asked for by the district officer because it was a priced publication, its price being 10 paise. One can imagine the rate of industrialisation under such circumstances.

Considering the existing situation, the following recommendations are made for increasing the pace of industrialisation in rural areas.

1. Creation of an extension-cum-technical advisory cell at district level, headed by a senior officer of the rank of deputy director and by a technically qualified person, preferably an engineering graduate. The function of the cell should be as follows :

(*i*) Give a face-lift to the department and consequently create a better image of the department. The drab look of the department premises is in utter contrast with the modern technology it is supposed to preach. To day, whatever literature is available at the district office is kept in a black steel box or dumped in an almyrah. It would be far better if a part of the office is used for imaginative display of the latest literature and information available on different industries, and for the display of models of plants and machinery. The intention should be to bring the knowledge locked up in high-

level research laboratories and institutions functioning at metropolitan cities, to the district and below levels.

(*ii*) Develop personal contacts with entrepreneurs already in industries, with a view to guiding them for the expansion and diversification of industries.

(*iii*) Develop personal contacts with potential and prospective entrepreneurs, and provide them full technical guidance.

For performing the above functions effectively, the cell will have to do a lot of home work. (*a*) It must have a clear picture of the potential of the region. This would require an up-to-date intensive techno-economic survey of the district. (*b*) It must have latest information about the technology needed for exploiting the potential of the region as brought out by the technoeconomic survey. (*c*) It should prepare, in association with the more competent technical advisory cell at the state level and with other research laboratories and institutions, complete blue prints of the projects. These should be ready in hand before approaching the entrepreneurs or answering their queries. (*d*) It should have discussed the complete project reports with the banking institution in advance. We feel that such perspective planning is absolutely essential.

(*iv*) It should not wash away its hands once the plant is handed over to the industrialist. But it should be constantly in touch with him, and help and guide him till he stands on his feet.

To some these suggestions may look like spoon-feeding the prospective industrialists. But we submit that nobody would deny that most of the large-scale industries which have come up in India have developed not because of any technical competence of the industrialists, but because of the complete turn-key projects and plants obtained by them from their foreign collaborators. There is no reason why, for achieving faster rate of industrialisation, similar facilities should not be indigenously developed and made available to small-scale industrialists.

(*v*) The cell should work in close association with the local banking institutions and help the entrepreneur in getting appropriate financial assistance in time.

(*vi*) Organise visits of prospective entrepreneurs to various industries.

(*vii*) Arrange for the technical and managerial training of the prospective entrepreneurs.

2. Creation of a technical planning and advisory, task-oriented body at the state level.

The main task of this body should be to provide complete project reports and designs to the district cell. The district cell should feel the need of the district to the higher body and get from it the project reports; and once the reports are received, pass on these to prospective entrepreneurs. It could be seen that the procedure suggested here is just the opposite of what is commonly followed in administration. Here it would be the lower-level that would be *asking* for the project reports from the higher body. District level cannot be expected to have the competence necessary for preparing fullfledged project reports and designs. This responsibility must be borne by the higher level.

As already mentioned-the state level body should provide complete techno economic profile of the proposed industry, as well as the designs and plans for projects. The techno-economic profile in general includes the following areas : process description, raw materials and utilities, list of major equipment, materials of construction and availability of equipment, capital cost estimates, man-power requirements, production cost, including salaries and wages, and profitability. The design wing of the body should provide complete designs of the plants and plans for the erection of the buildings and machinery. The technical consultancy wing should provide guidance throughout the period of erection of the building, till the entrepreneur is able to stand on his feet. It is clear that all the three activities, namely, project report, plant design and consultancy service, will have to be co-ordinated by task leader.

The proposed body cannot be a rigidly constituted one. The body would not be able to provide the services of the magnitude outlined above to all the district-level cells, unless it would draw heavily on the technical and personnel resources of the large number of technological research institutions and laboratories, as well as of the private agencies. The body would no doubt have a core that would decide about the priorities, and in consultation with appropriate institutions, select the team and its leader for the task in hand. Once the job is assigned to a team, then the entire responsibility for providing complete technical guidance should be on the task leader.

It is hardly necessary to point out here that the project reports and designs approved by such a high level body would naturally carry a tremendous weight, and consequently, financial support of the banking institutions would become a matter of routine.

3. Creation of a market research cell at the state level.

The cell would be working in close association with the state-level technical planning and advisory body. The function of the cell would be two-fold : (*a*) To find out the market potential of products of proposed industries. This data would be used by the state-level body while deciding about the priorities. (*b*) Once the approved project is implemented, to suggest the entrepreneur market for the products, help him in organising his sales department. We have already emphasised that while traditional products could be easily sold in the local markets through well-established traditional trade channels, the new products often require search of new markets and also more sophisticated sales organisation.

The problem of rural industrialisation is, to a great extent, the problem of attracting accumulated wealth with rich landholders, towards industry. We have seen in this report how even the perception of threat to landed property under the impending land reforms triggered a strong motivation for finding out alternate ways for saving the wealth. The land ownership was after all an elastic vessel which carried the wealth which supported the socio-political power. Abolition of zamindari and other land reforms were intended to squeeze this vessel carrying the wealth. The expectations were that with the squeeze there would be an over-flow of wealth and consequently the superstructure would, collapse. One way for the landed gentry to save its weath was to transfer it to some other vessel. We have seen that in this case the new vessel was modern industry. It is a comparatively new vessel which, so far, has not been used or monopolised by any caste or community.

It is, however, well known that due to political reasons, the proposed land reforms were nowhere in the country effectively implemented. The result being that except those few who had transferred their wealth from land to other vessels at the early stages itself, the landed class continue to hold the wealth as in the past.

It is felt that, under such circumstances, stringent land reforms along with the implementation of the three steps recommended above could be expected to provide considerable capital for industrial development in rural areas. These steps could be further supplemented by providing tax relief on the capital diverted from land for investment in small-scale industries in rural areas.

APPENDICES

APPENDIX 1

PROFILE OF TANUKU TALUK

Tanuku taluk is one of the rich taluks in West Godavari district which is situated in the north of Andhra Pradesh. The taluk headquarters is Tanuku town. The taluk occupies an area of 214.3 sq. miles and has a population of 3,16, 039 persons as per the 1961 census.

Tanuku is the only taluk in the district which contains very fertile alluvial soil throughout. The Godavari anicut was constructed in 1848. The whole region is irrigated by four main Godavari canals, namely, the Narasapur, the Gostnadi, the Velpur and the Attili. The taluk has five drains, the Yenamanduru drain being the main drainage canal.

Out of the total gross area of 1,65,964 acres, an area of 1,58,69.. enjoys assured irrigation. These figures are for total acreage under *rabi* and *khariff* crops. Crop abstracts for 1967-68, prepared by the district statistical office, shows that the principal agricultural crops cultivated in Tanuku region are paddy (1, 14,770 acres), sugarcane (23,400 acres), and Banana (4,051 acres). Compared with 1961 census figures, the acreage under paddy remains more or less the same (1961- 1,14,478 acres), but acreage under sugarcane has gone up from 14,675 acres to 23,400 acres. According to 1961 census, other crops were jowar (1,366 acres), tobacco (1,456 acres) and chillies (368 acres). These acreages are more or less the same today. Coconut is also an important crop of the region.

Agriculture is the main occupation of people. Of the total work force of 1,43,593, about 24 per cent are cultivators and 44.5 per cent are agricultural labour (See Table 1).

In the region, transport and communication facilities are very well developed. The whole area is thickly interspersed with major all-weather district roads. The national highway No. 5 passes through the taluk, connecting it with major cities such as Hyderabad, Madras and Calcutta. The Godavari canals also provide cheap inter-water communication facilities, connecting important trade centres and sea ports. The Bay of Bengal is only about 31 miles from the taluk.

In the entire taluk there are about 12 high schools, one polytechnic, one college and nearly 250 elementary schools. 35.9 per cent

of total population is literate (male—43.48%,; female—28.39%; rural 34.05%; urban 47.38%).

It is interesting to note that among the unemployed persons the percentage of literates is higher than the illiterates. Total number of unemployed persons above 15 years of age is only 502, out of which 53.5 per cent are literate having education up to matriculation or above, 41 per cent are literate either without formal education (4.8%) or having primary or junior basic education (36.2%) Illiterate unemployed percentage is only 5.5. Skilled labour for basic trades is available. It is seen that technically qualified persons looking out for opportunities are also in good number.

Like any other part of the country, the socio-political matrix is extremely complex. Only a simplified version could be given here. Important castes of the region are: Kammas, Kapus, Kshatriyas, Sethibaleja, Brahmins and Vysyas. Kammas are also known as Chowdharis, while Raju is the common name among the Kshatriyas. Among the Kapus are Naidus and Telagas. Even among the Telagas, Naidu and Reddy names could be found. The first three castes, namely, Kammas, Kapus and Rajus dominate the economic and political life in the taluk. All three are in agriculture and among them own most of the fertile irrigated agricultural land. Though Kammas, by and large, dominate the political and economic scene, the other two castes also carry much weight. One can say that in the taluk no single caste can alone compptely dominate the political scene, and a combination of any two castes could defeat the third caste in political struggle. Other remaining castes would merely align themselves with one or the other group. It is said that because of the more or less equal strength of these castes, this taluk has not been able to throw up a powerful influential leadership. So far, there has been no state or central minister from this taluk. The Tanuku taluk falls under three separate legislative constituencies which cover areas from adjoining taluks also. At present two members of Legislative Assembly are the residents of Tanuku taluk, while the third belongs to other region. Even these three MLAs belong to Kamma, Naidu and Raju communities respectively, which, as mentioned above, are the dominant castes of the region.

In all these castes, marriages among the close affinal and consanguinal relatives are preferred. Prohibited degrees of relationship are not many. Cross-cousin and parallel cousin marriages are most common. Due to these factors, within each caste there are a number of close-knit family groups, which often provide basis for the formation of factions. The richest family generally is the core of such close-knit group.

Tanuku taluk is a developing region. The population of the

villages and towns has grown considerably. At present, there are 97 inhabited villages and 3 urban units, namely, Tanuku (p. 24,657) Penugonda (p. 13,978) and Maruter (p. 5,296). Ten villages have more than 5,000 population. Out of these ten, Relangi (p. 10,225), Velpur (p. 13,418), and Attili (p 15,074) have populations more than 10,000.

In towns and important villages many social amenities are available today. Also, in these places economic and educational institutions and government offices are coming up fast. A brief description of the important growth centres is given below.

Tanuku town is the taluk headquarters with a population of 24,657, according to 1961 census. It has a gram panchayat though efforts are being made to have a municipality for the town. It is situated in Peravali block, the block headquarters being the Peravali village. Tanuku is both industrially and agriculturally important. Several large-scale and small-scale industries have sprung up of late and are rapidly making headway. The most important industries are : The Andhra Sugars Ltd., The Jayalakshmi Fertilizers, The Jaya Industries, Sree Satyanarayana Spinning Mills Ltd., Venkatraya Cotton Mills, Sree Akkamamba Textiles Ltd., and Sivakami Sugars Ltd. The town is fast growing in population and in social amenities. A large number of shops of clothes, shoes, cosmetics and general merchandise, radios and electric appliances have sprung up in recent years. There are also five cinema houses. There is a college, a polytechnic, two high schools, and scores of primary schools in the town. Medical facilities are available in government hospital. The three main clubs are the Town Club, Rotary Club and Lions Club. All the clubs are active. There are a number of hotels and restaurants and one government-run travellers' bungalow. Telephone and telegraph offices are also there. Tanuku is on broad-guage branch line of South Central Railway, and is also on the national highway No 5, which connects it with important cities like Madras and Calcutta.

Penugonda (p. 13,978), a panchayat, is another important urban unit. It has a sub-registrar's office, a police station, an agricultural demonstrator's office, an assistant commercial tax office, a veterinary hospital, a high school, a travellers' bungalow and telephone and telegraph offices. Penugonda is the main centre of rice mills, having about 20 large-scale rice mills. It is also having about 30 concerns engaged in manufacture of buckets and trunks.

Maruter (p.5,296) is the smallest of the urban units. It is situated about one and a half miles south of Penugonda. There is a government rice research farm in Maruter. The town has a hospital, a high school,

a post-office with telegraph facilities and a travellers' bungalow. Maruter also has a number of large rice mills.

Attili (p. 15,074) is the largest populated village. Agriculture is the major means of livelihood. The village has several rich merchants who are wholesale dealers in pulses, chillies and tamarind. In the village there is a panchayat office, sub-post office with telegraph and telephone facilities, a veterinary dispensary, a public works department's rest house, and a zilla parishad's high school. It is also an important railway station on the broad-guage line.

Ajjaram (p. 2,457) is an important village having a large number of establishments manufacturing brass and copper utensils. This is the traditional industry of the region. A re-rolling mill was also set up at Peravali near Ajjaram for manufacturing non-ferrous sheets and circular plates to meet the needs of the units at Ajjaram.

Levels of development of the West Godavari district and the taluks in relation to all-India as per the composite index (Table 2) reveals that the district has a composite index of 459 compared with the all-India figure of 400 and thus stands in the medium level of development. However, four taluks from the district fall in the high level of development with a composite index above 500, Tanuku standing first with 694, while Eluru has 629, Narsapur 612 and Bhimavaram 553.

It could be seen that Tanuku has most of the necessary infrastructure which could be effectively utilised for achieving high rate of industrial growth. The land is rich; due to high agricultural productivity, capital formation has been high; though the common farmer of the region is well-to-do, due to social-historical reasons there has been concentration of wealth in a few families or cluster of allied families; transport and communication facilities are well developed: literacy is on increase; general level of development is high compared with any part of the district, skilled labour for basic trade is locally available, and technically qualified persons looking out for opportunities are also in good number.

APPENDIX 2

PATTERN OF INDUSTRIAL GROWTH IN TANUKU REGION

West Godavari district on the whole is not industrially so developed when compared with some of the other districts such as Krishna and East Godavari of the state. Tanuku taluk is the main region of the district that shows signs of development of modern industries.

The main cottage and small-scale industries of the taluk capable of providing both part-time and whole-time occupation are handloom weaving, cotton dyeing and bleaching, vegetable oil pressing, gur manufacture, tobacco products other than beedies, copper, brass and bell-metal works manufacturing domestic utensils, pottery, basket-making, manufacture of leather chappals and shoes, and milling of cereals. As regards the large and medium-scale industries the taluk has sugar factories, *khandasari* sugar mills, a cycle industry, a fertilizer factory, textile mills, brass rolling mills, and a number of rice mills. According to 1961 census, there are 121 small-scale industries in Tanuku taluk [see Appendix 3 (c)]. In 1962, there were also 47 large industrial establishments under the operation of the Factories Act [see Appendix 3 (a) and (b)]. The major concentration of small and large-scale industries is in and around three centres, namely, Penugonda, Ajjaram and Tanuku. Rice mills are scattered all over the taluk, the main areas of concentration being Attili, Velpuru, Penugonda.

For the present study, details of small-scale industries in Tanuku taluk registered with the department of Industries up to 1968 were made available by the office of assistant director, Industries, Eluru. Number of such industries was 101. In addition to this, details about six large-scale industries were also collected. These 107 industries were registered in the last 35 years, between 1933 to 1968. Analysis of data pertaining to these 107 industries brings out the following pattern of industrial growth in Tanuku region.

1. In the period 1933–68, the rate of industrial growth was not constant but was varying from time to time. Considering the overall period, it could be seen that industries had been coming up at an increasing rate. In the post-world war II decade, the rate was more or less constant. A very high rate of growth was, however, achieved in the Second Five-

Year Plan period (1957–62). The tempo was slightly sluggish in the Third Five-Year Plan period (1963–67) [see Table (a) and Figure 1].

2. Nearly 66 per cent of industries were started with initial capital investment below Rs. 100 thousand, 20 per cent with investment between Rs. 10 to 50 thousand, and 3 per cent between Rs. 50 to 100 thousand. Heavy initial capital investment started only after 1947. In the period 1947–68, 11 industries were started with medium to large capital investment, all over one lakh. These industries are distributed throughout the period; one in pre-plan period, three in First Plan period, four in Second Plan period, two in Third Plan and one in 1968. (see Table 4 and Figure 2). Of these 10 large industries, six were started by one entrepreneur alone, M. Harischandra Prasad.
3. Due to fast selling consumer products such as domestic utensils and metal containers, even with low investment most of the industries have comparatively high turnover giving substantial net profit of 15 to 20 per cent of the total turnover. This was one of the major attractions of this type of industry. Nearly 76 per cent of low investment industries have turnover anywhere between 25 thousand to one lakh (38 % about 25 thousand, 28% between 25 to 50 thousand, 5.6% between 50 to 75 thousand to one lakh). About 13 per cent have turnover between one and a half lakhs to three and a half lakhs. Most of these industries required capital investment of 30 to 40 thousand and in a few cases up to 60 thousand. 6.5 per cent of industries have turnover between 5 to 10 lakhs on the investment ranging from 75 thousand to 1 lakh. The remaining 4.5 per cent industries with high investment have turnover between 10 lakhs to 6 crores (see Figure 3).
4. The pattern and rate of growth in the three main centres, namely, Penugonda, Ajjaram and Tanuku town varies considerably [see Figure 4 and Table 3 (a)]. Ajjaram is traditionally the small-scale and cottage industries centre of the region. Since 1938 its growth rate has been more or less constant. Between 1950 to 1957, the growth rate was poor. For the 30 years period (1938–68) on an average there has been one additional unit every year. Almost all the units were brass and metal works.

   Penugonda has the oldest (1933) brass and metal works. However, the growth of Penugonda actually started after

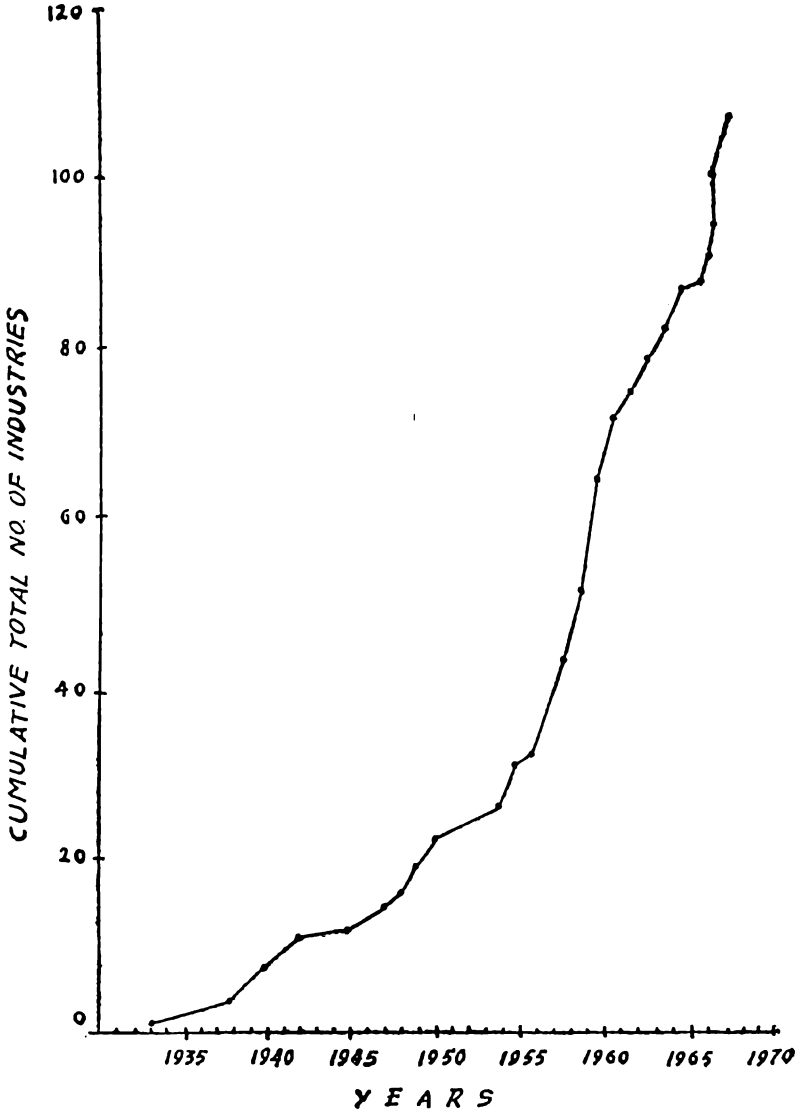


Fig. 1 : Growth of Industries in Tanuku Taluk
(Total No. of Industries—107)

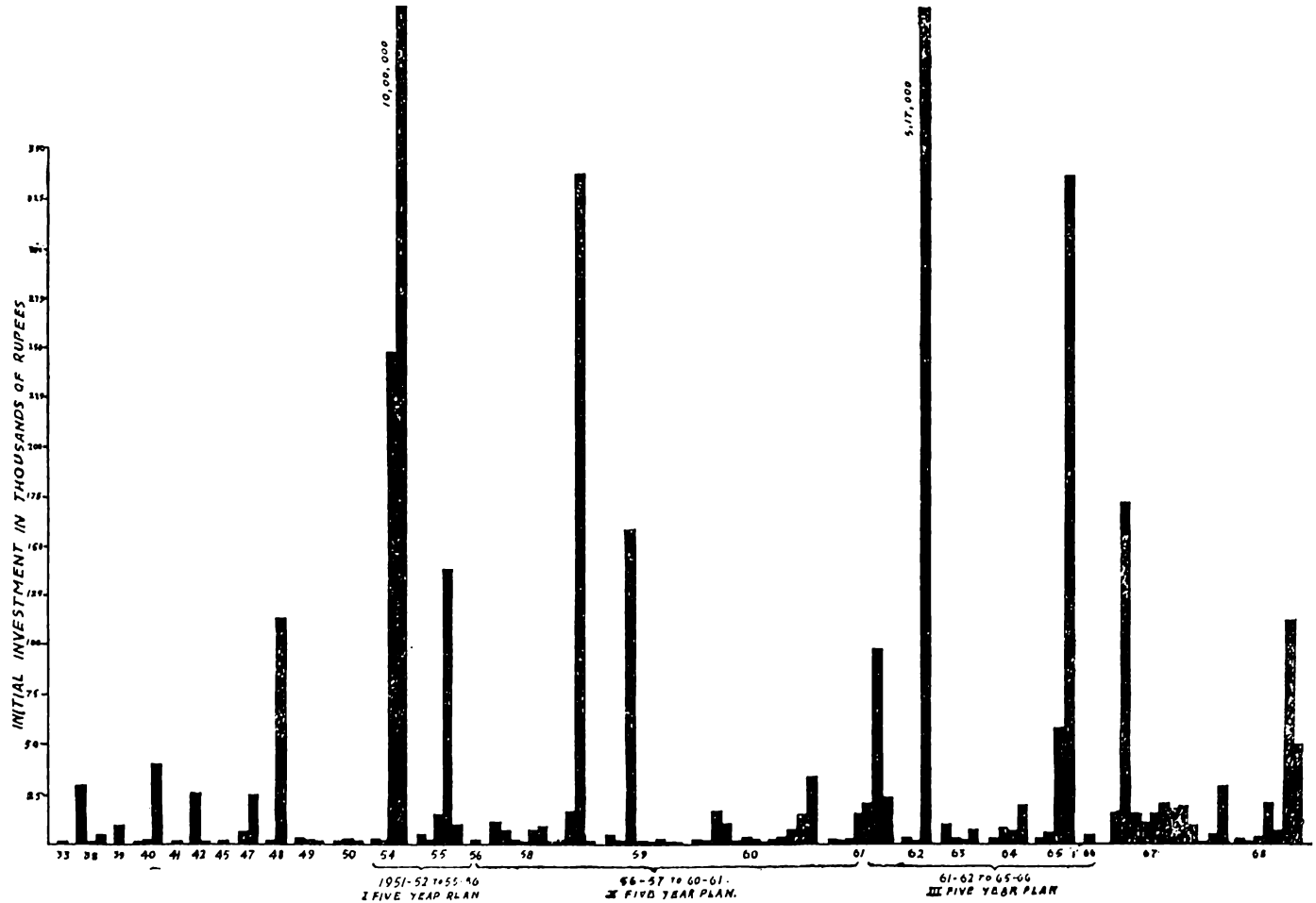


Fig. 2: Initial Investment [illegible]

No. OF INDUSTRIES
0
10
20
30
40
1 TO 25000
25001 TO 50000
50001 TO 75000
75001 TO 1,00,000
1,50,001TO 1,75,000
1,75,001TO 2,00,000
2,00,001TO 2,50,000
2,50,001TO 3,00,000
3,00,001TO 3,50,000
3,50,001TO 4,00,000
5,00,001TO 10,00,000
35,00,001TO 40,00,000
1,00,00,001TO 2,00,00,000
2,00,00,001TO 3,00,00,000

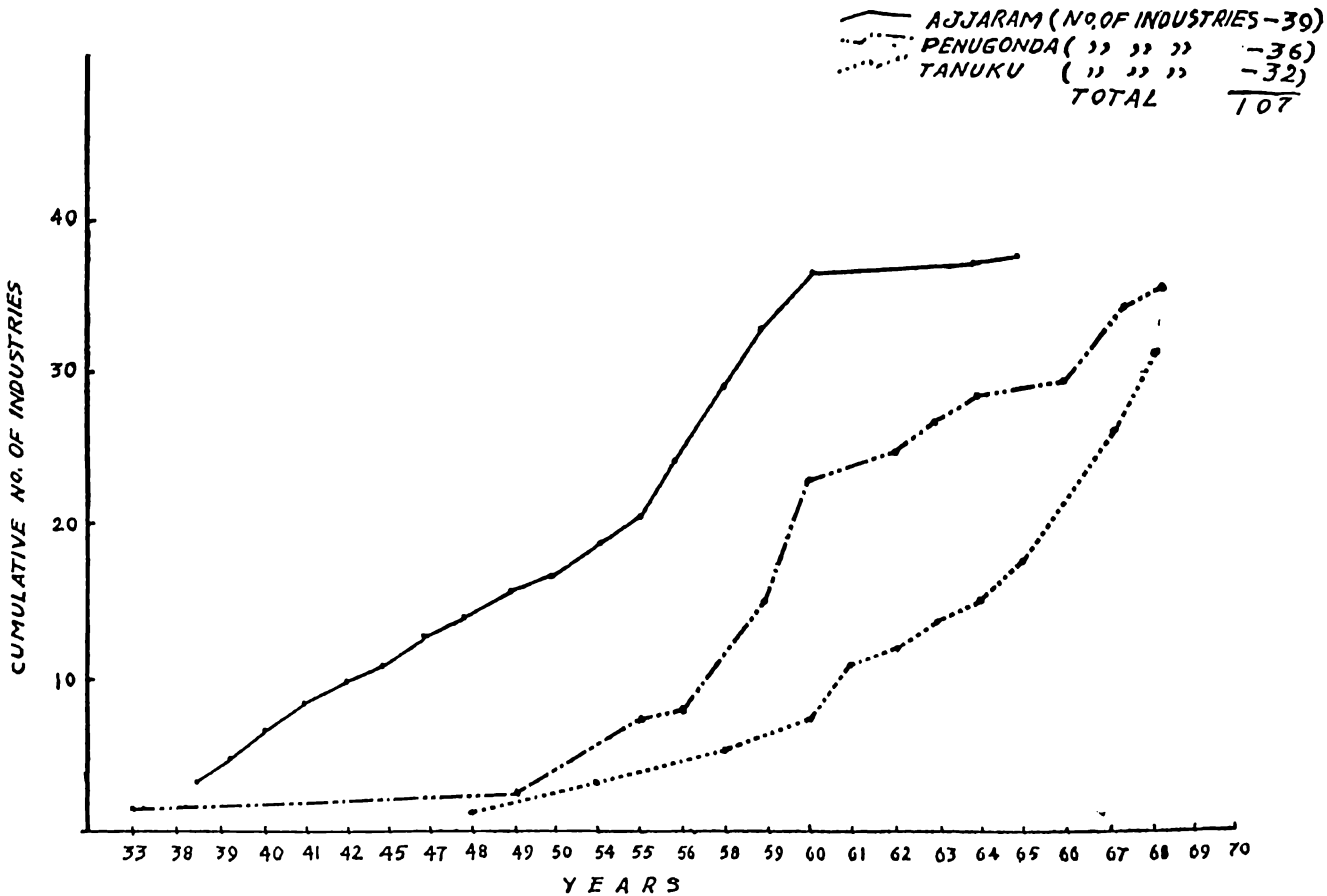


Fig. 4 : Growth of industries in Ajjaram, Penugonda and Tanuku.

1950. In second Five-Year Plan period, the rate was very fast. In the period 1954–60, 24 new industries were established. From 1960, the growth was slightly sluggish and up to 1968, only 15 new industries were started. Between 1954 to 1968, on an average about three units have been added every year. Here also almost all the units were manufacturing buckets, steel trunks and metal containers.

In Tanuku town, industries started only after 1948. Between 1948 to 1960 the rate of growth was slow, but from 1960 it was very fast. In the short span of nine years, 24 industries sprang up in Tanuku town. There is also an important difference between the pattern of growth of Tanuku town and that of the other two centres. In latter case, merely the traditional industries multiplied. But in Tanuku a wide range of industries were started, such as sugar mills, textiles, chemicals, transistor radios, knitting works and so on.

5. In the region, a shift from the traditional brass and metal works towards diversification of industries started first after 1947–48, though mainly from 1958. Even after 1947, the traditional industries continued to attract the entrepreneurs. However, it is interesting to note that in recent years increasing number of entrepreneurs are attracted towards new type of industries. For example, in the period 1961–68, while 19 entrepreneurs went for traditional industries, in the same period 24 went for a wide range of new type of industries [see Table 3 (b)].

6. About 86 per cent of industries are individually owned, while 9 per cent are partnership concerns, 3 per cent joint stock concerns, and 2 per cent are in co-operative sector. However, after 1960 there has been a marked shift from individual-owned to partnership concerns. After 1960, 10 partnership industrial concerns and two co-operative industrial concerns sprang up while before 1960 there were nil (see Table 5).

7. Total of the number of persons employed in the year of registration of each industry comes to 2,015 [Table 6 (a) and 6 (b)]. Traditional industries generally employ 10 to 20 persons and altogether count for roughly 30 per cent of the employed force. Nearly 35 per cent are employed in industries started after 1960. The six major industries provide employment to nearly 50 per cent of the registered working force.

8. Except a few units which use electric power, nearly all other traditional industries are operated manually. Use of power for industrial purposes started in Tanuku taluk only after 1947 and especially after 1955 (see Table 7).

The above analysis could be summarised thus :

In Tanuku taluk industries are coming up at an increasing rate. The most important breakthrough was achieved in the year 1947 when a major sugar mill was started by M. Harischandra Prasad. It seems that because of his entrepreneurship, a sort of change in the attitude towards industry has taken place in the region. Since the last decade, there is a shift from the traditional brass and metal works and rice mill industries towards diversification of industries. This has occurred even when the traditional industry enjoys a comparatively high turnover of capital on a relatively low capital investment and fetches good profits. In the Second Five-Year Plan period, the process of industrialisation got a further impetus. Diversification of industry is also accompanied by medium to large initial capital investment, increasing use of power in industry, marked shift from individual-owned to partnership concerns, and emergence of new growth centre such as Tanuku town which is the main centre for new type of industries.

APPENDIX 3(a)

LIST OF FACTORIES (LARGE INDUSTRIAL ESTABLISHMENTS) UNDER THE OPERATION OF THE FACTORIES ACT, 1948, FOR THE YEAR, 1962.

(Rural)

TANUKU TALUK

Name of Village	Name of Factory	Average Number of Workers Employed Daily		
		Persons	Males	Females
(1)	(2)	(3)	(4)	(5)
	Manufacture of Grain Mill Products			
	Rice Mills			
Dammennu	Vijayalakshmi Rice Mill ...	32	14	18
Mortha	Sri Satyanarayana Rice Mill ...		Not available	
Undrajavaram	Sri Ratna Rice Mill	27	15	12
Duvva	Sri Seetharamanjaneya Rice Mill		Not available	
Attili	Sri Vijayalakshmi Rice Mill ...	67	55	12
	Sri Rama Rice Mill	40	23	17
	Sri Dhanalakshmi Rice Mill ...	22	10	12
	Sri Dhyryalakshmi Rice Mill ...	46	33	13
	Sri Satyanarayana Rice Mill ...		Not available	
	Sri Vasudeva Rice & Flour Mill ...	4	2	2

Attili—(*Contd.*)	Sri Krishna Rice & Flour Mill ...	5	2	3
	Sri Kanyakaparameswari Rice and Flour Mill	4	4	...
	Sri Radhakrishna Rice & Flour Mill ...		Not available	
Relangi	Sri Anjaneya Rice Mill ...		Not available	
Velpuru	Sri Ramalingeswara Rice & Oil Mill ...	49	39	10
	Sri Ramachandra Rice Mill ...	11	7	4
	Sri Dhanalakshmi Rice Mill ...	13	8	5
	Sri Murlikrishna Rice Mill ...	3	2	1
	Sri Venkateswara Rice Mill ...	4	3	1
	Sri Krishna Rice Mill	3	2	1
Peravali	Sri Rama Rice Mill	35	17	18
	Sri Satyanarayana Rice Mill ...	7	5	2
Pekeru	Sri Alivelumangamma Rice Mill ...	15	10	5
Mallipudi	Sri Ramalingeswara Rill Mill ...	31	17	14
Penumantra	Sri Rama Rice Mill ...	22	10	12
	Kamyagowri Rice Mill ...	66	50	16
Brahmanacheruvu				
H/O Penumantra	Sri Venkateswara Rice Mill ...	32	20	12
Juttiga	Sri Sithamahalakshmi Rice Mill ...	27	19	8

APPENDIX—3 (a)—(*Contd.*)

(1)	(2)	(3)	(4)	(5)
	Sugar Factories and Refineries			
	Sugar			
Manchili	Sri Satyanarayana Sugar Mills ...	56	41	15
	Manufacture of Miscellaneous Food Preparations			
	Manufacture of edible oils (other than hydrogenated oil)			
Paidiparru	Sri Venkata Ramalingeswara Oil Mill...	24	24	...
Velpuru	Adda Sriramulu Oil Mill	1	1	...
	Others			
Mandapaka	Industrial Alcohol Plant ...	12	12	...
	Manufacture of Metal Products (Except Machinery and Transport Equipment)			
	Metal containers and steel trunks			
Ajjaram	Ajjaram Metal Works	22	22	...
	Sri Venkateswara Metal Industries ...	14	14	...
	Chekka Somaraju & Sons	16	16	...
	Sri Kanyakaparameswari Metal Industries No. 1 ...	16	16	...

	Manufacture of Metal Products (Except Machinery and Transport Equipment)			
	Metal containers and steel trunks			
Ajjaram	Kottaju Varahalu-Manufacturers and Dealers in Brass and Copper Vessels ...	20	20	...
	Sri Rama Metal Industries ...	20	20	...
	Sri Satyanarayana Metal Industries No. 1	11	11	...
	Boppa Mallaiah & Sons	20	20	...
	Sri Kanyakaparameswari Metal Industries	18	16	
	Sri Satyanarayana Metal Industries No. 1	29	29	...
	Sri Rajagopala Metal Industries ...	20	20	...
	Others			
Velpuru	Pampana Subbarao's Lathe Works ...		Not available	
	Manufacture of Machinery (Except Electrical Machinery)			
	General and jobbing engineering			
Attili	Eswara Iron Foundry ...	3	3	...
Mantheni	Sri Surya Iron Engineering Works		Not available	

Source : Census of India, 1961, West Godavari District, Andhra Pradesh, *District Census Handbook*, Vol. II pp. 32-44, Table 4.3.

APPENDIX 3 (b)

LIST OF FACTORIES (LARGE INDUSTRIAL ESTABLISHMENTS) UNDER THE OPERATION OF THE FACTORIES ACT, 1948, FOR THE YEAR, 1965.

(Urban)

TANUKU TALUK

Name of Urban Unit	Name of Factory	Average Number of Workers Employed Daily		
		Persons	Males	Females
(1)	(2)	(3)	(4)	(5)
	Manufacture of Grain Mill Products			
	Rice Mills			
Tanuku	Sri Venkataraya Rice Mill... ...	...	Not available	
	Sri Krishna Rice Mill	42	30	12
	Sri Krishna Rice Mill	11	11	...
	Sri Krishna Huller Rice Mill ...	5	5	...
Penugonda	Sri Vasavikanyakaparameswari Steam Engine Rice Mill	50	48	2
	Sri Vasavikanyakaparameswari Oil Engine Rice Mill	62	51	11
	Sri Janardhana Vasavikanyaka parameswari Rice Mill ...	24	12	12

		Sri Satyanarana Rice Mill ...	36	26	10
		Sri Ramakrishna Rice Mill ...	48	32	16
		Sri Gopalakrishna Rice Mill ...	37	21	16
		Sri Ramanjaneya Vilas Rice Mill ...	73	61	12
		Sri Pardhasaradhi Rice & Oil Mill ...	58	48	10
		Sri Tetala Venkataratnam Rice Mill ...	24	14	10
		Sri Venkateswara Rice Mill ...	29	13	16
		Sri Venkatalingam Rice & Flour Mill ...	5	2	3
	Maruter	Dwarampudi Venkayya Rice Mill ...	42	38	4
		Konala Ramireddi Rice Mill ...	43	29	14
		Sri Mahalakshmi Rice Mill ...	35	23	12
		Sri Venugopal Rice Mill ...	50	30	20
		Sri Satyanarayana Rice Mill ...	37	27	10
		Sri Venkateswara Rice Mill ...	2	2	..
		Sugar Factories and Refineries			
		Sugar			
	Tanuku	Andhra Sugars Limited	220	220	
		Sri Vijayalakshmi Sugar Mill ...		Not available	
		Gur			
	Tanuku	The Venkateswara Gur & Khandasari Sugars Ltd.	76	57	19
		Manufacture of Edible Oils (other than Hydrogenated Oil)			
	Maruter	Sri Mallidi Satyam Oil Mill	29	27	2

APPENDIX 3 (b)—(*Contd.*)

(1)	(2)	(3)	(4)	(5)
	Textiles			
	Spinning, Weaving and Finishing of Textiles Cotton Mills			
Tanuku	Sri Akkamamba Textiles Ltd. ...	272	261	11
	Knitting Mills			
Tanuku	Sri Gemini Knitting Works	14	14	...
	Wood Except Furniture			
	Saw Mills			
Tanuku	Sri Saibaba Saw Mill ...	5	5	
	Sri Satyanarayana Saw Mill	6	6	
	Printing, Publishing and Allied Industries			
	Letter Press, Lithographic Printing and Book Binding			
Tanuku	Royal Printing Works ...	16	16	...
	Venkatrama Power Press ...	80	80	...
	Basic Chemicals Including Fertilizers			
	Artificial Manures			
Tanuku	Jayalakshmi Fertilizers ...	8	8	

	Others			
Tanuku	Andhra Sugars Distilleries Section	13	13	
	Manufacture of non-metallic Mineral Products not Elsewhere Classified			
	Others			
Penugonda	Jayabharath Cement Works ...	9	9	
	Manufacture of Metal Products (Except Machinery and Transport Equipment)			
	Metal containers and steel trunks			
Penugonda	Sri Venkateswara Steel Trunks & Buckets Factory ...	14	14	
	Pilli Narasanna Trunks & Buckets Factory ...	14	14	
	Manufacture of Machinery (Except Electrical Machinery)			
	General and jobbing engineering			
Penugonda	Sri Visweswara Industrial & Engineering Works ...	31	31	...

Source : Census of India, 1961, West Godavari District, Andhra Pradesh, *District Census Handbook*, Vol. II pp. 32–44, Table 4.3.

APPENDIX 3 (c)

LIST OF SMALL INDUSTRIES TOGETHER WITH THE NUMBER OF ESTABLISHMENTS AND PERSONS EMPLOYED IN EACH OF THEM

Type of Industry	Number of Establishments	Number of Persons Employed		
		Managerial and Super-visory	Skilled	Un-skilled
Cement products manufacture	2	10	16	31
Copper and brass utensils industries	8	17	145	
Fertilizers manufacture	1	7	25	
Flour milling	1	1	1	...
General engineering works	2	4	16	38
Iron & steel fabrication works	2	9	34	18
Oil pressing	5	2	17	1
Printing	3	3	9	...
Rice milling	86	126	797	61
Rice & flour mills	3	3	6	2
Rice & oil mills	3	6	80	20
Saw mills	5	5	16	7
Total	121	193	1,162	178

Source : Census 1961, Andhra Pradesh *District, Census Handbook*, Vol. II, West Godavari District, Page 28, Table 4.1; Director, Industries & Commerce, Hyderabad.

APPENDIX 4

LIST OF SAMPLE INDUSTRIES

S. No.	Name of the Industry	Year of Establishment	Products
(1)	(2)	(3)	(4)
1.	The Andhra Sugars Ltd.	1947	Crystal sugar.
2.	Jayalaxmi Fertilizers Ltd.	1957	Fertilizer mixtures.
3.	Sri Satyanarayana Spinning Mills Ltd.	1962	Cotton yarn 40s, 60s numbers (Hank and Coan).
4.	Sri Akkamamba Textiles Ltd.	1954	Cotton yarn 10s, 20s to 100s counts.
5.	Venkataraya Cotton Mills Ltd.	1965	Cotton yarn 10s, 20s 2/20s counts.
6.	Jaya Industries.	1961	High speed cycles, polythene flat tubes.
	Category A		
7.	Sri Gopalakrishna Rice Mill.	1967	Rice.
8.	Sri Venkateswara Rice & Oil Mills.	1962	Rice and groundnut oil.
9.	The Venkateswara Gur & Khandasari Sugars.	1959	Khandasari sugar.
10.	Kalyani Fruit Industries.	1947	Pickles and ayurvedic patents.
	Category B		
11.	Sri Visweswara Industrial and Engineering Works.	1948	Sugar factory machinery spares, oil engines, cane crushers and pans.

APPENDIX 4 (*Contd.*)

(1)	(2)	(3)	(4)
12.	Sri Uma Someswara Cottage Industrial Works.	1961	Galvanised iron buckets, oil engines, ferrous and non-ferrous castings.
13.	The Ajjaram Metal Works and Rolling Mills.	1964	Brass metal circles (Pattas).
14.	Bharati Cement Works	1949	Cement products (for domestic, construction, P.W.D. uses).
	Category C		
15.	Pioneer Electronics.	1960	Phonix radios and transistors; radio and transistor parts.
16.	Sri Gemini Knitting Works.	1958	Garments.

APPENDIX 5

LIST OF SAMPLE BUSINESS CONCERNS

S. No.	Name of the Concern	Year of Establishment	Field of Business
(1)	(2)	(3)	(4)
1.	M/s Venkateswara Corporation.	1965	Electrical appliances, Calgas, furniture and radios.
2.	M/s Electrical Emporium.	1962	Electrical appliances and radios.
3.	M/s City Emporium.	1949	Electrical appliances and radios.
4.	M/s Divakar Electronics.	1957	Electrical appliances and radios.
5.	M/s Venkateswara Radio House.	1962	Electrical appliances.
6.	M/s Satyanarayana Medical Agencies.	1959	Pharmaceuticals.
7.	M/s Satyanarayana Medical Stores.	1956	Pharmaceuticals.
8.	M/s Sekhar Agencies.	1968	Fertilizers, footwear and Emco batteries.
9.	M/s Gollapudi Suryanarayana.	1944	Fertilizers and pesticides.
10.	M/s Pothula Ganganna.	1940	Fertilizers, cement and paddy.
11.	M/s Venkateswara Textiles.	1968	Textiles.
12.	M/s Satyanarayana Metal Works.	1949	Utensils (stainless steel, brass, etc.)
13.	M/s Dinakar Oil Company.	1966	Indian oil, kerosene and pulses, glass and fancy goods.
14.	M/s Anjaneya Photo Frames.	1955	Photo frames.
15.	M/s Challa Apparao.	1946	Turmeric.

APPENDIX 6

PERSONAL INFORMATION SCHEDULE (Industry)

1. Name of the industry :
2. Name of the entrepreneur :
3. Age :
4. Place of birth :
5. Marital status :
6. Education :
7. Caste :
8. Religion :
9. Place of residence :
10. (a) Since when the entrepreneur's, family is living in the region ?
    Year :
    (b) If emigrated recently, from where ?
    Reasons for emigration :
11. When did the entrepreneur start this industry ?
    Year of establishment :
12. (Given on page 57).
13. (Prepare a detailed genealogy of the family covering the generation at the time of establishing the industry, and if possible, one generation back. Give in the genealogy age, education, place of birth, economic condition, etc.; also cover both consanguinal and affinal relatives).
14. Type of family at the time of establishment of the industry.
    (a) Independent individual, no family :
    (b) Single or nuclear family :
    Members in the family :
    Head of family :
    (c) Joint family :
    Members in the family :
    Head of the family :
    (d) Type of family and members in the family today :
    (e) General condition existing at the time of starting the industry :
15. Details about the occupation prior to the establishment of industry ?

12. General information about the members of the family who were present when he started the industry.

(Important : All information pertaining to the year as given in question-11)

Relation with the entrepreneur	Sex	Age	Education	Marital status	Occupation		Income/economic condition: if land, size of landholding		Remarks (about persons dead, other economic activities head of family, living separately etc.)
					Main	Subsidiary	Income	Landholding	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

16. What was the main source of income at that time ?
17. (a) Why did he go for industry and not for, say, trade ?
    (b) Why this industry particularly?
18. Who gave him the idea about starting the industry ?
19. How much did he invest at that time ?
20. From where did he get the capital at that time, (Own capital ? Other sources ? If other sources, specify the source and amount)
21. If other sources, any condition attached with the loan ? (If yes, nature of the conditions)
22. What does he think, whether these conditions were reasonable? (Reasons)
23. Apart from money, what other help he got at that time from other people/sources.

Nature of help	Conditions attached	From whom received
1.		
2.		
3.		
4.		
5.		
6.		

24. What were the very first steps he took when he started the industry ?
25. (a) What were the difficulties he faced at that time ?
    (b) How these difficulties were solved ?
    (c) Did anybody help him at that time to solve these ? (If yes, who ? how ?)
26. What does he think whether the difficulties he has mentioned above are present even to-day for those who want to go for industries ?
    (Reasons)
27. What were his worries when he started the industry ?
28. (a) What were his expectations at that time ?
    (b) Were these fulfilled ?
29. Were there any near or distant relative/s and or friends who were in some other industries at that time ?
    Yes No

If yes, relationship ?
Nature of industry ?
Since how long they were in industry ?

30. If yes, (in question 29), any help or guidance received from them at that time ?
Yes No
If yes, nature of help :

31. Any help or guidance given to them ?
Yes No
If yes, when ?
Nature of help :

32. Does he have any near or distant relations or close friends who are in industry today ?
Yes No
If yes, relationship
Nature of industry
Since how long they are in industry ?

33. If yes, any help or guidance recived from them ?
Yes No
If yes, nature of help

34. Any help or guidance given to them ?
Yes No
If yes, nature of help

35. (a) What is the present investment ?
Rs.
(b) Is this own capital or the capital he got from other sources ?
Own capital
Other sources, specify *source* and *amount*
(c) If other sources, any condition attached to the loan ?
Yes No
If yes, nature of condition ?
(His opinion on the subject of entrepreneurship)

36. (a) What according to him are the essential qualities of an entrepreneur ?
(b) What are the necessary factors to attract people to start industries ?
(c) Who among his family members have the qualities for running or starting industries ?
For running already established industry–
For starting new industries–
(d) Why does he think so ?

37. (a) Who are the key persons in his industry ?
    (b) Nature of the job done by these people ?
    (c) From where did he recruit them ?
    (d) Since how long they are with him ?
    (e) Why does he consider them to be key persons,
38. When he started this industry or just before he started this industry, did he approach any government officer, or government department for any help, advice or for any purpose.
    If yes, whom ?
    For what purpose ?
    What was his experience ? Was his purpose served ?
    Did he face any difficulties at that time ? If yes, nature of difficulties.
39. Has he approached the government for any help in recent years.
    If yes, to whom ?
    Purpose ?
    What was his experience, was his purpose served ?
40. Does he think there is any change in the approach of the government towards industries in recent years as compared with its approach in the past ?
41. What is the nature of assistance he expects from the government ?
42. What does he think government can do to encourage people to start industries in this region ?
43. (a) What does he think whether government has made any efforts in this region for starting the industries ?
    (b) If yes, nature of efforts.
    (c) Result of above efforts ?
44. (a) What does he think whether new industries could be started in this region ?
    (b) If yes, what industries ?

APPENDIX 7

GENERAL INFORMATION SCHEDULE (INDUSTRY)

1. Name of industry.
2. Year of establishment.

Location of Industry.

3. Distance from : (All distances in Kilometers).

(*i*) Nearby railway station/s.

Station	*At present*	*At the time of establishing the industry.*
(*ii*) Taluka headquarters.		
(*iii*) Block headquarters.		
(*iv*) District head-quarters.		
(*v*) State capital.		
(*vi*) *Road*		
Kuccha road.		
Pucca road.		
National highway.		
(*vii*) Navigable canal.		
(*viii*) Navigable river.		
(*ix*) Educational Institute/s.		
Middle School.		
High School.		
Inter-College.		
College.		
Polytechnic.		
Any other, specify.		
(*x*) Nearest power station.		
(*xi*) Main source of water.		
(*xii*) Any other, specify.		

Station	*At present*	*At the time of establishing the industry.*
4. (*a*) Major crops. (*b*) System of irrigation. (*c*) Nearby mandis (names of mandis.)		
5. Type of ownership. Individual/joint family/partnership/co-operative / joint stock/any other, specify.		
6. Name/s of the most important person/s who own/control the industry.		
7. Nature of industry. Seasonal (give months). Throughout the year.		
8. (*a*) Whether the industry is run to its full capacity? Yes. No. (*b*) If no, then indicate the percentage of idle capacity ?		
9. (*a*) Main finished product/s. (*b*) By-products. (*c*) Uses of products.		
10. Nature of power used. (*a*) Electric. (*b*) Other, specify. Own supply. Government supply. If own supply, method of generation. Diesel generating set. Petrol generating set. Steam generating set. Others, if any.		

11. Investment pattern from the year of establishment.

Year of establishment.....

S. No.	Year beginning with first year of establishment	Capital					Source of capital			Return	Profit utilisation	
		Fixed				Running	Total investment	Own capital	Borrowed amount, source	Percentage profit/loss return on total investment	Ploughed back in the same industry	Directed to other industries
		Land	Machinery	Building	Any other							

12. (*a*) What is the nature of risk involved in this industry?
No risk.
If risk is involved, nature of risk.

(*b*) If risk is involved, how is the loss/risk distributed.

13. (*a*) Any expansion programmes of the factory for the next five years.
Yes No

(*b*) If yes,
Reasons for expansion.
Nature of expansion.
Likely investment for expansion.
Fixed capital, Rs.
Running capital, Rs.
Source of capital.
Own capital Rs.
Other sources, specify :

14. (Given on page 65).

15. (Given on page 66).

16. Nature of employment.

Staff category	In the past		At present		Remarks
	Seasonal	Full year	Seasonal	Full year	
Technical expert.					
Managerial staff.					
Supervisory staff.					
Skilled worker.					
Semi-skilled worker.					
Un-skilled worker.					
Office staff.					
Clerks, typists, etc.					

Tachnology

17. (*a*) Nature of technology used (give brief description) (Type of machines).

(*b*) Whether the technology (knowledge of machinery required) used at the time of starting this industry was locally available. Was there any other industry at that time in this region?

14. Staffing pattern.

S. No.	Years beginning with first year of establishment	High level staff			Labour workers			Office staff		Remarks
		Technical expert/ specialist, give qualification	Manager	Supervisor in the factory	Skilled	Semi-skilled	Un-skilled	Clerks/ typists	Total	

15. From where different categories of staff are generally recruited ?

Staff category	Family member/relative		Within the town	Within the taluka	From other taluka of the district	From other districts but within A. P.	From other states, specify	From other countries, specify	Qualification	Remarks
	Past*	today	P. today	P. today	P. today	P. today	P. today	P. today	P. today	
Technical expert.										
Managerial staff.										
Supervisory staff in the factory.										
Skilled.										
Semi-skilled worker.										
Un-skilled worker.										
Office staff, clerks, typists, etc.										

* Past means the year when the industry was established or immediately after it.

(*c*) If yes, where?

(*d*) What was the product?
Since when? 10 years before this industry was started/ 25 years before/50 years before?

(*e*) If no, from where those who started the industry got the knowledge?

18. (*a*) Since the establishment of this factory, any changes took place in the factory?

(*b*) If yes, in what spheres? Nature of change (give brief description.)

Site.
Building.
Machinery.
Management.
Ownership.
Staffing pattern.
Labour relationship.
Investment pattern.
Returns on the investment.
Any other, specify.

(*c*) Reasons for change.

19. What technical, financial, managerial adjustments were required due to above mentioned changes?
Technical.
Financial.
Managerial.

20. (*a*) Any plan for future changes?

(*b*) If yes, nature of changes.

21. (Given on page 68).

22. If raw material was not easily available, then steps taken for getting it.

23. (*a*) Any help received from the government for this industry?

(*b*) If yes, nature of help.

24. (*a*) Any incentive received?

(*b*) If yes, from whom?

(*c*) Nature of incentive (tax relief, import quota for raw material, machinery).

25. Nature of taxation.

26. (*a*) Nature of market.
Seasonal.
Throughout the year.

21. Raw material and sources of raw material.

Raw material	Source of raw material						Availability of raw material			
	Locally available	Within taluka	Within district	Within state	Outside state	From other countries, specify	Easily available	Not easily available	Available in quantities	
									Yes	No

(*b*) *Market available* :	*At the time of establishment of industry, % of produce sold.*	*Today, % of produce sold.*
Locally.		
Within the taluka.		
Within the district.		
Within the state.		
Within the country.		
Outside the country.		
Specify.		

27. Difficulties generally faced by the industry?
    - Shortage of raw material.
    - Shortage of capital.
    - Lack of market.
    - Seasonal demand.
    - Shortage of personnel.
        - Technical.
        - Managerial.
        - Supervisory.
        - Skilled labour.
        - Semi-skilled.
        - Un-skilled.
    - Labour problems.
    - Transport/communication.
    - Any other, specify.
28. Research in industry.
29. Labour welfare and labour management.

APPENDIX 8

PERSONAL INFORMATION SCHEDULE (BUSINESS)

Part I

(Same as Appendix 6, suitably modified for tradesmen.)

Part II

We understand that in recent years a number of industries have been started in Tanuku. We would like to know what you think about this growth of industries here.

1. Can you give us the name of industries in this region ?
   (*i*)
   (*ii*)
   (*iii*)
   (*iv*)
   (*v*)
2. Do you know who started these industries?

	Industries	*Name of person*
(*i*)		
(*ii*)		
(*iii*)		
(*iv*)		
(*v*)		

3. Are these local people or outsiders?
   Local Outsiders
4. Do you have any idea why these people have gone for industries and not for business or trade?
5. (*a*) Do you personally know any of these people?
   Yes No
   (*b*) If yes, how you know them, as friends, relatives or just acquaintance?
   Friends
   Relatives (Relation)
   Just acquaintance.
6. (*a*) How often do you meet these people in, say, a month?
   (*b*) For what purpose?

(*c*) On what occasions?

7. (*a*) Have you helped any of these people?
   Yes No
   (*b*) If yes, in what manner?
8. (*a*) What do you think whether more industries could be started in this region?
   Yes No
   (*b*) Why do you think so?
   (*c*) If yes, type of industries that could be started?
9. (*a*) Do you think starting an industry is very much different from starting a business such as yours?
   Yes No
   (*b*) Why do you think so?
10. Do you think that these people who are in industries are different from those who are in business/trade?
   Yes No
   In what way (Probe)
   (*i*) Financially.
   (*ii*) Caste.
   (*iii*) Management ability.
   (*iv*) Technical ability.
   (*v*) Already have experience of industry.
   (*vi*) Any other, specify.
11. What do you think whether starting an industry requires any special abililty or skill?
   Yes No
   If yes, what special abilities?
12. (*a*) What do you think are the difficulties one would face if one wants to start an industry?
   (*b*) How these could be avoided or solved?
12. What do you think government should do to encourage more industries in this region?
14. (*a*) Have you ever thought of starting any industry?
   Yes No
   (*b*) If yes, when?
   (*c*) Which industry you had in mind then?
   (*d*) What steps did you take?
   (*e*) What happened afterwards?
   (*f*) If the idea did not materialise, reasons?
   (*g*) (If the thing is still in process) what is the present state of affairs?

15. (*a*) Which one do you think gives better returns on the money invested, industry, business or agriculture?
Industry.
Business/trade.
Agriculture.
All give same returns.
Any other response.
(*b*) If industry, type of industry.
(*c*) If business or trade, nature of business or trade.

16. (*a*) Which one is more difficult to run, industry or business?
Industry.
Business.
Both.
(*b*) Why do you think so?

17. (*a*) Which one, requires greater management ability, industry or business?
Industry.
Business.
Both.
(*b*) Why do you think so?

18. Which one requires more finance, industry or business?
(Probe)
Industry.
Business.
Both.

19. (*a*) If you have to start all over again, and you have capital, what would you prefer? Industry or business?
Industry.
Business.
(*b*) Why?
(*c*) What type of business/industry?

20. (Given on page 73).

21. If (*b*) of question 20, then indicate the nature of expansion.
Why?

22. If (*c*) of question 20, then nature of new business.
Why?

23. If (*d*) of question 20, then which industry?
Why ?

24. If (*e*) of question 20, then nature of activity.
Reason.

25. (Given on page 74).

20. What would you like your sons to do ?

	Sons				Any other relative with equal status as the sons		Remarks
	First	Second	Third	Fourth	(2)	(2)	
(a) Run the present business at it is run today							
(b) Expand the present business.							
(c) Start a new business.							
(d) Start an industry.							
(e) Any other, specify.							

25. You have just now told us what *you want* your sons to do. Now, we would like to know what your sons think. Can you tell us what *your sons* want to do ?

	Sons				Any other relative with equal status as the sons		Remarks
	First	Second	Third	Fourth	(1)	(2)	
(a) Run the present business as it is run today.							
(b) Expand the present business.							
(c) Start a new business.							
(d) Start an industry.							
(e) Any other, specify.							

26. If (*b*) of question 25, then indicate the nature of expansion.
    Why ?
    How you feel about it?
27. If (*c*) of question 25, then nature of new business.
    Why ?
    How you feel about it?
28. If (*d*) of question 25, then which industry?
    Why?
    How you feel about it?
29. If (*e*) of question 25, then nature of activity?
    Reason.
    How you feel about it?
30. (Given on page 76).
31. (If in question 25, none of the sons wants to go for industry, then ask).
    Suppose if one of your sons wants to go in for industry, how would you feel about it?
32. Would you like your sons to work jointly or work independently? (Probe).
    Jointly.
    Independently.
    Why do you feel so?
33. Do you think starting of new industries in Tanuku has affected the life here?
    Yes No
    If yes, in what way? (Probe).
    What do you think whether these effects are good or bad?
    Why do you think so?

30. To run a business or industry requires certain aptitude and skills. What do you think which of your sons have the aptitude, management skill, technical skill or any other qualities.

	Aptitude	Management skill	Technical-skill	Other qualities (Specify)	Remarks
	(1)	(2)	(3)	(4)	(5)
(*i*) To run your business as it is today.					
(*ii*) To expand your business.					
(*iii*) To start a new industry.					

APPENDIX 9

A BRIEF LIFE-HISTORY OF HARISCHANDRA PRASAD

1. Socio-Historical and Economic Base

The Mullapudi family, belonging to Kamma caste, was already rich and influential in the first half of the 19th century. They owned large tracts of fertile land in and around Tanuku village which is in the delta region of the Godavari river. The construction of the Godavari anicut in 1843 greatly contributed to their prosperity. They have their ancestral house in the old Tanuku village.

In the second half of the 19th century, there was no male heir to continue the *vamsham*, and to look after the ancestral property. So, M. Venkatarayudu, who was born in 1860 and was a consanguinal relative, was adopted by the family.

M. Venkatarayudu started looking after the family agriculture from an early age. He was intensely devoted to his land. He was a man of great vitality. He was impressive because of his robust health and huge flowing moustache. He himself was very hard working, and was also a great task-master. No farm worker would dare sit idle on his farm. Every day he would get up very early in the morning and go round his fields. He was a man of simple living. Because of his strict demure nature, simple living, hard work and authoritarian behaviour, he commanded great respect in the local community.

Whole of his life M. Venkatarayudu was possessed by one and only one desire, and that was, to acquire for the family as much land as possible. In his life time, he never sold a single inch of land, but whenever any land was for sale, he was always there to purchase it. Thus, he increased the ancestral property manifold. It seems as if throughout his life this adopted son was driven by intense desire to justify the faith and confidence of the family which adopted him.

M. Venkatarayudu's eldest daughter was married in the Pendyala family, the zamindar of Dommeru, a village about 28 miles from Tanuku. This family was also rich and owned large tracts of fertile land in delta region. As the zamindar of Dommeru died at an early age without leaving a male issue, P. S. R. V. K. Ranga Rao, the eldest son of M. Venkatarayudu's second daughter, was adopted by the Pendyala family.

M. Venkatarayudu had his third child, his only son, M. Thimmaraju, at the prime of his life, when he was just over 40 years old. After the son he had four more daughters.

In contrast to his father, Thimmaraju grew in an altogether different environment. Under the energetic, active, dominating father he lived a secured, peaceful life without ever being bothered much by property matters. He got education up to matriculation. He is now about 68 years old. A man of unassuming nature and mild disposition, he has spent most of his life in local politics. He was president of taluk board for 12 years and was member of district local board. After the abolition of taluk board, he was president of panchayat for nearly 20 years. He likes to move around a great deal and likes to maintain close relations with his large number of close as well as distant relatives. Because of his helping nature, in times of difficulties his kins always look upon him for help. He has never imposed his will on his children or on any other members of his family. But he also does not like to have any fetters that would hinder his social life in any manner. A man of literary taste, apart from his love of social relations and local politics, the only other thing in which he is interested is his printing press to which he is greatly attached.

2. Law of Inheritance and Accumulation of Wealth

M. Thimmaraju, the only son of M.Venkatarayudu, was married at an early age and had a daughter and a son before he was 21 years old. This son, M. Harischandra Prasad, was born in 1921. The daughter was married to P.S.R.V.K. Ranga Rao. M. Harischandra Prasad's mother died when he was only 1-1/2 years old. M, Thimmaraju married again. From this second marriage he had one son and three daughters. This son died at a young age of 16 years due to typhoid in 1942. And again in the family for the third consecutive generation, there was a single male heir to look after the ancestral property. As such, there was no division of property. M. Harischandra Prasad was the sole heir of the accumulated wealth of the two earlier generations.

3. The Formative Years

M. Harischandra Prasad was brought up by his step-mother with great love, care and understanding, so much so, few outsiders know that she was not his real mother. M. Venkatarayudu, the grandfather, had passed his prime of life and was over 60 when Harischandra Prasad was born. From his childhood Harischandra Prasad was very much attached to his grandfather. When he was old enough, his grandfather

used to wake him up early in the morning and take him along with him on his daily rounds of fields. He spent his formative years under the training and direction of his grandfather, and learnt about the family property and agriculture. In the process he acquired many characteristics of his grandfather. From his young age he was bold and dashing and hard working. From his father's side he also acquired a taste for politics. Even from his school days he showed qualities of leadership. He used to take active part in school elections. He was president of students union. He got his education in Tanuku village itself. He studied up to S. S. L. C.

4. Responsibility and Opportunity

M. Harischandra Prasad was married at an early age and before he was 22 years old had a daughter in 1939 and a son in 1941. The son was named after his great grandfather, M. Venkatarayudu.

M. Venkatarayudu died on 18th February 1943 at the ripe old age of 83. His son, M. Thimmaraju, was over 40 years old by that time. At that time the family owned nearly 2,500 acres of rich farm land. Most of the land was given on lease to tenants, mostly in the West Godavari district and some in the East Godavari and Krishna districts. Only about 300 acres of land was cultivated under the direct supervision of the family.

After the death of his grandfather, young, energetic, hard working Harischandra Prasad, who was already trained and was well briefed in property and agricultural matters by his grandfather, took over the management of the family property.

5. Pressure for Change, Awareness of Impending Changes

M. Harischandra Prasad also entered into politics. When he was just 24, he fought a tough election and became member of Provincial Congress Committee. After this contest, till recently, he did not face any serious challenge to his position in the field of politics in his constituency. He had been member of Legislative Assembly till recently.

He became member of Provincial Congress in 1945, just when political movement in the country was at its peak, and the independence was not very far off. In the course of his political life he became acutely aware of the impending socio-economic and political changes. Abolition of zamindari and land reforms were important programmes of the Congress. Independence was inevitable, and it was in the air that with independence would come reforms that would take away the land from the zamindars and distribute it to tenant cultivators. He

perceived that conditions would not be the same and that changes would come rapidly.

6. Companion

P. S. R. V. K. Ranga Rao, the zamindar of Dommeru, who married Harischandra Prasad's elder sister, and whose youngest sister was married to Harischandra Prasad. was also a rich landlord owning large tracts of land. He and Harischandra Prasad, who was only about 10 years younger to him, were very close to each other. P. S. R. V. K. Ranga Rao was also aware of the changing condition in the country and used to discuss these with Harischandra Prasad.

7. Advice and Guidance

At this crucial juncture Ranga Rao and Harischandra Prasad decided to go to one V. Ramakrishna for advice and guidance.

Ramakrishna was a senior 1. C. S. officer of the then Madras Province. He also belonged to Kamma caste and was distantly related to Ranga Rao, Ramakrishna's father-in-law being a relative of Dommeru family. Ramakrishna's father-in law himself was a rich landlord owning a lot of land in the rich Krishna district. He was also an influential political leader of that region. They both were greatly interested in industries. In fact, as early as in 1934 they had started a sugar factory in Vuyyur in Krishna district. Besides this, they had also started a number of industries.

In 1947, Ranga Rao and Harischandra Prasad went to Madras and met Ramakrishna at his residence. Ramakrishna advised them to start on a small-scale a sugar factory with 450 to 600 M. tons capacity costing about Rs. 14 lakhs. The decision for starting the sugar factory was taken then and there. Ramakrishna helped them in preparing the first draft of the memorandum and articles of association for the incorporation of the company to be named as The Andhra Sugars Limited. Ramakrishna had great faith in numerology. He suggested the name, The Andhra Sugars Limited, after doing the necessary calculations according to methods of numerology. To help them in all matters, he also gave them an experienced person from his staff. With the help of a firm of chartered accountants, they prepared the final papers for the incorporation of the company. Now, only thing left was to find out other subscribers. So they went back to Tanuku and approached five influential and rich persons, who were well known to Ranga Rao. Two out of these were their own relatives. The remaining three came from the three important castes namely, Raju, Naidu and Vysya. Initially,

Ramakrishna was not a subscriber, but a close friend of his was on the body which formed the company. In all, there were eight subscribers. Harischandra Prasad who was only 26 years old was the youngest, four subscribers were about 36 years of age, two between 40 to 45, and only one about 55. Within two days the signatures of all the subscribers were collected and the papers were submitted to the Registrar of Joint Stock Companies at Madras on the 6th August, 1947. The certificate of incorporation was obtained immediately on the 11th August, 1947.

After registration, Harischandra Prasad applied for industrial licence in his own name. In 1949, he got the licence for the sugar mill with a capacity of 600 tons. In the meanwhile, Ramakrishna resigned from service. On invitation, he came to Tanuku and selected the site for the factory. The site was in the village, now known as Venkatarayapuram in Mandapaka village limits. The site selected by him was between the railway line and the main road which ran parallel to close-by navigable canal. The area was about 16 acres. Since it belonged to some other party, it was purchased for the factory. Subsequently, more land surrounding the site was acquired.

Ramakrishna's help was again sought while placing orders for the machinery. On his advice Harischandra Prasad decided to go to U.K. In 1949, Ramakrishna, his father-in-law, Harischandra Prasad and one engineer went to U.K. They contacted various firms manufacturing sugar mill machinery. Ramakrishna had been abroad a number of times and had experience of purchasing machinery for his other factories. Moving with him Harischandra Prasad learnt about the dealings in machinery business. He learnt that complete turn-key plant purchased from one single firm would be very costly. And it would be much cheaper if the orders were placed with different firms for different machinery. Accordingly, orders were placed with different firms after getting quotations of various firms, and after hard bargaining. Since U.K. and continental firms were not in a position to supply some machines, especially the boiler, in the specified time, the party went to U.S.A. There they placed order for the boiler.

All these orders were placed in August and September, 1949. On 20th September, there was devaluation of rupee. Ramakrishna asked Harischandra Prasad to fly back to Delhi and get import licence and letter of credit. Harischandra Prasad came back to Madras and heard that Ranga Rao was hurt in a train accident and was in hospital in Vizagapatnam. So he went to see him. Since he had never been to Delhi and did not know anybody there, he went back to Madras and got a person from Ramakrishna's office to accompany him to Delhi. Ramakrishna had already given him letters of introduction to various

officers in different departments and ministries at Delhi. After reaching Delhi, Harischandra Prasad found that the person who accompanied him was of not much use, and so he sent him back to Madras. In Delhi he stayed in the Constitution House with T. Prakasam, who was a member of the Constituent Assembly.

8. Tenacity and Endurance

Harischandra Prasad did not have any experience of governmental administration and administrative procedures. He did not know how to put his case. He went from office to office chasing papers because various departments such as Agriculture, Finance, Industry were involved in the process of granting import licence. Because of Ramakrishna's letters he could at least meet the officers. Most of them were sympathetic and tried to help this young man who wanted to start an industry. But since there was devaluation of rupee, they advised him not to go for the imported machinery but purchase some second-hand machinery from U. P. sugar factories. Harischandra Prasad felt very much discouraged and frustrated. He was also very lonely. There was nobody in Delhi with whom he could discuss and share his difficulties. In the evenings he would come back tired from his unending rounds of offices and often used to shed tears in frustration. He could not tell the officers that they had already placed orders for the machinery abroad, without first having import licence. After weeks of hard labour and running around the offices, he managed to get the import licence and letter of credit.

In the meanwhile, Ramakrishna went to Japan from U. S. A. and there placed orders for turbo-generators which were not readily available in U. K. or U. S. A. Japan was in a position to supply these in time. Since most of the firms already had dealings with Ramakrishna, they agreed to supply the machinery on credit and to collect their bills after the machinery reached India.

While the machinery was being despatched from abroad, Harischandra Prasad started collecting the share capital from the shareholders. For this he took the help of his uncle (father's sister's husband) who was an elderly person and whose word carried weight with their relatives. At that time to raise capital for any industry was rather difficult. This was because at that time two industries, a jute mill at Eluru and the other a paper mill at Rajahmundry, failed and so people were not willing to invest in industries. The general impression was that no industries could succeed in India. Since Harischandra Prasad and his uncle met their relatives and other people personally, some of

them paid part of the share while some promised to send the money afterwards, which many of them did not, and some straightaway refused to part with their money. So they collected only a negligible amount.

9. Pragmatism

Because of fear of land ceiling and due to the pressing need of raising capital, Harischandra Prasad decided to sell the land. When he consulted his grandmother she did not appreciate the idea of selling the land and was very much upset. She reminded him that his grandfather never sold any land in his life time and that selling land would not be good for the family. But Harischandra Prasad was certain that converting land into cash was a better alternative to outright losing the land under the land ceiling Act which might come in force any day. So he started selling land discretely, whenever the land could fetch good price. Ranga Rao also sold a large part of his land. Thus, even when they could not raise much capital from outside sources, they had sufficient capital of their own. In about eight years, from 1949 to 1957, he sold sufficient land so as to be within the ceiling limits. Remaining thousand acres or so were judicially distributed among the family members each having landholding below the ceiling level. His grandmother died in 1951.

The machinery started arriving from 1950 onwards. His political opponents started the propaganda that he had sold his land and purchased iron scrap.

Under the circumstances, Harischandra Prasad himself laid the foundation of the factory without any fanfare. Only three other persons were present at that time, his secretary, a distant relative from his grandfather's side and a purohit

10. Technical Guidance

At the time of erection of factory, Ramakrishna again gave his help. He sent a technical, experienced person from his sugar mill to help in the erection of the factory. Since his friend who was one of the original subscribers died, Ramakrishna himself became one of the directors of the company.

Practically all the erection and construction work was done under personal supervision, and no work was given to contractors. Since government power supply was not available, the generator which arrived in the meantime from Japan was pressed into service. Most of the construction work was over by the time the government power supply was received.

Initially it was estimated that the total cost of the factory would not be over Rs. 14 lakhs. However, by the time the factory reached the production stage in February 1952, the cost went up to Rs. 40 lakhs. The early estimates completely went wrong due to devaluation of rupee in 1949 and due to certain defects in calculations done at the time of planning. But the under-estimation proved to be a blessing in disguise. To raise Rs. 14 lakhs was not difficult for Harischandra Prasad and Ranga Rao. If they wanted, they could finance the whole project from their own resources. But even to them the sum of Rs. 40 lakhs was too much. If in the beginning itself they had been asked to raise 40 lakhs, it was possible that they would have backed out of the venture.

11. Dependence on Kin-group

When the cost started mounting Harischandra Prasad had many sleepless nights. It looked as if the collapse of the company was inevitable and the prophesies of his enemies would come true. He had risked the family property and now was going to lose it, and consequently the name of his family. Harischandra Prasad fought back with all his energy. He sold his land and raised capital. The accumulated wealth of generations came to his help. Many of his kith and kin also extended their help, and thus he managed to keep the flow of capital in time.

Working hard under high tension he used to get severe headache in the evenings. This time, however, whenever he went to Madras and other places, he used to have a companion with him. He could not forget the depressing lonely days he spent in Delhi. His friend used to press his head to give him relief from the enervating headache.

12. Dynamism

Things, however, settled down quickly, when the factory commenced operation in 1951–52 season. Within two years, the factory started giving profits. From then onwards, the company's progress was phenomenal. After its initial success, the company aggressively embarked upon the expansion and diversification programme. It increased its capital manifold through subscription, fixed deposits from individuals, and loans from banks, the Industrial Finance Corporation and from the state government. It took advantage of the favourable industrial climate in the Second Five Year Plan period (1957–62). Since its inception, it has expanded the crushing capacity four-fold, from 600 M. Tons to 2,500 M. Tons per day. Simultaneously, it also developed an integrated chemical complex consisting of heavy chemicals, organic

chemicals, plastics and fertilizers. In addition to this it started a number of sister concerns for textiles, machine-foundry, rice-bran oil and flour mills. An idea about the investment and profit patterns, and growth and diversification of its industries in the last 20 years could be obtained from Table 6. A brief description, however, could be given here.

No sooner the factory commenced operation in 1952, decision was taken to expand the factory's capacity. Accordingly, in 1955, Harischandra Prasad and B. B. Ramaiah, then general manager, went to Germany and placed orders for machinery for the expansion programme to increase the crushing capacity from 600 M. Tons to 1,250 M. Tons per day. Most of the machinery was installed by 1957 and within a couple of years the factory started crushing to full capacity. Again in 1965, the factory obtained an expansion licence to increase the crushing capacity from 1,250 M. Tons to 2,500 M. Tons per day. By 1968, expansion work was complete, and in 1968–69 season the factory was more or less working to full capacity.

The company declared its first dividend of 6% in 1954. After that it regularly gave dividend ranging between 10 to 20%. For example, in 1958-59 and 1959–60, the company declared each year 20% dividend.

In 1957, the company obtained licence from the government for an industrial alcohol plant, acetic acid and acetic anhydride plants, sulphuric acid and superphosphate, and caustic soda and chlorine plant. To minimise capitalisation, the company, also started fabrication of a substantial portion of the machinery in its own workshop. The combined unit of industrial alcohol–acetic acid–acetic anhydride–ethyl acetate and sodium acetate was built over a period of 8 years from 1960. Superphosphate factory and sulphuric acid plant, both at Kovvur, went into production in 1960 and 1961, respectively. The industrial alcohol plant at Tanuku also went into production in 1961, and the 'acetic acid and anhydride plant in 1963–64. The caustic soda-chlorine plant started production in 1965. The ethyl acetate and sodium acetate plants commenced operation in 1966.

A number of sister concerns were also floated in the same period of 20 years. In 1957, Jayalaxmi Fertilizers was started. Sree Akkamamba Textiles Ltd., Sree Satyanarayana Spinning Mills Ltd. and Sri Venkataraya Cotton Mills Ltd., were started in 1954, 1962 and 1965, respectively. Again, in 1961, Jaya Industries for manufacturing cycles and cycle parts was started in Tanuku. Similarly, the Andhra Foundry and Machine Company, a large concern, was started in 1961 at Hyderabad. In addition to these, a flour mill at Tadepalligudem was established in 1967. A rice-bran oil unit at Kakinada is under construction. In 1962,

the company also planned to start a massive fertilizer plant at Kothagudem. For this, Hindustan Allied Chemicals Ltd. was floated which was granted the certificate of commencement of business in 1963. However, due to technical and other reasons, the plan for starting this factory did not materialise.

13. Availability and Development of Technical and Managerial Skills within the Family Circle

Harischandra Prasad had no technical education. But in the course of his association with Ramakrishna and in the course of construction of the sugar factory which was done under personal supervision, he developed a deep understanding of technical matters, and could grasp even the most complicated technical problems. However, the phenomenal expansion and proliferation of the industries in a short span of 20 years would not have been possible but for the availability of a number of reliable, dynamic persons with high degree of technical and managerial competence. And from his large network of consanguinal and affinal relations he was able to pick and choose and train talented young persons and put them in key positions in his fast expanding industrial interests.

The first young person to occupy the key position in the company was B. B. Ramaiah. He was only 26 years old when in January, 1953, he joined the company as general manager. He was Ranga Rao's daughter's husband, and was also related to Harischandra Prasad, being his mother's brother's son. He had a degree in sugar technology, a post-graduate degree in chemical technology of Andhra University and also a master's degree in chemical technology of Wisconsin University, U. S. A. In 1957, he was appointed as technical adviser on monthly remuneration of Rs. 1,600 in the scale of Rs. 1,500–100–2,500 with a free house and other amenities. At the same time, he was also elected as one of the directors of the company. In 1968, he was raised to the position of joint managing director (Technical) and was entitled to a remuneration calculated at 3½% of the net profit of the company for each year and in the absence or inadequacy of profit he was entitled to a monthly salary of Rs. 5,000/- plus bonus and usual amenities.

In 1961, B. Lakshmanaswamy, M. Sc. (Chemical Engineering) was appointed as plant manager for chemicals and fertilizers division at Kovvur. He was mother's sister's son of Harischandra Prasad.

Harischandra Prasad's eldest son, M. Venkatarayudu, B. Com., now about 28, looks after the textile mills. In 1968, he was also appoin-

ted as an executive director and was entitled to a remuneration calculated at 2½% of the net profit of the company.

Andhra Foundry and Machinery Company at Hyderabad is looked after by Bhanu Prasad, B. E. (Mech.), M. S. (Chemical and Industrial Engg.) who is late Ranga Rao's son-in-law.

In addition to these, a number of relatives are posted on various administrative and technical posts in different plants.

In recent years, connections have also been developed with other families who are in industries, especially families from Coimbatore, through marital ties. Harischandra Prasad has five daughters and three sons. His eldest daughter was married to late Ranga Rao's younger brother while his eldest son, M. Venkatarayudu, is married to late Ranga Rao's daughter. His second and third daughters are married in Coimbatore in top industrial families. One of Ranga Rao's daughters was also married in Coimbatore.

The eldest son had all his education outside Tanuku, in Madras and Vijayawada. The two younger sons aged 18 and 16 also had their schooling outside Tanuku, and now one is doing his graduate course in technology in Madras, and the other in agricultural sciences in Bapatla.

In all the companies, all the directors, except one or two, have been, and are close relatives. Today, there are about 20 family members, each one of them holding the post of director in one or more companies. Earlier, Messrs. Ranga Rao and Company, again a family concern, were the managing agents. After the abolition of managing agency system in 1968, the family members became managing directors. P. S. R. V. K. Ranga Rao was chairman of board of directors till his death on the 21st March, 1958. After him, M. Thimmaraju, father of Harischandra Prasad, became the chairman.

Today, for all practical purposes, Harischandra Prasad is the acknowledged head of the large "family" consisting of more than 300 close-knit affinal and consanguinal relatives and commands their undivided loyalty.

APPENDIX 10

THE COIR INDUSTRY—A CASE STUDY

A. Sree Rama Murthy had some twelve acres of very fertile land in the village Velpur. The village is about six miles by road from Tanuku town which is a growing industrial centre. A number of small industries have also come up there. Murthy had his own house in the village. He was college-educated and was very interested in the uplift of villages. He was the founder and principal of an elementary school in his village where he used to provide free education to children of the poor. In 1959, he handed over the school to government. He used to go to a mission hospital in the nearby town for treatment for partial paralysis of his arms and hands from which he suffered since he was fourteen years old. In the hospital, while going through old magazines he got the idea of starting a small-scale industry in his village. In a Japanese magazine he came across a fair description of coir industry. He collected information from different sources and found that there was good market for the product. The raw material was locally available. So, in 1963, he decided to go for this industry. In this connection he wrote in March 1963, to National Small Industries Corporation (NSIC). The NSIC in turn contacted Small Plant Committee (SPC) of Japan (the Japanese government undertaking) and requested them to recommend the best fabricators of coir goods machinery. The SPC recommended to NSIC that the machines of M/s. Chuo Boeki Goshi Kaisha were superb in performance and moderate in price. NSIC asked him to accept the machines of the above mentioned company, even though he requested for the Austrian machinery. He ultimately accepted the Japanese machinery. All correspondence was done by him directly, though technical reports and recommendation for the industry were sent through the department of Industries. In anticipation of getting machines in 1966, he had already applied for the power supply in the late 1965, and paid the necessary deposit money. In February 1966, he received the machinery through M/s. Winson & Co. of Bangalore. The cost of machinery was about 2.32 lakhs. He spent about 1.5 lakhs on land, construction of buildings, installations, electric fittings, etc. Total amount which he was to pay to NSIC in instalments came to 2.33 lakhs including the earnest money. He also raised about Rs. 60,000

by selling his land and about Rs. 40,000 by borrowing from his sisters and brothers.

The installation of machines was over by the end of March 1966. Unfortunately he could not get the trial of the working of machinery at the time of installation or even immediately after it, as by that time he had not obtained the power connection. At that time there was great shortage of power. He made repeated efforts to get power connection. By July 1966, he was convinced that he would not get power for another year or so. So he purchased a generator for Rs. 30,000. For the generator and for raw material he got loan of Rs. 50,000 from the State Bank of India. For the generator he has to erect a shed which cost him another Rs. 4,000.

The generator was installed in September 1966. In the last week of October 1966, he got the power supply from the Electricity department. He tried to sell the generator after some time but could not get a good price for it. The maximum offer he received was Rs. 15,000. The generator is still with him, pledged to the bank.

The factory was formally inaugurated in November 1966, by Mahadevan, the then chief development officer of the State Bank of India, Hyderabad. After inauguration, the factory hardly worked for a day. The machines did not work properly. There were technical and mechanical troubles. Murthy reported the defects to NSIC and to the Japanese company. The company deputed a Japanese engineer who was already working in Bombay, to remedy the defects. The engineer came for one day, and inspected the machinery but failed to remove the defects. He suggested to Murthy to try some other engineer and left the next day. Murthy again wrote to NSIC and also the Japanese company but did not get any satisfactory replies from any of them. He tried local engineers and also some from Bombay. But nobody was able to remove all the defects.

All this running after the engineers was costing him a lot of money. In trials he wasted a good deal of raw material. Also, he had to pay to his workers. The overheads were mounting. The interest on loan was mounting. He sold his house and somehow paid a part of the first instalment of loan to NSIC, but afterwards he failed to pay any further instalments of loans.

Between May to September 1967, he himself tried to correct the defects by studying the technical charts supplied with the machinery, and by trial and error methods. By September 1967, he was able to run the machines somewhat satisfactorily. He worked the machines up to January 1968, and was happy to see that there was good demand for his

products. But the machines were still not working perfectly and he was getting a lot of wastage. By that time he was also short of funds. He had to suspend production. In the meanwhile he had again applied to the bank which considered his case sympathetically and advanced him a further loan. But this too was exhausted in a short time.

In the beginning, NSIC was also sympathetic to him, and on his request extended the instalment dates. But when he repeatedly failed to keep his promises for more than an year, and failed to pay three instalments, the NSIC, after repeated reminders, gave him a notice on the 24th April 1968, through its advocate.

The advocate wrote to him :

"Under hire-purchase agreement dated 31-12-1965, you have not paid the arrears of instalments as follows : (1) Balance of 1st instalment of Rs. 10,513 ; (2) IInd and IIIrd instalments of Rs. 14,642 each. Your cheque of Rs. 15,000 dated 30-9-1967 issued towards payment of arrears has been dishonoured. The amount of Rs. 39,798 together with the penal and an additional normal interest from the due dates may be paid within ten days of receipt of this letter, failing which our client will be constrained to terminate the hire-purchase agreement and retake the possession of the said plant and institute a case against you".

Murthy was also getting reminders from the department of Industries for payment of instalments of the loan given by NSIC. On an appeal from him and on the recommendation of the NSIC field officer who was visiting the plant every month, the NSIC again gave him some more time.

In the meanwhile, he raised another Rs.20,000 from his two cousins and started the unit. By February 1969, that is nearly three years after the installation of the machines, he was able to set right the unit. Now all the machines were running properly. But he had no capital to purchase raw material and for payment of wages.

On 22nd April 1969, he received another notice from NSIC's advocate. He became desparate and in April 1969 sent a letter, through an advocate, to the NSIC's advocate, charging NSIC for being callous. He charged them that they had done nothing to help him, and had not done anything to get market for his products, and because of their failure he had to sell his house, and now he was in such a bad condition. He asked the NSIC to make good the losses he had suffered because of the unhelpful attitude of the Corporation.

In the month of June, he also wrote a letter to the bank in the same tone. He made a personal representation to the bank to advance him a further loan of Rs. 48,220 exclusively for purchase of raw material. He also informed the bank that his cousin was willing to part with his

land which would fetch another Rs. 25,000. On 7-6-1969, the Corporation wrote to him :

"In the light of what has been stated by you in your letter, we have once again reviewed your case and the final decision taken by us in this case is as follows :

"(*i*) In order to enable us to withdraw the legal action by us, you may immediately send us a bank draft for Rs. 30,000 to reach us positively before 18-6-1969.

"(*ii*) Please remit another sum of Rs. 10,000 by way of bank draft to reach us positively before 10-7-1969.

"(*iii*) Please remit another sum of Rs. 20,000 by way of bank draft to reach us positively before 31-7-1969.

"(*iv*) The entire balance of overdue hire charges after the remittance of the dues as stated above is to be paid off positively before 31-8-1969.

"This is the last opportunity to repay the loan instalments. We have considered this only because we have treated your case as a very special one".

Again on 22-7-1969, he received another reminder from the NSIC-"To pay the amount of Rs. 60,000/- as per the letter dated 7-6-1969 and to realise the seriousness.....The choice is to pay the amount as stated or to face the legal consequences".

On the 8th July 1969, the bank worte to him:

"(1) The office has taken serious note of remarks passed by you that you have been mercilessly made to suffer in the hands of the bank.

"(2) The financial assistance extended in November 1966, amounting to Rs. 50,000/- has been gradually enhanced stage by stage up to Rs. 1,22,000/-, despite the fact that the industry has registered little or no progress in its operation and its dwindling economic position.

"(3) The bank has noted the deep sense of gratitude in your letter dated 9-8-1968 : 'Indeed we are grateful to you for your untiring efforts to favour us with the needed aid.....We are to express our deep sense of gratitude for your goodself and you are one among those that strive for the betterment of national economy through development of small-scale industries.' We are considerably at a loss to know as to how you have chosen to comment that no assistance has been rendered to your industry for the last $2\frac{1}{2}$ years.

"(4) Besides, the party has to pay loan instalments to NSIC which are overdue. In the present circumstances, the authorities

are exploring all possible avenues of rehabilitating your unit by endeavouring to go behind the techno-economic factors responsible for the present ills. To this end, they have deputed one technical officer to go into details and he will submit his report."

The technical officer visited the unit on 7th July 1969, even before the above letter was despatched to Murthy.

The production is still suspended. He again failed to pay the instalments as asked for by the NSIC, and received reminders from it on 22-7-1969 and 13-8-1969. Now he is worried that on any day NSIC would take over the plant and institute a case against him. He is deeply frustrated and does not know what steps the bank would take. He has not received any communication from the bank so far.

Department of industries was continuously involved in the whole process. But it worked merely as a post-office. One officer of the department said that the plight of Murthy was adversely affecting their work of promotion of small-scale industries, especially new type of industries, in the rural areas of the district.

The following lists were prepared by the office of the assistant director (Industries) in March 1969.

List-I :	Entrepreneurs with whom discussions held about their selected lines of manufacture, and to whom copies of schemes were supplied.	32
List-II :	Entrepreneurs who were already having the relevant information and know-how about their proposed industry, and who do not require any scheme reports, etc. ...	27
List-III :	Entrepreneurs to whom schemes and other literature pertaining to their proposed line of industry are to be supplied.	3
List-IV :	Entrepreneurs for whom visits to industrial units of their selected lines existing elsewhere or to the research laboratories have to be arranged	14
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List-VI :	List of small-scale industrial units to whom the State Bank of India afforded financial assistance. ...	5

List I

Entrepreneur	*Line of manufacture*
(1)	Table salt, khandasari sugar, acralic plastic bangles; Manglore tiles, cattle feeds.
(2)	Table salt, khandasari sugar, acralic plastic bangles, Manglore tiles, cattle feeds, potash alum, agarbathies.
(3)	Agarbathies, potash alum, acralic plastic bangles.
(4)	Plaster of Paris, acralic plastic bangles.
(5)	Potassium sulphide from mixed salt, industrial salt, magnesium corbonate, potassium chloride Mg. oxichloride, cattle licks, dairy salt, high epsum salt, plaster of Paris, bandages, Mg. trisilicate, acralic plastic bangles, decolourisation of clays.

Entrepreneur	*Line of manufacture*
(6)	Potassium sulphide from mixed salt.
(7)	Agarbathies, poultry feed, bricks.
(8)	Agarbathies, bakery.
(9)	Polyethylene packing, agarbathies, bakery.
(10)	Table salt, bakery, polyethylene packing.
(11)	Poultry feed.
(12)	Poultry feed.
(13)	Poultry feed.
(14)	Poultry feed.
(15)	Poultry feed.
(16)	Bricks.
(17)	Bricks.
(18)	Rice-mill sieves.
(19)	Sprayers, dusters.
(20)	Mill-stones.
(21)	Khandasari sugar, watch straps from stainless steel.
(22)	Industrial salt, palm oil, cattle feed, table salt, bakery, poultry feed.
(23)	Agarbathies, table salt.
(24)	Poultry feed.
(25)	Plaster of Paris, bandages, cloth and gauze.
(26)	Decolourisation of clays, expanded metal.
(27)	Road metal, China clay.
(28)	Sprayers and dusters, crayons, acralic plastic bangles, palm oil.
(29)	Crayons, bakery, poultry feed.
(30)	Boot polish, agarbathies, cattle feed, watch straps from stainless steel.
(31)	Potassium chloride, dairy salt, mixed salt.

List II

List of entrepreneurs who have been contacted by the assistant director, and to whom the schemes on their proposed lines were explained. According to assistant director, "The schemes were discussed in sufficient detail, and the entrepreneurs did not require copies of schemes. They have to take decision on the information furnished and in the light of the discussions held.

Entrepreneur	*Line of manufacture*
(1)	Oil container.

Entrepreneur	*Line of manufacture*
(2)	Powerlooms.
(3)	Oil extraction from cashew.
(4)	Table salt, salt-based industries.
(5)	Table salt.
(6)	Industrial salt, pigments.
(7)	Cotton for handloom industry.
(8)	Cotton for handloom industry.
(9)	Manufacture of coir fibre.
(10)	Nitric acid, aluminum sulphate from aluminum scrap, ferrous sulphate from iron scrap.
(11)	Coir industry.
(12)	Manufacture of active carbon, straw-board.
(13)	Candles, chalk crayons, agarbathies.
(14)	Palmyra fibre.
(15)	Match unit, salt–based industries, cycle and rickshaw tyres.
(16)	Straw-board factory.
(17)	Starch from tamarind seed.
(18)	Agarbathies.
(19)	Baby-food, beverages and confectionery.
(20)	Aluminum, paper bags.
(21)	Paper bags, bedroom lamps.
(22)	Banana powder.
(23)	Agricultural pump sets.
(24)	Palm fibre, palm rope products.
(25)	Safety matches.
(26)	Crayons, agarbathies.
(27)	Bakery, sprayers and dusters, acralic plastic bangles.

List III

List of entrepreneurs to whom schemes and other literature pertaining to their selected lines have to be furnished.

Entrepreneur	*Line of manufacture*
(1)	Extraction of protein from fish and groundnut oil.
(2)	Fibre from banana stem, chilly powder.
(3)	Turmeric, and garlic powder.

List IV

List of entrepreneurs for whom visits to industrial units existing elsewhere, or to the research laboratories, should be arranged.

No. of persons willing to participate in the proposed tour.

Tanuku	= 8	Penugonda	= 2
Bhimavaram	= 1	Other places	= 3

List of industries to be studied

(1) Steel manufacture, (2) Plastic goods, (3) Glass works, (4) Razor blades, (5) Electronics, (6) Radio components, (7) Inter-communication equipment, (8) Loud-speakers and amplifiers, (9) Lock making, (10) Steel casting, (11) Automobile spare parts, (12) Mechanical and electrical toys, (13) Plastic and rubber moulding, (14) Scooter and motor-cycle, (15) Electrical goods, (16) Non-ferrous castings, (17) Engineering works, (18) Auto bulbs, (19) Oil engine spares, (20) Brass and gun-metal industry, (21) Sheet metal works, (22) Agricultural implements; (23) Sugar factory, (24) Solvent extraction, (25) Chemical industry, (26) Yeast molasses, (27) Hosiery, (28) Scents, (29) Hand-made paper, (30) Plywood industries, and (31) Packing material.

List V

List of applications received from the entrepreneurs for registration of proposed industry as small-scale unit.

Entrepreneur	*Line of manufacture*
(1)	Betel-nut powder, masala powder.
(2)	Ice cream, masala powder.
(3)	Betel-nut powder.
(4)	Masala powder.
(5)	Masala powder.
(6)	Manufacture of folding cots.
(7)	Handbags.
(8)	Agarbathies (Scented), khandasari sugar.
(9)	Iron and steel works.
(10)	Iron and steel works.
(11)	Manufacture of masala powder.
(12)	Agarbathies.
(13)	Household utensils.
(14)	Manufacture of aluminum vessels.
(15)	Wood polish.
(16)	Tooth powder.

In addition to the above proposed units to be registered, the following industries have already been registered from 1-4-1968 to date (22-3-1968).

(1)	Existing	71
(2)	Proposed	35

List VI

Statement showing the small-scale industrial units to which the State Bank of India, Tanuku, has granted loans.

		Amount Rs.
(1)	Narayana Engineering Works, Tanuku	10,000
(2)	Kalyani Fruit, Tanuku	30,000
(3)	Anjaneya Photo Frames, Tanuku	5,000
(4)	Ravindra Printing Works, Tanuku	1,000
(5)	Sitarama Furniture Works, Tanuku	1,000
	Total:	47,000

Statement showing the small-scale industrial units financed by the State Bank of India, Palakole.

Period	*No. of industries*	*Total amount*
1-4-1968 to 15-12-1968	9	Rs. 32,000

Limits sanctioned by Palakole branch, and availed of by 11 small-scale units—Rs. 2,36,200.

Limits sanctioned by Narasapur branch after 1-4-1968 for 23 small-scale units—Rs. 1,38,000.

APPENDIX 12

PROMOTION OF INDUSTRIES

(Meeting of West Godavari District Chamber of Commerce, Eluru)

A meeting was organised on 24-4-1969 in the Chamber of Commerce building at Eluru for the promotion of industries in the district. About 30 persons were present. The president of the Chamber stressed the importance of industries, especially those based on the locally available resources. He also gave his opinion on establishing one or two industries on behalf of the Association by contributing the shares from the individual members and member-associates. He also pointed out that it would be more economical and feasible to establish industries on a large scale than having individual establishments.

The assistant director (Industries) stressed the necessity to form an industrial committee (with expert members) to have individual discussions and to have follow-up work. He also mentioned various industries and cleared doubts raised by members about these industries.

In this meeting, a sub-committee was formed consisting of ten members drawn from various fields of business solely to look after the industrial development in and around Eluru. It was also decided to convene meetings of the sub-committee once in every month and discuss the progress made in promotion of industries on the lines indicated by the assistant director.

In the meeting it was also decided to request the Industries department to contact the embassies of U. S. A., U. K., Russia, and Japan, and obtain the market feasibility and consumption particulars of the products of the following industries: dehydrated fruits and vegetables, banana powder, semi-boiled, cooked rice packed in tins, and cigars.

As discussed in the meeting, the assistant director requested the director, Commerce and Export Promotion, Andhra Pradesh on 29-4-1969 to provide information about market feasibility of the above products.

Also, after the meeting, on the same day, the assistant director (Industries) wrote letters to S. I. S. I., Central Food Technological Research Institute (C. F. T. R. I), Mysore, Oil Technological Research Institute (O. T. R. I), Anantapur, Andhra Pradesh, and also to director

of Industries, Hyderabad, requesting them to supply the schemes on (1) Soda ash, (2) Maize products, (3) Electric flash guns, (4) Banians, (5) Bricks' (6) Printing of saries and cloth, (7) Carbon dioxide from coal, (8) Corrosion resistant paints, (9) Baby-food from groundnut, (10) Ghee oil, (11) Half-boiled and cooked rice, (12) Powder from tamarind pulp, (13) Dehydrated vegetables, (14) Cigar manufacture, (15) Modern wooden furniture, (16) Water-meters, and (17) Synthetic fibre from banana.

On 23-5-1969 he sent reminders to all the research institutions and departments mentioned above.

The junior field officer of S. I. S. I. in his letter dated 22-5-1969 gave the following answer :

1. Soda ash : Not possible on small-scale basis.
2. Maize products : Not possible on small-scale basis.
3. Electric flash guns : Information not readily available.
4. Ice candy factory : Draft scheme enclosed.
5. Hosiery and banians : Draft scheme enclosed.
6. Mechanised bricks : Draft scheme enclosed.
7. Designed printed saries and clothes: No data.
8. $C0^2$ from coal : No data.
9. Baby-food from groundnut : Contact C. F. T. R. I, Mysore.
10. Ghee oil: Contact C. F. T. R. I., Mysore.
11. Half-boiled and cooked rice : Contact C. F.T. R. I., Mysore.
12. Powder from tamarind : Contact C. F. T. R. I., Mysore.
13. Dehydration of vegetables : Contact C. F. T. R. I., Mysore.
14. Manufacture of cigars : No data.
15. Manufacture of pulses : Not on small-scale basis.
16. Modern wooden furniture : We have a priced scheme No. 117 which will be sent to you on pre-payment of the cost of 10 P.
17. Synthetic fibre from banana : Contact C. F. T. R.I., Mysore.
18. Water meter :Draft scheme enclosed.
19. Corrosion resistant paints : Draft scheme enclosed.

The assistant director received a letter from director of Industries dated 16-5-1969 stating that the schemes were not available in the office as they were not prepared by the Directorate. The assistant director was advised to address the director, S. I. S. I. in the matter.

The C.F.T.R.I., Mysore, in its letter dated 28-5-1969 informed about the following processes/products developed at that institute.

1. A tentative scheme for food and vegetable dehydration.
2. A note on preparation of instant food based on groundnut flour and skimmed milk powder.

3. A reprint on pre-cooled, dehydrated rice and dhal.
4. A non-technical note on tamarind juice concentrate.

The Oil Technological Research Institute, Anantapur, in their letter dated 16-5-1969 informed their regrets for not having the listed schemes. They also requested for the clarification whether ghee oil was refined vegetable oil. They also suggested the assistant director to contact C. F. T. R. I. for the schemes in respect of baby-food from groundnut kernel, maize product, half-boiled cooked rice, tamarind pulp powder and dehydration of vegetables. For schemes on soda ash, they advised him to contact National Chemical Laboratories, Poona, and for mechanised bricks to contact Central Road Research Institute (C. R. R. I.), New Delhi.

On 10-6-1969, the assistant director wrote to the National Chemical Laboratories, Poona, and C. R. R. I., New Delhi, for schemes on soda ash and mechanised bricks.

The scientist of Technical Division of National Chemical Laboratories in the letter dated 10-7-1969 informed that soda ash was a large-scale industry, and that Directorate-General of Technical Develpment New Delhi, should be consulted regarding the places for installing new units. He, however, enclosed a list of project engineers some of whom, according to him, might be in a position to offer turn-key plants for this product.

The C. R. R. I., New Delhi informed him in their letter dated 15-7-1969 that he should contact Central Building Reserch Institute, Roorkee, (U. P.) for information about machines for manufacturing mechanised bricks.

Meanwhile, the director of Industries in his letter dated 18-7-69 requested the director, Commerce and Export Promotion to intimate the market feasibility and consumption particulars of the products in foreign countries and requested him to send a copy of it to the assistant director.

APPENDIX 13

PROMOTION WORK: CHASING THE HARE

(The following are the abstracts from an office file dealing with promotion work)

Date 28-1-1968

From

Small-Scale Industries Supervisor

To

Assistant Director, Industries.

(Office Note)

Sub : Promotional work-Contacting the persons interested in establishing industries.

Sir,

During my camp at Bhimavaram I happened to meet Mr. M. M. Venkata Rao. B. E., (Mech.). I have explained to him the activities of the department and facilities that are being provided by the department and by the State Bank of India, especially to the technical persons interested in establishing industries. He said that he was interested in the following industries :

(1) Extraction of proteins from fish and groundnut oil.

(2) Aluminum anodising.

He wanted us to supply him the above two schemes so that he would study and decide about any one of these. I have furnished him the address of SISI where the schemes would be available. He said that he would write to SISI. He also requested that we should also write to SISI. Hence, we may address to SISI and also to our Directorate. He also said that he was interested in industrial tours, and if at all there were any such tours arranged by the department, he would like to participate in these.

I have provided him information pertaining to Palakole Industrial Estate. He informed me that he would decide about the place etc. after studying the schemes.

(Sd.)

Date 13-2-1969

From

D. Jangayya. L. E. E.

To

Assistant Director, Industries.

Sir,

I have in mind the following industries :

1, Fruit preservation and canning.
2. Graphite crucibles.
3. Lighting accessories.
4. Cardamom and spice products like chilly, turmeric, garlic powders, etc.

Please send the details of these schemes.

As I have already told you, I am now without any job and in good need of your assistance.

(Sd.) D. J.

Date 19-2-1969

From

Assistant Director, Industries

To

Small Industries Service Institute.

Sir,

Kindly supply the following schemes as early as possible :

1. Extraction of proteins from fish and groundnut oil.
2. Aluminum anodising.
3. Fibre from banana stems.
4. Nut powder, curry powder, chilly, turmeric, garlic powder.

(Sd.) A. D.

Date 26-2-1969

From

D. Jangayya, L. E. E.

To

Assistant Director, Industries.

Sir,

Kindly send the information asked for in my letter dated 13-2-69.

(Sd.) D. J.

Date 26-2-1969

From
Assistant Director, Industries

To
D. Jangayya, L. E. E.

Sir,
Please come for discussion on 1-3-1969 to my office.

(Sd.) A. D.

Date 4-3-1969

From
Assistant Director, Industries

To
D. Jangayya, L. E. E.

Sir,
You have not turned up on 1-3-1969. Please come now on 28-3-1969 without fail for discussion.

(Sd.) A. D.

(Office Note)

Date 20-3-1969

From
Extension Officer

To
Assistant Director, Industries

Sir,
During discussions, the owners of khandasari units have shown interest to establish a maize unit locally. They are convinced that maize which is grown abundantly in the area, can be utilised for industrial purpose. They want details of the scheme on maize products. They are also interested in Sand-Lined Bricks industry and Banana powder. Hence kindly supply the literature on—

(1) Maize products.
(2) Sand-Lined Bricks.
(3) Banana powder.

(Sd.) E. O.

Date 4–4–1969

From
Mohan Rao
To
Assistant Director, Industries
Sir,

Please supply schemes for the following products :

1. Liquid chlorine for water treatment.
2. Stainless steel, brass, copper utensils, and hospital equipment manufacturing machinery.
3. Nylon ropes.

(Sd.) M. R.

Date 9–4–1969

From
Rama Rao
To
Assistant Director, Industries
Sir,

Please provide scheme for steam laundry.

(Sd.) R. R.

Date 9–4–1969

From
Assistant Director, Industries
To
Director, Oil Technological Research Institute
Sir,

Please furnish scheme for refining of castor oil.

(Sd.) A. D.

Date 9–4–1969

From
Assitant Director, Industries
To
Small Industries Service Institute
Sir,

Please supply the following schemes at an early date.

1. Liquid chlorine
2. Carbon dioxide gas
3. Nylon ropes
4. Refined castor oil
5. Half-boiled rice
6. Drink tablets

(Sd.) A. D.

Date 19-4-1969

From
Assistant Director, Industries
To
Director, Small Industries Service Institute
Sir,
Please furnish the details about the steam industry.

(Sd.) A. D.

Date 19-4-1969

From
Assistant Director, Industries
To
Director of Industries
Sir,
Please furnish the details about the steam laundry industry.

(Sd.) A. D.

Date 23-4-1969

From
Assistant Director, Industries
To
Director, Small Industries Service Institute
Sir,
Please furnish schemes for manufacture of maize products.

(Sd.) A. D.

(Letters were also addressed to director of Industries, and director of Central Food Technological Research Institute.)

Date 26-4-1969

From
Director, Oil Technological Research Institute
To
Assistant Director, Industries
Sir,
I enclose herewith the scheme for integrated castor seed crushing and castor oil refining.

(Sd.) Chemical Engineer for Director.

(Note : The OTRI submitted a scheme of total capital investment of Rs. 7,00,000 which covers machinery, land, building, general equipment, and working capital for one month. The estimates for manufacturing cost for one year including all heads came to Rs. 33,74,820 giving a profit of 20% on investment.)

Date 15-5-1969

From
Assistant Director. Industries
To
The President, Chamber of Commerce
Sir,
Please find enclosed herewith a copy of the scheme for integrated castor seed crushing and refining industry.

(Sd.) A. D.

Date 17-5-1969

From
Central Food Technological Research Institute
To
Assistant Director, Industries
Sir,
We have not prepared any scheme for the manufacture of maize products as some experimental work is still going on in our laboratories.

(Sd.) for Chairman
Industrial Research
Consultancy and Extension

Date 30-5-1969

From
A. Ramachandran
To
Assistant Director, Industries
Sir,
Kindly furnish the details about the scheme for financial assistance to engineers and technicians and other technically qualified entrepreneurs for setting up small-scale industries.

(Sd.) A. R.

Date 2-6-1969

From
Venu Gopal
To
Assistant Director, Industries
Sir,
Kindly supply information about small-scale industries.

(Sd.) V. G.

Date 2-6-1969

From
Small Industries Service Institute

To
Assistant Director, Industries

Ref : Your letter dated : 23-4-1969.

Sir,

Regarding manufacture of maize products we have to inform you that a scheme was prepared on manufacture of starch from maize having a capacity of one ton per day. Efforts are being made to locate existing industries of this product and also to take up the feasibility of proposed industry. The data collected so far indicate that probably this industry may not come within the purview of small-scale industries.

(Sd.) for Director
A. D. Chemicals

Date 10—6—1969

From
Director, Small Industries Service Institute

To
Assistant Director, Industries

Sir,

Please refer to your letter dated 19-4-1969. The meaning of steam industry is not clear to us. Assuming that you require scheme for aerated water, we are enclosing the necessary literature.

(Sd.)

Date 11—6—1969

From
K. Venkatarao

To
Assistant Director, Industries

Sir,

Please furnish information about manufacture of glucose from banana.

(Sd.) K. V.

Date 11—6—1969

From
Small Industries Service Institute
To
Assistant Director, Industries
Ref : Your letter dated 9-4-1969.

Sir,

A copy of draft scheme on refined castor oil is enclosed. Regarding drink tablets, we presume you intend instant beverages. A note on this is also enclosed. Regarding other items, data are not available in this office.

(Sd.)

Date 13—6—1969

From
Assistant Director, Industries
To
A. Ramachandran
Ref : Your letter dated 30-5-1969.

Sir,

Kindly make it convenient to visit our office on 26—6—1969 for discussion.

(Sd.) A. D.

Date 17—6—1969

From
Assistant Director, Industries
To
Director, Small Industries Service Institute

Sir,

In our letter dated 19—4—1969, the word steam industry has been typed instead of steam laundry due to typographic error.

We also need information about soda gas plant and aerated water manufacturing units.

(Sd.) A. D.

Date 19—6—1969

From
Assistant Director, Industries
To
Director, Small Industries Service Institute

Sir,

Kindly furnish information about manufacture of maize products.

(Sd.) A. D.

Date 27—6—1969

From
Extension Officer, Industries

To
Assistant Director, Industries

Sub : Enthusiastic entrepreneur Sri K. V. N. Ramkrishna Rao—Opening of match factory.

Sir,

Sri K. V. N. Ramkrishna Rao desires to start a match factory with Rs. 10,000 investment. He wants details of the scheme for match factory. A scheme may please be supplied to him.

(Sd.) E. O.

Date 27—6—1969

From
Director, Small Industries Service Institute

To
Assistant Director, Industries

Sir,

We do not have any scheme on steam laundry. However, you may contact M/s. William Jack & Co., Hyderabad, who deal in complete range of laundry machinery.

(Sd.)

Date 1—7—1969

From
Assistant Director, Industries

To
Central Food Technological Research Institute

Sir,

Please furnish scheme for the manufacture of glucose from banana.

(Sd.) A. D.

Date 8—7—1969

From
Assistant Director, Industries

To
M/s William Jack & Co.

Sirs,

Kindly supply the list of machinery for steam laundry.

(Sd.) A. D.

Date 23—7—1969

From
M/s William Jack & Co.
To
Assistant Director, Industries
Sir,

Thank you for your letter dated 8-7-1969. As desired, we are enclosing with this letter the price list of the laundry equipment.

(Sd.)

Date 23—7—1969

From
M. K. Raghvan
To
Assistant Director, Industries
Sir,

Please furnish details and schemes for the following ;

1. Manufacture of banana powder and fibre from banana stalk.
2. Playing cards.
3. Nicotine from tobacco.
4. Tobacco products from tobacco.

(Sd.) M. K. R.

Date 27—7—1969

From
Director, Small Industries Service Institute
To
Assistant Director, Industries

Sub : Steam laundry and starch from maize.

Sir,

Please find enclosed herewith a draft scheme on the manufacture of starch from maize. The scheme needs modification to bring it up-to-date and to suit individual requirements.

(Sd.) A. D. (Chem.)
for Director

Date 1—8—1969

From
Assistant Director, Industries
To
Rama Rao
Sir,

Please refer to your letter dated 9-4-1969. As desired by you, we have enclosed the information about the steam laundry.

(Sd.) A. D.

TABLES

Table 1 : Occupation Pattern of Taluks

S. No.	Name of taluk	Percentage of workers in categories									
		Total workers	Cultivators	Agri. labourers	Mining, quarrying, etc.	House-hold industry	Manufacturing other than household industry	Construction	Trade & commerce	Transport, storage & communication	Other services
1.	Narsapur	1,61,911	25.0	38.8	5.6	12.1	2.2	0.6	5.1	1.6	9.0
2.	Tanuku	1,43,593	24.3	44.5	1.9	8.5	2.9	0.8	5.1	1.0	11.0
3.	Eluru	1,45,872	26.1	32.3	2.9	8.7	5.4	1.2	6.3	2.6	14.5
4.	Bhimavaram	1,28,354	26.7	44.1	2.4	5.8	2.7	1.4	4.7	1.4	10.8
5.	Tadepalligudem	1,18,006	28.8	41.7	2.7	8.0	1.8	0.7	4.2	1.2	10.9
6.	Kovvur	1,18,300	22.2	46.2	3.3	7.2	2.9	0.9	4.3	2.4	10.6
7.	Chintalapudi	66,799	34.6	45.4	3.5	6.6	0.3	0.3	2.1	0.2	6.5
8.	Polavaram	61,363	36.0	43.8	2.7	4.3	1.1	0.6	2.9	0.4	8.2

Source : Census of India, 1961, West Godavari District, Andhra Pradesh, *District Census Handbook*, Table B-III Part B. pp. 30-33.

Table 2 : Levels of Development of Taluks in relation to All-India (1961)

(West Godavari District)

S. No.	Name of taluk	Per cent of			Indices					
		Manufacturing workers	Urbanisation	Literacy	Density per Sq. mile	Manufacturing workers	Urbanisation	Literacy	Density	Composition index	Rank
1.	Tanuku	2.9	13.9	36.0	1,475	69	77	150	398	694	1
2.	Eluru	5.4	34.6	34.2	613	129	192	142	166	629	2
3.	Narsapur	2.2	17.4	32.8	1,207	52	97	137	326	612	3
4.	Bhimavaram	2.7	15.9	34.6	952	64	88	144	257	553	4
5.	Kovvur	2.9	13.1	26.1	633	69	73	109	171	422	5
6	Tadepalligudem	1.8	10.8	28.3	695	43	60	118	188	409	6
7.	Polavaram	1.1	—	20.5	215	26	—	86	58	170	7
8.	Chintalapudi	0.3	—	19.0	291	7	—	79	79	165	8
Total district		2.7	15.9	30.8	664	64	88	128	179	459	
All-India		**4.2**	**18.0**	**24.0**	**370**	**100**	**100**	**100**	**100**	**400**	

Table 3 (a): Year-wise Distribution of Industries According to Type of Industry

Year	Number of industries															
	Leather	Agricultural implements	Brass & metal works	Fibre	Manures & chemicals	Sugar	Glassware	Perfumeries	Ayurvedic drugs	Food products	Printing	Electronic	Cement	Cloth & hosiery	Total	Cumulative total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1933			1												1	1
1938			3												3	4
1939			1												1	5
1940			3												3	8
1941			1												1	9
1942			2												2	11
1945			1												1	12
1947			2												2	14
198			1			1									2	16
1949			2										1		3	19

Table 3 (a)—(*Contd.*)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1950			3												3	22
1954			2			1								1	4	26
1955		2	3												5	31
1956			1												1	32
1958			10		1										11	43
1959		1	7												8	51
1960		1	12												13	64
1961		1	3								1	1		1	7	71
1962			2											1	3	74
1963		1	2					1							4	78
1964			3										1		4	82
1965			1	1			1							1	4	86
1966									1						1	87
1967	1	1	4			1	1	1	3	3	1		1		13	100
1968								1	1	4	1				7	107
Total	1	7	70	1	1	3	2	3	5	7	3	1	2	4	107	

Table 3 (b): Distribution of Industries According to Type of Industries

	Traditional industries	New type of industries	
1933—60	59	5	64
1961—68	19	24	43
	78	29	107

Table 4: Distribution According to Initial Investment

Initial capital investment (in thousands of rupees)	No. of industries
Less than 1	36
1 to 10	35
10 to 50	22
50 to 100	3
100 to 150	4
150 to 200	1
200 and above	6
Total	107

Table 5: Distribution of Ownership

Year	Type of ownership		Total
	Individual	Partnership, Joint-stock, Co-operative	
1933—60	62	2*	64
1961—68	31	12	43
			107

*Joint-stock.....1948 and 1954.

Table 6 (a): Distribution of Persons Employed at Time of Registration of the Industry

Year	Number of Persons Employed									Total workers	Cumulative total workers
	1–10 Mid. pt. 5	11–20 15	21–30 25	41–50 45	51–60 55	61–70 65	81–90 85	111–120 115	341–350 345		
	1	2	3	4	5	6	7	8	9	10	11
1933	1									5	5
1938	2		1							35	40
1939	1									5	45
1940	3									15	60
1941	1									5	65
1942	1		1							30	95
1945	1									5	100
1947			2							50	150
1948					1				1	400	550
1949	3									15	565
1950	3									15	580

1954	2						1		1	440	1020
1955	3	1			1					85	1105
1956	1									5	1110
1958	7	4								95	1205
1959	6	1		1						90	1295
1960	11		1			1				145	1440
1961	4	2	1							75	1515
1962	2							1		125	1640
1963	3	1								30	1670
1964	4									20	1690
1965	2			1			1			150	1840
1966	1									5	1845
1967	8	5								115	1960
1968	6		1							55	2015
Total No. of industries	76	14	7	1	3	1	2	1	2	107	
Total No.of workers	380	210	175	45	165	65	170	115	690	2015	

Table 6 (b): Distribution of Number of Persons Employed

Cumulative No. of industries	Cumulative No. of workers	Percentage
2	690	34.2
3	805	39.9
5	975	48.4
6	1040	51.6
9	1205	59.8
10	1250	62.0
17	1425	70.7
31	1635	81.1
107	2015	100

Table 7: Distribution According to Nature of Power Used

Year	Nature of power		Total
	Manual	Power	
1933—60	59	5	64
1961—68	27	16	43
	86	21	107

Table 8

Code No. of the industry	Year of establishment	Location	Products	Investment		Amount of loan taken	Expansion	Recruitment
				Initial in Rs.	Present in Rs.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	1949	Neggipudi	Cement products	100	30,000	Loan sanctioned Rs. 20,000 SBI	Site acquired, building constructed, new machinery installed.	Skilled from family and within town. Unskilled from within the town.
2.	1959	Tanuku	Khandasari	1,83,000	4,00,000	No information.	Building constructed and new machinery installed.	Technical expert, managerial staff are from family. Supervisory from with in the taluka. Skilled from within the town. Unskilled from within the taluka. Office staff from within the town.

Table 8—(*Contd*)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	1967	Penugonda	Rice	1,80,000	2,80,000	Rs. 1,00,000 from Andhra Bank	Nil	Managerial staff from within the town and supervisory staff from within the taluka. Skilled, un-skilled and office staff from within the town.
4.	1961	Penugonda	GI buckets, oil engines, ferrous and non-ferrous castings.	2,80,000	4,00,000	Rs. 1,00,000 from SBI	Site acquired; work shop constructed. New machinery installed.	Technical experts from other districts of the state. Managerial, skilled, un-skilled, semi-skilled and office staff are from within the town.
5.	1960	Tanuku	Radios and transistors.	40,000	3,00,000	Rs. 1,50,000 from Bank	Improved the building, new machinery added.	Technical expert, managerial, supervisory staff from other states; skilled, semi-skilled, un-skilled from within the town.

6.	1958	Tanuku	Garments	1,00,000	2,71,000	Rs. 35,000 from SBI	Nil	Managerial staff from the family. Supervisory staff from other states. Skilled, semi-skilled, un-skilled and office staff are from within the town.
7.	1947	Tanuku	Pickles and Ayurvedic drugs.	26,000	83,000	Rs. 50,000 from SBI	Site acquired, building constructed.	Technical expert from family. Managerial staff from other talukas of the district, semi-skilled and un-skilled from within the taluka.
8.	1964	Peravali	Brass metal pattas.	60,000	2,20,000	No necessity	Nil	Supervisory staff from other states. Skilled from other states and within town. Office staff from within the taluka and from other talukas of the district and also from other districts within the state.

Table 8—(*Contd.*)

( )	(2)	(3)	(5)	(4)	(6)	(7)	(8)	(9)
9.	1948	Penugonda	Sugar factory machinery spare parts, oil engines, cane crushers, parts.	2,00,000	5,00,000	Rs. 2,00,000	New machinery installed.	Technical expert, managerial, skilled and office staff from within the town.
10.	1962	Penugonda	Rice and groundnut oil.	5,20,000	6,20,000	No necessity	Nil	Managerial skilled, semi-skilled, un-skilled and office staff from within the town.

Table 9

Code No. of the industry	Place of birth	Caste	Type of family	Education	Father's occupation	Own occupation	Age	Main source of income at the time of starting the industry.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Neggipudi	Telagas	Nuclear family	Primary	Maistree	Maistree	32	Employed as a maistree for Rs. 100.
2.	Tanuku	Kamma	Joint family	B.Sc. (Agri.)	Agriculture	Agriculture	27	Agriculture and rents from buildings.
3.	Iragavaram (6 Kms. to Penugonda)	Telagas	Nuclear family	Primary	Cultivation	Cultivation	37	Agricultural yields.
4.	Penugonda	Kainabak-tulu (Weavers)	Nuclear family	Matric	A small-scale industrialist.	A smlal-scale industrialist.	32	
5.	Nandyal (Kurnool Dist. A.P.)	Kshatriya (Maharash-tra.)	Nuclear family	Matric	Manager in a pharma-ceutical con-cern.	Employee	29	Employed as a brother for V. R. John & Co., by which he used to get remuneration.

Table 9—(*Contd.*)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	Tanuku	Vysya	Nuclear family	Matric	Agriculture.	Trading in yarn and yarn dyeing, agriculture.	32	Agriculture. yarn trade and yarn dyeing.
7.	Elurupadu (W.G. Dist.)	Brahmin	Joint family	B. Sc. (Agri)	Village munsiff ; used to prepare ayurvedic drugs in addition to agriculture.	Agricultural instructor.	40	Medical practice and salary.
8.	Garagaparru (Bhimavaram taluka, W. G. Dist.)	Vysya	Joint family	B. Com., B. L.	Agriculture	Advocate, afterwards agriculture	33	Business and agriculture.
9.	Penugonda	Kainabaktulu (Weavers)	Joint family	No formal education	Business and small-scale industry	TISCO business, manufacturing of trunks and buckets since 1920.	44	Business, trading in iron and its parts, buckets, and trunks, also appointed as the TISCO sales representative.

10.	Narasapur (W.G. Dist.)	Telagas	Nuclear family	5th Form	Agriculture.	Agriculture and took a rice mill for lease and later started their own.	42	Agricultural yields.

Table 10

Code No. of the industry	Conditions existing at the time of starting the industry.
1.	Non-existence of this type of industry in the Tanuku region.
2.	(*i*) Scarcity of technical personnel, (*ii*) No workshops to undertake repairing of the machinery, (*iii*) Demand for sugar, (*iv*) Less number of sugar factories and scarcity of sugar-cane.
3.	Since he was financially well-off and paddy is available in abundance in the region.
4.	Since he has had earlier experience in the same type of industry he started his own establishment.
5.	He was a commercial representative in V. R. John & Co. As a representative of this company he was also engaged in the forward sales business (as a broker), as a side business.
6.	The ego had experience in yarn selling and cotton dyeing business. He was financially self-sufficient by then.
7.	Materials, labour were very cheap at that time.
8.	Ego was practising as a lawyer and it was not encouraging. As his relative was one of the partners the ego was offered a partnership and to manage the industry.
9.	The ego's father was a very hard worker who used to sell the iron products (TISCO and his own products viz., trunks and buckets) through the lanes of the nearby villages. By the time of establishment he built up reputation for his products especially, trunks. Financial conditions were not good. They had only two acres of land by then.
10.	Economically well-off at the time of starting the industry.

Table 11

Code No. of the industry	Difficulties faced at the time of establishment.	How they were solved ?	Helped by anybody to solve these difficulties.
(1)	(2)	(3)	(4)
1.	Lack of capital	Only through his hard work and by ploughing back his profits (slowly but surely)	—
2.	Lack of 'know-how' technical personnel and labour	Through experience	Agricultural engineer
3.	—	—	—
4.	Shortage of raw material and skilled personnel	Not solved	—
5.	Non-availability of skilled workers and transport. Monopoly of radio parts by the suppliers.	Gradually he solved them by training their own workers. The difficulty of the monopoly of radio parts by the suppliers still exists.	—

Table 11—(*Contd.*)

(1)	(2)	(3)	(4)
6.	Lack of raw material and skilled workers.	Got some of the skilled workers from one of the hosiery units of Coimbatore, for a period of three years by which time he got his men trained.	Mr. Rajarao, who himself was in the hosiery business.
7.	Lack of markets for drugs.	After a lapse of some years the medicine came into vogue and thus there is a great demand for their products now.	By the hard work put up by his family members.
8.	To secure the raw material	By taking local scraps.	—
9.	—	—	—
10.	—	—	—

Table 12: What Were Your Worries When You Started the Industry ?

Code No. of the industry.	
1.	How to manage with the meagre capital ?
2.	The disposal of sugar and molasses.
3.	They were waiting for the issue of pre-permits from the collector.
4.	No worry.
5.	(*i*) Sales (exploration of the market) (*ii*) Perfection of the products is another worry.
6.	No worry.
7.	Exploration of market.
8.	There was more competition in the market.
9.	No worries.
10.	No worries.

Table 13: (a) What Were Your Expectations at that Time ? (b) Were These Fulfilled ?

Code No. of the industry.	(a)	(b)
1.	Expected that his venture would be fruitful and good profits.	Yes
2.	To get better recoveries.	No
3.	Expected 20% profits.	Partially fulfilled as he secured only 15% profits.
4.	Expected 20% profits.	Partially fulfilled, 15% profits.
5.	Expected more profits.	No
6.	Wants to develop it as a fulfledged hosiery unit.	Yes
7.	To get more profits.	Yes
8.	By installing more machinery and to undertake the manufacture of new varieties in utensils.	No
9.	To increase the turnover.	Yes
10.	To get more profit.	No

Table 14

Code No. of the n dustry.	(a) Why did you go for industry and not for, say, trade?	(b) Why this industry particularly ?
(1)	(2)	(3)
1.	Since he had no knowledge of any business and he had earlier experience in this manufacturing of cement products he chose this industry.	Since he had earlier experience he chose this manufacturing line.
2.	This was an agro industry, presuming more profits due to the demand for the product.	Having sugarcane in their own fields and due to shortage of sugar factories, utilised the advantage of the sugarcane.
3.	To earn more profits and he has got knowledge about this type of industry.	Paddy is very easily available to procure and he was in the agricultural line.
4.	He had enough background and experience.	Since his father flourished in this line of business and the ego was associated with his father.
5.	As a hobby for assembling small radios.	As he came into contact with a radio engineer who also came to work for him.
6.	The status and capital came down due to the division of property which he wanted to improve.	He had already experienced in selling and dyeing yarn. Further, while touring for business contacts, he was influenced by the cotton textile industry at Coimbatore.
7.	It provides independent livelihood and economic stability.	Since he had attitude, aptitude and skill in this line.

Table 14—(*Contd.*)

(1)	(2)	(3)
8.	His legal profession was not encouraging and as one of his relatives offered him partnership and management in this industry.	As his relative offered him a partnership and management and the ego himself had a liking for manufacturing line.
9.	He was already in the same line.	The present industry is in line with the past industry.
10.	He gained experience in running the industry and also as the industry would fetch more profits.	He had been running this type of industry on lease basis earlier.

Table 15: Who Gave You the Idea About Starting the Industry ?

Code No. of the industry.	
1.	Only earlier experience (Own experience).
2.	By the Superintendent of the sugarcane (Demonstration from Tanuku).
3.	His partner, Sri P. Satyanarayana Raju, gave the idea.
4.	Only earlier experience (Own experience).
5.	Only hobby; he further says that radio manufacturing was one of the cherished desires of his life.
6.	Sri K. Gangadhara Rao, Secretary of Sri Akkamamba Textiles gave the idea, Sri M. Harischandra Prasad encouraged him.
7.	Own idea.
8.	The chance has come to him and he utilised it.
9.	Only earlier experience.
10.	Sri Javvadi Lakshmaiah gave him the idea and paved the way.

Table 16: *Apart from Money, What Other Help You Got at That Time from Other People/Sources?*

Code No. of the industry	*Nature of help*	From whom received	Conditions attached.
1.	No help received		
2.	No other help		
3.	No other help		
4.	No other help		
5.			
6.	(i) Advice to start an industry	(i) From Sri M. Harischandra Prasad.	
	(ii) Advice to start an hosiery unit.	(ii) Sri K. Gangadhara Rao, Secretary, Akkamamba Textiles.	
	(iii) Helped in contacting the industrialists (at Coimbatore and Salem)	(iii) Mr. Rajarao	
7.	In selling the product	Sri T. Narayana Murthy Bhimavaram.	Sole distributors for the products.

Sample Ind	X	XI	Remarks
(1)	14)	(15)	(16)
M. Harisch: Prasad's in	yes	yes	Diversification of industries.
1.	no	yes	Recently loan sanctioned by SBI. Loan Rs. 20 thousand.
2.	no	no	No loans taken, technical advice available at the initial stages.
3.	no	yes	Industry was purchased and not started by him. Loan—1 lakh.
4	o	yes	Industry started by the father. But taken over by entrepreneur after division of property. Loan—1 lakh.
5.	no	yes	One of the partners is technically qualified. Loan—1.5 lakhs, non-traditional industry.
6.	no	yes	Loan taken only 35 thousand, non-traditional industry.
7.	no	yes	Started by father but developed by him. Loan—50 thousand.
8.	no	yes	Educated (B. Com)
9.	no	yes	Industry started by the father. Loan—2 lakhs.
10.	no	no	Own and partners' capital.

Table 20: What Do You Think What New Industries Could be Started in this Region?

Code No. of the industry	Yes/No.	If yes, what industries ?
1.	Yes	Agricultural implements.
2.	Yes	More khandasari sugar units, stainless steel industry, more agro-based industries.
3.	Yes	Extraction of bran oil.
4.	Yes	Agricultural implements, and stainless steel industry.
5.	Yes	Fountainpen, time pieces and thermos flask industries.
6.	Yes	(*i*) Power looms, (*ii*) Tractors, trailers, parts and their assembling, (*iii*) Electrical goods, (*iv*) Coir industry, (*v*) Castings.
7.	Yes	Cardboard and fruit canning industries.
8.	Yes	Non-ferrous metal industry. Hydraulic deep drawing press.
9.	No idea	
10.	Yes	(*i*) Cardboard industry, (*ii*) Alcohol industry, and (*iii*) Pesticides industry.