



Socio-Economic Survey of Adiannamali Village

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Abstract: To understand the lifestyle, present economical aspect and to understand the changing trend in the cultural and economic status of a village population and to predict the possible future trends in the same aspects, it is important to carry out Socio-Economic Study of an area. The Socio-Economic study of Adiannamalai village in Tiruvannamalai district, Tamilnadu were done which produced definitive outcomes about the sex ratio, age profile, education, occupation, expenses, living conditions etc. of the population. The study can aptly state that the village has certain difficulties like drought, conflict with wildlife and human. The village population should adopt novel scientific techniques to increase the yield of agriculture produce and also work with local forest department to resolve issues.

Keywords: Village, Survey, socio-economic

I. Introduction:

The survey is conducted with the help of Adiannamalai Village Panchayat, Tiruvannamalai Union. The questionnaire is specifically designed to fulfil the objectives of the survey. The questions in the questionnaire are divided into 7 different categories. The last section of the questionnaire consists of observer's view and feedback. The questions are based on the social and economic issues of the villagers, their education, professions, income level, expenditure, composition of family, fuel use etc.

II. Objectives:

The main objectives:

- Data collection with respect to village profile in respect of socio-economic and cultural status, farm technology used etc.
- Bench mark survey of plant resources (cropping pattern, yield system, etc. To know about the plant resources and their usage in the area.

- Understanding local forestry and other village level institutions (Panchayat, Village Forest Committees, corporation, youth/women groups etc.)
- People's participation in development programmes with special reference to forestry.
- Exercises on the use of extension methods and teaching aids for transfer of technology

III. Methodology:

The data collected are both quantitative and qualitative data. For socio-economic survey one village was selected through purposive sampling and for the questionnaire survey, random sampling was done. The data was collected from direct interaction with villagers during household survey through questionnaire and non-participatory observations. Some basic information was collected from the village heads and the concerned forest department.

IV. Data Analysis and Interpretation:

The data collected from the selected village was analyzed with the help of MS Excel. All the data were then represented in table and graphical form.

V. Findings

The major findings are:

5.1 Sex Ratio & Age class distribution

From the surveyed households, 51.3% of the population is male & 48.7% are female. The sex ratio of this village is 946 females per 1000 males.. As per survey, a majority of population are adults (62.3%), having age between 18-59 years whereas children are lesser in number about 22.9% and senior citizen are least in number (14.6%).

5.2 Literacy and educational status:

It's clear that 5.3% of male and 15% of female are illiterate. Most of the female population has primary education. More males have secondary education than female. Only 29% of male and 17.9% of female



have higher education. 100% of children (5-18 yrs.) are literate. 94.6% of male and 84.9% of female population is literate in total. 3.4% of male and

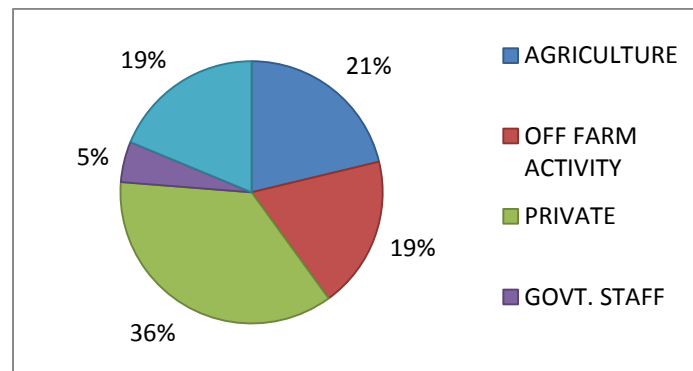
15.1% of female population are illiterate among the population surveyed during socio-economic survey.

5.3 Education institutes

EDUCATIONAL INSTITUTE	NUMBERS FOUND
Kinder garden	3
Primary school	2
Middle school	1
Secondary school	2

5.4 Main source of Household income

The village's economy depends on agricultural & Off farm Activity, business and both government & private jobs.



5.5 Income Groups:

39% of the people come under higher (above Rs. 80,000) annual income group. 46% of the people come under medium (Rs. 50,000 – Rs.80, 000) annual income group. 15% of the people come under low (less than Rs. 50,000) income group.

5.6 Household Expenditure:

It has been found that people spend more for their daily needs (30%). Then they do save 28% of their income approx. They spend 5% for travel, 12% for education, 09% for health care and 16% for other like bill payment, loan repayment, investments, farm expenditures etc.

5.7 Medical facility:

Medical facility	No	Distance
Primary Health Centre	1	With In village
Govt. medical college hospital	1	7 km
Private hospital	4	Between 2km to 12km
Private clinics	5	Within 6 km

5.8 Quality of residence:

We come to know that 75% of the surveyed population lives in a pakka house, 20% of the population live in a semi pakka house and only 5% of the population live in a kaccha house.

5.9 Water sources:

WATER SOURCES	NUMBERS
Over head tanks by municipal	8
Pond	8



Lake	1
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As this village situated in the dry regions of the state and have dry tropical climate, it faces water scarcity during the dry summer season. Mainly during May to August but it was well managed by the village panchayat board by ensuring proper municipal water supply during dry season.

5.10: Road Quality:

The road leading to the village was proper metallic road in good condition which measures 50 feet in width. It is also well connected to the other parts of the district. So the villagers can carry goods even in big trucks, van, lorry etc. The streets inside the village have cement road which is in good condition

5.11: Transport facility:

This village is well connected with headquarter of that district. It is well connected with the bus service operated timely by TNSSTC (TamilNadu State

Transport Corporation). Other mode of road transport is also available for the people in the village. Most of them have own vehicle like motorbike, scooter and car.

5.12: Use of fuel:

From survey, it's clear that more people (68%) rely on LPG only for fuel. 23% of the people rely on both LPG and Fuel wood for their fuel needs. Only small group of people (8%) rely fully on fuel wood, which were collected from the nearby forest area. Here in village more people use fuel wood during dry days in the outdoor kitchens and use LPG only during rainy days. So it's clear that people in this village most of them rely on LPG only and some rely on fuelwood during dry and LPG during rainy days.

5.13: Other facilities: Here I have enlisted other facilities available for the public use in that village in the table below:

FACILITY	NUMBERS
Village administrative office	1
Library	1
People service centre (e-seva)	1
Post office	1
Police station	1
Primary health centre	1
Govt. Veterinary clinic	1
Anganwadi	3
Public sanitary centre	6

5.14: LAND HOLDING STATUS:

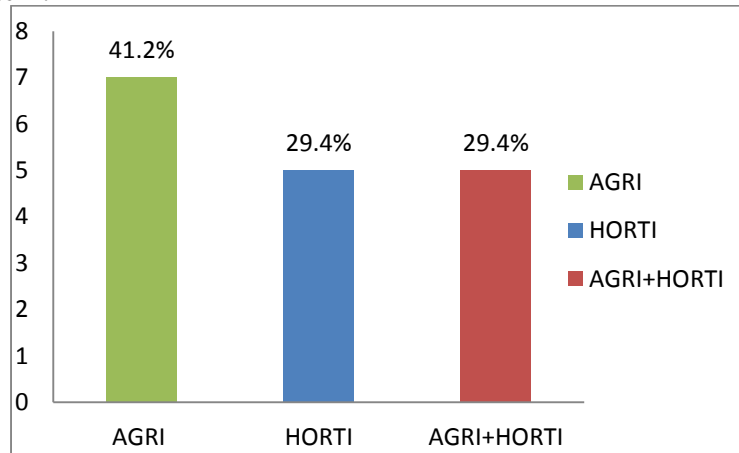
Here we can observe from the chart above that 70% of the population is landless, which is the main reason for the people to involve in other activities for income generation. Only 30% of the population owns farm land. Among them 12% hold 0.3 to 0.5 acre, 8% hold 0.51 to 1 acre, 7% hold more than 1 acre and 3% hold less than 0.3 acre. It is also clear that all are marginal farmers only.

5.15: AGRICULTURE:

As most of the farmers are marginal and small farmers, they mostly depend on horticultural crops like star jasmine, Arabic jasmine, cocks comb flower, marigold. Then rice and groundnut for oil extraction were the other important crops cultivated in that village. Other crops like Brinjal, Okra, Tapioka, and tora, Banana, Guava and Coconut were also cultivated.



5.16: Cropping pattern:



5.17: Crop period,season,yield and fertilizers used:

S NO.	CROP NAME	CROP PERIOD	SEASON	AVERAGE YIELD	PRICE	FERTILIZERS USED
AGRICULTURAL CROPS						
1.	Paddy <i>Oryza sativa</i> nell	130 days	Aadi pattam, Samba (kharif)	30-35 bags of 60kg /acre	1380 Rs/quintal	FYM, NPK 150:50:40kg/ha Green manure
2.	Groundnut <i>Arachis hypogaea</i> Mellatai/nilak kadalai	120-130 days	Kaarthigai pattam Rabi	1500-2000kg /hectare	8000-8750 Rs/quintal	FYM NPK 25:50:75kg/ha Sulphur sludge
FLORICULTURE CROPS						
3.	Star jasmine <i>Jasminum</i> <i>multiflorum</i> Kakada poo	Upto 10 years	Yield all over the year. Starts from 2 nd year.	3-4 kg/cent/day	In normal days:50Rs/kg In festival season:200- 250Rs/kg.	FYM, NPK @ 120;140;120, <u>ZnSo4@0.25%</u> <u>MgSo4@0.5%</u> <u>FeSo4@0.5%</u> Spray to increase flowering. Azospirillum, Phosphobacteria
4.	Arabic jasmine <i>Jasminum</i> <i>auriculatum</i> Mullai poo	12-15 years	Starts yielding from 3 rd year. yields during April to November	2-5kg/cent/day	In normal days:50-100Rs/kg In festival season:300- 350Rs/kg even more than that.	FYM, NPK @ 120;140;120, <u>ZnSo4@0.25%</u> <u>MgSo4@0.5%</u> <u>FeSo4@0.5%</u> spray Azospirillum, Phosphobacteria
5.	Marigold <i>Tagetes erecta</i> Thulukka samandhi	130 to 150 days	Starts flowering from 60 days	10 to 13 t per acre	In normal days:50Rs/kg In festival season:100- 200Rs/kg.	FYM, NPK@90:90:75, <u>FeSo4@0.5%</u> <u>MgSo4@0.5%</u> Azospirillum, Phosphobacteria
6.	Cocks comb <i>Celocia spicata</i> Kozhikondai	100-120 days	Starts flowering from 45th day	30kg/acre/day	In normal days:20Rs/kg In festival days:50-75Rs/kg	FYM Urea NPK Complex.
HORTICULTURAL CROPS						
7.	Taro <i>Colocasia esculenta</i>	180 days	Jun-jul Feb-mar	8-10 t/ha	10-30 Rs /kg	FYM NPK Complex



	chepankizhangu					
8.	Tapioca <i>Manihot esculenta</i> Maravalli	9 to 11 months	Planted all over the year.	40-50 t/ha	410 Rs/quintal	FYM NPK Complex
9.	Brinjal <i>Solanum melongena</i> Kathirikai	100 to 120 days	Dec-jan May-jun	20-30 t/ha	10-15 Rs/kg	FYM , NPK Azospirillum, Phosphobacteria
10.	Okra <i>Abelmoschus esculentus</i> Vendaikai	90-120 days	Summer crop mar-jun rainy crop jul-oct	12-15 t/ha	10-20Rs/kg	FYM , NPK Azospirillum, Phosphobacteria

5.18: Trees in Farmland

ENGLISH NAME	LOCAL NAME	SCIENTIFIC NAME
FRUIT YIELDING TREES		
MANGO	MAANGAI MARAM	<i>Mangifera indica</i>
PAPAYA	PAPPALI MARAM	<i>Carica papaya</i>
DRUMSTICK	MURUNGAKAI MARAM	<i>Moringa oleifera</i>
COCONUT	THENGAI MARAM	<i>Cocos nucifera</i>
PALM	PANAMARAM	<i>Borassus aethiopum</i>
GUAVA	GOIYA MARAM	<i>Psidium guajava</i>
SAPOTA	SAPOTAMARAM	<i>Manilkara zapota</i>
FRUIT & TIMBER YIELDING TREES		
FIG	AATHIMARAM	<i>Ficus racemosa</i>
JAMUN	NAVAL MARAM	<i>Syzygium cumini</i>
TAMARIND	PULIYAMARAM	<i>Tamarindus indica</i>
TIMBER YIELDING & OTHER TREES		
TEAK	THEKKU MARAM	<i>Tectona grandis</i>
NEEM	VEEPAMARAM	<i>Azadirachta indica</i>
INDIAN ROSEWOOD	EETI MARAM	<i>Darbergia latifolia</i>
GOLDEN SHOWER	SARAKKONDRAI MARAM	<i>Cassia fistula</i>
INDIAN BAEI	VILVAMARAM	<i>Aegle marmelos</i>

5.19: Damage to the crops caused by wildlife:

Damage to the crops like rice, groundnut, brinjal, okra, star jasmine, Arabic jasmine have caused by monkey, peafowl, wild boar, grey langur, deer and porcupine. Mainly the damage have been faced by the farm land located in the valley of the hills and also to the farmlands at the boundary of the forest.

CAUSES:

These damages have been caused mainly during the dry season. When wildlife goes into the neighbouring village for water, it damages the crop in the farmlands. Birds, snakes, Rodents also cause damage to the crops grown in the farmlands in that village due to the lack of food.



SNO.	WILDLIFE	TIME OBSERVED IN FIELD.	DAMAGE CAUSED
1	Peafowls (<i>Pavo cristatus</i>)	Dawn(6:00-9:00) and Dusk(16:00-19:00)	It feeds on the rice and groundnut in the farm land. It just feed about 40% of the crops.
2	Monkeys (<i>Macca radiata</i>)	Dawn(6:00-9:00) and Dusk(16:00-19:00)	It feeds on mainly the horticultural crops like brinjal, okra, mellons, and they also damages the banana plantation and other plantations.
3	Langur (<i>Semnopithecus priam</i>)	Dawn(6:00-9:00) and Dusk(16:00-19:00) Only in dry season	It feed on the both rice and horticultural crops and they mainly damages the jasmine plantation by cramping and crushing the crops .But comparatively causes less damage to the floricultural crops than food crops.
4	Deer (<i>Axis axis</i>)	Mid night to early morning.	It may damage by crushing or feeding on the crops while wallowing and rooting which injury to plant roots and forms holes and groves that harms the farm equipment and endanger operation.
5	Wild boar (<i>Sus scrofa L.</i>)	Mid night to early morning.	It may damage by crushing or feeding on the crops while wallowing and rooting which injury to plant roots and forms holes and groves that harms the farm equipment and endanger operation.

5.20: Livestock:

About one fourth of the population(27%) in that village own cattle including cow and goat. 73% of them didn't own any cattle. 22% of them owned cow. Only 3% of them own both goat and cow. 2% of them own goat only.

5.21: Food and fodder for cattle:

TYPE OF FODDER	NAME
Dry fodder	Yellow maize, corn, rice bran, Dried tapioca chips, ragi, coconut cake, groundnut cake, jowar, rice straw were the common dry fodder feed.
Green fodder	Lobia, Hedge lucerne, Lucerne, stylo were the legume fodder feed to the cattle.
Grass fodder	hybrid napier, Guinea grass, Para grass, Blue buffel grass
Tree fodder	Like subabul, glyricidia, Sesban. During monsoon season cattle were mostly grazed in the open pastures available around the village.



5.23: Yield:

On an average, improved varieties of cow yields 8-10 lit of milk per day with proper feed. Local varieties of cow yields only 4-5 lit per day. More people rear cattle only for subsistence use. Others sell it to the milk societies found in the village. They sell it for 40-45 Rs per lit of milk.

products	price
milk	40-45 Rs per liter
curd	50 Rs per liter
butter	800 Rs per kg
ghee	850-900 Rs per Kg

5.24: NTFP (Non-timber Forest Produce) collection:

Here in this village they mostly collect only firewood from the nearby forest and they do collect wild lemongrass (*Cymbopogon citratus*) for Roofing. Nothing else was collected from the forest.

5.25: People’s participation in reforestation:

NGO’S and forest department the reforestation programme was carried out successfully. Locals were engaged in seed collection and tree propagation in the nursery, planting trees in the monsoon season. Fire regime management

involving removal of all inflammable material after each monsoon season, except trees

5.26: People’s participation in fire and watershed management:

Here forest fires and drought are the major issues during dry season. These are really damaging the forest ecosystem in these areas. So with the local people help management of both taking place in good manner. People of this village are well aware of forest laws. People also involved in cleaning ways for small streams and channels which carry water to the pond and lake near the forest area before monsoon to overcome the drought during dry period.

VI. SWOT Analysis:

Strength	Weakness
<ul style="list-style-type: none"> Literacy. Private jobs Well aware of importance of forest. Well facilitated. Less pressure on forest for food, fodder and fuel wood. Agriculture. Good management of land and livestock. 	<ul style="list-style-type: none"> Shortage of land. Only some follow agroforestry. Poor irrigation facility. Usage of more fertilizers and chemicals in farm land. Shortage of farm workers.
Opportunities	Threats
<ul style="list-style-type: none"> Good connectivity. Pilgrimage. Tourism. Floriculture. 	<ul style="list-style-type: none"> Drought. Wildlife conflict. Climatic factor. Cyclones. Damage to the crops due to wildlife.

VII. Problems Faced by the villagers:

The following are constrains faced by the population living in this village:

- Drought during summer season.

- Peoples are less aware of modern irrigation technologies.
- Frequent human wildlife conflict during dry season.
- Less availability of land for cultivation.



VIII. Recommendations/ Suggestions:

According to the results and conclusions obtained the following recommendations/ suggestions are given to develop the social and economic status of the villagers of Adiannamalai village.

- People can be encouraged to do organic farming and to avoid using chemical fertilizers and pesticides.
- People need to get more aware of modern tech. in irrigation and Govt. schemes which provide subsidies for installing it in their farm land.
- People should concentrate more in mitigation activities for wildlife conflict and damages caused by it to the crops.
- More people need to be encouraged to join in reforestation activities and also in forest fire mitigation activities.
- People should come forward to plant more timber yielding trees and also to follow Agroforestry.
- People need to be thought about the causes of the forest fires and need to avoid carrying or putting inflammable material in the forest area.

IX. Conclusion:

Therefore, based on the above findings it can be concluded that Adiannamalai village is well developed with good transport facility, medical facility, Education, water supply, electricity. This village is less dependent on forest for food, fodder and fuel wood. It is also well aware of the important of the forest. So the people of this village well aware of forest laws and involve in forest protection and afforestation activities.

Acknowledgement

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