VILLAGE SURVEY STUDY IN ANDHRA PRADESH
(Diguva Abbavaram Village)

Dr. K.V, Giri Babu, Ph.D.

Report submitted to the
Ministry of Agriculture and Farmers Welfare, Government of India

Agro-Economic Research Centre
For the state of Andhra Pradesh, Telangana and Odisha
(Ministry of Agriculture & Farmers Welfare, Government of India)
Andhra University, Visakhapatnam, Andhra Pradesh

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PREFACE

Village studies are important as they provide insights into the socio economic status of the households and nature of changes taking place in village institutions, infrastructure and household characteristics. Such studies indicate policies which need to be framed keeping in mind future course of phenomena that would be observed in the village.

Abbavaram is a village in the Kadapa district of Rayalaseema region of Andhra Pradesh. The village is located in a rain-shadow area and is subjected to frequent droughts. The village has been selected for a socio-economic survey to bring out how the village has been transformed on various socio-economic indicators over the last 50 years.
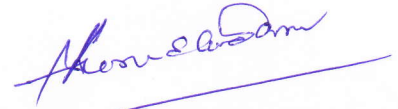
This study was earlier conducted in 1970-71 in the Diguva Abbavaram village and resurvey is conducted again in 2019-2020 as directed by Ministry of Agriculture, Government of India. A census of all households covering their salient socio-economic characteristics, and a sample study of cultivator households covering the economics of farming and other enterprises taken up by the households is considered.

The study observes considerable progress in terms of civic amenities and infrastructure available, number of households with access to basic civic amenities, technology used in the village for communication and construction and definitely points at improvement in living conditions of the village households of Diguva Abbavaram as compared to earlier period captured in 1970 survey. Increasing levels of education and school enrolment in case of females, increasing share of household members as well as household income in nonfarm activities, occupational diversification and increasing integration with the urban areas are some of the important changes that have taken place at the household level over the years. The analysis however also reveals the economically vulnerable position of marginal, landless, scheduled castes as well as the general category of households as compared to other household categories.

The policy implications arising from the study reveal the need to focus on provision of adequate and clean drinking water and irrigation facilities, proper garbage collection and disposal of systems and closed drainage systems. It is felt that provision of quality education, vocational guidance, usage of environmental friendly technologies, digital technologies and local area development strategies for creation of job opportunities would enhance the overall standard of living of the village households.

PROJECT   TEAM

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EXECUTIVE SUMMARY

Village Survey Study in Andhra Pradesh
(Diguva Abbavaram Village)

Introduction

A Socio-economic survey is regarded as one of the most important sources of statistical data on household expenditure and income as well as other data on the status of housing, individual and household characteristics and living conditions. The earliest research on household budgets was conducted in 1946. Socio-economic survey tools are designed to collect information as a means of improving understanding of local resource management systems, resource use and the relative importance of resources for households and villages.

Socio-economic factors include occupation, education, income, wealth and where someone lives. There are three key measures most commonly used to capture socio-economic surveys in most studies: income, education, and occupation. The social standing or class of an individual or group is often measured as a combination of education, income and occupation. A socioeconomic class is a group of people with similar characteristics. These characteristics can include social and economic standing, level of education, current profession, and ethnic background or heritage. Examinations of socioeconomic status often reveal inequities in access to resources, plus issues related to privilege, power and control. The concept of class as a collection of individuals sharing similar economic circumstances has been widely used in censuses and in studies of social mobility.

A socio-economic impact assessment is a study to determine how a proposed development project will effect or change the lives of current or future residents of a community or geographic area. Socioeconomic benefits are expected from the development of new markets to promote regional economic structures, to provide alternative sources of employment in rural areas, and to promote the use of surplus and marginal lands.

Background of the present study

The present study is the study of village Diguva Abbavaram (D.Abbavaram) based on the selected sample data and the census that was conducted 50 years after the population survey was conducted in the year 1970. A village with a population of 1594, D.Abbavaram is situated in Rayachoti Mandal in Kadapa district of Andhra Pradesh with 455 households

and has a history of repeated surveys – sample as well as population, conducted by Agro Economic Research Centre, Andhra University. D.Abbavarm village in the Rayachoti Mandal was selected for the study.

Objectives of the Study

1. To study Socio-economic and cultural features of the village and to understand the basic structure of the economy of village D.Abbavaram.

2. To analyse the existing structure along with the changes taking place in various aspects of the village survey study.

3. To evaluate the perceptions of the villagers about problems and challenges faced, changes they have experienced in the village and benefits from government schemes.

4. Based on the data collected during the current survey as well as secondary data, observations were made to capture the changes that have taken place in the status of the village households over a period.

5. To suggest policy measures keeping in view implications for future changes arising from the analysis.

Village Selection

Rayachoti Mandal is considered to be an appropriate area as there are a number of villages in the Mandal having irrigation facilities like rain-fed tanks, wells and spring channels, and these villages would suffer adversity of drought whenever it occurred. On the recommendations of the Mandal officials, Diguva.Abbavaram (D.Abbavaram) village was selected for the study as it is a representative village of the area and is situated about 3 km from the Mandal headquarters Rayachoti.

Methodology and Sampling

D.Abbavaram is a large village located in Rayachoti Mandal of YSR district, Andhra Pradesh. Due to migration, in search of livelihood some of the households left the village. The total number of households remained in the village by the year 2020 is 566. Out of the 566 households some of them have shifted to nearby urban areas in search of jobs and settled there. Thus, a total number of 455 households have remained in the village at the time of the present survey.

Organization of the Report

Chapter one provides background to the study. Besides stating objectives and discussing the methodology, it also presents a brief review of literature and historical background of village D.Abbavarm. Chapter two discusses Methodology. Chapter III focuses on the demographic and socio economic profile of the village based on the secondary data available. Chapter four focuses on household level data relating to demographic characteristics, educational status, and distribution of landholdings and access of the households to various civic amenities. The next chapter i.e., Chapter five discusses economic status of the village households. The natural resources, land use classification change, natural and manmade disasters and major problems faced in the village are discussed in Chapter VI. The perceptions of sample Household about government schemes, suggestions of better implementation of schemes are discussed in Chapter VIII. The last Chapter presents summary and policy implications.

Major findings of the study

A notable feature of the population structure was the increase in the share of the female population. The number of females as well as their share in the total population increased during the two periods (1970-71, 2019-20). The social structure of the D.Abbavaram reveals that the Households belonging to the General caste category (42.94%) is the dominant. In the 1970-71 the SC's were 15.42 %, their number increased to 19.28 % in 2019-20. Out of the rest 39.93 % are BC's and 0.35% are ST's. The village had basic drinking water, electricity, roads, education and infrastructure which developed and further got expanded over the concerned period. Basic health facilities were developed and the village also got a pucca approach road. Presently in Andhra Pradesh all the villages including D.Abbavaram has a Gram Sachivalayam. ration shop and Anganwadi centres. All the facilities are improved by the government like Welfare Assistant, Women police, Health worker, Agricultural assistant, Digital assistant, Surveyor, Engineering Assistant. All staff members are presently working in the D.Abbavaram village for the welfare of people.

The crops grown in D.Abbavaram village are (i) Kharif Paddy (ii) Rabi Paddy (iii) Red Gram (iv) Coupe (V) Tomato (vi) Groundnut (vii) Sunflower (viii) Rabi Groundnut (ix) Horse gram crops and Tree crops. The total cultivated area is 530 acres in the village and is mainly irrigated by wells and tube well irrigation. The intensity of irrigation is reported to be 46.79 percent.

Out of the total number of 455 households 14.89 percent have reported to be joint families while 85.10 percent of the households were reported as nuclear families. Out of the total number of 455 households 47.58 percent are from General category 31.47 percent from OBC and 20.95 percent are from SC category. Out of total number of surveyed households 30.35 percent are cultivators 41.05 percent were reported as salaried Government employees, 5.88 per cent are salaried private employees, 24.48 per cent are pensioners, 27.66 percent are casual labourers 25.50 percent are reported to be agricultural labourers, 0.58 percent are reported salaried private employees of secondary occupation and 3.88 percent are reported to be casual labourers from secondary occupation.

Of the total 455 households 89.01 percent are BPL card holders and 82.42 percent are MGNREGA card holders and 48.13 percent are KCC card holders. Availability of smart phones in the surveyed households has shown that more than 100 percent had a smart phone in each household. i.e., each family was possessing more than one smartphone on an average.

The average annual income of sampled households in 2019-20 is as follows: it is observed that on an average 12.67 percent is the total income from crop farming activity in the total 455 households surveyed. 13.73 percent are from livestock rearing, 9.62 percent income from land rent, 26.67 percent from service /salary, 23.20 percent from wage earning, 2.54 percent from business/trade and 11.57 percent from government relief pension. On an average per capita income was around Rs. 17920 and households derive Rs. 1.6 lakhs as average annual income. The per household income in 1969-70 in Abbavaram village came to be Rs. 660.66. from the information gathered during the 1970 survey.

The analysis of household expenditure showed that 52.45 percent of it was on food items, while 47.55 percent was on non-food items. The average annual household expenditure of farm households was Rs. 58,220. While in the non-farm it was Rs. 65,385 and for the overall sample, it was Rs.61,799.

Out of the total number of 225 sample farming households 66.22% are marginal, 27.56% are small, 4% are medium and 2.22% are large farmers. On the other hand, the total area is estimated to be 225.79 ha. Across the groups the area ranged from 20.50 ha in case of large farmers to 95.84 ha in case of small farmers. Out of the total 225 farming sample households 51.12% are from general category, 27.55% from OBC and 21.33% from SC

category. Out of the total area of 225.79 hectares, 41.70% of area reported to be irrigated. On an average the land man ratio is reported to be 0.27 ha.

In the group discussions, it was revealed that the occurrences of drought, erratic rainfall and heat waves had increased. During the 5 years preceding the reference year in fact, drought was experienced 3 times. In one of the years, it was reported the village experienced erratic rainfall which caused damage to around 10 houses. Drought was observed as the phenomenon causing maximum hardships. On a scale of 0 to 5, the degree of hardship caused to crops and livestock ranged between 2 and 4 and indicated low and high levels of hardship.

Several Government sponsored schemes are introduced for the better economic conditions of the villages, the following are 20 government schemes implemented in the villages including the sample village. 100% of the households were entitled PMKISAN Benefit scheme of which 225 were covered and 100% or the total beneficiaries were satisfied with this scheme.

Moreover 63.50% of responses stated that the status of the agricultural sector in the village had improved and 29.50% of responses expressed that the economic conditions of their families have been improved.

Out of the total responses, 62% of the villages responded positively. 10.5% of the responses reported to have faced the problem of cleanliness and drainage issues, about 12.25% of the responses stated the problem of infrastructure development. Nearly 9.5% of responses reported the problem of water scarcity for agriculture. Only 2.5% responses expressed the problem of employment and poverty. The sample households have requested for the following measures to solve their problems. About 12.25% of households requested that a proper drainage system is required in the village. Nearly 6.50% of the respondents stated that suggested infrastructural development is required in the village. About 10% of the households suggested that they require a canal to be nearer to the village. Moreover 3% of the households requested for proper implementation of government schemes in the village. About 59.3% of households could not respond properly.

Policy Suggestions

The village depicts the reducing role of agriculture in supporting livelihood, reducing workforce participation rate, increased share of marginal workers, decreasing extent of education, increasing share of elderly population and demand for employment opportunities and migration. These changes would influence the future course of development of the village. This may increase the extent of migration, problems faced by elderly population and higher rates of un-employment and vulnerabilities. In order to tackle these problems, therefore, following policy initiatives from the analysis are suggested:

1. Efforts need to be concentrated on increasing the yield for marketing the product and market intelligence because of the vulnerable economic status that was revealed in the survey by majority of households.

2. Village surveyed needs to be considered as the drought prone area as many villagers are requesting due to inadequate water supply for cropping. This village has been facing recurring droughts and adopted several strategies for coping up with the problem of water scarcity during summer and throughout the year as well.

3. Bore water used by the villagers is not filtered, hence filtration process is recommended.

4. Villagers need to shift the cropping pattern from crops like Groundnut to traditionally grown crops that would yield money to them like tomatoes. This is a way to uplift the drought prone village to make it drought free and improve their economic condition by shifting the cropping pattern which was introduced from the past few years.

5. Programmes that bring awareness about garbage disposal and maintenance of cleanliness need to be organised by the authorities for the villagers. These programmes will let the villagers know the uses of disposing the garbage in the right manner for which proper systems for garbage collection and disposal needs to be instituted.

6. Closed drainage system is the need for the village as the open challenges for sewage water are spreading the diseases, underground sewage pipes need to be laid to overcome these communicable diseases.

7. One major problem is drainage water from nearest urban areas. The pollutants from drainage water are contaminating the underground water. Liquid waste should be managed in a proper way in the village to solve the drainage issues.

8. Specific programmes and training facilities should be provided for generating employment. As requested by the sample household members, such training would make them self-dependent to improve their economic status.

9. Training programmes should be conducted for women to support their livelihood, which would help them to improve production in crops and other activities. Such programmes would provide a platform for communication to disclose their needs and to market their products which will empower them and make them self-sufficient.

10. Elderly people need special schemes for health care like strategies for improving the health of those who cannot afford it.

11. Godowns need to be established in the villages so they can store their agricultural products and commodities for marketing purposes and for future use.

12. Altogether to improve the standard of living of the villagers, focus needs to be on quality education, vocational guidance, healthcare, sanitation facilities, usage of environment friendly technologies and local area development for creation of job opportunities. Usage of digital technologies especially for agriculture linked activities, communication and governance would greatly enhance pace and quality of outcomes and improve overall living of the households in the village. By bridging the development gap between the village and urban areas, there can be reduction in migration from villages to urban areas.

CHAPTER - I

1.1 INTRODUCTION:

A Socio-economic survey is regarded as one of the most important sources of statistical data on household expenditure and income as well as other data on the status of housing, individual and household characteristics and living conditions. The earliest research on household budgets was conducted in 1946. Socio-economic survey tools are designed to collect information as a means of improving understanding of local resource management systems, resource use and the relative importance of resources for households and villages.

Socio-economic factors include occupation, education, income, wealth and where someone lives. There are three key measures most commonly used to capture socio-economic surveys in most studies: income, education, and occupation. The social standing or class of an individual or group is often measured as a combination of education, income and occupation.

A socio-economic class is a group of people with similar characteristics. These characteristics can include social and economic standing, level of education, current profession, and ethnic background or heritage. Examinations of socioeconomic status often reveal inequities in access to resources, plus issues related to privilege, power and control. The concept of class as a collection of individuals sharing similar economic circumstances has been widely used in censuses and in studies of social mobility.

A Socio-economic impact assessment is a study to determine how a proposed development project will affect or change the lives of current or future residents of a community or geographic area. Socioeconomic benefits are expected from the development of new markets to promote regional economic structures, to provide alternative sources of employment in rural areas, and to promote the use of surplus and marginal lands.

Socio-Economic Development Challenges include:
- High unemployment and low incomes. This is at the heart of many of the Socio-economic development challenges.
- A breakdown in the nuclear family.
- Poor standards of education.
- Unsustainable business practices.

Social and economic factors, such as income, education, employment, community safety, and social support can significantly affect how well and how long we live. For example, employment provides income that shapes choices about housing, education, child care, food, medical care, and more. Key indicators of the economic and educational composition of a community that can be considered individually and in combinations and that typically can be measured at multiple units of geography include

1) Income, such as average household income and per capita income;
2) Poverty rate, percentage of households.

This section on Socio-economic indicators provides data on education, gender, poverty, housing, amenities, employment and other economic indicators.

A major phenomenon observed across the globe is the increasing level of urbanization. This has not only raised concerns about urban living but also about rural change, Structure and nature of village economies. Villages still would be sustaining a large section of population in a country like India and depending upon the stimuli received would gradually experience change in their basic structure.

The share of rural population in India which was 80 percent of the total population in 1960s has been reducing gradually over the time period, however still a massive proportion of the total population- around 69 percent – still resides in more than 6 lakh villages of rural India. This population constitutes largely the agrarian population of the country.

Study of the villages is important as it reveals working of various existing agrarian and other associated socio economic institutions governing the village life and drivers of change. It also provides insight into the pace with which villages transform and adapt to changing environment and development and integrate with urban areas. The analysis in such studies also indicates implications of the changes that would take place in future in the village and at a large level as well as policies that need to be followed for further progress.

1.2 Review of Literature:

Village surveys are carried out with varied objectives pertaining to rural societies in the world. Depending on the specific objectives, target population or sample is decided and survey is

carried out using various modes i.e., personal interview, through mail, telephonic etc., some of the surveys carried out in recent past were reviewed for the purpose of the study.

D. Narasimha Reddy (1998) has taken up the restudy of Kotharmur village in Andhra Pradesh. The village is located in Nizamabad district and had been surveyed thrice earlier; in 1929-30 and 1949-'50 by Kesava iyengar and in 1961 by the Census of India. The restudy in 1998 was done by selecting 30 percent of the village households. The highlights of the restudy are as follows:

I.   The land ownership pattern among caste groups has undergone significant changes over time. The dominant castes in the village have lost their land and the backward and the Scheduled Castes have gained.

II. The cropping pattern has shifted from rice and coarse grains to cash crops.

III. The source of irrigation has shifted from canal to wells and tube wells since the early seventies. The shift in irrigation has induced changes in the cropping system.

IV. Considerable changes have occurred in the labour market. Non-farm employment has increased, especially in trade and commerce.

V.   In recent years, there has taken place large-scale out-migration of labour together with the upper castes, the backward and Scheduled Castes workers to the nearby urban centres
     The middle class has grown in the village and the consumption pattern has undergone changes.

VI. It is estimated that between 25 to 35 percent of the households are below the poverty line.

VII. Coming to the caste-economy nexus, it is noted that the traditional landlord caste (the gurudiruddies) have lost much of their dominance. Among backward castes, the gondala caste has gained upward mobility; the other castes could not improve their positions. The Scheduled Castes also gained importance partly because of the improvement in their access to land.

G. Parthasarathy and Annie Nirmala (1966) have taken up the restudy of Ungatla village in West Godavari district of Andhra Pradesh. This village had been surveyed in 1916 by S. Narayanamurthy, in 1936 by P. J. Thomas, and in 1961 and 1971 by the Census of India. This is a dry village falling in the upper regions of West Godavari and was noted for its Palmgur industry that provided a major source of livelihood for the local population. With the disappearance of the Palmgur industry, villagers had to fall back largely on agriculture for their subsistence. In 1966, the village was electrified. Consequently, tube-well irrigation became popular and provided a big push to production and the growth of the economy of the village. The major changes noted by the researchers include the following:

I. The cropping pattern shifted from dry rice cultivation to irrigated rice and sugar-cane cultivation. Coconut and cashew replaced all the palm trees.

II. The labour market in the village has undergone significant changes over time. With the development of agriculture, labourers engaged earlier in the jaggery industry have shifted to agriculture.

III. Though there is decline in general poverty, the majority of the agricultural labourers remain below the poverty line.

IV. The agricultural surplus generated in the village has been moving to other areas. Though the economy has grown over time, inequalities still exist due to uneven distribution of assets.

V. Regarding the caste-economy nexus, the study has the following observation: "We find change and development in a section of the population and continuity and backwardness in another section. The study also points out the extent of environmental degradation caused due to excessive extraction of groundwater.

The changes noted in the two villages studied in Tamil Nadu have also shown trends similar to those noted in Andhra Pradesh. **R. Rukmani** (1961) has taken up the restudy of Arkavadi village in Villipuram district. This village was surveyed by Census of India 1961. In the early sixties, this was a small-sized village with 150 households. Vanniars were numerically dominant followed by Reddies and Scheduled Castes. Access to land was quite high for all the caste groups and landlessness was quite low. Coarse cereals and groundnuts were the major crops. Today, though agriculture continues to be the sole economic activity in the village, the nature of agriculture has undergone major changes. Well irrigation has come up in a large way for Arkavadi and there is a tendency to produce commercial crops for the market. Coupled with commercialization of agriculture there has taken place an increase in the pace of fragmentation of land holdings.

A system of attached labour - Padiyal - still prevails. Scheduled Castes have become highly mobile and have been migrating out to a very significant extent. Out-migration is an important survival strategy adopted by the villagers. The landed households do mortgage (15 percent of the households) of their land and in most cases, it constitutes the first step towards its sale.

J. Jayaranjan (1986) has restudied Illuppakkorai village located in Thanjavoor district of Tamilnadu. This village was studied earlier in 1959-'60, and later in 1985-'86, for doctoral dissertation by students of Madras University. The main changes noted by the researcher are the following:

I.   Changes between 1959-'60 to 1985-'86: during this period, there was a crisis in rice cultivation due to the Cauvery water dispute. This crisis combined with the policy of monopoly procurement of rice by the State, and the militancy among the Scheduled Caste labourers, drove the upper caste landowners towards restructuring their cropping pattern from rice to sugarcane and banana.

II. The crop shift was followed by mechanization.

III. The changes in the land market are also closely related to the changes in the labour market. About 40 percent of the households now get their income from the service sector. Some households have migrants working in West Asian countries. Interestingly, 20 percent of the households are involved in money lending.

IV. Increased prosperity has brought in the consumer culture in the village.

Tooret (2014) undertook a survey of village Kalwan' in Rupnagar district of Punjab. Out of 505 households in the village, 109 were of landless category, followed by marginal farmers. The average family size was six people. The village was having a skewed sex ratio of 852 females per 1000 males. The village was an example of religious and cultural harmony. The soil was a mixture of sandy and clay types. Private tube wells were the main source of irrigation in the village. . The cropping pattern consisted of paddy and maize in Kharif and wheat in the Rabi season.

Prof. B. Sarveswara Rao has taken up the study of D.Abbavaram village in Andhra Pradesh. The village is located in the Rayachoti mandal, Kadapa district and had been surveyed in 1970. The highlights of the study are as follows:

1. Government is trying its best to improve the conditions in this drought affected district. The people have also adapted to the drought conditions by changing the cropping pattern so as to suit to the monsoons and dry conditions.

2. Attention has recently been focussed on permanent relief measures to tracts frequently subject to drought conditions. Increase in the number of irrigation wells, executing as many irrigation schemes as possible and increasing industrial investment.

3. All the agricultural practices the cropping pattern, the manorial practices, etc., can be so geared as to conserve water and increase its efficiency in agricultural production.

4. To summarise our observations, it may be stated that there has been in the recent past a marked change in occupational structure with preference for cultivation. Nevertheless, most of the households have alternative customary occupations on which they can fall back upon in the years of drought. This cacts as some sort of a stabilising factor in the village economy. The resurvey of the same village is done in 2019-20 was done.

1.3 Background of the present study:

The present study is the study of village D.Abbavaram (DiguvaAbbavaram) based on the selected sample data and the census that was conducted 50 years after the population survey was conducted in the year 1970. A village with a population of 2329, D.Abbavaram is situated in Rayachotimandal in Kadapa district of Andhra Pradesh and houses 455 Households and has a history of repeated surveys – sample as well as population, conducted by Agro Economic Research Centre, Andhra University. D.Abbavarm village in the Rayachoti mandal was selected to study the socio economic conditions of people in a rain shadow village and how the people of the area made adjustments to a more or less chronic drought situation.

1.4 Objectives of the Study:

1. To understand the basic structure of the economy of village D.Abbavaram and to study the social and economic conditions of the village.

2. To analyse the existing structure along with the changes taking place in various aspects of the village survey study.

3. To evaluate the perceptions of the villagers about problems and challenges faced, changes they have experienced in the village and benefits from government schemes.

4. Based on the data collected during the current survey as well as secondary data, observations were made to capture the changes that have taken place in the socio-economic status of the village households over a period of time.

5. To suggest policy measures keeping in view implications for future changes arising from the analysis.

1.5 Organization of the Report:

Chapter one provides background to the study. Besides stating objectives and discussing the methodology, it also presents a brief review of literature and historical background of village D.Abbavaram. Chapter two discusses Methodology. Chapter III focuses on the demographic and Socio-economic profile of the village based on the secondary data available. Chapter four focuses on household level data relating to demographic characteristics, educational status, and distribution of landholdings and access of the Households to various civic amenities. The next Chapter i.e., chapter five discusses economic status of the village households. The Natural resources, land use classification change, natural and manmade disasters and major problems faced in the village are discussed in Chapter VI. The perceptions of sample Households about government schemes, suggestions of better implementation of schemes are discussed in Chapter VIII. The last Chapter presents summary and policy implications.

CHAPTER- II

METHODOLOGY

2. Selection of the Village, Methodology and Sampling:

2.1 Criteria for selection of the village:

It was further suggested by the district officials that the Rayachoti Mandal would be an appropriate area as there are a number of villages in the Mandal having irrigation facilities like rain-fed tanks, wells and spring channels, and these villages would suffer adversity of drought whenever it occurred. On the recommendations of the Mandal officials D.Abbavaram village was selected for the study as it is a representative village of the area and is situated about 3 km from the Mandal headquarters Rayachoti.

2.2 Geographical location of the village:

This chapter deals with the methodology adopted for the selection of district village and households of the survey. The Kadapa district was renamed as YSR district in Andhra Pradesh. This YSR district extremes the south eastern district of Andhra Pradesh situated within the geographical coordinated of 13^045' and 15^014' of Northern latitude 77^055' and 79^029' Eastern longitude. The district borders are on the north the district border is Kurnool district, on the south it is Chittoor district, on the west it is Anantapur district and on the East is it Nellore District.

2.2.1 Criteria for selection of the households:

D.Abbavaram is a large village located in Rayachoti Mandal of YSR district, Andhra Pradesh. Due to migration, in search of livelihood some of the households left the village. The total number of households in the village by the year 2020 is 566. Out of the 566 households some of them have shifted to nearby urban areas in search of jobs and settled there. Thus, a total number of 455 households have remained in the village at the time of the present survey. The reference year for the study is 2019-20.

2.3: Survey Approach

2.3.1 Village level information:

The village level information was collected from the Mandal offices and village level offices, these details include:

1) Demographic profile of the village, Caste profile of Households, Religion profile of Household, education profile of House hold, APL/BPL wise distribution of Household in D.Abbavaram village, students on roll in different standards, occupation profile as per the main occupation, gender with distribution workers, land utilization pattern, irrigation status, cropping pattern of the village, yields of principal crops, value of input factors, possession of Agricultural machinery and implements livestockresources, credit societies and other institutions, social and other organizations marketing facilities of the village, medical institutions, drinking water facilities and transportation and came every facilities of the village.

2) Moreover, information was elicited from village elders and stake holders and information from each household of the village. Information of socio-economic conditions, agrarian farming ecological changes was also collected.

2.3.2 Group Level Information:

Focused on group discussions and filled the questionnaires based on the villager's response like depth of ground water, number of ponds, dug wells, tube wells, crop wise usage of NPK fertilizers., pesticides used in crops or farmyard manure, major farming systems, list of varieties of major crops, changes in the varieties if any, marketing and procurement system.

2.3.3 Household level Information:

A structured question sheet was prepared with the objectives of collecting information relating to economic status of the household and their perception about rural change.

2.4 Limitations of the study:

The nature of data/information collected during the two surveys differs on many counts as mentioned earlier, the former (1970) being more of an analysis of evolution of village institutions. Though the current survey (2020) is a resurvey, the variables for which data was collected and the methodology used are different from the year 1970. Also the 1970 survey included the village population in some respects and sampled HH some times. On this background, an attempt

is made to compare village life in 1970 and in 2020. Through the ASER toolkit the education status of the school going children had to be assessed as per the guidelines of the study. However this could not be completed due to the pandemic. Due to Covid, villagers requested to reschedule the visit to the village and hence the survey of school going children in the village had to be cancelled and could not be conducted. Also, cleaning of the data and for confirming broad trends revealed from the data collected could not be organized post survey visits to the village.

CHAPTER - III

AN OVERVIEW OF STUDY VILLAGE

As said earlier in previous chapter the D.Abbavaram village is located in Rayachoti Mandal Kadapa District in Andhra Pradesh.

3.1 Village Profile:

3.1.1 Geographical and Administrative location of the village:

The geographical area of D.Abbavarm is 2618.3 acres in two periods 1970-71, 2019-20. Out of the geographical area 24.14 per cent of the Area is under agricultural use and 29.04 per cent of the area is under current fallows, 38.96 per cent of the area is under other fallows and 2.29 per cent of the area is under tree crops about 3.90 per cent of the area is under barren and uncultivated land, 1.18 per cent of cultural waster and a negligible per cent of 0.49 is reported as Permanent pastures and other grazing lands. All these particulars are presented in Table 3.1.

Table 3.1
Land utilization pattern of the D.Abbavaram village

S.No	Particulars	1970-71		2019-20	
		Area in Acres	Percentage	Area in Acres	Percentage
1	Total geographical area	2618.3	100.00	2618.3	100.00
2	Forests	0		0	
3	Barren and uncultivated land	206	7.86	102	3.90
4	Land put to Non-Agricultural uses	199	7.61	102	
5	Culturable Waste	140	5.35	31	1.18
6	Permanent Pastures & Other Grazing Lands	13	0.49	13	0.49
7	Land under Miscellaneous Tree Crops			60	2.29
8	Other fallow lands	62	2.37	1020	38.96
9	Current fallows	42.3	1.61	760.3	29.04
10	Net Area Sown	1956	74.71	530	24.14

Source: Secondary Data

3.1.2 Climate and Rainfall:

The year may be divided into 4 seasons in 1970. The period from December to February is the dry, comparatively cool season. The summer season is March to May and is followed by the south-west monsoon from June to September. October and November constitute the post-monsoon or the retreating monsoon season.

The average rainfall in the district is 27". The rainfall generally increases from the north-west to south-east in the district. The rainfall is mostly confined to the months or May-November. September is the month of maximum rainfall. The annual rainfall shows large variations from year to year. In the 70-year period 1901-1970, the highest rainfall amounting to 163% of the normal occurred in 1903. In the very next year, 1904, the district had the lowest annual rainfall which amounted to 49% of the normal. The average annual rain fall of the village is 700-750 mm in 2019-20.

3.1.3 Soils:

No systematic soil survey has been under taken on modern lines in the district. The settlement reports divide its soils broadly into 'black' and 'red – each being further sub-divided into clay, loamy and sandy. The soils of the district are of metamorphic limestone slate quartzite variety, of great mineralogical value. The main category of the soil is Red soil.

3.1.4 Population:

The total population of the reported to be 2329 of which 47.87 per cent males and 52.13 per cent of females. Of the total population 19.28 per cent are Scheduled casts and 0.30 per cent are Scheduled Tribe and 80.42 per cent are others. All these details are presented in Table 3.2

Table 3.2 Demography profile of the Village

S.No	Particulars	1970-71	2011 census	2019-20
1	No of households	255	574	566
2	Total population	1329	2334	2329
	Male	705(53.04)	1120(47.98)	1115(47.87)
	Female	624 (46.96)	1214(52.01)	1214(52.13)
3	Child (0-6)		275(11.78)	182(7.81)
	Male		140(50.91)	94(51.65)
	Female		135(49.09)	88(48.35)
4	Scheduled Caste	205 (15.42%)	450(19.28)	450(19.28)
	Male		186(41.34)	186(41.34)
	Female		264(58.66)	264(58.66)
5	Scheduled Tribe		34(1.46)	6(0.25)
	Male		0	2(33.34)
	Female		34	4(66.66)

Source: Secondary Data

3.1.5 Caste Profile:

Of the total Households 566, 42.94 per cent are General Category, 39.93 per cent are OBC Category, 16.78 per cent are SC's and 0.3 per cent are reported to be ST's these details can be observed in Table 3.3.

Table3.3 Cast profile of households in D.Abbavaram village

S.No	Caste	No of Households
1	General	243 (42.94)
2	OBC	226 (39.93)
3	SC	95 (16.78)
4	ST	02 (0.35)
	Total	566

Source: Secondary Data

Figure -1
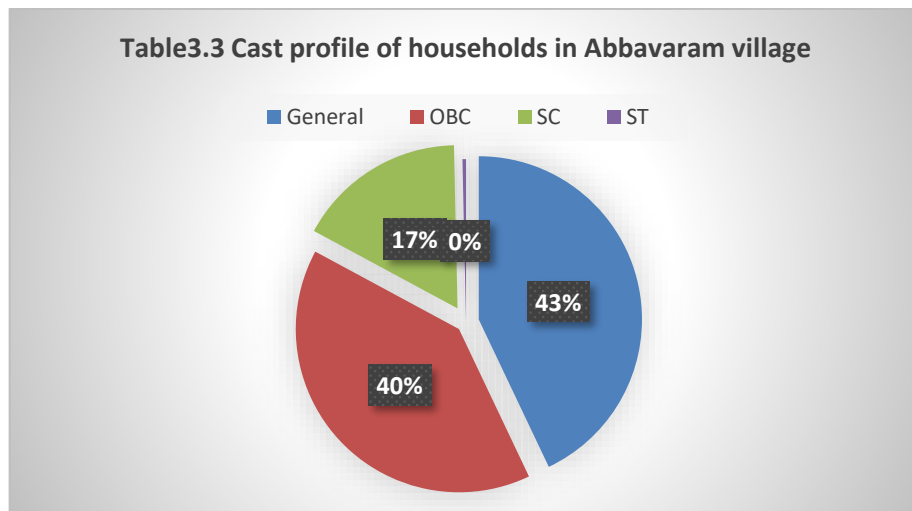
3.1.6 Religion Profile:

Of the total Households of 566, 96.12 per cent are Hindu's, 2.29 per cent are Muslims and 1.59 per cent are Christians. The details can be viewed from table 3.4.

Table 3.4: Religion profile of households in D.Abbavaram village

S.No	Caste	No of Households	
		1970-71	2019-20
1	Hindus	244 (95.57)	544 (96.12)
2	Christians	5 (1.50)	09 (1.59)
3	Muslims	6 (2.93)	13 (2.29)
4	Others		00
	Total	255	566

Source: Secondary Data

Figure -2

Religion Profile of Households in Abbavaram Village (in %)

Caste / House holds (in %)

Others	0
Muslims	2.29 / 2.93
Christians	1.59 / 1.5
Hindus	96.12 / 95.57

■ 2019-20   ■ 1970-71
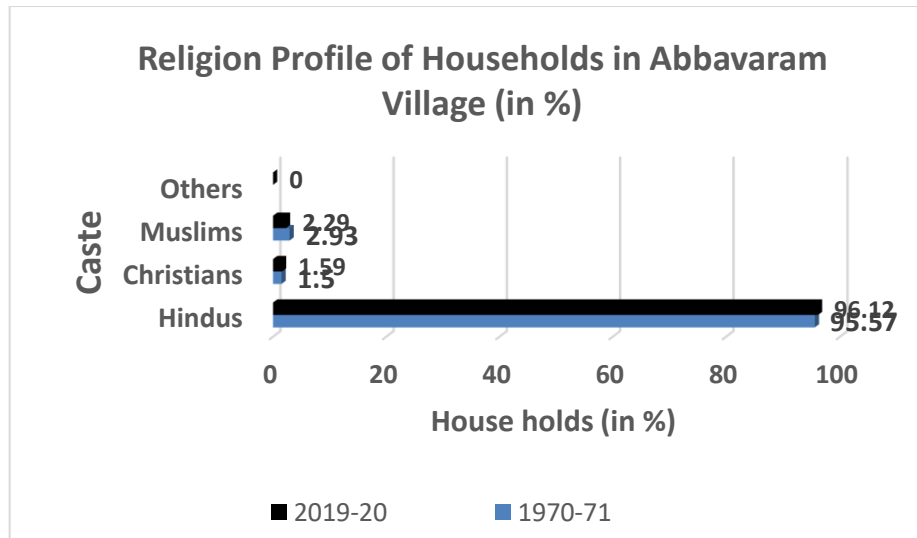
3.1.7 Education Profile:

There are 1270 total literates in the village of which 54.41 per cent are males and 45.59 per cent are females. Moreover the total number of literates in the village is reported to be 1064. There are 3 Government schools in the village and the total number of students enrolled in 119. Of which 47.90 per cent are boys and 52.10 per cent are girls. There are 6 number of teachers appointed. The number of persons involved in the mid a meal scheme are 119. There are 3 Anganwadi centres in the village. These details can be observed in the Table No.3.5.

Table 3.5: Education profile of households in D.Abbavaram village

S.No.	Particulars	No of persons (%)
1	Total Literates	1270
	Male	691 (54.41)
	Female	579 (45.59)
2	Total illiterates	1064
	Male	429 (40.32)
	Female	635 (59.68)
3	No of government schools	3
4	No of students	119
	Boys	57 (47.90)
	Girls	62 (52.10)
5	Number of teachers	06
6	Supporting staff	0
7	Mid-day meal scheme	119
8	Other private school	0
9	Anganwadi Center	03
10	Coaching Centres	0

Source: Secondary Data, Figures in parenthesis are percentages.

3.1.8 APL/BPL wise distribution on Households:

Out of total 566 households, 89.05 per cent of families are reported as BPL cardholders. On the other hand 10.95 per cent of families have reported to be APL card holders. The details are presented in Table 3.6.

Table 3.6: APL/BPL wise distribution of households in D.Abbavaram village

S.No	Particulars	No of Households
1	No of families APL Line Card holders	62 (10.95)
2	No of families BPL Line Card holders	504 (89.05)
	Total	566

Source: Secondary Data

3.1.9 Students on Roll on different standards:

Out of total number of 341 students 14.66 per cent of the students are reported are under graduation. Majority percentages of students are reported from Primary standards of Education. About 2.94 percent of the students are reported to be taking training in ITI. The details can be viewed from Table 3.7.

Table 3.7: Students on roll in different standards in D.Abbavaram village

S.No	Classes	No of persons
1	I	35 (10.26)
2	II	28 (8.22)
3	III	41 (12.03)
4	IV	38 (11.14)
5	V	27 (7.91)
6	VI	15 (4.40)
7	VII	14 (4.11)
8	VIII	17 (4.98)
9	IX	20 (5.86)
10	X	15 (4.40)
11	XI	13 (3.81)
12	XII	18 (5.28)
13	Degree	50 (14.66)
14	ITI	10 (2.94)
	Total	341

Source: Secondary Data

3.1.10 Occupational profile:

Out of the total population 2329, 33.14 per cent are reported cultivation as their occupation. On the other hand 15.89 per cent have reported to be agricultural labourers. The details can be observed in the Table 3.8.

Table 3.8: Occupational profile according to main occupation in D.Abbavaram village

S.No	Particulars	No of persons
1	Farm	
	cultivators	772 (33.14)
	Agricultural Laborers	370 (15.89)
	Total	1142

Source: Secondary Data

Figure -3

Occupational profile according to main occupation in Abbavaram Village (FARM)
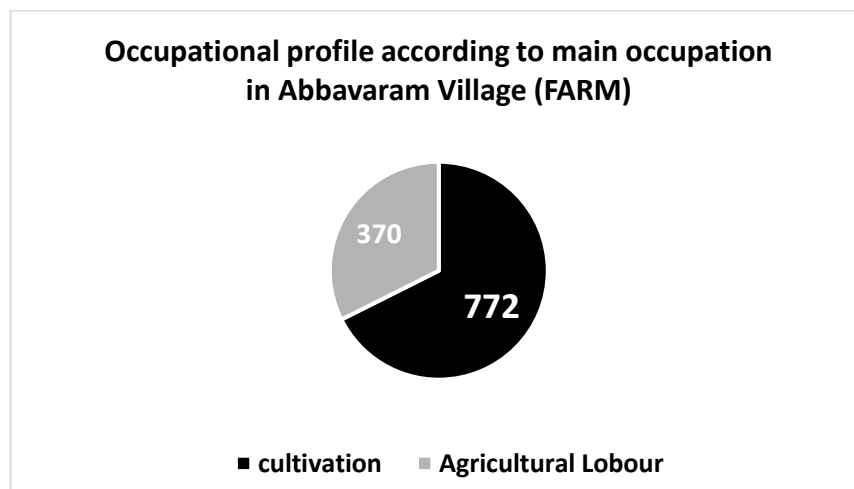
3.1.11 Gender wise Distribution of Workers:

Out of the total population of 2329, 45.68 per cent have reported to be workers. Among the total number of 1064 workers 60.71 per cent are males and 39.29 per cent are females. Out of the total number of 1064 workers 87.5 per cent are main workers 23.87 per cent are reported as cultivators 35.05 per cent are reported as agricultural labourers, 1.31 per cent are reported under house hold industries, 27.26 per cent have reported as workers, 12.51 per cent have reported to be marginal workers. The details can be viewed from the Table 3.9.

Table 3.9: Gender wise Number of workers in village Abbavaram as per 2011 census

S.No	Particulars	No of persons
1	Total workers	1064 (45.68)
	Male	646 (60.71)
	Female	418 (39.29)
2	Total Main workers	931 (87.50)
	Male	613 (65.84)
	Female	318 (34.16)
3	Cultivators	254 (23.87)
	Male	190 (74.81)
	Female	64 (25.19)
4	Agricultural labour	373 (35.05)
	Male	188 (50.40)
	Female	185 (49.60)
5	Household industries	14 (1.31)
	Male	8 (57.14)
	Female	6 (42.86)
6	Other workers	290 (27.26)
	Male	227 (78.27)
	Female	63 (27.73)
7	Marginal workers	133 (12.51)
	Male	33 (24.81)
	Female	100 (75.19)
8	Non-agricultural workers	1270
	Male	474 (37.32)
	Female	796 (62.68)

Source: Secondary Data

3.1.12 Natural Resources:

The village is endowed with the Natural resources of ponds Yerrich Kunta, Peddaganda, River- Mansavathi River, Wells around -6.

3.1.13 Irrigated Area:

The village is mainly irrigated by wells and Tube well irrigation. The intensity of irrigation is reported to be 46.79 per cent. The details can be viewed from the Table 3.10.

Table 3.10: Irrigation status of the D.Abbavaram village

S.No	Particulars	Area in Hectares
1	Net irrigated area	312
2	Gross irrigated area	146
3	Intensity of irrigation	46.79
4	Area under canal irrigation	0
5	Area under tube well irrigation	120.12
6	Area under wells	25.88
7	Rain fed	200
8	Level of ground water for irrigation (feet)	400-700 feet
9	Water suitable for irrigation	yes
10	Water unfit for irrigation with reasons	-

Source: Secondary Data

3.1.14 Cropping Pattern:

The crops grown in D.Abbavaram village are (i) Kharif Paddy (ii) Rabi Paddy (iii)Red Gram (iv) Cowpea (V) Tomato (vi) Ground Nut (vii) Sunflower (viii) Rabi Groundnut (ix) Horse gram crops and Tree crops also. Of the total 530ac, 12.26 per cent under Kharif paddy, 7.55 per cent of area under Redgram 6.67 per cent of area under Cowpea, 3.77 per cent of area under Tomato, 18.66 per cent of the area Ground nut, 11.32 per cent of area under Rabi paddy, 0.95 per cent of are under sunflower, 8.50 per cent of are under Horsegram, 18.86 per cent of area under Rabi Ground nut and 11.32 per cent of area is operated to be under tree crops. The details can be viewed are observed in Table 3.11.

Table 3.11: Cropping pattern of the D.Abbavaram village

S.No	Particulars	Area in Acres 1960-69	Area in acres 2019-20
1	Kharif		
	Paddy	32.75(4.97)	65 (12.26)
	Red gram		40 (7.55)
	Cowpea		35 (6.67)
	Tomato		20 (3.77)
	Groundnut	625.65 (95.03)	100 (18.86)
2	Rabi		
	Paddy		60 (11.32)
	Sunflower		5 (0.95)
	Horse gram		45 (8.50)
	Ground nut		100 (18.86)
3	Tree crops		60 (11.32)
	Total	658.40	530

Source: Secondary Data

3.1.15 Average Yield in the Principal Crops:

The Average yield of the principal crops in the village in the year 2019-20 are Paddy crop yields are 30 quintals/ acre and Ground nut crop yields are 6.96 , Red gram yields are 4, Cowpea 3, Horse gram 3 and Tomato crops yields are 25-30 quintals per acre. The details can be observed from the Table No.3.12.

3.1.16 Average value of input factors:

Cost of inputs has a bearing on profitability of the crops. Cost of cultivation has increase ones time due to rise in the value of inputs. The labour prevailing wage rates of male in Rs. 450/- per day depending on activities, for females it was Rs. 350/- per day. So, tractor charges were found to be Rs. 1,000 per hour on an average.   The prevailing land rent in the village was found

to be Rainfed area in Rs. 2,000 and irrigated area rent in Rs.1,000. The details can be viewed from the Table 3.13.

Table 3.12: Average yield of principal crops in the D.Abbavaram village

(Qtls./acre)

S.No	Crop	2017-18	2018-19	2019-20
1	Paddy	20-22 quintals	20-22 quintals	30 quintals
2	Ground nut	6 quintals	7 quintals	6.96 quintals
3	Red gram	5 quintals	4.5-5.0 quintals	4 quintals
4	cowpea	2.5-3 quintals	2-3 quintals	3 quintals
5	Hours gram	2.0-3.0 quintals	2.5-3.0 quintals	3 quintals
6	tomato	25-30 quintals	25 quintals	25-30 quintals

Source: Secondary Data

Table 3.13: Average value of input factors in the D.Abbavaram village

S.No	Inputs	Rate
1	Labour charges	
	Male	450Rs
	Female	350Rs
2	Tractors charges (Rs/hour)	1000Rs
3	Land rent (Rs/Acre)	Rain fed – 2000 Bore well – 10,000

Source: Secondary Data

3.1.17 Census of implements and machinery-Agricultural implements and machinery in the village:

This village is completely Rain shadow village and this village farmers are mostly Marginal and Small farmers. Very lesser number of farmers is large farmers. Agricultural implements are used in very less percentage. 17 members are used in Tractors, 19 are used in cultivators, 12 are used in millers, 17 are used in 9 Blades (Madakalu)and 5 Blades (madakalu) are used in 2 household categories. Farmers are used in very small implements are used. The details can be observed from the table 3.14.

Table 3.14: Census of implements and machinery in the D.Abbavaram village

S.No	Machinery	No.
1	Tractors	17
2	Cultivators	19
3	Harvester	0
4	Millers	12
5	9 Blades	17
6	5 Blades	2

Source: Secondary Data

3.1.18 Lives stock resources – Live stock in the village:

The only livestock enterprise found in the village was dairy. Out of total 1715 livestock resources in the village are 87.46 per cent are sheep's, 7.59 per cent are buffaloes, 3.79 per cent are cows, 0.88 per cent are goats and very negligible percentage 0.29 are ox . The details can be viewed from Table 3.15.

Table 3.15: Livestock resources in the D.Abbavaram village

S.No	Livestock Resource	No's
1	No of cows	65 (3.79)
2	No of buffalos	130 (7.58)
3	No of goats	15 (0.88)
4	No of sheep's	1500 (87.46)
5	Ox	5 (0.29)
	Total	1715

Source: Secondary Data

3.1.19 Other Institutions in the Village:

There is no cooperative society in the village. One milk collections centre and two government departments are there. The details can be observed form the Table 3.16.

Table 3.16: Other institutions in the D.Abbavaram village

S.No	Other Institutions	No
1	Co-operative society (yes/No)	-
2	Agricultural Co-operative society	-
3	Milk collection centres	1
4	Govt. departments	2
5	Godown	-
6	Cold storage	-

Source: Secondary Data

3.1.20 Panchayat Income expenditure 2019-20:

The panchayat has 10 wards and SC elected wards are back ward castes elected in others are elected in the wards. Who has elected in PanchayatSarpanchSmt. P.Prabhavathamma and she belongs to Scheduled castes category women. This panchayat own income in Rs. 68,500, income from government grants 10,76,409 and panchayat expenditure is Rs. 9,68,769. The details can be viewed from the Table 3.17.

Table 3.17: Panchayat Income and Expenditure in the Abbavaram village

S.No	Other Institutions	Income/Expenditure
1	Panchayat (yes/no)	yes
2	If no name of the village panchayat to which it is attached	-
3	Income by own means	68,500
4	Income by government grants	10,76,409
5	Panchayat expenditure	9,68,769

Source: Secondary Data

3.2 Village infrastructure:

3.2.1 Market:

No sub market yard in the village there are small general shops and nearest sub yard are 5 km in the village. The details can be observed from Table 3.18.

Table 3.18: Market information in the D.Abbavaram village

S.No	Market Information	Distance
1	Sub yard	No
2	If no than distance of the nearest sub yard (KM)	5km
3	Purchase centers (yes/no)	No
4	If no than distance of the nearest purchase (KM)	5km

Source: Secondary Data

3.2.2 Health facilities:

There is no primary health centre in the village. There are 3 Aasha workers and 1 ANM in the Gram Sachivalayam. The nearest PHC is 14 km from the village. Covid tests and Vaccination are available in the village Sachivalayam. The details can be observed from the Table 3.19.

Table 3.19: Medical institutions in the D.Abbavaram village

S.No	Medical Institutions	Distance
1	PHC	No
	If no than distance of the nearest PHC (KM)	14km
2	Sub center	Near Sachivalayam (0km)

Source: Secondary Data

3.2.3 Post Office:

There is a Post Office in the village. It is mainly sub-post office, all the postal services like delivery of mails, parcels, money orders, postal insurances and retail services are available. There is no police station and nearest police station in Rayachoti is nearly 5 km from the village. The details can be viewed from the Table 3.20.

Table 3.20: Social and other originations in the D.Abbavaram village

S.No	Social and Other Organizations	Yes/No
1	Police station	No
	If no then distance of nearest police station	5km
	nearest police station	Rayachoty(U)
2	Library / reading room	No
3	Sport stadium	No
4	Cultural Centre	No
5	Old age homes	No
6	Post office	1

Source: Secondary Data

3.2.4 Drinking water:

`   The D.Abbavaram village main source of drinking water MPDS scheme in 2 habitations DP scheme in 4 habitations all the villages are total 17 hand pumps and total 10 motors in the village for drinking water purpose. The details can be observed form the Table 3.21.

Table 3.21: Drinking water in the D.Abbavaram village

S.No	Main source of Drinking water	No. of Habitations
1	MPWS Scheme	2 habitations
2	DP Scheme	4 habitations
3	Total Motors in village	10
4	Total hand pumps in village	17
	a. Portable hand pumps	5
	b. Non portable hand pumps	12

Source: Secondary Data

3.2.5 Connectivity and Transport:

The village 'D.Abbavaram" has situated in the main road. The public service is available in with in the village. The nearest railway station is Kadapa in 55 km from D.Abbavaram village. Besides 60 per cent of the households own scooters/ motor bikes. There are four families are cars. The details can be observed from the Table 3.22.

Table 3.22: Connectivity and Transportation status of the Village

S.No	Items	No
1	Is the village situated on the main road (Yes/No)	Yes
2	If no then distance of main road from village (KM)	-
3	Link road to the village	-
4	Length of the link road (KM)	-
5	Bus service	Yes
6	Distance of the nearest but stand/stop (KM)	0 km
7	If no then name of the nearest bus stand/stop	-
8	Railway station (Yes/No)	No
9	If no then distance of the nearest railway station (KM)	55 km
10	If no then name of the nearest railway station	Kadapa
11	Is there telephone service/internet	Yes
12	Post office	Yes

Source: Secondary Data

CHAPTER - IV

SOCIAL DYNAMICS

The Household characteristics and Economic conditions of the sample Households are presented in this chapter.

4.1 Basic Profile of sample Household

Out of the total sample of 455 Households, 49.87 per cent are males and 50.13 per cent are females. On an average the average family size of a family is reported to be 3.50. Of the total sample of 455 households 50.55 per cent are non-farm households and 49.45 per cent are farm households. Out of 230 non-farm households 50.78 per cent are males and 49.22 per cent are females. On the other hand of the total 225 farm households 49.03 per cent are males and 50.97 per cent are females. Moreover the average size of the family of non-farm households is reported to be 3.32 while the average size of households is 3.69. Out of 230 non-farm households 1.35 per cent are reported to be earners while the number of earners including pensioners is reported to be 1.76. On the other hand out of 225 farm households 1.51 per cent is reported to be earners. While the number of earners including pensioners is reported to be 1.82. Out of the total number of 455 households 14.89 per cent have reported to be joint families while 85.10 per cent of the households have reported as nuclear families. Observing across the groups that are farm and non-farm households, the majority of the per cent from both categories reported as nuclear families. All these details are presented in Table 4.1.

Table 4.1 Basic profile of sample households

Particulars	Units	Non-Farm	Farm	Total
Number if Household	Number	230(50.55%)	225(49.45%)	455
Male	%	50.78	49.03	49.87
Female	%	49.22	50.97	50.13
Average family Size	Number	3.32	3.69	3.50
Number of earners	%	1.35	1.51	1.43
Number of earners(including pensioners)	%	1.76	1.82	1.79
Joint	%	11.57	18.22	14.89
Nuclear	%	88.43	81.78	85.10

Source: Primary Data

4.2 Distribution of Households according to Head of the family

The average age of the head of the family is reported to be 58.34. Across the groups the Average age is reported to be 56.6 in case of non-farm households while 60.06 in cases of farm households. Out of the total number of 455 households 47.58 per cent are from General category 31.47 per cent from OBC and 20.95 per cent are from SC category. Observing across the groups out of total 230 non-farm households 45.50 per cent are from General category 34.94 per cent from OBC category and 19.55 percent are from SC category. On the other hand out of total 225 farm households 50.67 per cent are from general category 28 per cent are from OBC and 21.3 per cent have reported from SC category.

Table 4.2 Distribution of Households according to social parameters of head of the Family

Sl.No	Particulars	Non-Farm(n=230)	Farm(n=225)	Total(n=455)
1	Average Age(Years)	56.66	60.06	58.34
2	Sex			
a	Male	84.52	80.89	82.70
b	Female	15.48	19.11	17.30
3	Caste			
A	Gen	45.50	50.67	47.58
B	OBC	34.95	28.00	31.47
C	SC	19.55	21.33	20.95
4	Religion			
A	Hindu	95.25	99.12	97.18
B	Christian			
C	Muslim	4.75	0.88	2.81
5	Type of Family			
A	Joint	11.57	18.22	14.89
B	Nuclear/Unitary	88.43	81.78	85.10
6	Occupation			
A	Primary			
i	Cultivator		75.86	30.35
ii	Salaried Government	7.76	0.34	4.05
iii	Salaried Private	11.42	0.34	5.88
iv	Pension	25.50	23.46	24.48
V	Caste Based Profession			
Vi	Trade & Business			
Vii	Casual Labour	55.32		27.66
Viii	Marginal work			
Ix	Household work			
B	Secondary			
i	Agricultural Labour		61.01	25.50
ii	Livestock(dairying)			
iii	Salaried Government			
iv	Salaried Private	1.15		0.58
V	Casual Labour	5.60	2.16	3.88
Vi	Marginal Work			

Source: Primary Data

Out of the total number of 455 households 97.18 per cent are Hindu's and 2.8 per cent are Muslims. Glancing across the groups, out of total non-farm 230 households 95.25 per cent are

Hindu's and 4.75 per cent are reported as Muslims. Moreover out of 225 farm Households 99.12 per cent are Hindu's and 0.88 per cent are Muslims.

Out of total number 455 households 30.35 per cent are cultivators 41.05 per cent reported salaried Government employees, 5.88 per cent are salaried private employees 24.48 per cent are pensioners 27.66 per cent are casual labourers 25.50 per cent have reported to be agricultural labourers 0.58 per cent have reported salaried private employees of secondary occupation and 3.88 per cent have reported to be casual labourers from secondary occupation. All the above details including non-farm and farm head of the households are presented in Table 4.2.

4.3 Distribution of households according to family size

The details of distribution of farm and non-farm households according to family size. The members in different family sizes varied from 5 in case of 8 number family size to 106 in case of 2 number family size. The variations of members across different family sizes with respective non-farm and farm categories can be observed from the Table 4.3.

Table 4.3 Distribution of Households according to family size

Family size	Non-Farm		Farm		Total	
	No	%	No	%	No	%
1	15	6.52	20	8.89	35	7.69
2	55	23.91	51	22.67	106	23.30
3	40	17.39	31	13.78	71	15.60
4	51	22.17	49	21.78	100	21.98
5	35	15.22	41	18.22	76	16.70
6	20	8.70	19	8.44	39	8.57
7	10	4.35	13	5.78	23	5.05
8	4	1.74	1	0.44	5	1.10
Total	230		225		455	

Source: Primary Data

4.4 Gender wise Distribution of household members:

Out of the total number of 1594 household members 49.87 per cent are males and 50.13 per cent are females. Glancing across the groups out of 764 non-farm household members, 50.78 per cent are males and 49.22 per cent are females. On the other hand, out of the total 830 farm household members 49.03 per cent are males and 50.97 per cent are females. The details can be observed from Table 4.4.

Table 4.4 Gender-wise distribution of household members

Family size	Non-farm		Farm		Total	
	No	%	No	%	No	%
Male	388	50.78	407	49.03	795	49.87
Female	376	49.22	423	50.97	799	50.13
Total	764		830		1594	

Source: Primary Data

4.5 Age and Gender distribution of the population:

Age is an important parameter affecting working/earning population, income and expenditure pattern of the household, composition of consumption basket etc., (Table 4.5). It was observed that in the surveyed households about 70 per cent are working category i.e., either the younger group (28.81%) middle group (37.06%) and children (up to 15 years) were comprising 13 percent of the total population. While 25 percent of the total population was above 55 years of age. More males were in the younger group (30.40 %) and more females were middle aged (37.06%). In farming households, the proportion of younger age group (21.78 %), middle group (37.81 %) and children (Up to 15 years) comprised 12 per cent of the total population. In the farming category the above age group 56 and above is 28.90 percent in this category of households. Thus it can be observed that farming households were having more senior members and fewer children while younger age groups and middle aged members were higher in the non-farm population.

Table 4.5 Age and Gender distribution of the population

Age Groups	Non-Farm			Farm			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-10	20	25	45	32	28	60	52	53	105
11-15	14	24	38	12	23	35	26	47	73
16-30	118	100	217	91	90	181	209	190	398
31-55	132	139	271	144	170	314	276	309	585
56 & Above	104	88	192	128	112	240	232	200	432
Total	388	376	764	407	423	830	795	799	1594
Percentages									
0-10	5.20	6.59	5.88	7.80	6.65	7.21	6.53	6.62	6.57
11-15	3.60	6.35	4.95	3.06	5.42	4.26	3.33	5.85	4.60
16-30	30.40	26.47	28.47	22.28	21.32	21.79	26.25	23.73	24.98
31-55	34.00	37.06	35.51	35.38	40.18	37.83	34.70	38.72	36.72
56 & Above	26.80	23.53	25.19	31.48	26.43	28.91	29.19	25.08	27.13
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Primary Data

4.6 Livelihood scenario of individual family members and employment availability in the sample households:

Livelihood of individual family members is important to know the income flow of the family. If the entire family is engaged in cultivation of crops then income will be occurring at few points of time in a year but if some members are taking some subsidiary occupation or non-farm activity, income flow will be more regular, having an impact on the financial condition of the family especially in terms of dependency on borrowed funds. Distribution of household members on the basis of livelihood shows that overall household work being undertaken by women folk's was predominant indicating 22.94 per cent of the sample members were doing dairying, about 22.34 per cent are cultivators 2.03 per cent are casual labourers and around 31 per cent are casual labourers of the sample farmers.

In the farm households 42.18 per cent of the family members were engaged in cultivation of crops followed by 2.03 per cent are agricultural labourers and 15.28 per cent are dairying and 24.23 per cent are casual labour.

 In the non-farm households 26.31 per cent are agricultural labour 31.57 per cent are dairying and 42.10 per cent are casual labour in the household members on the basis of livelihood. The details can be viewed from Table 4.6.

Table 4.6 Distribution of household members on the basis of livelihood

Livelihood	Non-Farm			Farm			Total		
	No	%	No of days of Employment	No	%	Avg .No. of days of Employment	No	%	No of days of Employment
Cultivator				225	42.18	156.62	225	22.34	85.62
Agricultural Labour	125	26.31	150.42	117	22.03	80.29	242	24.03	115.35
Dairying	150	31.57	225	81	15.28	78.36	231	22.94	151.68
Salaried Government									
Salaried Private									
Pensioner									
Casual Labour	200	42.10	165.55	109		71.29	309	30.68	118.42

Source: Primary Data

Figure -4
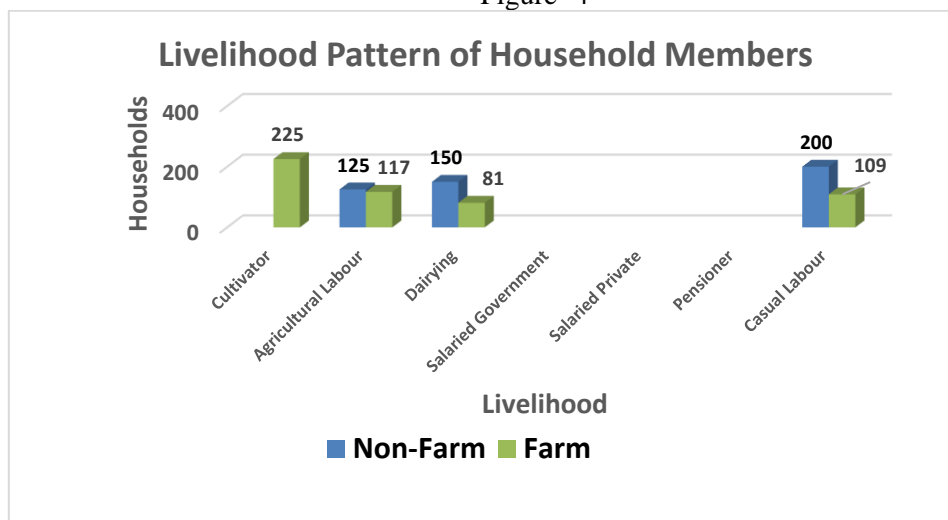
4.7 Average Number of births and deaths 2015-20:

Out of the total number of Births of members 59 reported sample households 54.23 per cent are males and 45.77 per cent are females. Across the groups out of 36 reported births from non-farm households 55.56 per cent are male and 44.44 per cent are females. On the other hand, out of 23 reported births of farm Households 52.17 per cent are males and 47.83 per cent are females.

On the other hand, out of the total number of reported deaths 44.44 per cent reported as males 55.56 per cent females. Across the groups out of 15 deaths from non-farm households 46.67 per cent are males and 53.33 per cent are females. Moreover, out of 21 deaths reported by farm households 42.85 per cent are males and 57.15 per cent are females. The details can be viewed in table no.4.7.

Table 4.7 Average Number of Birth and deaths in sampled households during 2015-20

Particulars	Non-Farm	Farm	Total
Births			
Male	20(55.56)	12 (52.17)	32 (54.23)
Female	16 (44.44)	11 (47.83)	27 (45.77)
Total	36	23	59
Deaths			
Male	7(46.67)	9(42.85)	16(44.44)
Female	8(53.33)	12 (57.15)	20 (55.56)
Total	15	21	36

Source: Primary Data, Figures in brackets are the percentages

4.8 Marital status of the sampled households

Marriage is a sort of universal phenomenon and India is no exception to this custom. The marital status has implications on various other socio-economic parameters like family size, income expenditure, size of holding etc. Distribution of surveyed households as per the marital status of the family members has been shown in table 4.8. Overall 79.56 per cent of sampled population in the village was found to be married. The proportion of 83.12 per cent are farm families and 76.08 per cent are non-farm ones. On the whole, about 42 per cent were unmarried in the sample, with a large chunk of non-farm households 13.04 per cent of family members in the study were widow/widowers.

Table 4.8 Distribution of household members on the basis of marital status

Marital status	Non-Farm	Farm	Total
Married	175 (76.08)	187(83.12)	362 (79.56)
Un-married	25 (10.86)	17(7.56)	42(9.23)
Widowed/Widower	30 (13.04)	21 (9.34)	51 (11.20)
Separated/Divorced			
Total	230	225	455

Source: Primary Data, Figures in brackets are the percentages

4.9 Distribution of Household Members on the basis of education level

The distribution of member of the household according to educational standard by size groups of operational holding and literates among the total households. Out of the total 455 households constituting 61% are Illiterates in the village remains 31 per cent are literates. Out of the total 7.69 per cent are primary standard 9.89 percent are secondary standard 3.96 percent are Intermediate level 1.32 percent are technical and professional persons and minor children are 11.65 percent in the total household category.

In the non-farm category total 230 households in the group among 56.96 per cent are illiterates and 65.33 per cent are illiterates in the farm group category. The details can be viewed from the table 4.9.

Table 4.9 Distribution of Household members on the basis of education level

Family size	Non-farm		Farm		Total	
	No	%	No	%	No	%
Illiterate	131	56.96	147	65.33	278	61.10
Primary	25	10.86	10	4.44	35	7.69
Secondary	20	8.69	25	11.11	45	9.89
Intermediate	10	4.35	8	3.56	18	3.96
Technical	5	2.18	1	0.44	6	1.32
Graduate	5	2.18	9	4.00	14	3.08
Professional	4	1.74	2	0.89	6	1.32
Minor Children	30	13.04	23	10.22	53	11.65
Total	230		225		455	

Source: Primary Data

Figure -5

Education level of Household members
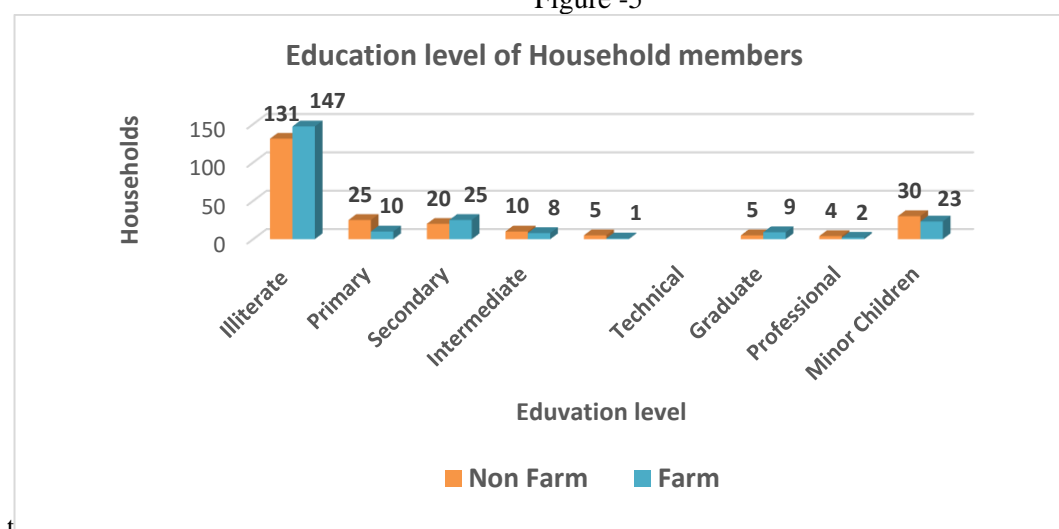
4.10 Socio Economic Status of Sample households:

Socio-economic status of the households is highlighted by the beneficiaries of government schemes as well as having access to modern amenities of life. Of the total 455 households 89.01 per cent are BPL card holders and 82.42 per cent are MGNREGA card holders and 48.13 per cent are KCC card holders in this category. Electricity has become the basic energy source and the majority of the modern amenities are run with electric power. All the sampled households both the farm and non-farm were having legal (metered) electrical connections. There is 100 percent electrification in the village.

These days development is determined by financial institutions and they have become a major aspect. Many government assistance schemes in terms of cash transfers like old age pension, widow

pension and disabled pensioners are accessed by having a bank account. In the survey 100 per cent of the households were having access to banking with accounts.

Functional sanitary toilets are used 100 percent. Mobile phones especially smartphones have become the main channel of communication due to easy accessibility with landline telephone connections losing their charm due to ease, all time connectivity and various useful applications attached to these. This has become a status symbol in recent times. Availability of smart phones in the surveyed households has shown that it was more than 100 per cent in each household i.e., each family was possessing more than one smartphone on an average. Government taps and Groundwater (Motors) are the main sources of drinking water. About 85.71 percent of the tap water is the main source of drinking water and ground water accounted for 14.29 per cent.

Besides having health and economic aspects, the source of cooking fuel can also be an indicator of the social standing of a family. It was found that 98.91 per cent of the sampled households are having LPG connections for cooking purposes while only 5 farm families were using other fuels i.e., kerosene and fire wood. House where we live is a status symbol, the type of dwelling houses; amenities and expenditure incurred in the maintenance of the residential houses decide the economic condition of a person.   Out of the 455 households, 432(94.94%) are permanent houses and 23(5.06%) are Temporary Houses with thatched and asbestos sheets. Of the total households in the roofing type, 89.90 per cent are concrete and 3.07 percent are thatched roof and 7.03 per cent are asbestos sheeted roof houses.

Having access to medical facilities is a major development indicator for any region or state. This can be made from government or private hospitals. The government medical assistance is subsidized, but private hospital provides expensive care. About 89.67 per cent of the surveyed households were found to be availing government medical consultancy, while the rest were depending on private medical practitioners. This access of non-farming families was more to private medical consultants indicating their economic status and affordability compared to farm households where 99.11 per cent depended upon medical consultation of government run dispensaries in the village. Social status of a family is enhanced by having membership of any village or social organization of a family member, besides adding to the representation of that category in the organization. But the sampled households have shown poor interest in this aspect. Only 1.92 per cent of these were having membership, one farm member is the Sarpanch of the village panchayat and 2

non-farm members and 7 farm members are panchayat members of the village. In the village 65.49 per cent are Self-help group members of the total household categories. The details can be observed from the table 4.10.

Table 4.10 Socio-economic status of sample households

Particulars	Non-Farm		Farm		Total	
	Number	%	Number	%	Number	%
PDS Car type BPL						
Yes	210	91.30	195	86.67	405	89.01
No	20	8.70	30	13.33	50	10.99
MGNREGA card holder						
Yes	190	82.61	185	82.23	375	82.42
No	40	17.39	40	17.77	80	17.58
KCC Holder						
Yes			219	97.33	219	48.13
No			6	2.67	6	1.32
Electricity connection	230	100	225	100	455	100
It is legal	230	100	225	100	455	100
Bank account						
Yes	230	100	225	100	455	100
No						
Sanitary toilet						
Yes	230	100	225	100	455	100
No						
If yes functional	230	100	225	100	455	100
Smart phone	296		277	123.11	573	
Source of Drinking water						
Government tap water	190	82.61	200	88.89	390	85.71
Ground water (motor)	40	17.39	52	11.11	65	14.29
Distance Travelled for drinking water						
LPG Gas connection						
Yes	230	100	220	97.78	450	98.91
No			5	2.22	5	1.09
Type of residence						
Permanent	210	91.31	222	98.67	432	94.94
Temporary	20	8.69	3	1.33	23	5.06
Roofing type						
Concrete	190	82.61	219	97.33	409	89.90
Thatched	10	4.35	4	1.78	14	3.07
Shed	30	13.04	2	0.89	32	7.03
Doctor consultation						
Government	185	80.43	223	99.11	408	89.67
Private	45	19.57	2	0.89	47	10.33
Membership						
Yes	150	65.22	148	65.748	298	65.49
No						
Membership name						
Gram Shaba						
Panchayat Member	2	0.87	7	70.00	9	1.92
Sarpanch			1	10.00	1	0.22

Source: Primary Data

4.11 Food security issues:

Access to food in terms of affordability as well as nutritional requirement in a timely manner is defined as Food security. Along with analysing the consumption expenditure levels, their responses to the food security challenges were also recorded for the sample Households. Based on the responses to the first two questions given by the Household, it is revealed that 100 per cent of the household do not seem to have faced food insecurity which is a phenomenon experienced usually by poor households. From Table 4.11, it is also observed that around 50 per cent of the households never or rarely visited the restaurants and had packed/processed food in excess quantities respectively.

Table 4.11 Food security Issues among sampled household s (percent)

Statements	Never	Rarely	Sometimes	Often
When a whole day and night without eating due to poverty?	100			
Went to sleep hungry due to inability to purchase food?	100			
Ever worried that the households would not have enough food?	100			
Ate some poor quality foods that you really did not liked?	35.33	45.12	19.5	
Were not able to eat the kind of food you preferred?	48.92	42.85	8.23	
Did you offered food to your neighbours and guests	0.00	85.59	14.41	
Went for outside eating in hotel/restaurant?	44.45	50.78	4.77	
Are you eating too milch packed food/purchased food like ice-cream, cold-drinks, etc.,	47.55	50.20	2.25	
Farm				
When a whole day and night without eating due to poverty?	100			
Went to sleep hungry due to inability to purchase food?	100			
Ever worried that the households would not have enough food?	55.12	41.77	3.11	
Ate some poor quality foods that you really did not liked?	39.12	44.88	16.00	
Were not able to eat the kind of food you preferred?	44.44	46.23	9.33	
Did you offered food to your neighbours and guests	48.84	45.78	5.34	
Went for outside eating in hotel/restaurant?	53.78	45.33	0.89	
Are you eating too much packed food/purchased food like ice-cream, cold-drinks, etc.,?	48.96	49.54	1.50	
Total				
When a whole day and night without eating due to poverty?	100			

Went to sleep hungry due to inability to purchase food?	100			
Ever worried that the households would not have enough food?	50.56	43.44	6.00	
Ate some poor quality foods that you really did not liked?	44.08	46.54	8.78	
Were not able to eat the kind of food you preferred?	44.44	49.55	6.01	
Did you offered food to your neighbours and guests	48.88	45.68	5.44	
Went for outside eating in hotel/restaurant?	49.11	48.05	2.83	
Are you eating too much packed food/purchased food like ice-cream, cold-drinks, etc.,?	48.25	49.88	1.87	

Source: Primary Data

4.12 Asset ownership of sampled households

In rural areas land is the basis of all agricultural production and even of allied activities and is the most important fixed asset. In terms of owned assets, land was commanding the maximum value. Ownership and transactions pertaining to land have been shown in Table 4.12. It was found that 443 households out of 455 surveyed ones owned the residences. The average housing area for non- farm came to be 13.55, but for farming category, it was 15.78, for the overall sample it came to 14.66. Thus, the average value of residential land and house was worked out to be Rs. 5.84 lakhs for non-farm category, Rs. 5.94 lakhs from farm category and 5.35 lakh for overall sampled households. Out of 38 number of owned residential land the average number of residential land is 0.11 in non-farm category, 0.12 are farm category and 1.20 are overall residential category of the total households.

All the farm households as well as 225 farm households owned cultivable land. So average cultivable land holding of farm households were 1.00 acres. But 225 households owned 549.96 acres in all. The average value of this land was Rs. 4.70 lakhs for farm category and overall average category was Rs.2.35 lakhs for cultivable land.

Table 4.12 Land ownership of sampled households

Type of Land	Owned		Area		Average Value
	Number	Average Number	Total	Average	(Rs.Lakhs)
Non-Farm					
Residential Land	10	0.11	1.95	0.01	2.85
Residential House*	220	1.00	13.55	0.05	2.99
Cultivable Land#	-	-	-	-	-
Farm					
Residential Land	28	0.12	2.85	0.013	2.92
Residential House*	223	0.99	15.78	0.07	3.02
Cultivable Land#	225	1.00	549.96	244	4.70
Total					
Residential Land	38	0.11	2.4	0.01	2.88
Residential House*	443	0.99	14.66	0.06	3.00
Cultivable Land#	225	0.002	1.20	1.22	2.35

Source: Primary Data, # Area in Acres

4.13 Ownership of Assets other than land:

A survey has been conducted to know the percentage of Households owning various livestock and agricultural as well as non-agricultural assets. It is observed that 37.80 per cent of the households have milch cattle and 4.84 percent are young stock. Responses relating to agricultural assets show merely 27 percent of the household had work cattle, 4.84 per cent had tractors and 1.54 per cent had bullock carts and around 1 percent had water pump. Usage of work cattle was also not very extensive. Thus, overall usages of tractors and other modern implements used for major agricultural activities were comparatively lower. Responses relating to non–agricultural assets highlight the importance of television sets and two wheeler vehicles, refrigerator & washing machines and LPG sets. It is observed that the majority of households around 90 percent owned television sets and LPG sets and 50 percent owned two wheelers and Refrigerators and washing machines. However it is observed that 97.80 percent have Jewellery and 2.64 percent have computers and around 2 percent have air conditioners in the sampled household's category. The details can be observed from Table 4.13.

Table 4.13 Ownership of Assets other than land

Owner ship of Assets	Non-Farm			Farm			Total		
	Number	Per farm	Average Value	Number	Per farm	Average Value	Number	Per farm	Average Value
Milch cattle	50(21.74)	0.21	16050	122(54.22)	0.54	22025	172(37.80)	0.37	19037
Young stock	10(4.35)	0.04	2350	12(5.33)	0.05	2708	22(4.84)	0.04	2529
Sheep/Goat/Pig				156(69.34)	0.69	13365	156(34.29)	0.34	6682
Poultry/Pig				71(31.56)	0.32	668	71(15.60)	0.15	550
Working cattle	2(4.35)			29(12.89)	0.13	21552	29(6.81)	0.06	19552
Tractor				7(7.31)	0.03	289286	7(1.54)	0.01	144643
Bullock Cart				2(0.89)	0.01	30000	2(0.44)	0.004	14500
Cultivators									
Water pump				3(1.33)	0.01	13333	3(0.66)	0.006	65667
Sprayers									
Bicycle	60(26.09	0.26	2550	7(3.11)	0.03	2914	67(14.73)	0.14	2732
Rickshaw/Auto	25(10.87)	0.10	96800	7(3.11)	0.03	140000	32(7.03)	0.07	118400
Two wheeler	125(54.35)	0.54	63450	111(49.33)	0.49	57820	236(51.87)	0.51	60635
Four Wheeler	16(6.96)	0.02	175000	4(1.78)	0.02	260000	10(4.40)	0.02	217500
Other vehicle (truck)									
Sewing machine	15(6.52)	0.06	4450	3(1.33)	0.01	5000	18(3.96)	0.03	4725
Radio	3(1.30)	0.01	800	10(4.35)			3(0.66)	0.006	450
TV	220(95.65)	0.95	12350	190(84.44)	0.854	14911	410(90.11)	0.90	13630
Computer	10(4.35)	0.04	23060	2(0.89)	0.01	15000	12(2.64)	0.02	19030
Refrigerator& Washing machine	85(36.96)	0.36	21050	145(64.44)	0.64	18083	230(50.55)	0.50	19566
LPG set	224(97.39)	0.97	4010	214(95.11)	0.95	4010	438(96.36)	0.96	4010
Ac machine	5(2.17)	0.02	19450	4(1.78)	0.02	20000	9(1.98)	0.019	19725
Jewellery	225(97.83)	0.97	63675	220(97.78)	0.97	58628	445(97.80)	0.97	61151

Source: Primary Data, Figures in brackets are the percentages

Figure -6
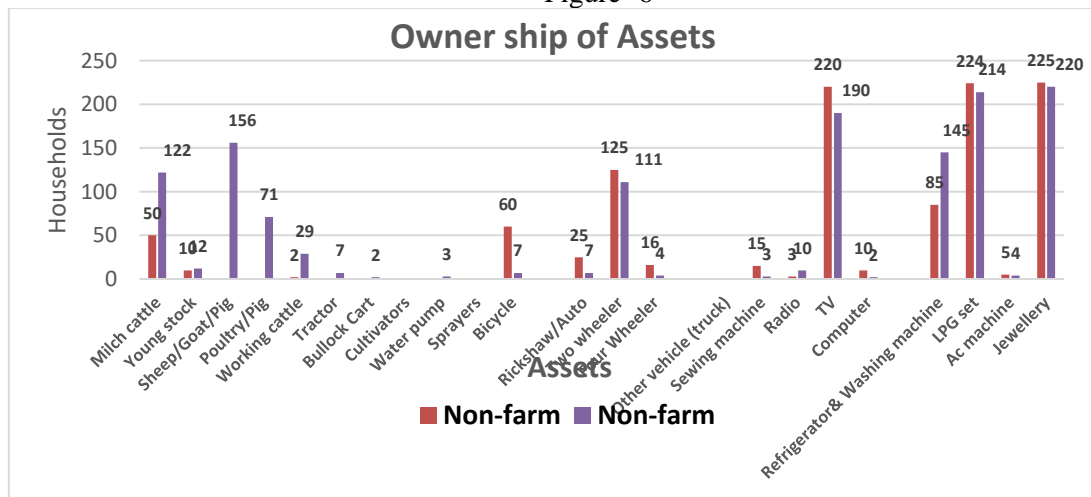
4.14 Income source of sampled households:

The standard of living is based on income of the households. It is a basic parameter reflecting the consumption/expenditure pattern thus having implications on various aspects like health, education, investment, borrowings etc. The average annual income of sampled households in 2019-20 has been given in Table 4.14.

It is observed that on an average 12.67 percent is the total income from crop farming activity in the total 455 households surveyed. 13.73 percent are from livestock rearing, 9.62 percent income from land rent, 26.67 percent from service /salary, 23.20 percent from wage earning, 2.54 percent from business/trade and 11.57 percent from government relief pension. On an average per capita income was around Rs. 17920 and households derive Rs. 1.6 lakhs as average annual income.

Total farming households were getting 24.44 percent of their income from agriculture and allied activities with 8.79 percent from livestock rearing. In case of farm income sources, Income from land rent is 18.56 percent, salaried working people income is 16.03 percent and wage earning percentage is 19.47. Business/ Trade is 19.46 percent and Government relief pensions 11.45 percent. Average Household derives Rs.1.75 lakhs as average annual income and the per capita income was around Rs.17995. Whereas in total Non-farm households were having 31.00 percent livestock rearing, the major source of income was 38.11 percent in Service/Salary and 27.23 percent is from wage earning, 3.91 percent from Business/trade and 11.39 percent from government relief pension. Average household income derived Rs. 1.6 lakhs as average annual income and the per capita income was around Rs. 17828.

During the 1970 survey, information about the per household income in 1969-70 in Abbavaram village came to be Rs. 660.66. Among the different castes it is in the range of Rs.290 to Rs.1175. The gandla caste received Rs.1175 and Mangali received Rs.290 Harijans, Kummari, Mangali, Rajulu, Reddy and Vaddi castes had less than Rs.500 per household as income in 1969-70. The per capita income in the village is Rs.126.76. It is in the range of Rs.580 to Rs. 40. The single person castes like pinchikuntla and Rajulu have Rs. 580 and Rs.480 as their per capita income. Next in order comes Gandla (Rs.239), Christian (Rs.228) and Thogata (Rs.201) castes as having higher per capita incomes. The other castes have less than Rs. 200 each as per capita

income. A comparison of incomes earned in 1970 and in 2019-20 was not possible as the exact methodology used for calculating farm as well as non-farm income was not available.

Table 4.14 Average annual net income of sampled households

(In Rs.)

Items	Non-Farm		Farm		Total	
	Rs.	% of total	Rs.	% of total	Rs.	% of total
Farming activity						
Crop farming			42807	24.44	21403	12.67
Livestock rearing	31000	19.05	15400	8.79	23200	13.73
Sub-Total (farming)	31000	19.05	58207	33.23	44603	26.39
Off-farm activity						
Income from land rent			32522	18.56	16261	9.62
Service/Salary	62050	38.11	28071	16.03	45060	26.67
Wage-earning	44340	27.23	34071	19.46	39205	23.20
Business/Trade	6350	3.91	2222	1.27	4286	2.54
Govt. Relief/pension						
Sub-Total (Non-farming)	19040	11.69	20062	11.45	19551	11.57
Total	162780		175155		168966	
Per capita net income	17828		17995		17920	

Source: Primary Data

Figure -7
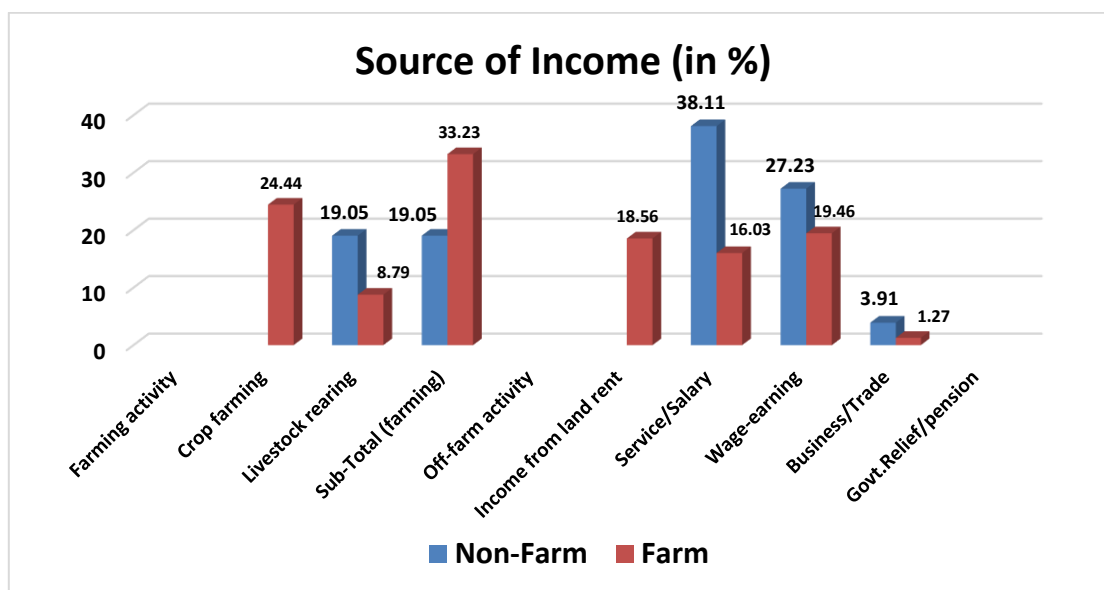
4.15 Expenditure pattern of the sample households:

Act of spending money that has been earned through income is expenditure; the expenditure incurring activity is the outcome of the income earning activity. The analysis of household expenditure showed that 52.45 percent of it was on food items, while 47.55 per cent was on non-food

items. For farm families it was 50.02 percent on food whereas for non-farm households it was 54.26 percent.

The average annual household expenditure of farm households was Rs.58220. While in the non-farm it was Rs. 65385 and for the overall sample, it was Rs.61799. In both farm and non- farm households, the proportion spent on staple foods was the same but it was higher for fruits/vegetables, medical expenses in farming households than non-farm households. The money spent on non-vegetarian food items along with the milk, processed foods, Education and clothes was higher in non-farm households compared to farming households.   The details can be observed from Table 4.15.

Table 4.15 Average Annual Expenditure of sample households

Items	Non-Farm		Farm		Total	
	Rs	% of total	Rs	% of total	Rs	% of total
Staple foods	13603	20.80	11493	19.74	12548	20.30
Milk/Egg/Fish/Chicken	6604	10.10	5264	9.04	5934	9.60
Fruits/Vegetables	3753	5.74	4675	8.03	4214	6.82
Processed foods(sweet/snacks/drinks)	4567	6.98	3258	5.60	3912	6.33
Fuels charges (LPG/Coal etc)	6793	10.39	4578	7.86	5685	9.20
Others (food related)	155	0.24	89	0.15	122	0.20
Sub-total (food)	35475	54.26	29357	50.42	32415	52.45
Clothes	6475	9.90	5258	9.03	5866	9.49
Education	8350	12.77	6593	11.32	7471	12.09
Medical expenses	3250	4.97	5743	9.86	4496	7.28
Family Festival	4305	6.58	5391	9.26	4848	7.84
Electricity, phone, DTH expenses	5430	8.30	4822	8.28	5126	8.29
Cycle/Bike/Tractor/etc	1650	2.52	733	1.26	1191	1.93
furniture						
Other purchase	450	0.69	323	0.55	386	0.62
Sub-total (non-food)	29910	45.74	28863	49.58	29384	47.55
Total expenditure	65385		58220		61799	

Source: Primary Data

Figure -8

Item-Wise Expenditure

Legend: ■ Non-Farm ■ Farm

Values shown (Non-Farm, Farm):
Staple foods 20.8, 19.74; Milk/Egg/Fish/Chicken 10.1, 9.04; Fruits/Vegetales 5.74, 8.03; Processed... 6.98, 5.6; Fuels charges (LPG/Coal etc) 10.39, 7.86; Others (food related) 0.24, 0.15; Sub-total (food) 54.26, 50.42; Clothes 9.9, 9.03; Education 12.77, 11.32; Medical expenses 4.97, 9.86; Family Festival 6.58, 9.26; Electricity, phone, DTH expenses 8.3, 8.28; Cycle/Bike/Tractor/etc 2.52, 1.26; furniture; Other purchase 0.69, 0.55

4.16 Savings of sample households:

Savings is the money one has saved, especially through a bank or investment plan. The difference between the income and the expenditure resulted in savings of the households. About 93.84 percent of the Total household, 93.91 percent of non-farm households and 93.78 percent of farm households reported having savings. Of the total savings 70.32 percent are savings bank, 25.72 percent are post office savings and 3.96 percent are LICs. Besides these Farming households were keeping all their savings i.e., Rs. 4171 per household in the banks , post office Rs.2222 and Rs. 185 savings from LIC premium . In the nonfarm group 82.34 per cent are savings bank, 11.70 per cent are post office and 5.96 percent are LICs. These details can be viewed from table 4.16.

Table 4.16: Savings of sampled households, 2019-20 (Rs./Household)

Source	Non-Farm	Farm	Total
Number of household reported savings	216(93.91%)	211(93.78%)	427(93.84%)
Savings in Bank	3109(82.34)	4171(63.40)	3640(70.32)
Post Office	442(11.70)	2222(33.78)	1332(25.72)
LIC	225 (5.96)	185(2.82)	205(3.96)
Total	3776	6578	5177

Source: Primary Data, Figures in brackets are percentages to total.

4.17 Borrowings of the sampled households:

Credit is the ability of a customer to obtain goods or services before payment, based on the trust that payment will be made in the future. Credit has become a must to adopt modern means of production in the agricultural field as the returns are low causing less savings. Savings earned without credit will take years to accumulate and invest. Also farmers are hesitant to invest equity capital on farms as there is high risk and uncertainty in the agriculture sector.

There is dependence on external sources of capital and borrowings in Farming. The non-farm families also indulge in borrowings to tide over the gap between income and expenditure. It was found that 153 surveyed households (69.54%) were borrowing from commercial banks i.e. 45 non-farm and 108 farm families. Cooperative society was the source of credit for 13 farm households (5.91%) was the source of credit for 12 non-farm and 1 farm households. Total 8 households (3.64%) availed in private banks i.e. 3 non-farm and 5 farm households.

Table 4.17 Borrowings of sampled households during last 5 years

Source	Non-Farm	Farm	Total
Number of Households Borrowed loan			
Commercial Bank	45(56.25)	108 (77.14)	153 (69.54)
Cooperative society	12 (15.00)	1 (0.72)	13 (5.91)
Other private bank	3 (3.75)	5 (3.57)	8 (3.64)
Trader/money lender/commission agents	20 (25.00)	26 (18.57)	46 (20.91)
Total	80	140	220
Annual borrowed (Rs/borrower)			
Commercial Bank	45411 (41.79)	87407 (36.88)	64710 (39.47)
Cooperative society	18350 (16.89)	40000 (16.88)	33342 (20.33)
Other private bank	16000 (16.73)	45000 (18.98)	32972 (20.12)
Trader/money lender/commission agents	28900 (26.59)	64615 (27.26)	32927 (20.08)
Total	108661	237022	163951
Purpose of loan			
Farming		110 (78.57)	110 (50.00)
Home loan	15 (18.75)	20 (14.28)	35 (15.91)
Personnel loan	35 (43.75)	7 (5.00)	42 (19.09)
Other loan	30 (37.50)	3 (2.15)	33 (15.00)
Total	80	140	220
Amount outstanding (Rs/borrower)			
Commercial Bank	35000 (43.61)	67074 (38.99)	53723 (40.51)
Cooperative society	13512 (16.83)	20000 (11.62)	18017 (13.58)
Other private bank	10350 (12.89)	33000 (19.19)	21675 (16.34)
Trader/money lender/commission agents	21409 (26.67)	51923 (30.18)	39214 (29.57)
Total	80271	171997	132629

Source: Primary Data, Figures in brackets are the percentage to borrowers

From non-institutional sources of credit like traders/money lenders/commission agents twenty one percent of the households borrowed, so the majority of households tapping institutional sources of finance. The average amount borrowed was worked out to be Rs. 163951 per borrower, with 39.47 percent share from commercial banks and 20.33 percent from cooperative societies. The amount borrowed from informal sources was to the extent of 20.08 per cent. So far the purpose of borrowing was concerned; a major chunk of credit was for farming i.e. crop loans (50%) mainly. About 15.91 percent of the borrowers availed home loans and also availed personal loans 19.09 percent mainly for study based migration of their wards. For investing in ongoing work or during emergencies like accidents also loans were taken by these households.

The amount outstanding of the borrowed funds was also high for commercial banks i.e. about 40.51 percent of the total outstanding amount, followed by 29.57 percent of non-institutional sources and 16.34 per cent of private sector banks.

Among the sampled household dominant sources of borrowing was found to be institutional sources of credit. The villagers depended less on traders or money lenders. Though the rate of interest was high people were also availing personal loans for other reasons apart from farming. It can be observed from Table 4.17.

4.18 Approach to any elected representative

In Democracy people have the authority to voice out their opinions. It is a form of government in which the people have the authority to deliberate and decide legislation and to approach them with their concerns. They can reach the elected members like Members of Parliament. Member of Legislative Assembly, Mandal Parishad, Zilla Parishad and Panchayat etc., the soundness of the system is judged by this approachability and transparent working.

Some of the households surveyed approached panchayat members, 2 per cent of the non-farm and 8 percent of the farm households reached out to the panchayat members mostly with their personal or family issues, this is about 2.19 per cent of the sampled households, 60 per cent have sought the help on two occasions. Only about 8 percent of these were fully satisfied with the solution provided by this institution, 2 per cent found to be partially satisfied, while 90 per cent were not satisfied at all. The details can be viewed from Table 4.18.

Table 4.18 Approach to any elected representatives

Particulars	Non-Farm		Farm		Total	
	Number	Percent	Number	Percent	Number	Percent
Ever approached any elected representatives						
Yes	2	0.87	8	3.56	10	2.19
No	228	99.13	217	96.44	445	97.81
Total	230	100.00	225	100.00	455	100.00
To whom						
Panchayat	2	100.00	8	100.00	10	100.00
How many times						
Once	1	50.00	3	37.50	4	40.00
Twice	1	50.00	5	62.50	6	60.00.
Total	2	100.00	8	100.00	10	100.00
Resolved satisfactorily						
Mostly	1	50.00	1	12.50	2	20.00
Some how	1	50.00	4	50.00	5	50.00
Not at all			3	37.50	3	30.00
Total	2	100.00	8	100.00	10	100.00

Source: Primary Data

CHAPTER – V
ECONOMIC SYSTEM

5.1 Category wise number and area of sample farmer households:

Out of the total number of 225 sample households 66.22% are marginal, 27.56% are small 4% are medium and 2.22% are large farmers. On the other hand the total area is operated to be 225.79ha. Across the groups the area ranged from 20.50 ha in case of large farmers to 95.84 ha in case of small farmers. Moreover, on an average the average size of holding is reported to be 1 ha and across the groups the average size of holdings varied from 0.57 ha in case of marginal farmers to 4.10 ha in case of large farmers. The details are presented in the following Table 5.1.

Table 5.1 Share of various category sample households' farms and of area under farms

Sl.No.	Land Size(ha) and category	Number of /farms	%	Area operated (Ha)	Average size of holdings (Ha)
1	Marginal	149	66.22	84.97	0.57
2	Small	62	27.56	95.84	1.55
3	Medium	9	4.00	24.48	2.72
4	Large	5	2.22	20.50	4.10
	Total	225	100	225.79	1.00

Source: Primary data

5.2 Category wise and holding size wise particulars of sample Households:

Out of the total 225 sample Households 51.12% are from general category 27.55% from OBC and 21.33% from SC category. Glancing across the size groups out of total 147 marginal farmers 37.41% are from general category, 32.65% from OBC and 29.93% nine reported from SC category. Moreover out of total number of 62 small farmers 72.58% are from general category, 22.58% have reported from OBC category and 4.84% have reported from SC category. On the other hand out of total number of 10 medium farmers 90% have reported as general category and 10% have reported from SC category. All the reported large farmers are from general category. These details can be observed from the Table 5.2.

Table 5.2 Category wise Land holding size wise particulars of Sample Households

	Marginal (No.) % in total	Small (No.) % in total	Medium (No.) % in total	Large (No.) % in total	Overall (No.) % in total
General	55	45	9	6	115 (51.12)
OBC	48	14			62 (27.55)
SC	44	3	1		48 (21.33)
Total	147	62	10	6	225
General	37.41	72.58	90.00	100	100
OBC	32.65	22.58			100
SC	29.93	4.84	10.00		100

Source: Primary data

5.3 Basic characteristics of sample farm households:

Out of the total area is 225.79 hectares, 41.70% of area reported to be irrigated. Across the groups the percentage of net area irrigated varied from 38.07% in case of medium farmers to 45.75% in case of small farmers. On an average the land man ratio is reported to be 0.27 ha. The details can be viewed from the Table 5.3.

Table 5.3 Basic characteristics of sample farm households

Land size Category	Average family size	Average operated are (Ha)	Land man ratio (Ha)	Net Irrigated area (%)	Area operated (Ha)
Marginal	3.66	0.57	0.16	38.28	84.97
Small	3.76	1.55	0.41	45.75	95.84
Medium	3.8	2.72	0.71	38.07	24.48
Large	2.8	4.10	1.46	41.50	20.50
Total	3.69	1.00	0.27	41.70	225.79

Source: Primary data

5.4 Cropping pattern of sample Households:

Out of total cropped area of 225.79 ha 41.70% of area is irrigated and 58.30% of area is under rainfed. Across the crops the percentages of total cropped area varied from 1.11% in case of Tomato crop to 45.42% in case of paddy crop. The details can be observed from the following Table 5.4.

Table 5.4 Cropping pattern of Sample Households

	Crops	Area irrigated %	Area Rainfed %	Total (Ha)	Percentage Distribution of total cropped area
A	Cereal Crops				
	Paddy	93.57	6.43	102.55	45.42
B	Pulses				
	Red Gram		100.00	30.61	13.56
	Bengal Gram		100.00	2.81	1.24
C	Oil Seeds				
	Groundnut	21.98	78.02	87.31	38.67
D	Vegetables				
	Tomato	100.00		2.51	1.11
E	Other Crops				
	Total	41.70	58.30	225.79	100.00

Source: Primary data

5.5 The Yield of Crops:

The yields of crops derived by sample Households are analyzed in this section. The crops grown by sample Households are paddy, red gram, Bengal gram, Groundnut. Irrigated and rainfed and Tomato. The yields are 55.99 qtls, 8.10 qtls, 2.12 qtls and 17.81 qtls irrigated 17.00 (rainfed) and 98.84 qtls Tomato per hectares, the details is presented in Table 5.5.

Table 5.5 Yield Crops of Sample Households

S.No.	Crops	Yield (Qtls./hectare)	
		Irrigated	Rainfed
1	Cereal Crops		
2	Paddy	55.99	
3	Pulses		
4	Red Gram		8.10
5	Bengal Gram		2.12
6	Oil Seeds		
7	Groundnut	17.81	17.00
8	Vegetables		
9	Tomato	98.84	

Source: Primary data

5.6 Perception of the Sample Households about the Profitability:

It is observed that in case of tomato crop 100 per cent of the produce was sold. 95.83 per cent of Bengal gram crop and 86.5 per cent of Ground nut crop was also sold. In case of other crops like paddy and redgram, the extent of produce sold was very low either due to demand for home consumption or due to loss incurred in the market.

It is observed that for crops paddy, Groundnut and tomato, percentage of Households reporting profitability of crops was higher in case of irrigated crops. Profitability of crop would depend on price given the costs and the yield realized. The details can be viewed from the table 5.6.

Table 5.6 Disposal of Major Farm Produce by Sample Households

Particulars	Crop Pattern (%)	% Produce sold	%HH reported profits	
Crops			Irrigated	Rainfed
Paddy	45.42	40	50	
Red Gram	13.56	20.48		61.50
Bengal Gram	1.24	95.83		50.9
Groundnut	41.62	86.5	45.90	40.50
Tomato	0.93	100	32.5	
Total	100	-		

Source: Primary data

5.7 Changes in cropping pattern in Last 5 years:

The households were also asked about change in cropping pattern if any during the last 5 years. Overall 20.78 per cent of the Households changed cropping pattern. Across the groups Marginal farmers 30.25 per cent, small farmers 25.28 percent, medium farmers 19.12 per cent and large farmers 8.50 per cent are changed in the household cropping patter. The profitability indicates that marginal size farming household has more information and resources for changing cropping pattern. Similar pattern is also observed for households which have changed crop varieties also. The respondents were also asked major reasons for crop diversification. Majority of the households reported that water scarcity was the main reason for diversification.

Table 5.7 Crop diversification by Sample Households in D.Abbavaram in last 5 years

	Household Category				
	Marginal Farmers	Small Farmers	Medium Farmers	Large Farmers	Overall
% of farmers changed cropping pattern during last 5 years	30.25	25.28	19.12	8.50	20.78
% of farmers changed crop varieties of major crops	19.50	15.56	12.50	10.80	12.09
Main three reasons for crop diversification	1. Water Scarcity 2. For getting high Yield 3. for higher income	1. Water Scarcity 2. For getting high Yield 3. Labour Shortage	1. Water Scarcity 2. For getting high Yield 3. Labour Shortage	1. Water Scarcity 2. For getting high Yield 3. Labour Shortage	1. Water Scarcity 2. For getting high Yield 3. Labour Shortage

Source: Primary data

CHAPTER –VI

ECOLOGY, VULNERABILITY AND SUSTAINABILITY

6.1 Natural Resources profile of the Village:

AERC Visakhapatnam has selected Village "D.Abbavaram" in the Northern Zone of Andhra Pradesh for the Resurveyed village survey study undertaken in 2019-20. The village "D.Abbavaram" is located in Rayachoti Mandal in Kadapa district in Andhra Pradesh State.Following table shows the extreme events/natural calamities in the village. This information was collected during the Household survey as well as through group discussion with a group of villagers as well as village officials. During the Household Survey, the Household were asked whether any change in rainfall pattern or heat/cold waves in the village was noticed during the last 5 years. More than 80 percent of the Households felt that such a change was definitely noticed. This was reflected during group discussion with villagers and officials also.

In the group discussions, it was revealed that the occurrences of drought, erratic rainfall and heat waves had increased. During the 5 years preceding the reference year in fact, drought was experienced 3 times. It was felt that almost all the farmers and all the crops had suffered due to drought. Drought had not only affected crops and the farm income but also education of the children as scarcity/non availability of water had affected the daily routine of the household. However, the village has not experienced any suicides due to distress caused by recurrent droughts.

In one of the years, it was reported that the village experienced erratic rainfall which caused damage to around 10 houses. The details can be observed from Table 6.1.

Table 6.1 Frequency of Extreme Events during last 5 years and Exposures to shocks in D.Abbavarm

Extreme events	Change in occurrence (Increased/Decreased/No change)	Frequency during last 5 years	Most Vulnerable groups	Least Vulnerable groups	Most Vulnerable crops or enterprises	Least Vulnerable Crops or enterprises
Drought	Increased	3	All Farmers	Job holders	All crops	-
Erratic rainfall	increased	1	All	NA	All	NA

Source: Primary Data

6.2 Degree of Hardship faced (Vulnerability) during last 5 years (in 0-5 scale):

Drought was observed as the phenomenon causing maximum hardships. On a scale of 0 to 5, the degree of hardship caused to crops and livestock ranged between 2 and 4 and indicated low and high levels of hardship. The details can be viewed from Table 6.2.

Table 6.2 Degree of Hardship faced (Vulnerability) during last 5 years (in 0-5 scale)

Climate Extremes	Damages to crops	Hardship to cattle	Hardship to small ruminants	Hardship to poor	Hardship to Children	Hardship to aged people	Hardship to women
Drought	2	4	2	4	3	4	3
Erratic rainfall	3	3	3	3	4	2	2

Source: Primary Data, Note: Rank (0= nil, 1=negligible, 2=low, 3=moderate, 4=high, 5= Extreme)

The main cropping pattern of the village includes cultivation of Paddy, Groundnut and tomato. As Paddy and Groundnut are processed under assured MSP pricing, no marketing shock has been observed during the last 5 years. However, the tomato crop has changed every week market prices.

6.3 Village Information:

Group discussions were also held with villages to highlight some vital aspects of the village and changes if any have happened in these.

1. Depth of ground water table in the village: It was reported to be at 100-120 feet in 2019. However, five years back it was 80 feet. So, during the years a major decline was reported in the ground water table of the village. Dependence on tube wells for irrigation purposes could be the major cause with scanty rainfall witnessed twice during the span.

2. Number of ponds, dug wells, tube wells and deep tube wells: there are 5 ponds Yerraiahkunta, Peddagandicheruvu, Khayyam kunta etc., which are nearer to the village. However, the number of tube wells are around 60 with in the village. In the village Mandavya majority of the farmers have depended on the Ground water table.

3. Crop wise NPK:

Increased cropping intensity as well as the whole area under high yielding varieties has led to decrease in soil fertility.   This has necessitated higher doses of chemical fertilizers. Farmers in the village indulge in more fertilizer use to retain the productivity of crops.

4. Pesticide use in crops and awareness about farm yard or other organic manure use:

Villagers reported an increased usage of pesticides in almost all the crops. Earlier there used to be more sprays of insecticides/pesticide. In the Paddy crop, for every 15 days farmers spray the pesticides and even in tomato crops they have used very large quantities of pesticides. Presently farmers are mostly using Farm yard manure in fields. Presently farmers are more inclined in using organic manure and traditional usage of organic sprays for cultivating the crops. The Farm yard manure cost is very high.

5. List of Varieties of major crops cultivated in the village and changes in the varieties:

Ongoing research is a part and parcel of agricultural development. Same is true for crop varieties. Depending on the new breakthroughs in technology, new varieties are being developed in response to variables like water requirement, pest resistance, maturity duration etc. Cultivators keep on adopting these new varieties on the recommendations of agricultural institutions, but sometimes also go for adoption of non-recommended ones due to market compulsion or peer influence.

In the particular area Regular crops are paddy and groundnut crop. Crop diversification led the farmers to change from paddy cropping to tomato.

6. Marketing and procurement system in the village:

Paddy crop is mostly procured by the Food Corporation of India with in the village or nearest sub procurement centres open in the mandal. Remaining crops Groundnut crop is sold to the middle men with in the village or some farmers also go to nearby Regulated market. Tomato crop is very sensitive crop and that product is sold to the middle men and in nearby Rhythu bazars. For different marketing products.Wholesale markets are the marketing procedure for this village.

7. Major farming systems: Major farming systems prevalent in the village were found to be peasant or family systems. No cooperative farming, contract farming were there.

8. Mass/Group Perceptions:

Village reported that the majority of them belonged to one caste group in the community and it holds the major share in the village.

Whether parameters have remained more or less stable in the village during the past 5 years. But the heat/cold waves have increased.

There was no increase in incidence of diseases in the village. The group talked about a slight increase in the medical expenditure in the village during the last five years.

The village felt that the economic condition of the people had deteriorated over time. The shrinking profit margins due to increased cost of cultivation but more or less stable prices of major crops is the reason behind it.

Regarding infrastructure availability in the village, it was reported that electricity supply has improved over time but condition of roads is far from satisfactory. Though construction of roads was in progress but it got delayed due to late sanction of funds.

The status of agriculture in the village was reported to be somewhat changed. But the Area of crops and productivity of major crops are almost the same.
The major change witnessed in the village was migration of people to foreign shores mainly for livelihood.

Also there has been an increase in non-farm employment due to urbanization, it has impacted the village; mostly people are migrating to work in the nearest urban centre and district headquarters also.

9. Interventions/Measures needed for the village on priority basis:

Group discussion brought out various aspects of the village under study including natural,. Agricultural, technological, social changes taking place during the span of five years. The villagers were asked to enlist the priority areas for the development / benefit of their village. Some important areas suggested by them were as following:

a) Improving the Drinking water facilities

b) Construction of roads.

c) Starting the Primary Health Centre

d) Starting a post office

e) Start the national Bank/primary agricultural Cooperative society

f) To help Farmers sell the products with in the village

g) Farmers need storage godowns for preserving the commodities

h) MGNREGS workers are used for cultivating purpose

i) Some measures to decrease the crop expenditure and thus increasing profitability of agricultural households.

CHAPTER - VII

POLICY AND GOVERNANCE

7.1 Introduction:

This chapter documents perception of beneficiary households about benefit from government schemes, their views about problems faced and their suggestions, rural change take place over the years. These institutional, developmental factors affect activities of the Households and hence understanding perception of household regarding these factors is important.

7.2 Coverage of Sample Households different Government Sponsored Schemes:

Several government sponsored schemes are introduced for the better economic conditions of the villages the following are 20 government schemes implementing in the villages including the sample villages.   All the sample households are covered under BPL card 2) KCC card 3) Public health insurance card, MGNREGA card, old age pension scheme and widow pension schemes. The life insurance scheme if entitled for 66% of the total households which 65.5% are covered.   100% of Households are entitled per PMKISAN Benefit scheme of which 225 were covered and 100% are the total beneficiaries satisfied which this scheme.   Moreover 100% of Households is entitled for Government Housing Schemes of which 60% are covered and 273 of beneficiaries are satisfied. There are other schemes that are introduced by the villages for the entitled majority households of which percentages of the Households are satisfied with the respective schemes. The details can be observed from the Table 7.1.

7.3 Opinion of the Households about Rural Change:

Responses of sample Households about Rural change of the total responses 87.50% have stated that the economic conditions of the villagers are improved after introduction of the government schemes. 7% of the responses stated that the economic conditions of the villagers are deteriorated and 5.5% of the responses stated that there is no change in the economic condition of the villagers even after the introduction of government schemes on the other hand 89.25 % of the Households reported that the village infrastructure (roads, electricity etc.) was improved and 6.25% of the responses stated that the village infrastructure wad deteriorated even after the introduction of government schemes.   Moreover 63.50% of responses stated that the status of agricultural sector in

the village was improved and 29.50% of responses expressed that the economic conditions of their families have been improved. Lesser percentages of responses reported about the deterioration of economic condition of the villages change in village infrastructure states of agriculture sector and economic conditions of their families. The details can be viewed from Table 7.2.

Table 7.1 Coverage under Different government sponsored schemes of sample Households

Sl. No	Name of the Scheme	Percentage of entitled households/individuals	% coverage	Beneficiaries satisfied with the scheme
1	BPL Card	100% of the total HH	89.01	405
2	KCC Card	100% of the landed HH	98	220
3	Public health insurance card	100% of the total HH	100	100
4	Soil Health card	50% of the landed HH	50	112
5	MGNREGA Card	100% of the total HH	82.42	375
6	ICDS Mid a day meal card	100% of the HH	100	119
7	Govt. Scholarship schemes	100% of out of total HH	83.50	284
8	Government housing schemes	100% of out of total HH	60	273
9	Crop insurance PMFBY/others	100 % of the landed HH	100	225
10	Irrigation PMKSY/others	100% of the landed HH	100	225
11	Seed mini kit scheme	3 % of the landed HH	45.3	70
12	Farm machinery or implements	0.5%of the landed HH	41.5	72
13	Life insurance	66% of the total HH	65.5	298
14	PMKisan	100% of the landed HH	100	225
15	Old age pension scheme	50 members from old age pension	100	112
16	Farm pension scheme (PM-KMY)	100 % out of landed HH	56.3	126
17	Widow pension scheme	20 members from total HH	100	91
18	Farm loan waiver scheme	100% of total landed HH	100	225
19	LPG scheme	99 % of the total HH	98.91	450
20	Organic farming	27 % out of total HH	27	60

Source: Primary Data

Table 7.2 Responses of Sample households about rural change

Sl. No		Percentage responses		
		Improved	Deteriorated	No change
1	Change in economic condition of the villagers	87.50	7.00	5.50
2	Change in village infrastructure (road/Electricity)etc.	89.25	6.25	4.50
3	Change in status of agricultural sector of the village	63.50	12.00	24.50
4	Change in economic condition of your family	69.50	10.00	20.50

Source: Primary Data

7.4 Major problems faced by the sample Households:

Out of the total responses, 62% of the villages could be responding properly. 10.5% of the responses reported to have faced the problem. Cleanliness and drainage issues, about 12.25% of the responses started the problem of infrastructure development. Nearly 9.5% of responses reported the problem of water scarcity for agriculture. Only 2.5% responses expressed the problem of employment and poverty. Negligible percentages of responses have reported the other problems like non-availability of government schemes, uncertainty of climate and whether, agricultural capital/loan etc., the details can be observed from the Table 7.3.

Table 7.3 Major problems faced by the sample households

Sl.No	Problems of households relating to	Percentage of total responses received (%)
1	Cleanliness and drainage issue	10.50
2	Infrastructure development	12.25
3	Water scarcity for agriculture	9.50
4	Unemployment /poverty	2.50
5	Government schemes non availability in village	1.25
6	Climate change/weather uncertainty	0.45
7	Agricultural capital/loan	0.45
8	Farming relate guidance	0.65
9	Lack of agriculture market in village	0.20
10	Scarcity of drinking water	0.15
11	Labour shortage	0.10
12	Could not respond	62.00
	Total	100.00

Source: Primary Data

Figure-9

**Major Problems Faced by the Sample Households
Percentage of total responses received (%)**

- Cleanliness and drainage issue
- Infrastructure development
- Water scarcity for agriculture
- Unemployment /poverty
- Government schemes non availability in village
- Climate change/weather uncertainty
- Agricultural capital/loan
- Farming relate guidance
- Lack of agriculture market in village

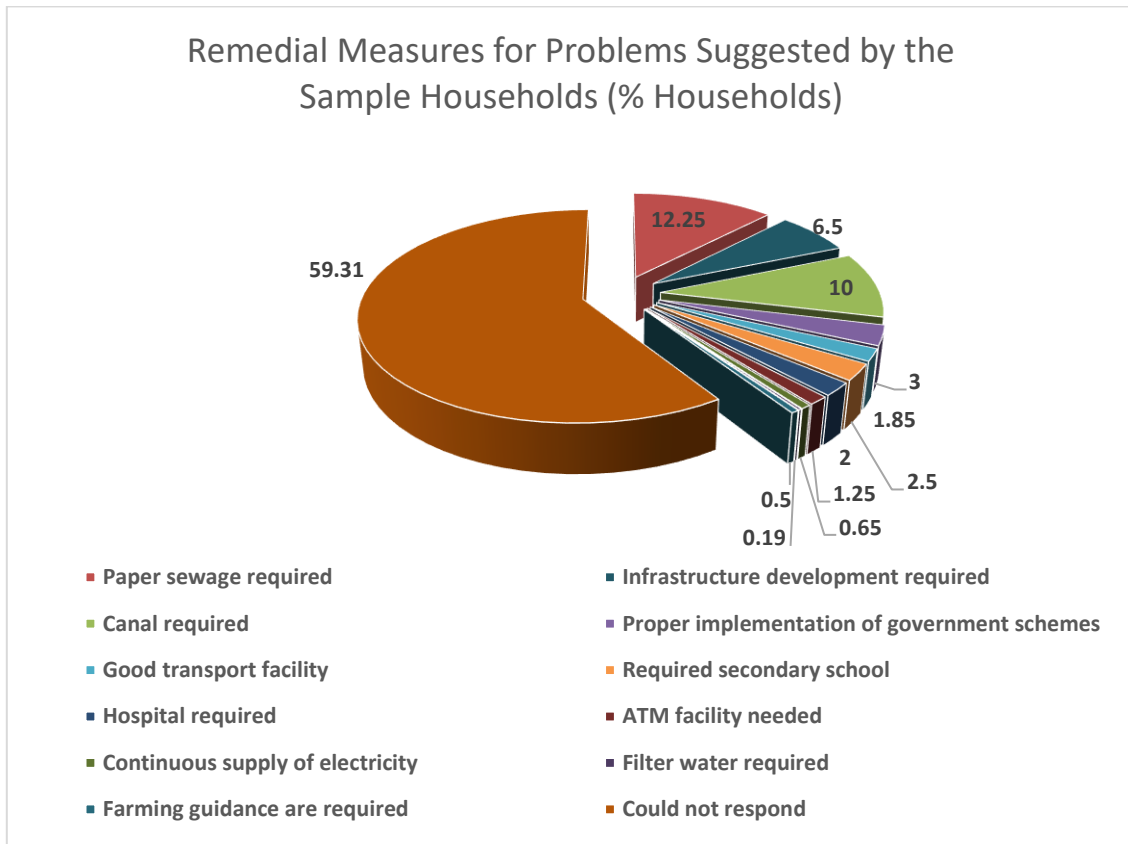**7.5 Remedial measures for the problems suggested by the Sample Households:**

The samples Households have suggested the following measures for their problems. About 12.25% of Households suggested that proper drainage system is required in the village. Nearly 6.50% of the respondents stated that suggested infrastructural development is required in the village. About the 10% of the Households suggested that they require canal to the nearer to the village. Moreover 3% of the Households suggested proper implementation of government schemes in the village. Negligible percentage of Households suggested remedies for the respective other problems. About 59.3% of Households could not respond properly. The details can be viewed from the Table 7.4.

Table 7.4 Remedial measures for problems suggested by the sample households

Sl. No	Remedial measures for problems	Percentage households
1	Paper sewage required	12.25
2	Infrastructure development required	6.50
3	Canal required	10.00
4	Proper implementation of government schemes	3.00
5	Good transport facility	1.85
6	Required secondary school	2.50
7	Hospital required	2.00
8	ATM facility needed	1.25
10	Continuous supply of electricity	0.65
11	Filter water required	0.19
12	Farming guidance are required	0.50
13	Could not respond	59.31
	Total	100.00

Source: Primary Data

Figure-10

Remedial Measures for Problems Suggested by the Sample Households (% Households)

- Paper sewage required
- Canal required
- Good transport facility
- Hospital required
- Continuous supply of electricity
- Farming guidance are required
- Infrastructure development required
- Proper implementation of government schemes
- Required secondary school
- ATM facility needed
- Filter water required
- Could not respond

CHAPTER – VIII

SUMMARY & POLICY IMPLICATIONS

8.1. Introduction:

A socio-economic survey is regarded as one of the most important sources of statistical data on household expenditure and income as well as other data on the status of housing, individual and household characteristics and living conditions. The earliest research on household budgets was conducted in 1946. Socio-economic survey tools are designed to collect information as a means of improving understanding of local resource management systems, resource use and the relative importance of resources for households and villages.

Socio-economic factors include occupation, education, income, wealth and where someone lives. There are three key measures most commonly used to capture socio-economic surveys in most studies: income, education, and occupation. The social standing or class of an individual or group is often measured as a combination of education, income and occupation.

A socio-economic class is a group of people with similar characteristics. These characteristics can include social and economic standing, level of education, current profession, and ethnic background or heritage. Examinations of socioeconomic status often reveal inequities in access to resources, plus issues related to privilege, power and control. The concept of class as a collection of individuals sharing similar economic circumstances has been widely used in censuses and in studies of social mobility.

A socio-economic impact assessment is a study to determine how a proposed development project will affect or change the lives of current or future residents of a community or geographic area. Socioeconomic benefits are expected from the development of new markets to promote regional economic structures, to provide alternative sources of employment in rural areas, and to promote the use of surplus and marginal lands.

8.2 Background of the present study:

The present study is the study of village D.Abbavaram based on the selected sample data and the census that was conducted 50 years after the population survey was conducted in the year 1970. A village with a population of 1594, D.Abbavaram is situated in Rayachoti mandal in

Kadapa district of Andhra Pradesh and houses 455 Households and has a history of repeated surveys – sample as well as population, conducted by Agro Economic Research Centre, Andhra University. D.Abbavarm village in the Rayachoti mandal was selected to the study.

8.3 Objectives of the Study:

1. To study socio economic and cultural features of the village and to understand the basic structure of the economy of village D.Abbavaram.
2. To analyse the existing structure along with the changes taking place in various aspects of the village survey study.
3. To evaluate the perceptions of the villagers about problems and challenges faced, changes they have experienced in the village and benefits from government schemes.
4. Based on the data collected during the current survey as well as secondary data, observations were made to capture the changes that have taken place in the socio economic status of the village households over a period of time.
5. To suggest policy measures keeping in view implications for future changes arising from the analysis.

8.4. Selection of the Village, Methodology and Sampling:

8.4.1 Selection of Village:

It was further suggested by the district officials that the Rayachoti mandal would be an appropriate area as there are a number of villages in the mandal having irrigation facilities like rain-fed tanks, wells and spring channels, and these villages would suffer adversity of drought whenever it occurred. On the recommendations of the Mandal officials, D.Abbavaram village was selected for the study as it is a representative village of the area and is situated about 3 km from the mandal headquarters Rayachoti.

8.4.2 Methodology and Sampling:

D.Abbavaram is a large village located in Rayachoti Mandal of YSR district, Andhra Pradesh. Due to migration, in search of livelihood some of the households left the village. The total number of households remained in the village by the year 2020 is 566. Out of the 566 households some of them have shifted to nearby urban areas in search of jobs and settled there. Thus, a total number of 455 households have remained in the village at the time of the present survey.

8.5. Organization of the Report:

Chapter one provides background to the study. Besides stating objectives and discussing the methodology, it also presents a brief review of literature and historical background of village D.Abbavarm. Chapter two discusses Methodology. Chapter III focuses on the demographic and socio economic profile of the village based on the secondary data available. Chapter four focuses on household level data relating to demographic characteristics, educational status, and distribution of landholdings and access of the HH to various civic amenities. The next chapter i.e chapter five discusses economic status of the village households. The Natural resources, land use classification change, natural and manmade disasters and major problems faced in the village are discussed in chapter VI. The perceptions of sample HH about government schemes, suggestions of better implementation of schemes are discussed in chapter VIII. The last chapter presents summary and policy implications.

8.6 Major findings of the study:

A notable feature of the population structure was the increase in the share of the female population. The number of females as well as their share in the total population increased during the two periods (1970-71, 2019-20).The social structure of the D.Abbavaram reveals that the Households belonging to the General caste category (42.94%) is the dominant. In the 1970-71 the SC's 15.42 % was increased to 19.28 % in 2019-20. Out of the rest   39.93 % are BC's and 0.35% are ST's. The village had basic drinking water, electricity, roads, education and infrastructure which developed and further got expanded over the concerned period. Basic health facilities were developed and the village also got a pucca approach road. The village now has a ration shop, Anganwadi's. Presently in Andhra Pradesh all the villages including D.Abbavaram, Gram Sachivalayam is there , all the facilities are improved by the government i.e., Welfare Assistant, Women police, Health worker, Agricultural assistant, Digital assistant, Surveyor, Engineering Assistant all the staff are presently working in the D.Abbavaram village for the welfare of people.

The crops grown in D.Abbavaram village are (i) Kharif Paddy (ii) Rabi Paddy (iii) Red Gram (iv) Coupe (V) Tomato (vi) Ground Nut (vii) Sunflower (viii) Rabi Ground Nut (ix) Horse gram crops and Tree crops. Of the total 530 acres, the village is mainly irrigated by wells and Tube wells. The intensity of irrigation is reported to be 46.79 per cent.

There is no primary health centre in the village. There are 3 Asha workers and 1 ANM in the Gram Sachivalayam. The nearest PHC is 14 km from the village. Out of the total sample of 455 Households, 49.87 percent are males and 50.13 per cent are females. On an average the average family size of a family is reported to be 3.50. Out of the total number of 455 households 14.89 per cent have reported to be joint families while 85.10 per cent of the households have reported as nuclear families. Observing across the groups that are farm and nonfarm households, the majority of the percent from both categories reported as nuclear families.

The average age of the head of the family is reported to be 58.34. Out of the total number of 455 households 47.58 per cent are from General category 31.47 percent from OBC and 20.95 percent are from SC category. Out of the total number of 455 households 97.18 percent are Hindu's and 2.8 percent are Muslims. Out of total number 455 households 30.35 per cent are cultivators 41.05 per cent reported salaried Government employees, 5.88 per cent are salaried private employees 24.48 per cent are pensioners 27.66 per cent are casual labourers 25.50 per cent have reported to be agricultural labourers 0.58 per cent have reported salaried private employees of secondary occupation and 3.88 per cent have reported to be casual labourers from secondary occupation.

The members in different family sizes varied from 5 in case of 8 number family size to 106 in case of 2 number family size. Out of the total number of 1594 household members 49.87 percent are males and 50.13 per cent are females. It was observed that in the surveyed households about 70 per cent are working category i.e. both the younger group (28.81%) middle group (37.06%) and children (up to 15 years) comprised 13 per cent of the total population.

Distribution of household members on the basis of livelihood shows that overall household work being undertaken by women folk's was predominant indicating 22.94 percent of the sample members were doing dairying, about 22.34 percent are cultivators 2.03 percent are casual labourers and around 31 percent are casual labourers of the sample farmers. Out of the total number of births of members 36 reported sample households 50 percent are males and 50 per cent are females.

Overall 79.56 percent of the sampled population in the village was found to be married. Out of the total 455 households constituting 61% are Illiterates in the village 31 percent are literates. Out of the total 7.69 per cent are primary standard 9.89 percent are secondary standard 3.96 percent are Intermediate level 1.32 percent are technical and professional persons and minor children are 11.65 per cent in the total household category. Of the total 455

households 89.01 percent are BPL card holders and 82.42 percent are MGNREGA card holders and 48.13 percent are KCC card holders in this category. Availability of smart phones in the surveyed households has shown that it was more than 100 per cent in each household i.e. each family was possessing more than one smartphone on an average.

Based on the responses to the first two questions given by the Household, it is revealed that 100 per cent of the household do not seem to have faced food insecurity which is a phenomenon experienced usually by poor households. The average housing area for non- farm came to be 13.55, but for farming category, it was 15.78, for the overall sample it came to 14.66.

The average annual income of sampled households in 2019-20, it is observed that on an average 12.67 percent is the total income from crop farming activity in the total 455 households surveyed. 13.73 percent are from livestock rearing, 9.62 percent income from land rent, 26.67 percent from service /salary, 23.20 percent from wage earning, 2.54 percent from business/trade and 11.57 percent from government relief pension. On an average per capita income was around Rs. 17920 and households derive Rs. 1.6 lakhs as average annual income. During the 1970 survey, information about the per household income in 1969-70 in D.Abbavaram village came to be Rs. 660.66.

Act of spending money that has been earned through income is expenditure; the expenditure incurring activity is the outcome of the income earning activity. The analysis of household expenditure showed that 52.45 percent of it was on food items, while 47.55 per cent was on non-food items. For farm families it was 50.42 percent on food whereas for non-farm households it was 54.26 percent. The average annual household expenditure of farm households was Rs. 58220. While in the non-farm it was Rs. 65385 and for the overall sample, it was Rs.61799.

The difference between the income and the expenditure resulted in savings of the households. About 93.84 percent of the total household, 93.91 percent of non-farm households and 93.78 percent of farm households reported having savings. Among the sampled household dominant sources of borrowing was found to be institutional sources of credit. The villagers depended less on traders or money lenders. Though the rate of interest was high people were also availing personal loans for other reasons apart from farming.

Out of the total number of 225 sample households 66.22% are marginal, 27.56% are small, 4% are medium and 2.22% are large farmers. On the other hand the total area is estimated to be 225.79ha. Across the groups the area ranged from 20.50 ha in case of large farmers to 95.84 ha in case of small farmers. Out of the total 225 sample Households 51.12% are from general category 27.55% from OBC and 21.33% from SC category.   Out of the total area is 225.79 hectares. 41.70% of area reported to be irrigated. On an average the land man ratio is reported to be 0.27 ha.

Out of total cropped area of 268.72 ha, 48.53% of area is irrigated and 51.47% of area is under rainfed. It is observed that for crops paddy, Groundnut and tomato, the percentage of Households reporting profitability of crops was higher in case of irrigated crops. Profitability of crops would depend on price given the costs and the yield realized. Overall 20.78 per cent of the Households changed cropping patterns. Across the groups Marginal farmers 30.25 per cent, small farmers 25.28 percent, medium farmers 19.12 per cent and large farmers 8.50 per cent have changed the household cropping pattern. The respondents were also asked major reasons for crop diversification. Majority of the households reported that water scarcity was the main reason for the diversification.

In the group discussions, it was revealed that the occurrences of drought, erratic rainfall and heat waves had increased. During the 5 years preceding the reference year in fact, drought was experienced 3 times. In one of the years, it was reported the village experienced erratic rainfall which caused damage to around 10 houses. Drought was observed as the phenomenon causing maximum hardships. On a scale of 0 to 5, the degree of hardship caused to crops and livestock ranged between 2 and 4 and indicated low and high levels of hardship.

Several government sponsored schemes are introduced for the better economic conditions of the villages, the following are 20 government schemes implemented in the villages including the sample villages. 100% of Households is entitled per PMKISAN Benefit scheme of which 225 were covered and 100% are the total beneficiaries satisfied with this scheme. Moreover 63.50% of responses stated that the status of the agricultural sector in the village had improved and 29.50% of responses expressed that the economic conditions of their families have been improved. Lesser percentages of responses reported about the deterioration of economic condition of the villages, change in village infrastructure, status of agriculture sector and economic conditions of their families.

Out of the total responses, 62% of the villages responded positively. 10.5% of the responses reported to have faced the problem. Cleanliness and drainage issues, about 12.25% of the responses stated the problem of infrastructure development. Nearly 9.5% of responses reported the problem of water scarcity for agriculture. Only 2.5% responses expressed the problem of employment and poverty. The sample Households has suggested the following measures for their problems. About 12.25% of Households suggested that a proper drainage system is required in the village. Nearly 6.50% of the respondents stated that suggested infrastructural development is required in the village. About 10% of the Households suggested that they require a canal to be nearer to the village. Moreover 3% of the Households suggested proper implementation of government schemes in the village. Negligible percentage of Households suggested remedies for the respective other problems. About 59.3% of Households could not respond properly.

Policy Suggestions:

The village depicts the reducing role of agriculture in supporting livelihood, reducing workforce participation rate, increased share of marginal workers, decreasing extent of education, increasing share of elderly population and demand for employment opportunities and migration. These changes would influence the future course of development of the village and without interventions, may increase the extent of migration, problems faced by elderly population and higher rates of unemployment and vulnerabilities. In order to tackle these problems, therefore, following policy initiatives arising from the analysis are suggested:

1. Efforts need to be concentrated on increasing the yield for marketing the product and market intelligence because of the vulnerable economic status that was revealed in the survey by majority of Household.

2. Village surveyed needs to be considered as the drought prone area as many villagers are requesting due to inadequate water supply for cropping. This village has been facing recurring droughts and adopted several strategies for coping up with the problem of water scarcity during summer and throughout the year as well.

3. Bore water is used by the villagers which do not filter the filter beds and piped water from the bore wells is also not filtered water.

4. Villagers need to shift the cropping pattern from irrigated crops like Groundnut to traditionally grown crops that would yield money to them like tomatoes. This is a way to uplift the drought prone village to make it drought free and improve their economic condition by shifting the cropping pattern which was introduced from the past few years.

5. Programmes that bring awareness about garbage disposal and maintenance of cleanliness need to be organised by the authorities for the villagers. These programmes will let the villagers know the uses of disposing the garbage in the right manner for which proper systems for garbage collection and disposal needs to be instituted.

6. Closed drainage system is the need for the village as the open challenges for sewage water are spreading the diseases, underground sewage pipes need to be laid to overcome these communicable diseases.

7. One major problem is drainage water from nearest urban areas. The pollutants from drainage water are contaminated the underground water. Should manage the liquid waste in a proper way in the village.

8. Specific programmes and training facilities would be provided for generating employment. As requested by the sample Households members, such training would make them self-dependent to improve their economic status.

9. Training programmes should be conducted for women to support their livelihood, which would help them to improve production in crops and other activities. Such programmes would provide a platform for communication to disclose their needs and to market their products which will empower them and make them self-sufficient.

10. Elderly people need special schemes for health care like strategies for improving the health of those who cannot afford it.

11. Godowns need to be established in the villages so they can store their agricultural products and commodities for marketing purposes and for future use.

12. Altogether to improve the standard of living of the villagers, focus needs to be on quality education, vocational guidance, healthcare, sanitation facilities, usage of environmental friendly technologies and local area development for creation of job opportunities. Usage of digital technologies especially for agriculture linked activities, communication and governance would greatly enhance pace and quality of outcomes and

improve overall living of the households in the village .Overall by bridging the development gap between the village and urban areas, there can be reduction in migration towards urban areas from the villages.

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Comments on the Draft Report received from AERC, Visakhapatnam

1.	**Title of report**	Village Survey Study in Andhra Pradesh (Diguva Abbavaram Village)
2.	**Date of receipt of the draft report**	01 November 2021 (e-mail)
3.	**Date of dispatch of the comments**	14 November 2021 (through e-rnail)
4.	**Comments on the Title of the Study**	Uniformity is maintained in the title.
5.	**Comments on the objectives**	

Objectives are different: The objectives are neither that supplied by the co-ordinator (AERC, Visva-Bharati) nor in the tunes what were discussed in the methodology workshop. There was liberty for minor modification in the objectives but the focus of the study as decided is to analyse the social, economic, demographic, political, cultural, ecological structures and the changes therein between the two survey periods i.e., for this study the base line survey in 1970s and re-survey in 2020. But the objectives framed are different and also lacks clarity. For example, in objective -2 it is mentioned "To analyse the existing structure along…" But it is not clear about its dimensions i.e., structure of what? Similarly, the objective number 5 is written as "Based on the data collected during past surveys and the current survey as well as secondary data, observations were made to capture the changes that have taken place in the socio economic status of the village households over a period of time". This is not framed like an objective. If so frame it accordingly.

6.   Comments on the methodology

This study is conducted in a village surveyed earlier. Thus it is a resurvey. The methodology section is incomplete and it seems inadvertently ended abruptly. Detailed comments are given below.

7. Comments on analysis, organization, presentation etc.

Detailed (Chapter wise; generic & specific) comments are given below:

Chapter-I:

1. The context setting in Chapter-I is made for socio-economic survey. However, this particular study is a village study (different from other socio-economic survey) focusing on re-survey of a village in order to create a longitudinal panel dataset, to capture the socio-economic dynamics of the villages. The purpose is to assess the pace, process and pattern of rural change by means of repeated re-survey in the selected village at an interval.

2. The review of literature is not focused on village studies in general or past studies in this particular village in particular.

Chapter-II:

1. The report deviated substantially from the Chapter and Table designs finalised in the workshop. For example where there is already a different chapter on Methodology (Ch-II) then why to include Methodology & Sampling again as a sub-section within Ch-I (1.5, 1.5.1. 1.5.2) in not clear.

2. Further, the methodology chapter is incomplete and silent about concepts, definitions, criteria for selection of households, survey approach, dimension covered and most importantly data base and analytical tools and techniques used. It also not mentioned the limitations of the study.

3. Section 2.1 is Sampling design but what is written is geographical location of the village. So, please include the actual and appropriate sampling design. It was decided to go for household survey, FGDs and stakeholder meetings to get household level data, group level responses and village level information and dynamics. Please provide in this section, how the survey was conducted, how many FGDs were conducted, from whom and where village level and group responses were gathered, etc.

Chapter-III:

Check the data and calculations thoroughly. For example,

1. In Table 3.1: How the geographical area of the village can change substantially? Area under agriculture is only 876 ha then how can as high as 723 ha is fallow? Please check. Why the share of cultivable fallow & other fallow increased more than ten times (from a mere 1.6 % to 17.16% & again from 2.37% to 23.02 %) between the two survey period? It seems some mistakes are being committed.

2. Further, the total land should be classified in to two categories, land under agricultural uses & land under non-agricultural uses. Thus the sum of area under both agricultural use and non-agricultural be 100% not 48.84% and 6.64%, respectively. Please follow standard land use classification format/ type.

3. The sub-sections for rainfall, climate, soil, natural resources, etc. are too brief. Please provide detailed information and how it changed between two survey periods. You can very provide month-wise rainfall & temperature (Min & Max) data which are freely available at-least at district level & weather station wise (use nearest weather station data).

4. Table 3.2: It shows total population reduced during last 9 years. SC population should be 450 not 45. However, during last 9 years the number of both SC males and SC females both remained same? Please check.

5. Is it fact that 89.05 % households are BPL? (Table 3.6) It may be the case but please check for sure.

6. As per Table 3.7 number of students is 341 but as per Table 3.5 only 119 students are getting mid-day meal. It is surprising where poverty is more than 89%. Why it is so? Please explain the reason.

7. In Table 3.8: All are farm worker? No single non-farm worker is there? Occupation is only cultivation and Agril. Labourer? But in table 3.9 shows different picture. Figures are also different. Correct the inconsistency.

8. **How the kharif area for all the crops in the village are in multiples of 5 only? (Table 3.11)**

   Chapter-IV to VIII: Too many mistakes are there. Few specific issues are mentioned below

   Chapter IV:

1. Table 4.1:
   a. Why male population in the village is as high as 78.22% . Even if it is based on 455 households, it cannot be so biased in favour of male. In Table 3.2 it shows only 47.87% are male? Please check and ensure representativeness and consistency.
   b. 230 should be 50.55% instead of 5.55%
   c. Calculation of avg. size of household is 3.17 but in the village (Table 3.2) it is 4.12 (2329 for 566 households). From Table 4.3 if we calculate weighted average then, the figure is altogether different. Please remove inconsistency.
   d. Unitary (Single member family) or nucleus family? Pl. check
   e. Put sex ratio in all relevant demographic tables.

2. Table 4.2 vs 4.3: Inconsistency in data need to be removed.

3. Table 4.7: out of 4290 population only 36 births and 19 deaths during last 5 years? It seems some serious under-reporting is there. Again then too how total population can reduce?

4. Table 4.12: Many cells are missing, may be inadvertently. Provide necessary information in these cells.

5. Table 4.14: Units??? The totals cannot be less than the components. Similarly, overall averages cannot be more than category wise averages. For example, if PCI for 230 HH is 17828 & PCI for 255 HH is 17995 then how overall PCI is 21810? Please remove such inconsistencies throughout various tables. Same observation for Table 4.15 and other tables.

   Chapter-V:

1. Table 5.1: Who are large farmer? Which definition is used? How their average can be less than 4 ha?

2. Table 5.4: Data does not match with cropping pattern data given in other tables. Further, the cropping pattern of 455 sample household can be so different than the village with 566 household? This shows the sampling is highly biased and not at all representative.

3. In section 5.5 it is mentioned that yield is derived from 66 household only? Is it so? If so, why?

4. Crop-diversification, poverty & malnutrition issues not touched upon. Add those sub-sections too.

Chapter-VI:

1. It is not clear how the information is gathered. The figures in 6.2 is average or from one response only?

2. This chapter is too brief and the dynamics, i.e., it changes over time & and reasons for changes are missing. No concrete or specific information w.r.t. fertilizer use, flora, fauna, bio-diversity, varietal changes, etc., are provided.

Chapter-VII:

1. There are discrepancy when compared Table 7.1 with Table 4.10 (% of BPL); MGNAREGA, KCC eligibility, etc.

2. How ICDS can be only for 15% landed population only? Why PMFBY is only for 35% landed population? How can MGNAREGA is not for landless population? How such eligibility criteria are fixed in your state?

3. How the information compiled? It should have been from the Household survey. Too many round figures in the multiples of 5 and 10 only may be inadvertent mistakes.

4. The responses in Table 7.2 are not reflected in the findings of Chapter-V.

5. Table 7.3 & 7.4: Why total is 100? Is it that each house is having only one constraint and they can suggest only one remedial measure? Please check and re-calculate if needed.

Chapter-VIII:

All the necessary corrections in Chapter-I to VII should be incorporated in the Chapter-VIII & Executive Summary accordingly.

Generic Comments:

1. The report is prepared as if like a new socio-economic survey instead of like a village study (re-survey of a village) to study the dynamics of changes between two survey period.

2. The report substantially deviated from the Chapter and Table designs finalized in the workshop (supplied by the coordinator).

3. The stated objectives are different. Those are neither supplied by the co-ordinator nor framed in tunes with what were discussed in the methodology workshop.

4. What is actual number of households in the village and how many of them are selected for this study? Many different figures are reported in different parts of the report. Was it complete enumeration of based on sample? The report has ambiguity on this. In fact in several places,

different figures are mentioned and statements too vary. The sampling frame is also missing. Please clear the ambiguity/inconsistency.

5. There are ambiguity and inconsistency in data, calculations, findings, and inferences. Many such ambiguity/inconsistency is marked on the soft copy of the report itself and/or mentioned in this report.

6. The report require through editing (mostly formatting, checking the data & calculations and a little bit language editing).

   a. Quite a few spelling mistakes are there which requires careful reading. Computer spell check may not be able to correct the same. One example 'caste' is written as 'cast'.

   b. What is 9 madakulu & 5 madakulu or similar terms used in local languages? For obvious reasons, many such terms are used but if possible please provide their English names too.

   c. Maintain uniformity in terms of fonts; section/sub-section numbering; table formats; etc

   d. The Figures are not numbered and in many places it is written as Table X.X (Even against figures). Please put Fig numbers. Also, one picture is repeated in both page 20 & 21.

   e. The quality of the figures/graphs can be improved in terms of type of charts, font size, colours, etc. For example pie chart is a better one to represent data in percentages like the % share of different crops or castes etc., than bar chart.

   f. Different units are used in different tables (hectare and acres) thus making it difficult to compare. Please provide the conversion factor between the two as it differs from state to state.

   g. 89% BPL, less than 10% (38 households) have residential land, but 100% having sanitary toilet? Pl. check.

   h. Similarly, an entire household cannot be classified as primary or graduate or secondary education, etc. Within a household there is every possibility to have different literacy categories.

Specific Comments:

1. It is written that complete enumeration is made but the text also includes "For this study Census method was suggested for the villages with 455 households as per the guidelines provided for sampling survey during 2019-20. From total Households of 455, samples were collected for primary data from the entire village"

   It is not clear whether it is complete enumeration or sample survey. Selecting 455 household out of 566 is not a Census/complete enumeration. Further, if it is sample then what criteria is used to draw a representative sample? All these things are missing.

2. The different numbers that are mentioned in the report are:

i. Household: 566 or 574 or 455 or 456?

ii. Total population 2334 or 2329 or 1675 or 4250 (Table 4.4)?

iii. NSA: 876ha (Table 3.1), 346ha (Table 3.10: 146 NIA+200 rainfed), 225.79 ha (Table: 5.1), etc

iv. GCA= 658 acres (Table 3.11): 268.72 ha (Table 5.4); 530 acres (Table 3.11)

v. SC population= 19.28% or 16.78%?

vi. ST population=1.46% or 0.35% or 0.25%?

3. Other than as mentioned above few core issues are missing:

   i. ASER & BMI study (It was optional)

   ii. Cultural profile & changes therein

   iii. Migration issues

   iv. Crop diversification, poverty & malnutrition.

   v. Vulnerability and sustainability issues.

   vi. Water quality and soil fertility issues

8. Overall view on acceptability of report

The report need to be re-casted and revised in accordance with the decisions taken in the Methodology Workshop held at AERC, Visva- Bharati, Santiniketan; Chapter & Table designs suggested/supplied; and the comments given above.

Since, different numbers are mentioned in different places about total number of households,

population size, sample size, net sown area, and on many parameters and there are inconsistencies in

the data and calculations across the tables, re-working on the entire report would be helpful..

However, the authors have collected a lot of information even during Covid-19 situation when field visits and movements were bound to be restricted. It seems that due to time constraints and man-power shortages on one hand, and to honor deadlines on the other hand, inadvertent gaps and mistakes remained. The revised report, after incorporating all the comments, may directly be submitted to the AER Division for their feed-backs.

B. C. Roy
(Hony. Director)
AERC, Visva-Bharati

Action Taken

Chapter - 1

1. Suggestions incorporated
2. Village studies review of literature added

Chapter- II

1. Suggestions incorporated and In the second chapter only methodology part.
2. Suggestions incorporated
3. Village and group level discussions are gathered and incorporated the comment.

Chapter – III

1. corrections carried out.
2. Follow the standard land use classification
3. Add the rainfall climate and soil information carried out.
4. Suggestions are incorporated and sc population is no change in the two different periods.
5. This information is supplied by the village revenue officer.
6. Table 3.7 is different from Table 3.5 mid a meal is only school children another table is entire village educational baground (Literacy).
7. Table 3.8 are primary data and Table 3.9 are censes period secondary data these tables are different.
8. Corrections carried out.

Chapter - IV

1. Table 4.1
   a. Table 4.1 is sample household data is different from table 3.2
   b. Corrections carried out
   c. Suggestions incorporated
   d. Nuclear family is a small family
   e. Suggestion incorporated
2. Table 4.2 & 4.3 are corrected
3. Corrections carried out
4. The sold and purchased data in the households not sold and purchases
5. Suggestions incorporated.

Chapter – V

1. Corrections carried out large farmer Average size of holding 4.10
2. Total village households are 566 and sample households are 455 remaining people are migrated from nearby urban centers and door locked of the village. Finally our sample size is 455 households.
3. By typing mistake 66 households. This is entire crop yields.
4. Crop diversification is entered into the table 5.7 changes in the cropping pattern in last 5 years.

Chapter – VI

1. Correction carried out and this is not single response entire sample data response.
2. Fertilizer (NPK), bio diversity are included in this chapter.

Chapter – VII

1. Corrections carried out
2. Corrections incorporated
3. All the figures are checked.
4. In the table 7.2 are reflected in the chapter V.
5. Suggestions incorporated.

All the General comments and Specific comments incorporated in the Final Report.

**Minutes of Meeting of Presentation on Draft study reports by AERC- Waltair
held on 17th November, 2021.**

Comments/Observations on the presentations made by AERC-Waltair on the draft study reports under the chairman ship of Sr. Economic and Statistical Adviser(Sr. ESA) & Adviser , Directorate of Economics and Statistics, DA&FW, Ministry of Agriculture and Farmers' Welfare

4. Dr. K.V. Giri Babu presented the draft study report on 'Village Survey Study in Andhra Pradesh (Diguva Abbavaram)' and covered in detail the various chapters of the study report viz. profile of the village, socio-economic changes etc. He also presented the findings and policy recommendations as well. Clarifications and suggestions given by Sr. ESA and Adviser (AER) on the same are as follows:

a) Sr. ESA, DES suggested to carry out the editing of the entire report once again.

b) Adviser (AER) enquired regarding need for godowns in the village, as the market surplus is minimal.

c) Adviser suggested to convert the Table no 7.3 into pie chart and also suggested to display data in pie chart /other graphical representations wherever possible for better presentation of data.

d) Further, it was suggested to mention that the year of writer/researchers carrying out the study under review of literature. Towards the end of the literature survey drawn up inferences must be mentioned. This will help in comparing present village study with other villages surveyed

. e) Adviser requested to submit three page policy brief on the above report may be sent which may inter-alia, include brief introduction of topic, need for the study major findings and policy recommendations

. 5. Other observations and suggestions on the draft report is at Annexure-II.

b) Draft report of study report titled 'Village survey in Andhra Pradesh (Diguva Abbavaram Village)' by AERC-Waltair:

1. Comments regarding Executive Summary:

1.1. The Executive Summary must include the major findings of the report briefly. Major Policy Suggestions may be elaborated and stated in a bullet-point format.

1.2. The length of the executive summary may be checked accordingly and reduced to 5 to 7 pages.

1.3. Formatting of the text and spacing between the words may be checked

. 1.4. Many grammatical mistakes have been observed in the report and it needs to be checked corrected, and vocabulary used in the text may be checked to convey the true meaning for example

1.4.1. Point 1 of objectives of study 'and' may be removed etc. (Pg no 2, of objectives)

1.4.2. 'Feel the pinch of' sentence may be corrected. (Pg no 2, 3rd line of 3rd para)

1.4.3. 'Houses 566 households' sentence may be corrected. (Pg no 1, of last-line)

1.4.4. 'The nearest PHC is 14 km in the Village' sentence may be corrected. (page no 4, 2 nd line of 2nd para, 2nd line of page no 21)

1.4.5. Two periods 1970-70, 2019-20 may be corrected (page no 3, 3rd line of 3rd para)

1.4.6. 'Reported having savings' may be corrected. (Pg no.6, 3rd line of 1st para)

1.4.7. 'Provide' may be corrected to 'Provides' (3rd line of Pg no 31)

1.5.   Completion of the sentences was not done properly in the report and it may be addressed throughout the report and requested to make necessary correction for example:

1.5.1. 'of the total 530ac' may be corrected. (3rd line of Page no 4,)

1.5.2. The sentence in the first line of the page no 59 may be completed/corrected.

2. Comments regarding Text of the Report:

2.1. Formatting of heading and sub-headings may be checked and improved in terms of alignment in the text

2.2. Consistency may be maintained throughout the text in terms of punctuation marks in headings & sub-headings. For instance, a colon (:) included in some headings/subheadings some where it does not. Please be checked.

2.3. Discrepancy of total households may be corrected while in page no1 it was stated as 566 households and in page no4 and other pages it was stated as 455 households and may be checked and corrected.

2.4. While referring to literature survey it is suggested that a para/ two lines may be sufficient while referring the previous studies conducted and may be given in point wise.

2.4.1. Under review of literature the year of writer/researchers carrying out the study may be mentioned. (2nd para of page no3)

2.5. Objectives of the study may be rephrased with meaningful sentence.

2.6. The data mentioned in Chapter 2.2 of 'methodology' should be checked and corrected. (Pg no. 9 2nd para 4th and 5th line)

2.7. The data mentioned in chapter 3.1.7 and table 3.5 of 'education profile' should be may be

presented in better way in percentages as well. (Pg no.13, 2nd para)

2.8. Text of the sentence may be corrected, for example 2.8.1. Chapter 3.2.3 (Page no 21, 1st line of 2nd para)

2.8.2. Title of the chapter no 4.5 and table no 4.5 may be modified to reflect the idea of the text more comprehensively

3. Comments regarding the Tables in the Report: 3.1. Is there any marketable surplus? as per the table no 3.12 very less yield is reported (Page no 18)

3.2. References/ Sources of the secondary data collected should be included at the end of table. (For ex. table no. 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7 & 3.8 and etc.,

. 3.3. The data mentioned in table should be thoroughly checked and corrected. For example, in table 3.8 of 'Occupational profile….' It was mentioned as 33.14 per cent are reported cultivation and 15.89 per cent are agricultural labourers and there is no mention of occupational data of the remaining people in the village. This may be may be checked and corrected. (Page no 15)

3.4. With reference to data mentioned in table 3.10 and other tables, the quantity of particulars should be included. Ex. Hectors (Page no 17)

3.4.1. 'The total available land in the village' may be mentioned in the table. (Page no 17)

3.4.2. Intensity of irrigation is more than 100% this means this village this village though it comes under rain fed area drought like situation may not arise-Please explain? (Page no 17)

3.4.3. What are the reasons for decline in area under cultivation.?

3.4.4. The formula for cropping intensity of irrigation, Gross/Net Irrigate Area may be mentioned. (Page no 17)

3.5. Please explain with reference to Table 3.11; 'why there is a decline in area under cultivation'. (Page no 17)

3.6. References of table no 7.1 may be inserted 2nd line of chapter 7.2. (Page no 2nd line of 2nd page)

3.7. Pie chart/other graphical representations may be added for better presentation of data in place of data tables, wherever possible. This shall add to the visual and analytical appeal of the Report. ex. Table 7.3, 7.4 (page no 55) and etc.,

. 4. Major findings of the study and policy suggestions may be presented in point wise

. 5. Any other necessary changes.

Note: Three page policy brief on the above report may be sent which may inter-alia, include brief introduction of topic, need for the study major findings and policy recommendations. The cover page may be picturesque depicting subject concerned. This will be forwarded to ministries/deptt. concerned.

Action Taken

1. Comments regarding executive summary:

    1.1 suggestions incorporated
    1.2 Executive summary reduced.
    1.3 Suggestions incorporated
    1.4
    1.4.1 Corrections carried out
    1.4.2 Sentence corrected
    1.4.3 Sentence corrected
    1.4.4 Sentence corrected
    1.4.5 Two periods corrected
    1.4.6corrected
    1.5
    1.5.1 Corrected
    1.5.2 Sentences are corrected

2. Comments regarding text of the report

    2.1 suggestions incorporated
    2.2 Corrected
    2.3. 566 households are total village and 455 households are sample households for
         primary data collection remaining households are migrate from nearest urban center.
    2.4 suggestions incorporated
    2.4.1 Year mentioned
    2.5 objective are corrected
    2.6 methodologies corrected
    2.7 changed the educational profile and percentages are included
    2.8
    2.8.1 Modified sentences
    2.8.2 Modified title of the chapter no 4.5
    3. Comments regarding the tables in the report

    3.1 table 3.12 yield data is supplied by the village secretary (secondary data)
    3.2 add the reference
    3.3 secondary data not available in the village secretary.
    3.4 corrections incorporated
    3.4.1The total available land in the village (GCA) is 2618.3
    3.4.2 In the first survey period in 1970 that time is rainfed area. Present this area is bore
    well irrigation

3.4.3 Urban impact and cultivated land converted into plots (housing purpose)

3.4.4Cropping intensity of irrigation=Gross area irrigated/Net area irrigated

3.5 decline the are under cultivation due to urbanization and cultivated land converted into plots (housing purpose)

3.6 suggestions incorporated

3.7 pie charts are incorporated.

4. Major findings and policy suggestions in point wise.

All the necessary corrections are carried out.