## CHAPTER – IV

# PROFILE OF SOCIAL, DEMOGRAPHIC AND HOUSEHOLD ENVIRONMENT

This chapter analyses the various social, demographic and household environment of the surveyed households. This analysis, which is three fold, would help examine the impact of the Rural Development Programmes discussed at later.

Table 4.1 reveals the social characteristics of the surveyed households. There were three religious groups in the total sample of the different agro climatic zones. Of the surveyed households, 80 per cent were Hindus. Christians and Muslims constituted 17 per cent and 3 per cent respectively. The population of the religious groups varied among the zones. In the Cauvery Delta zone, 94 per cent of the households belonged to Hindu and the rest of them were Muslims and Christians. All households belonged to Hindu, in respect of two zonal villages of North East and Western. On the other extreme, 86 per cent of the households belonged to Christian community in High Rainfall Zone. Since this zone is situated in the border area of Kerala and Tamil Nadu, most of them converted to Christians. In view of enjoying some privileges in the Christian community, they were converted from Hindu. In the remaining three zones, the proportion of Hindus varied from 80 per cent to 89 per cent.

Since the Muslims are the minority group in the State, the same trend has been reflected in the sample. Of the seven zones, only in three zones Muslim community recorded and the percentage was very meager. Similarly, Christian community was not recorded in the North Eastern zone Village. In the rest of the zones, 318 households (18%) belong to Christian community. It is observed that some religious traits and traditions may be useful to preserve the domestic environment. Further, the distinguished

culture among different religious groups prevail in the state, may help safeguard the environmental resources.

The policies of the Government aimed to help socially and economically deprived sections of the population of SCs, STs, MBCs, etc. In focusing the issue, the sample population was categorized into five groups viz. SCs, STs, MBCs, BCs and Others. Of the total sample, the majority of the households belonged Backward Community (43 %). The Most Backward castes and the SCs more or less equally belonged, i.e. 28 per cent and 26 per cent respectively. The STs were registered in four zones and the total percentage was 2. Other communal groups were registered only in the Cauvery Delta zone, and the percentage was very meagre (0.95%). Even though the government has discriminated the subsidies and the rate of interest in terms of regions and communal groups, most of them are entitled to enjoy the benefits of the governmental programmes. It is expected that the individual and community programmes would have created the expected impact on their households as well as in their villages.

Size of the household is one of the important parameter, which determines the socio-economic development of the people. There are ample evidences in the literature to show that the size of the household has been shrinking over the decades. Now a days, the social systems move towards breaking the joint family system and create nuclear families. Due to the fusion and fission of families, this trend continues in the study region. To explore the size of the sample households, it has been categorized into three groups viz. small, medium and large. Of these three groups, 65 per cent of the households belonged to the medium size of 4-6. At the next level, small families occupied 28 per cent and the rest of them belonged to large families (7%). It was evident that the majority of them were living in the form of nuclear families. This system facilitates to participate in all the government activities and took decision very quickly among the household members.

#### **Personal Characteristics**

Personal Characteristics of the surveyed head of households is presented in Table 4.2. In this table, there are three major characteristics identified and presented, viz., Sex, Age group and their Educational status. These characteristics would play a vital role in enhancing their family income and status in the society. Besides the Government has extended various programmes in favour of women and their empowerment. As per the Hindu culture, the aged male leads the family and makes decisions on vital issues in the family affairs. The question arises in this context, whether the programmes have created any impact on the women empowerment. The households surveyed could reveal that the male-headed households dominate and represent 90 per cent. The female-headed households represent only 10 per cent that too emerged due to the unforeseen family circumstances. The female-headed households varied among the zones. It ranged in between 18 per cent to 4 per cent. The percentage was very high (18%) in the High Rainfall Zone of Kanyakumari. And at the second level, 12 per cent registered in the High Altitude Zone of the Nilgiris. Both the zones were situated on the borders of the neighbouring State, hence their culture is some what different from others.

The age group has been categorised into three viz. young, middle and old. The age of the head of the household would decide their economic activities. In total, the active middle-aged group belonged 69 per cent. The rest 24 per cent and 7 per cent belonged to young and old aged group respectively. It is expected that the middle-aged group of 35–60, may involve actively enriching their income and wealth status. A similar trend could be seen in all the zones and ranged in between 65 per cent to 80 per cent. The young aged head of the households were very low in the zones of High Altitude (19%) and High Rainfall zone (14%). In the High Rainfall zone, the role moved to old aged group, hence the percentage was high (16%). But this had not happened in the case of High Altitude zone, and the percentage was one per cent. The old aged households were more than eleven per cent registered in the Cauvery Delta zone and the High Rainfall zone. It could be concluded that the age of the head of the households play a vital role in determining the household development.

The educational status of the head of the households would pave the way to lead the family in good stead. To promote literacy in the country, the Governments took various steps on free education to formal adult literacy programmes. In taking the stock of the educational development among the households happened during the last five decades after independence, the educational status was grouped into four. They were: Illiterate, Primary, Secondary, and Collegiate. Of the total surveyed households, 40 per cent belonged to the category of illiterate. It may rather surprise to see this figure, more than fifty percent illiterate recorded in three zones of North East, North West and Southern zone. The Government introduced the Noon Meal programme to arrest the dropouts as well as to encourage the education among the poverty stricken groups. These programmes too had failed to bring these people, at least to the primary level. It is reasonably one could expect that the Noon Meal programmes introduced as a pioneer on the country during 60s, would have achieved the targets and promoted the education. In juxtaposing the figures to the age group, it is evident that most of them belong to the category of middle aged. Next to the illiterates, the secondary educated head of the households' percentage registered 37. In this category, 76 per cent recorded in the High Altitude zone of the Nilgiris. It shows that the educational awareness differed among zones. The lowest percentage (22%) recorded in the Southern zone of Ramnad District. This zone is one of the backward areas of the state, and their development is far below in terms of all parameters.

On an average the primary educated head of the household was 21 per cent. In this context, the questions boiled down to the quality of education. Of the primary educated people, some of them could not read even the alphabets. These categories would have turned to the schools to have the free noon meals.

College educated people percentage was very low (2%). It ranged in between one per cent to 10 per cent among the zones. These rural people had some education in the Government schools at Panchayat / Block level, but they could not move to collegiate education. Even though the Government extended various concessions and reservations,

they could not compete with other categories of population, the standard of education in these schools witnessed the same.

## **Household Composition**

Household composition of the surveyed house holds is given in Table 4.3, which is portraying the demographic features of the derived sample from different agro-climatic zones. The sex ratio analysis may give some policy directions to enable the growth of population in a sustainable way. The important features recorded were sex, age and earners / dependents. On an average the male / female composition was more or less equal. The male / female proportion was 51 per cent and 49 per cent respectively. For every 1000 males, 950 females were prevailed in the sample. Female population was just low compared to the male population in all the zones, except in the case of High Rainfall Zone. These results conform the figures of national averages. In Kerala, the female population was just high compared to male population, hence the impact could be seen in High Rainfall Zone which lies in the border of Kerala. Of the seven zones, only in two zones the female populations were low, in respect of North East (860) and High Altitude Zones (890).

The practice of offering dowry prevailed in all the religious groups in the State. The dowries were offered to the bridegrooms and the amount depends upon the bridegrooms' qualification, employment status, work place and their family economic and social status. The National Population Policy addressed the issues of deteriorating the male / female ratio, and also the female infanticide which happened in some communities of southern districts in the State. But in the southern zone, the sex ratio was quite high (990) compared to the overall sample. It is observed that the practice was not extended to the other districts of southern zone. However, in the North East Zone and the High Altitude Zone, the sex ratios were low. In these zones, the proportions of Hindus were high. An in-depth study is required to address the issues of the sex ratio and the social systems prevailed in different communities in the State.

The population was grouped into four age groups viz. Children (<15), Young (15-35), Middle Aged (36-60) and Aged (>60). This analysis would help assess the impact of health infrastructure was provided and the goods that were delivered to the population. Of these four age groups, majority of them were in the economically active groups of young (40%) and middle (29%). The children group shared 25 per cent. It reveals that the cycle of the population was moving in a balanced way, except in the case of old aged. The old aged share was only 5 per cent. In terms of age, around 30 per cent from the groups of children and old aged, i.e. economically inactive group emerged as dependants. A similar trend could be noticed in all the zone samples. To probe this issue further, earner dependant ratio was worked out.

Earner dependant ratio gives a picture that how many of them belong to the economically active category. It is opined that the children group will not be of any support to their families. In conformity to this view, the people in the rural areas intend to give education to their kids instead of sending kids as cowboys. However there were some exceptional cases, of children working in the small industrial activities. On an average, earner dependant ratio was 1.01, depicting the fact that for every one earner, there is one dependant in each family. The dependants were more than one in four agro climatic zones viz. North East (1.10), High Altitude (1.02), Southern (1.65) and High Rainfall (1.20). The dependant ratios were low in North West (0.63) and Western zone (0.74). Juxtaposing the figures to the age groups, it did not reveal any relation between the age and their activities. It shows that the employment opportunities were available in respective zones, to use their skills and earn.

The average size of the household was 4.32. It shows that the families live in rural areas too followed the family planning practices and used the available birth control devices. In the earlier days, particularly in Agricultural Labourers category, they treated kids as assets. They felt that they had to feed them upto the age of only five, after which they could earn for themselves it was believed and practiced. Now this attitude has been removed among the rural population, who increasingly take to family planning, controlling births. The maximum size of household was prevalent in the southern zone

(4.82). Household size varied in between 3.59 and 4.82. It could be said that the population policy with reference to birth control was achieved in the State. Besides, due to the emergence of the nuclear family systems, the figure came down sizeably over the period, compared to number in the census data.

### **Education**

Education is one of the important factors determining the development of the households. Literature is abound, which strongly supports the positive association between education and development of the rural mass. Since independence, the government policies were towards promoting primary education to higher education. This analysis would examine the attainment of education and their development. Of late, the awareness was created among the people about the environmental issues. It has been realized that the environment education, awareness among the people, facilitates them in preserving the natural resources.

Educational Status of the surveyed population is presented in Table 4.4. The educational status was further classified into four age groups of fifteen and above. These were illiterate, primary, secondary and collegiate. In this group, 32 per cent of the population was illiterates. This figure was confirming to the census data and just low as compared to the rural illiterates of the State (33%) as per the Census of India, 2001. Of the Seven zones, illiterates were high in four zones viz. Cauvery Delta (35%), North East (39%), North West (46%) and Western (40%). The illiterates were low in High Altitude Zone (10%) and High Rainfall Zone (15%). These zones were performed well in some respects. The expected goods were delivered and the people too participated and benefited the same.

Among the literate categories, the proportion was very high in the case of secondary educated population (44%). At the next level, the primary educated population percentage was 20 per cent. The collegiate percentage was very low at 4 per cent. Of the college-educated sample, most of them had to acquire only arts and science degrees, and they did not enjoy the benefits of the technical education provided by the government.

In the context of Secondary level educated population, the higher percentage (71%) was registered in the High Altitude Zone of the Nilgiris. The percentages varied among the zones. The lowest percentage (32%) was recorded in the North West Zone. It could be said that the development of the region associated to the attainment of education. Only two zones performed well in terms of secondary education, i.e. High Rainfall Zone and High Altitude Zone. There is no clear trend in primary educated population among the zones. It varied in between 12 per cent and 28 per cent.

It could be concluded that there is a rich scope for improving the level of education in the State. Besides, education may also be provided to produce the goods by way of using the local resources and market the same in a profitable way.

An attempt has been made to analyse the issues of dropouts. The Government of Tamil Nadu introduced the noon meal programme, to arrest the dropouts. On an average, the percentage of dropouts was 7 per cent. In some regions dropouts were high, viz. southern (11%), Cauvery Delta (10%) and North West (10%). It could be confirmed that the dropouts were reduced due to the noon meal programme. However, the question arises as to the quality of education. The lowest drop out rate was recorded in the High Altitude Zone of the Nilgiris. In education, High Altitude Zone and High Rainfall Zone performed well. It is observed that the NGOs played a vital role in promoting education in these zones. This is witnessed in both zones. NGOs activities are very predominant that they manage to grab maximum funds from the National and International organizations. This practice may be emulated to other regions in promoting education among the socially and economically deprived sections.

## **Occupation**

Table 4.5 describes the main occupation of the surveyed head of the households. The major occupations of the seven agro-climatic zone Villages enabled forming eight categories. Of these, 'other group' referred to aggregation of some occupations which did

not have enough entries. In this category, the fishermen and Palmyra workers are there in Ramand district of the Southern Zone and the Sericulture activities are found in the Western Zone.

Of the total households surveyed, 62 per cent of the head of the households' main occupation was agricultural labourers. Agriculture is the main activity in the rural area of the State. Putting together, the agricultural labourers and cultivators proportion was 69 per cent.

A little diversification took place in the occupation of the rural households. The diversification is very poor in terms of percentages. Apart from the agricultural activity, the rest of the house holds (31 %) engaged themselves in the traditional activities of handloom, pottery, Palmyra and some of them turned down to government service (4.44%), private service (3.65%) and industrial labour (0.95%). It is observed that the Self Help Groups activities in the Western Zone, i.e. Sericulture gave an opportunity to the people to utilise the small piece of land to grow mulberry plants and on an average per person earned Rs. 7500 per month. This is a solid achievement of the group activity introduced by the government in the name of SGSY. The success of their activities may be explained as follows: topography of the region permits them to perform sericulture and they identified suitable marketing facilities in the neighboring States, etc.

Of the seven-agro climatic zone villages, Agricultural labourers occupied the major share. The percentage of agricultural labour ranged in between 44 per cent and 83 per cent. The highest percentage share was recorded in the Western Zone village (83%). This zone village is located in the hilly track, hence the population get jobs in agriculture as well as in the tea plantations. But in the High Altitude zone village, 66 per cent of the people involved in tea plantations and some of them involved in the cultivation of horticultural crops. In the Second place, the North East Zone village was recorded 70 per cent. Of these seventy per cent, all of them worked in the fields of paddy, sugarcane and cotton. The proportion of Agricultural labour was very low in the Cauvery Delta Zone (44%). This Cauvery Delta Zone village could be treated as a temple village. Due to this

existence of the temple, some of the weavers' community settled and do their traditional activities. Even though, the modernization took place in the textile industries, these communities have not been affected much.

In the category of cultivators, the proportion recorded in between one per cent and nineteen per cent. Very low proportion was recorded in the North Western Zone village (1%) and the High Rainfall Zone (2%). The occupational diversification was high in the High Rainfall Zone village, since the village is situated on the border area as well the climatic conditions are favourable to do other than agricultural activities. But in the Western Zone dry village, the farmers were cultivating tapioca, banana, sugarcane, etc. There are eight Sago factories functioning in this village. These factories provide some employment to the agricultural labourers during the particular season. In the North Eastern Zone village, 19 per cent of them were cultivating paddy, sugarcane, etc. For their cultivation, they depend upon the lake and the ground water.

In general, seven percent of the sample was doing business. These business communities prefer to live in the cities or in the small towns. This category people were also doing business in the neighbouring towns, but their family members stay in the villages. The proportion was high (21%) on the Southern Zone. In this Zone, particularly Muslim communities are doing business. Besides some of the Muslims are working in the Gulf countries. At the next level, 13 per cent of the head of the households were doing business in the High Altitude Zone. These activities in general constituted the avocation of the backward class and other communities.

In the case of government service and private service, more or less the head of the households shared equally i.e. four percent. However, the variation was not significant among the zones.

The industrial labour employment registration was nil in two zones viz. Cauvery Delta Zone and Southern Zone villages. In these zones, the industrial activities are very low. The topography of the region permits them to introduce some specific activities.

In the Artisan category too, two zones recorded nil performance. They were North East Zone and the Western Zone villages. In the North Eastern Zone, the women development activities could be observed and they were involved in toy making. These activities undertook by the females of the households, hence it was not recorded in this zone. The Government of India constructed a building for their activities under the scheme DWCRA. The highest proportion recorded in the Cauvery Delta Zone village. In this village a particular community was involved in handlooms. It could be concluded that the nature of the occupation permits them to enjoy the benefits of the Government Programmes and thereby household development.

#### **Profile of Household Environment**

The project probes the possession of various assets of the surveyed households and their internal and external benefits from an environmental perspective. This profile would help us in assessing household environmental problems in the study area, which follows in the Chapter IX.

## **Cooking Energy, Kitchen Wares and Vehicles**

Table 4.6 describes the details of cooking energy, kitchenwares and vehicles. These statistics were compiled to highlight the use of alternative energies available and probe the same in an environmental perspective. In the rural areas, people habituated to make use of the agricultural wastes and other locally available material as firewood. Now a day the practice of using other alternative energy sources of LPG, biogas and kerosene could be seen in the rural areas. It is observed that the practices were extended to all agroclimatic zone villages. Of the four important sources of cooking energy, firewood still occupies the highest proportion i.e. 68 per cent.

The central government introduced the biogas development programme and provided subsidy to install the same in the rural areas. The objective of promoting this scheme is to conserve the local resources and arrest the deforestation. Of the surveyed

households, eight cases were registered in the western zone village. It is observed that the biogas plant once set get repaired, people were reluctant to set right the repairs, since the alternative energies are available in the area. The alternative energy viz. LPG and kerosene are accessible and the prices are affordable to some of the rural households. Hence, the people are gradually switching over to other alternatives.

The use of firewood stove registered more than 71 per cent in all agro-climatic zone villages except in High Altitude Zone of the Nilgiris. The climate of the zone is very cold, hence the village people have to boil the water for the human beings as well as to their cattle more or less throughout the year. In the rest of the zone villages, some of them were using kerosene as a substitute during the rainy days. In the High Rainfall Zone, 79 cases were recorded and the proportion was only 23 per cent.

It could be concluded that the population used the locally available material and conserve the energy. The poorer income group depends on the CPRs for their firewood. Since the size of common property resources particularly trees being reduced over the period, the poor may suffer.

Kitchenwares were compiled to highlight the practice of rural households. Traditionally, the rural people used earthenwares for cooking. Environmentalists too have advised to use the earthenwares and to avoid the use of aluminum utensils to reduce the health problems during long run. In this context, it is realized to examine the use of different cooking wares.

Of the total utensils, the proportion of the use of Eversilver utensils were high i.e. 38 per cent. At the next level, aluminum vessels and plastic goods occupied the same proportion of around 22 per cent.

Earthen wares and brass vessels were relegated to the third place and its composition stood around 10 per cent. The use of modern, low cost goods may harm the health and the environment.

Among the zones, the use of earthenware was nil in the High Altitude Zone and the practice is differed from other zones due to chill climate. In the context of the rest of the utensils, a little variation could be seen among the zones. On the basis of their culture and their tradition, the introduction modern utensils did not affect much in their way of life.

Vehicle is another important indicator to assess the level of development and also the environmental condition. Bicycle used to be treated as the poor man's vehicle. Of the total sample only 460 persons had possessed the bicycle. The land slope of the region may facilitate to have bicycle and two wheelers. This is the witness in the zones of High Altitude and High Rainfall. In the same zone, some of the high-income group people possessed bikes. It could be concluded that the major proportion of the vehicle bicycle used by them. It may rather surprise to see the statistics of the number of bicycles. Of the total samples, only 460 persons had bicycles. It is observed that the rest of the household (65%) could not access the poor man's vehicle of bicycle.

#### **Trees**

Table 4.7 gives detailed information about the number of Trees. This statistics would give the information of the possession of various kinds of trees. Of the seven agroclimatic zone villages, the major trees were accounted mango, jackfruit, tamarind, bamboo, coconut, teakwood and other trees. Among these trees, coconut trees were constituted 50 per cent. The number of coconut trees was high in the dry zones of southern and North West. Since these trees used to give a regular yield with a gap of forty-five days and their byproducts of these trees could be used as fire woods, etc. These trees can survive in all the zones except in the High Altitude zone of the Nilgiris.

Similarly, all the zones villages except High Altitude Zone grew tamarind trees. Tamarind is one of the ingredients for the preparation of south Indian food, which has a market value in all the days. Needless to say, these trees would give various forms of returns, which is the additional source of income to the households. Growing these trees may create some positive externalities in the environment.

In general, the tree population was very high in the Western and Southern zones. The tree population is low in some regions. It is observed that the people cut the trees and disposed in the market to meet their expenses. But they have not taken steps to regenerate the trees.

It could be suggested that the afforestation activities have to be strengthened. In particular the awareness of social forestry can also be increased among the rural mass to generate internal and external benefits.

## **Distribution of Trees**

Varieties of trees reflect the nature of yield. The periodicity of returns varied from trees to trees and the pay back period goes up to 25 years in the case of Teak Wood. In order to identify the habit of growing trees among the households, tree distribution has been worked out (Table 4.8). It is rather a surprise to find that a very large proportion of household (47%) do not possess any trees at all. The distribution size increases from '1 to 5' to '15 and above', the proportion of household possessed trees decreased significantly, that is from 32 per cent to 8 per cent respectively.

However, a uniform trend could not be seen and in the case of '10-15' distribution, the percentage share is only 3 per cent. Of the seven study villages, a sizeable number of households of the four villages viz. High Altitude Zone (98%), Western zone (66%), North Eastern Zone (49%), do not possess any trees either to meet consumption needs or for sale. These households live in the small piece of household land and these lands have the characteristics of insecure land rights, encroachment land, Government distributed and issued patta, etc. Due to these characteristics, the households have not opted to grow any trees. It is imperative to make them realise that they are the owners of the property by way of securing them property rights, so that they need not discount highly the future benefits. In the context of afforestation and sustainable development, the growing of tree practice has to be encouraged in all the households, wherever it is possible including in the High Altitude Zone. The practice of offering Teak wood saplings to the households of female baby by the Government in Dharmapuri

District, Tamil Nadu to arrest the female infanticide can be emulated to other region to control the social evil. The aim of the novel scheme is to give return at the time of their marriage after twenty-five years and reduce thereby the burden of the parents. This policy may solve the twin problems, viz. social and environmental.

## Livestock

Rearing livestock is one of the additional sources of income as well as to meet their own consumption of the rural households. The farmers could use their byproducts to feed the cattle. They need not spend much time to manage the same. Of the surveyed households, the major proportion 37 per cent of livestock, particularly hens possessed by the rural people. At the next level, goats were constituted 35 per cent. The proportion of Oxen population stood at only 3 per cent. Due to the introduction mechanisation in agriculture, the oxen populations were reduced. Since the agricultural activity is seasonal oriented, managing and feeding the oxen is very costly compared to the use of mechanical energy (Table 4.9).

Rearing of pigs could be treated as a main source of income to some communities in the State. These pigs would clean the human excreta and again pigs ease would offset the pollution. Besides these populations may create some diseases among the population. In realizing the importance, the question has been admitted to quantify the pig's population in the various agro-climatic zones. It is interesting to note that the pig's populations were zero.

## **Distribution of Livestock**

The composition of livestock varied among the zonal villages. It reveals that the need of their agricultural and other activities. In some regions, the topography does not permit them to rear particular variety of livestock. The practice of rearing livestock gives opportunity to agricultural families to use their by-products as feed to the cattle. Besides, the residuals and wastages too are used as feed for cattle and it gives in the form of return to the agriculturalists. Non-agricultural families have to depend upon the CPRs and also

they enjoy the secondary rights to graze their cattle and collect the residuals and wastages from the harvested field of the private landholders. They can enjoy the secondary rights only during the season and it will not give sustainable feed to their cattle. At this juncture, it is necessary to educate the people to rear livestock and make use of the available feed throughout the year by way of providing some storage facilities. It could be suggested some food processing industries have also to be developed at the local level, to enable the supply of the feed continuously to the cattle. This will encourage the population to rear some livestock and get some additional returns to manage their families.

Of the total surveyed households, 62 per cent had no livestock. The distribution size increases from '1-5' to '15-20', the proportion of households decreased from 33 per cent to one per cent. It is observed that those who possess livestock; they feel that small number of livestock is enough to manage and feed them within the available space. The same trend could be seen in all the villages. The poverty stricken groups are rearing some livestock to meet their additional expenses. Of late, it is observed that a reduction in the size of the Common Property Resources has a dampening effect on rearing livestock. It could be suggested that the CPRs have to be managed and the property rights may be amended suitably in favour of the rural poor.

## **Type of House**

Type of House is one of the important parameter to assess the standard of living of the people. Of the total sample surveyed, 42 per cent of the households were living in the tiled roof houses (Table 4.10). At the next level, 32 per cent of the households were living in the concrete houses. Government of India introduced the programme IAY and constructed initially tiled roof houses, later on they redesigned to fireproof concrete houses.

In these two houses, some of the sample households benefited from the housing programme. Still, 26 per cent of the households were living in the thatched houses. These people could not convert their houses in the form of concrete/tiled, due to their poor

income and employment opportunities. It is also observed that some of the poor income households did not have the land patta. Hence they could not enjoy the benefits.

## **Details of Agricultural Implements**

Table 4.11 portrays the details of agricultural implements possessed by the rural households. These implements facilitate them to perform their agricultural and other activities. These implements were broadly grouped into four. They are vehicles; pump sets, tube wells, Sprayers and others.

In the context of vehicles, the rural households possessed tractor, bullock carts and tyre carts. Tractors were recorded in two zones of North East and North West. The large farmers alone are keeping the tractors, since the value of the tractors are very high. These large farmers too could not exhaust the capacity of the tractors throughout the year. They hired out the same to the small and marginal farmers and also used for some other activities.

Traditionally, the farmers to market their goods used the bullock carts. Gradually, they moved to tyre carts, to reduce the hardships of the bullocks and enhance the capacity of the vehicle. In some zones, these vehicles were not recorded due to the slope of the region. Further it is observed that the government gave subsidy/low interest loans to the farmers to procure the same. The owners of the vehicles too enjoyed the benefits.

## **Pump sets**

Ground water potential is determining the intensity of agriculture. The farmers have intensified the agriculture by way of using oil engine, and electric motors. To encourage the agricultural production, the government extended the facilities viz. low interest loans and subsidies. Besides, the government provided free electricity to the farmers. Accordingly the farmers purchased the pump sets and used for their agriculture.

Of the seven agro-climatic zone villages, five-village sample population had possessed the oil engines and electric motors. The rest of the zone villages viz. High Rainfall Zone and High Altitude Zone had no pump sets. In both the zones water is not the problem for their use.

In total, the beneficiaries in the five zone villages erected 119 tube wells. The average depth of tube wells varied among the zones. It ranged in between 193 ft to 20 ft length. Of the five zones, the ground water potential is very large in two zones viz. Cauvery Delta Zone and Southern Zone. Southern zone is the dry zone. However the village is situated nearest to the seashore area, hence the ground water is available. However, the available water is salinated over the period due to the lifting of ground water.

## **Sprayers and Other instruments**

Farmers used to possess some instruments to perform their tasks. If the value of the instrument is high, the marginal and small farmers used to hire the same from others. Hence it has not been reported in some zone villages.

Of these instruments, sprayers were occupied less proportion i.e. 4 per cent. However, farmers realized that the use of pesticides is essential to cultivate food and commercial crops. It shows the condition of the agricultural environment.

In the light of the above discussions, it could be concluded that the profile of social, demographic and household environment of the surveyed households varied significantly among the zonal villages. This profile would help us to examine the impact of the rural development programmes in the State of Tamil Nadu, follows in the analysis chapters.

Table 4.1 Social Characteristics of the Surveyed Households

|       |                     |         |          |         | Agro Cli | matic Zone | ,        |          |          |
|-------|---------------------|---------|----------|---------|----------|------------|----------|----------|----------|
| ~     |                     | Cauvery | North    | Western | North    | High       | Southern | High     | Total    |
| Sl.No | Characteristics     | Delta   | East     |         | West     | Altitude   |          | Rainfall |          |
|       |                     | n = 270 | n = 270  | n = 270 | n = 270  | n = 270    | n = 270  | n = 270  | N = 1890 |
| 1     | Religion            |         |          |         |          |            |          |          |          |
|       | Hindu               | 255     | 270      | 268     | 215      | 241        | 229      | 37       | 1515     |
|       |                     | (94.44) | (100.00) | (99.26) | (79.63)  | (89.26)    | (84.81)  | (13.70)  | (80.16)  |
|       | Muslim              | 11      | 0        | 0       | 0        | 6          | 40       | 0        | 57       |
|       |                     | (4.07)  | (0.00)   | (0.00)  | (0.00)   | (2.22)     | (14.81)  | (0.00)   | (3.02)   |
|       | Christian           | 4       | 0        | 2       | 55       | 23         | 1        | 233      | 318      |
|       |                     | (1.48)  | (0.00)   | (0.74)  | (20.37)  | (8.52)     | (0.37)   | (86.30)  | (16.83)  |
| 2     | Community           |         |          |         |          |            |          |          |          |
|       | Scheduled Caste     | 73      | 64       | 85      | 75       | 128        | 59       | 7        | 491      |
|       |                     | (27.04) | (23.70)  | (31.48) | (27.78)  | (47.41)    | (21.85)  | (2.59)   | (25.98)  |
|       | Scheduled Tribe     | 1       | 0        | 0       | 37       | 4          | 2        | 0        | 44       |
|       |                     | (0.37)  | (0.00)   | (0.00)  | (13.70)  | (1.48)     | (0.74)   | (0.00)   | (2.33)   |
|       | Most Backward Caste | 86      | 195      | 136     | 45       | 1          | 55       | 5        | 523      |
|       |                     | (31.85) | (72.22)  | 50.37   | (16.67)  | (0.37)     | (20.37)  | (1.85)   | (27.67)  |
|       | Backward Caste      | 92      | 11       | 49      | 113      | 137        | 154      | 258      | 814      |
|       |                     | (34.07) | (4.07)   | (18.15) | (41.85)  | (50.74)    | (57.04)  | (95.56)  | (43.07)  |
|       | Others              | 18      | 0        | 0       | 0        | 0          | 0        | 0        | 18       |
|       |                     | (6.67)  | (0.00)   | (0.00)  | (0.00)   | (0.00)     | (0.00)   | (0.00)   | (0.95)   |
| 3     | Size of Household   |         |          |         |          |            |          |          |          |
|       | Smalll (1-3)        | 64      | 67       | 105     | 59       | 133        | 55       | 55       | 538      |
|       |                     | (23.70) | (24.81)  | (38.89) | (21.85)  | (49.26)    | (20.37)  | (20.37)  | (28.47)  |
|       | Medium (4 - 6)      | 182     | 187      | 161     | 193      | 136        | 177      | 191      | 1227     |
|       |                     | (67.41) | (69.26)  | (59.63) | (71.48)  | (50.37)    | (65.56)  | (70.74)  | (64.92)  |
|       | Large (7 & Above)   | 24      | 16       | 4       | 18       | 1          | 38       | 24       | 125      |
|       |                     | (8.89)  | (5.93)   | (1.48)  | (6.67)   | (0.37)     | (14.07)  | (8.89)   | (6.61)   |
|       | C 4. 1              | •       | •        |         | NI.4. E  | •          | 41       | •        | •        |

**Note**: Figures in parentheses are percentages to the total

Table 4.2 Personal Characteristics of the Surveyed Head of the Households

|        |                    |         |         |         | Agro Cli | matic Zon | ie       |          |          |
|--------|--------------------|---------|---------|---------|----------|-----------|----------|----------|----------|
|        |                    | Cauvery | North   | Western | North    | High      | Southern | High     | Total    |
| Sl.No. | Characteristics    | Delta   | East    |         | West     | Altitude  |          | Rainfall |          |
|        |                    | n = 270 | n = 270 | n = 270 | n = 270  | n = 270   | n = 270  | n = 270  | N = 1890 |
| 1      | Sex                |         |         |         |          |           |          |          |          |
|        | Male               | 248     | 242     | 257     | 258      | 237       | 241      | 221      | 1704     |
|        |                    | (91.85) | (89.63) | (95.19) | (95.56)  | (87.78)   | (89.26)  | (81.85)  | (90.16)  |
|        | Female             | 22      | 28      | 13      | 12       | 33        | 29       | 49       | 186      |
|        |                    | (8.15)  | (10.37) | (4.81)  | (4.44)   | (12.22)   | (10.74)  | (18.15)  | (9.84)   |
| 2      | Age Group          |         |         |         |          |           |          |          |          |
|        | Young              | 63      | 73      | 71      | 66       | 51        | 84       | 37       | 445      |
|        |                    | (23.33) | (27.04) | (26.30) | (24.44)  | (18.89)   | (31.11)  | (13.70)  | (23.54)  |
|        | Middle             | 176     | 187     | 179     | 182      | 215       | 178      | 191      | 1308     |
|        |                    | (65.19) | (69.26) | (66.30) | (67.41)  | (79.63)   | (65.93)  | (70.74)  | (69.21)  |
|        | Old                | 31      | 10      | 20      | 22       | 4         | 8        | 42       | 137      |
|        |                    | (11.48) | (3.70)  | (7.41)  | (8.15)   | (1.48)    | (2.96)   | (15.56)  | (7.25)   |
| 3      | Educational Status |         |         |         |          |           |          |          |          |
|        | Illiterate         | 125     | 138     | 139     | 127      | 16        | 140      | 69       | 754      |
|        |                    | (46.30) | (51.11) | (51.48) | (47.04)  | (5.93)    | (51.85)  | (25.56)  | (39.89)  |
|        | Primary            | 51      | 52      | 55      | 39       | 46        | 67       | 96       | 406      |
|        |                    | (18.89) | (19.26) | (20.37) | (14.44)  | (17.04)   | (24.81)  | (35.56)  | (21.48)  |
|        | Secondary          | 87      | 79      | 69      | 94       | 204       | 60       | 100      | 693      |
|        |                    | (32.22) | (29.26) | (25.56) | (34.81)  | (75.56)   | (22.22)  | (37.04)  | (36.67)  |
|        | Collegiate         | 7       | 1       | 7       | 10       | 4         | 3        | 5        | 37       |
|        |                    | (2.59)  | (0.37)  | (2.59)  | (3.70)   | (1.48)    | (1.11)   | (1.85)   | (1.96)   |

**Note**: Figures in parentheses are percentages to the total Sample

**Table 4.3** Household Composition of the Surveyed Households

|        |                           |         |         |         | Agro C  | limatic Z | one      |          |          |
|--------|---------------------------|---------|---------|---------|---------|-----------|----------|----------|----------|
|        |                           | Cauvery | North   | Western |         | _         | Southern | High     | Total    |
| Sl.No. | Characteristics           | Delta   | East    |         | West    | Altitude  |          | Rainfall |          |
|        |                           | n = 270   | n = 270  | n = 270  | N = 1890 |
| 1      | Sex                       |         |         |         |         |           |          |          |          |
|        | Male                      | 620     | 634     | 525     | 641     | 513       | 655      | 603      | 4191     |
|        |                           | (50.16) | (53.82) | (50.77) | (51.99) | (53.00)   | (50.35)  | (49.43)  | (51.30)  |
|        | Female                    | 616     | 544     | 509     | 592     | 455       | 646      | 617      | 3979     |
|        |                           | (49.84) | (46.18) | (49.23) | (48.01) | (47.00)   | (49.65)  | (50.57)  | (48.70)  |
|        | Sex Ratio                 | 0.99    | 0.86    | 0.97    | 0.92    | 0.89      | 0.99     | 1.02     | 0.95     |
| 2      | Age                       |         |         |         |         |           |          |          |          |
|        | Children < 15             | 305     | 322     | 220     | 352     | 234       | 317      | 298      | 2048     |
|        |                           | (24.68) | (27.33) | (21.28) | (28.55) | (24.17)   | (24.37)  | (24.43)  | (25.07)  |
|        | Young 15 -35              | 489     | 506     | 378     | 511     | 301       | 621      | 494      | 3300     |
|        |                           | (39.56) | (42.95) | (36.56) | (41.44) | (31.10)   | (47.73)  | (40.49)  | (40.39)  |
|        | Middle Aged 36 -60        | 363     | 321     | 353     | 314     | 370       | 324      | 345      | 2390     |
|        |                           | (29.37) | (27.25) | (34.14) | (25.47) | (38.22)   | (24.90)  | (28.28)  | (29.25)  |
|        | Old Aged > 60             | 79      | 29      | 83      | 56      | 63        | 39       | 83       | 432      |
|        |                           | (6.39)  | (2.46)  | (8.03)  | (4.54)  | (6.51)    | (3.00)   | (6.80)   | (5.29)   |
| 3      | Earners / Dependants      |         |         |         |         |           |          |          |          |
|        | Earners                   | 642     | 561     | 633     | 707     | 479       | 491      | 554      | 4067     |
|        |                           | (51.94) | (47.62) | (61.22) | (57.34) | (49.48)   | (37.74)  | (45.41)  | (49.78)  |
|        | Dependants                | 594     | 617     | 401     | 526     | 489       | 810      | 666      | 4103     |
|        |                           | (48.06) | (52.38) | (38.78) | (42.66) | (50.52)   | (62.26)  | (54.59)  | (50.22)  |
|        | Earner Dependant Ratio    | 0.93    | 1.10    | 0.63    | 0.74    | 1.02      | 1.65     | 1.20     | 1.01     |
|        | Total Population          | 1236    | 1178    | 1034    | 1233    | 968       | 1301     | 1220     | 8170     |
|        |                           | (100)   | (100)   | (100)   | (100)   | (100)     | (100)    | (100)    | (100)    |
| 4      | Average Size of Household | 4.58    | 4.36    | 3.83    | 4.57    | 3.59      | 4.82     | 4.52     | 4.32     |

**Note**: Figures in Parentheses are Percentages to the total Poulation

 Table 4.4
 Educational Status of the Surveyed Population

|       |                               |                  |               |         | Agro Cli      | matic Zor        | ne       |                  |          |
|-------|-------------------------------|------------------|---------------|---------|---------------|------------------|----------|------------------|----------|
| S.No. | Education                     | Cauvery<br>Delta | North<br>East | Western | North<br>West | High<br>Altitude | Southern | High<br>Rainfall | Total    |
|       |                               | n = 270          | n = 270       | n = 270 | n = 270       | n = 270          | n = 270  | n = 270          | N = 1890 |
| 1     | Dropout                       | 22               | 11            | 15      | 17            | 4                | 25       | 8                | 102      |
|       |                               | (10.05)          | (4.78)        | (9.74)  | (6.61)        | (1.99)           | (11.21)  | (3.02)           | (6.58)   |
| 2     | Continuing                    | 197              | 219           | 139     | 240           | 197              | 198      | 257              | 1447     |
|       |                               | (89.95)          | (95.22)       | (90.26) | (93.39)       | (98.01)          | (88.79)  | (96.98)          | (93.42)  |
|       | Total Children (6-15)         | 219              | 230           | 154     | 257           | 201              | 223      | 265              | 1549     |
|       |                               | (100)            | (100)         | (100)   | (100)         | (100)            | (100)    | (100)            | (100)    |
| 1     | Illiterate                    | 317              | 329           | 361     | 352           | 73               | 340      | 137              | 1909     |
|       |                               | (34.91)          | (39.21)       | (45.52) | (40.27)       | (10.11)          | (34.91)  | (15.48)          | (31.84)  |
| 2     | Primary                       | 180              | 146           | 138     | 104           | 105              | 277      | 226              | 1176     |
|       |                               | (19.82)          | (17.40)       | (17.40) | (11.90)       | (14.54)          | (28.44)  | (25.54)          | (19.62)  |
| 3     | Secondary                     | 364              | 332           | 257     | 358           | 515              | 346      | 473              | 2645     |
|       |                               | (40.09)          | (39.57)       | (32.41) | (40.96)       | (71.33)          | (35.52)  | (53.45)          | (44.12)  |
| 4     | Collegiate                    | 47               | 32            | 37      | 60            | 29               | 11       | 49               | 265      |
|       |                               | (5.18)           | (3.81)        | (4.67)  | (6.86)        | (4.02)           | (1.13)   | (5.54)           | (4.42)   |
|       | Total Adults (Age 15 & Above) | 908              | 839           | 793     | 874           | 722              | 974      | 885              | 5995     |
|       |                               | (100)            | (100)         | (100)   | (100)         | (100)            | (100)    | (100)            | (100)    |

Note: Figures in Parentheses are Percentages to the total

Table 4.5 Main Occupation of the Surveyed Head of the Household

|        |                     |         |         |         | Agro Cli | imatic Zor | ne       |          |          |
|--------|---------------------|---------|---------|---------|----------|------------|----------|----------|----------|
|        |                     | Cauvery | North   | Western | North    | High       | Southern | High     | Total    |
| Sl.No. | Occupation          | Delta   | East    |         | West     | Altitude   |          | Rainfall |          |
|        |                     | n = 270 | n = 270 | n = 270 | n = 270  | n = 270    | n = 270  | n = 270  | N = 1890 |
| 1      | Agricultural Labour | 119     | 190     | 166     | 225      | 179        | 131      | 154      | 1164     |
|        |                     | (44.07) | (70.37) | (61.48) | (83.33)  | (66.30)    | (48.52)  | (57.04)  | (61.59)  |
| 2      | Cultivators         | 17      | 52      | 24      | 4        | 15         | 19       | 5        | 136      |
|        |                     | (6.30)  | (19.26) | (8.89)  | (1.48)   | (5.56)     | (7.04)   | (1.85)   | (7.20)   |
| 3      | Business            | 18      | 10      | 2       | 12       | 34         | 57       | 2        | 135      |
|        |                     | (6.67)  | (3.70)  | (0.74)  | (4.44)   | (12.59)    | (21.11)  | (0.74)   | (7.14)   |
| 4      | Government Service  | 21      | 12      | 12      | 15       | 5          | 13       | 6        | 84       |
|        |                     | (7.78)  | (4.44)  | (4.44)  | (5.56)   | (1.85)     | (4.81)   | (2.22)   | (4.44)   |
| 5      | Private Service     | 7       | 2       | 6       | 10       | 29         | 5        | 10       | 69       |
|        |                     | (2.59)  | (0.74)  | (2.22)  | (3.70)   | (10.74)    | (1.85)   | (3.70)   | (3.65)   |
| 6      | Industrial Labour   | 0       | 2       | 6       | 4        | 4          | 0        | 2        | 18       |
|        |                     | (0.00)  | (0.74)  | (2.22)  | (1.48)   | (1.48)     | (0.00)   | (0.74)   | (0.95)   |
| 7      | Artisans            | 76      | 0       | 12      | 0        | 2          | 7        | 56       | 153      |
|        |                     | (28.15) | (0.00)  | (4.44)  | (0.00)   | (0.74)     | (2.59)   | (20.74)  | (8.10)   |
| 8      | Others              | 12      | 2       | 42      | 0        | 2          | 38       | 35       | 131      |
|        |                     | (4.44)  | (0.74)  | (15.56) | (0.00)   | (0.74)     | (14.07)  | (12.96)  | (6.93)   |

**Note**: Figures in parentheses are percentages to the total Sample

 Table 4.6
 Details of Cooking Energy, Kitchen Wares and Vehicles

|        |                     |         |         |         | Agro Cl | limatic Zone |          |          |          |
|--------|---------------------|---------|---------|---------|---------|--------------|----------|----------|----------|
|        |                     | Cauvery | North   | Western | North   | High         | Southern | High     | Total    |
| Sl.No. | Particulars         | Delta   | East    |         | West    | Altitude     |          | Rainfall |          |
|        |                     | n = 270      | n = 270  | n = 270  | N = 1890 |
| I      | Cooking Energy      |         |         |         |         |              |          |          |          |
| 1      | Kerosene Stove      | 8       | 1       | 29      | 4       | 195          | 23       | 79       | 339      |
|        |                     | (2.64)  | (0.37)  | (8.43)  | (1.48)  | (40.54)      | (6.97)   | (22.70)  | (14.43)  |
| 2      | LPG                 | 41      | 22      | 64      | 74      | 167          | 38       | 5        | 411      |
|        |                     | (13.53) | (8.06)  | (18.60) | (27.31) | (34.72)      | (11.52)  | (1.44)   | (17.49)  |
| 3      | Bio-Gas             | 0       | 0       | 8       | 0       | 0            | 0        | 0        | 8        |
|        |                     | (0.00)  | (0.00)  | (2.33)  | (0.00)  | (0.00)       | (0.00)   | (0.00)   | (0.34)   |
| 4      | Firewood Stove      | 254     | 250     | 243     | 193     | 119          | 269      | 264      | 1592     |
|        |                     | (83.83) | (91.58) | (70.64) | (71.22) | (24.74)      | (81.52)  | (75.86)  | (67.74)  |
|        | Total               | 303     | 273     | 344     | 271     | 481          | 330      | 348      | 2350     |
|        |                     | (100)   | (100)   | (100)   | (100)   | (100)        | (100)    | (100)    | (100)    |
| П      | Wares               |         |         |         |         |              |          |          |          |
| 1      | Earthenware         | 1754    | 1628    | 1078    | 635     | 0            | 1531     | 1923     | 8549     |
|        |                     | (15.91) | (12.14) | (6.14)  | (8.79)  | (0.00)       | (11.37)  | (12.37)  | (9.70)   |
| 2      | Aluminium Utensils  | 1905    | 2369    | 4227    | 1779    | 2775         | 2817     | 3258     | 19130    |
|        |                     | (17.28) | (17.66) | (24.08) | (24.63) | (27.95)      | (20.91)  | (20.95)  | (21.70)  |
| 3      | Brass Vessels       | 1093    | 1136    | 1088    | 919     | 1464         | 1704     | 915      | 8319     |
|        |                     | (9.91)  | (8.47)  | (6.20)  | (12.72) | (14.74)      | (12.65)  | (5.88)   | (9.44)   |
| 4      | Plastic Articles    | 2878    | 3622    | 3590    | 997     | 2207         | 2127     | 3448     | 18869    |
|        |                     | (26.10) | (27.00) | (20.45) | (13.80) | (22.23)      | (15.79)  | (22.18)  | (21.40)  |
| 5      | Eversilver Utensils | 3397    | 4660    | 7570    | 2894    | 3483         | 5290     | 6005     | 33299    |
|        |                     | (30.81) | (34.74) | (43.13) | (40.06) | (35.08)      | (39.28)  | (38.62)  | (37.77)  |
|        | Total               | 11027   | 13415   | 17553   | 7224    | 9929         | 13469    | 15549    | 88166    |
|        |                     | (100)   | (100)   | (100)   | (100)   | (100)        | (100)    | (100)    | (100)    |
| III    | Vehicles            |         |         |         |         |              |          |          |          |
| 1      | Bicycle             | 68      | 125     | 144     | 87      | 0            | 34       | 2        | 460      |
|        |                     | (73.12) | (85.62) | (79.12) | (67.97) | (0.00)       | (70.83)  | (22.22)  | (75.04)  |
| 2      | Bike                | 25      | 21      | 38      | 41      | 7            | 14       | 7        | 153      |
|        |                     | (26.88) | (14.38) | (20.88) | (32.03) | (100.00)     | (29.17)  | (77.78)  | (24.96)  |
|        | Total               | 93      | 146     | 182     | 128     | 7            | 48       | 9        | 613      |
|        |                     | (100)   | (100)   | (100)   | (100)   | (100)        | (100)    | (100)    | (100)    |

**Note**: Figures in parentheses are Percentages to the total

Table 4.7 Varieties of Trees Owned by the Surveyed Households

|        |           |         |         |         | Agro Cl | limatic Z | one      |          |          |
|--------|-----------|---------|---------|---------|---------|-----------|----------|----------|----------|
|        |           | Cauvery | North   | Western | North   | High      | Southern | High     | Total    |
| Sl.No. | Varieties | Delta   | East    |         | West    | Altitude  |          | Rainfall |          |
|        | of Trees  | n = 270   | n = 270  | n = 270  | N = 1890 |
| 1      | Mango     | 155     | 11      | 5       | 42      | 0         | 62       | 112      | 387      |
|        |           | (4.20)  | (2.12)  | (0.40)  | (1.74)  | (0.00)    | (0.98)   | (7.70)   | (2.47)   |
| 2      | Jackfruit | 13      | 6       | 1       | 2       | 0         | 0        | 273      | 295      |
|        |           | (0.35)  | (1.15)  | (0.08)  | (0.08)  | (0.00)    | (0.00)   | (18.76)  | (1.89)   |
| 3      | Tamarind  | 63      | 8       | 12      | 141     | 0         | 2        | 132      | 358      |
|        |           | (1.71)  | (1.54)  | (0.97)  | (5.84)  | (0.00)    | (0.03)   | (9.07)   | (2.29)   |
| 4      | Bamboo    | 435     | 0       | 0       | 160     | 0         | 0        | 2        | 597      |
|        |           | (11.80) | (0.00)  | (0.00)  | (6.62)  | (0.00)    | (0.00)   | (0.14)   | (3.81)   |
| 5      | Coconut   | 1393    | 236     | 978     | 1659    | 0         | 5273     | 836      | 10375    |
|        |           | (37.78) | (45.38) | (78.81) | (68.67) | (0.00)    | (83.35)  | (57.46)  | (66.28)  |
| 6      | Teak wood | 5       | 40      | 59      | 94      | 0         | 0        | 43       | 241      |
|        |           | (0.14)  | (7.69)  | (4.75)  | (3.89)  | (0.00)    | (0.00)   | (2.96)   | (1.54)   |
| 7      | Others    | 1623    | 219     | 186     | 318     | 275       | 989      | 57       | 3400     |
|        |           | (44.02) | (42.12) | (14.99) | (13.16) | (100.00)  | (15.63)  | (3.92)   | (22.72)  |
|        | Total     | 3687    | 520     | 1241    | 2416    | 275       | 6326     | 1455     | 15653    |
|        |           | (100)   | (100)   | (100)   | (100)   | (100)     | (100)    | (100)    | (100)    |

**Source**: Computed **Note**: Figures in parentheses are Percentages to the total Numbers

Table 4.8 Tree Distribution among the Surveyed Households

|       | Tubic no Tree Distribution uniong the but veyen from the |         |         |         |         |          |          |          |          |  |  |  |  |
|-------|--|---------|---------|---------|---------|----------|----------|----------|----------|--|--|--|--|
|       |  |         |         |         | Agro Cl | imatic Z | one      |          |          |  |  |  |  |
|       | Number   | Cauvery | North   | Western | North   | High     | Southern | High     | Total    |  |  |  |  |
| Sl.No | of Trees   | Delta   | East    |         | West    | Altitude |          | Rainfall |          |  |  |  |  |
|       |  | n = 270  | n = 270  | n = 270  | N = 1890 |  |  |  |  |
| 1     | No tree  | 8       | 165     | 177     | 132     | 264      | 88       | 47       | 881      |  |  |  |  |
|       |  | (2.96)  | (61.11) | (65.56) | (48.89) | (97.78)  | (32.59)  | (17.41)  | (46.61)  |  |  |  |  |
| 2     | 1 to 5   | 95      | 89      | 57      | 64      | 6        | 127      | 167      | 605      |  |  |  |  |
|       |  | (35.19) | (32.96) | (21.11) | (23.70) | (2.22)   | (47.04)  | (61.85)  | (32.01)  |  |  |  |  |
| 3     | 5 to 10  | 96      | 8       | 12      | 28      | 0        | 25       | 43       | 212      |  |  |  |  |
|       |  | (35.56) | (2.96)  | (4.44)  | 10.37   | (0.00)   | (9.26)   | (15.93)  | (11.22)  |  |  |  |  |
| 4     | 10 to 15   | 27      | 3       | 4       | 6       | 0        | 1        | 8        | 49       |  |  |  |  |
|       |  | (10.00) | (1.11)  | (1.48)  | (2.22)  | (0.00)   | (0.37)   | (2.96)   | (2.59)   |  |  |  |  |
| 5     | 15 and Above   | 44      | 5       | 20      | 40      | 0        | 29       | 5        | 143      |  |  |  |  |
|       |  | (16.30) | (1.85)  | (7.41)  | 14.81   | (0.00)   | (10.74)  | (1.85)   | (7.57)   |  |  |  |  |
|       | Total  | 270     | 270     | 270     | 270     | 270      | 270      | 270      | 1890     |  |  |  |  |
|       |  | (100)   | (100)   | (100)   | (100)   | (100)    | (100)    | (100)    | (100)    |  |  |  |  |

**Source**: Computed **Note**: Figures in parentheses are percentages to the total Sample

Table 4.9 Composition and Distribution of Livestock of the Surveyed Households

|        | •             | Sition and | Agro Climatic Zone |         |         |          |          |          |          |  |  |  |  |
|--------|---------------|------------|--------------------|---------|---------|----------|----------|----------|----------|--|--|--|--|
|        |               | Cauvery    | North              | Western | North   | High     | Southern | High     | Total    |  |  |  |  |
| Sl.No. | Livestock     | Delta      | East               |         | West    | Altitude |          | Rainfall |          |  |  |  |  |
|        |               | n = 270    | n = 270            | n = 270 | n = 270 | n = 270  | n = 270  | n = 270  | N = 1890 |  |  |  |  |
| 1      | Cows          | 107        | 79                 | 59      | 103     | 35       | 85       | 22       | 490      |  |  |  |  |
|        |               | (22.34)    | (50.64)            | (18.55) | (28.77) | (25.36)  | (11.11)  | (6.79)   | (19.31)  |  |  |  |  |
| 2      | Buffaloes     | 2          | 13                 | 62      | 38      | 0        | 17       | 2        | 134      |  |  |  |  |
|        |               | (0.42)     | (8.33)             | (19.50) | (10.61) | (0.00)   | (2.22)   | (0.62)   | (5.28)   |  |  |  |  |
| 3      | Oxen          | 0          | 27                 | 7       | 34      | 0        | 9        | 0        | 77       |  |  |  |  |
|        |               | (0.00)     | (17.31)            | (2.20)  | (9.50)  | (0.00)   | (1.18)   | (0.00)   | (3.03)   |  |  |  |  |
| 4      | Goats         | 202        | 25                 | 129     | 56      | 9        | 421      | 58       | 900      |  |  |  |  |
|        |               | (42.17)    | (16.03)            | (40.57) | (15.64) | (6.52)   | (55.03)  | (17.90)  | (35.46)  |  |  |  |  |
| 5      | Hens          | 168        | 12                 | 61      | 122     | 94       | 229      | 242      | 928      |  |  |  |  |
|        |               | (35.07)    | (0.00)             | (9.18)  | (34.08) | (68.12)  | (29.93)  | (74.69)  | (36.56)  |  |  |  |  |
| 6      | Pigs          | 0          | 0                  | 0       | 0       | 0        | 0        | 0        | 0        |  |  |  |  |
|        |               | (0.00)     | (0.00)             | (0.00)  | (0.00)  | (0.00)   | (0.00)   | (0.00)   | (0.00)   |  |  |  |  |
| 7      | Other Animals | 0          | 0                  | 0       | 5       | 0        | 4        | 0        | 9        |  |  |  |  |
|        |               | (0.00)     | (0.00)             | (0.00)  | (1.40)  | (0.00)   | (0.52)   | (0.00)   | (0.35)   |  |  |  |  |
|        | Total         | 479        | 156                | 318     | 358     | 138      | 765      | 324      | 2538     |  |  |  |  |
|        |               | (100)      | (100)              | (100)   | (100)   | (100)    | (100)    | (100)    | (100)    |  |  |  |  |
|        |               |            |                    |         |         |          |          |          |          |  |  |  |  |
|        |               |            |                    | Dist    | ributio | n Lives  | tock     |          |          |  |  |  |  |
| 1      | No Livestock  | 144        | 198                | 144     | 144     | 222      | 166      | 160      | 1178     |  |  |  |  |
|        |               | (53.33)    | (73.33)            | (53.33) | (53.33) | (82.22)  | (61.48)  | (59.26)  | (62.33)  |  |  |  |  |
| 2      | 1 to 5        | 105        | 67                 | 119     | 115     | 47       | 74       | 92       | 619      |  |  |  |  |
|        |               | (38.89)    | (24.81)            | (44.07) | (42.59) | (17.41)  | (27.41)  | (34.07)  | (32.75)  |  |  |  |  |
| 3      | 6 to 10       | 16         | 4                  | 5       | 7       | 1        | 12       | 17       | 62       |  |  |  |  |
|        |               | (5.93)     | (1.48)             | (1.85)  | (2.59)  | (0.37)   | (4.44)   | (6.30)   | (3.28)   |  |  |  |  |
| 4      | 11 to 15      | 2          | 0                  | 1       | 4       | 0        | 11       | 1        | 19       |  |  |  |  |
|        |               | (0.74)     | (0.00)             | (0.37)  | (1.48)  | (0.00)   | (4.07)   | (0.37)   | (1.01)   |  |  |  |  |
| 5      | 15 to 20      | 3          | 1                  | 1       | 0       | 0        | 7        | 0        | 12       |  |  |  |  |
|        |               | (1.11)     | (0.37)             | (0.37)  | (0.00)  | (0.00)   | (2.59)   | (0.00)   | (0.63)   |  |  |  |  |
|        | Total         | 270        | 270                | 270     | 270     | 270      | 270      | 270      | 1890     |  |  |  |  |
|        |               | (100)      | (100)              | (100)   | (100)   | (100)    | (100)    | (100)    | (100)    |  |  |  |  |

Source: Computed Note: Figures in parentheses are Percentages to the total Numbers

 Table 4.10
 Type of Housing of the Surveyed Households

|        |               |         | J I     | 8       | Agro Cli | imatic Zone |          |          |          |
|--------|---------------|---------|---------|---------|----------|-------------|----------|----------|----------|
|        |               | Cauvery | North   | Western | North    | High        | Southern | High     | Total    |
| Sl.No. | Type of House | Delta   | East    |         | West     | Altitude    |          | Rainfall |          |
|        |               | n = 270 | n = 270 | n = 270 | n = 270  | n = 270     | n = 270  | n = 270  | N = 1890 |
| 1      | Thatched      | 119     | 126     | 43      | 36       | 0.00        | 136      | 25       | 485      |
|        |               | (44.07) | (46.67) | (15.93) | (13.33)  | (0.00)      | (50.37)  | (9.26)   | (25.61)  |
| 2      | Asbestas      | 8       | 0       | 0       | 0        | 0           | 0        | 0        | 8        |
|        |               | (2.96)  | (0.00)  | (0.00)  | (0.00)   | (0.00)      | (0.00)   | (0.00)   | (0.42)   |
| 3      | Tiled         | 92      | 35      | 187     | 126      | 200         | 41       | 117      | 798      |
|        |               | (34.07) | (12.96) | (69.26) | (46.67)  | (74.07)     | (15.19)  | (43.33)  | (42.22)  |
| 4      | Concrete      | 51      | 109     | 40      | 108      | 70          | 93       | 128      | 599      |
|        |               | (18.89) | (40.37) | (14.81) | (40.00)  | (25.93)     | (34.44)  | (47.41)  | (31.69)  |
|        | Total         | 270     | 270     | 270     | 270      | 270         | 270      | 270      | 1890     |
|        |               | (100)   | (100)   | (100)   | (100)    | (100)       | (100)    | (100)    | (100)    |

**Note**: Figures in parentheses are Percentages to the total Numbers

**Table 4.11 Details of Agricultural Implements** 

|        |                            |               |               |              | Agro Cli     | matic Zone  |              |             |                |
|--------|----------------------------|---------------|---------------|--------------|--------------|-------------|--------------|-------------|----------------|
|        |                            | Cauvery       | North         | Western      | North        | High        | Southern     | High        | Total          |
| Sl.No. | Particulars                | Delta         | East          |              | West         | Altitude    |              | Rainfall    |                |
|        |                            | n = 270       | n = 270       | n = 270      | n = 270      | n = 270     | n = 270      | n = 270     | N = 1890       |
| I      | Vehicles                   |               |               |              |              |             |              |             |                |
| 1      | Tractors                   | 0<br>(0.00)   | 3<br>(21.43)  | 0<br>(0.00)  | 2<br>(28.57) | 0<br>(0.00) | 0<br>(0.00)  | 0<br>(0.00) | 5<br>(14.71)   |
| 2      | Bullock Carts              | 0             | 2             | 3            | 5            | 0           | 2            | 0           | 12             |
|        |                            | (0.00)        | (14.29)       | (42.86)      | (71.43)      | (0.00)      | (40.00)      | (0.00)      | (35.29)        |
| 3      | Tyre Carts                 | 1<br>(100.00) | 9 (100.00)    | 4<br>(57.14) | 0<br>(0.00)  | 0 (0.00)    | 3<br>(60.00) | 0<br>(0.00) | 17<br>(100.00) |
|        | Total                      | 1<br>(100)    | 14<br>(100)   | 7<br>(100)   | 7<br>(100)   | 0 (0.00)    | 5<br>(100)   | 0 (0.00)    | 34<br>(100)    |
| П      | Pump Sets                  | ( )           | ( 1 1)        | ( 1 1)       | ( 11)        | (****)      | ( 1 1)       | (****)      | ( 1 1 )        |
| 1      | Oil Engines                | 5             | 8             | 14           | 31           | 0           | 9            | 0           | 67             |
|        |                            | (83.33)       | (34.78)       | (35.90)      | (39.24)      | (0.00)      | (69.23)      | (0.00)      | (41.88)        |
| 2      | Electric Motors            | 1             | 15            | 25           | 48           | 0           | 4            | 0           | 93             |
|        |                            | (16.67)       | (65.22)       | (64.10)      | (60.76)      | (0.00)      | (30.77)      | (0.00)      | (58.13)        |
|        | Total                      | 6             | 23            | 39           | 79           | 0           | 13           | 0           | 160            |
|        |                            | (100)         | (100)         | (100)        | (100)        | (0.00)      | (100)        | (0.00)      | (100)          |
| III    | Tube Wells                 |               |               |              |              |             |              |             |                |
| 1      | Tube Wells                 | 6             | 13            | 32           | 6            | 0.00        | 62           | 0           | 119            |
|        |                            | (2.22)        | (0.52)        | (0.97)       | (1.45)       | (0.00)      | (4.82)       | (0.00)      | (6.29)         |
| 2      | Average Depth of Tube Well | (40.00)       | (193.08)      | (102.19)     | (68.00)      | (0.00)      | (19.76)      | (0.00)      | (65.60)        |
| IV     | Sprayers & Others          |               |               |              |              |             |              |             |                |
| 1      | Sprayers                   | 3<br>(100.00) | 28<br>(71.79) | 2<br>(1.63)  | (0.00)       | 0<br>(0.00) | 0<br>(0.00)  | 0<br>(0.00) | 33<br>(3.72)   |
| 3      | Ploughs                    | 0             | 11            | 20           | 74           | 0           | 4            | 1           | 110            |
|        |                            | (0.00)        | (28.21)       | (16.26)      | (81.32)      | (0.00)      | (1.61)       | (0.26)      | (12.42)        |
| 2      | Other Instruments          | 0             | 0             | 101          | 17           | 1           | 244          | 380         | 743            |
|        |                            | (0.00)        | (0.00)        | (82.11)      | (18.68)      | (100.00)    | (98.39)      | (99.74)     | (83.86)        |
|        | Total                      | 3             | 39            | 123          | 91           | 1           | 248          | 381         | 886            |
|        |                            | (100)         | (100)         | (100)        | (100)        | (100)       | (100)        | (100)       | (100)          |

**Note**: Figures in parentheses are Percentages to the total