CHAPTER IV

METHODOLOGY AND CONCEPT CLASSIFICATION

The study has been undertaken by the researcher after observing the problem and research gap in the paddy cultivation and the general problems faced by the paddy cultivators during the paddy cultivation. Study area has been identified by the researcher after conducting state level pilot study and examines the statistical records of the Tamilnadu government. The researcher felt that it is suitable to select purposively Karur district of Tamilnadu for the study. This district has unique feature in the field of agriculture more than 60 percent of population directly engaging themselves in that field and other also indirectly contributing to the agriculture. Therefore it is appropriate to assess same for making suitable policy measure to improve the paddy cultivation and encourage more people participation in paddy cultivation.

Karur district is one of the major paddy cultivating districts in Tamil Nadu. It produces 4819 Kg/hectare of paddy from 5367-8488 hectares of paddy cultivating land in the year 2010-11

Due to various unfavourable conditions like monsoon failure, declining fertility conditions of land, lack of availability of agricultural labours, cultivation of low risk and less involvement crops like coconut, corai etc. the paddy production and productivity in the Karur district. Though the Government of Tamil Nadu announces various schemes and measures to increase the paddy production, it is important to study further scope for increasing paddy production in Karur district.

Even though the Government take steps and establishing marketing facilities through Regulated Markets in Karur district, the involvement of private agencies and intermediaries are still continuing and cheating the peasant families.

Paddy is cultivated in all the eight blocks of the Karur districts. In order to select the blocks, and various categories of paddy growers the researcher employed multi stage random sampling method.

4.1 Selection of Respondents

Karur District was bifurcated from the larger Tiruchirappalli district in the year 1997. It consists of 4 Taluks namely Aravakurichi, Karur, Krishnayapuram and Kulithali. There are 8 blocks in Karur district. Karur district has been selected as a universe of the study, 400 respondents are randomly selected from all the eight blocks of the district. Among the total number of paddy cultivators nearly 12 percent of the respondents are randomly selected from four taluks i.e. 83 from Aravakurichi, 94 from Karur, 105 from Krishnarayapuram and 118 from Kulithalai. In order to give equal representation to all the 8 blocks in Karur district, the paddy cultivators of all the blocks were arranged with the help of village revenue records and from each block 50 respondents are selected, and the total respondents are 400. In order to give equal representation to the 4 taluks and 8 blocks of Karur district careful attention was made by the researcher. The following chart clearly shows the selection of respondents of the present study.

TAMIL NADU - KARUR

NAME OF THE TALUKS - 4

ARAVAKURICHI (965)   KARUR (1118)   KRISHNARAYAPURAM(1264)   KULITHALAI (1408)

(10 PERCENT OF THE TOTAL)

(83)   **(94)**   **(105)**   **(118)**

NAME OF THE BLOCKS IN KARUR DISTRICT
1. ARAVAKURICHI, 2. KARUR, 3. KRISHNARAYAPURAM, 4. KULITHALAI,
5. K. PARAMATHI, 6. KADAVUR, 7. THOGAMALAI, 8. THANTHONI

Total Blocks = 8   SELECTED RESPONDENTS 8X50=400

FARMER SIZE AND NUMBER OF RESPONDENTS MARGINAL = 126
Small =   111   MEDIUM   = 108   LARGE = 55

4.2 Collection of data

Both primary and secondary data are used in this study. The outlook of paddy cultivation and marketing are examined from secondary data collected from published and unpublished sources like books, journals, reports, records from the offices of Commissioner and Director of Agricultural Department at State, District and Divisional and block levels in district. Keeping the objectives in view secondary data were collected from the above mentioned sources.

In order to collect primary data from the selected 360 respondents the researcher used comprehensive interview schedule. The schedule was pre-tested with reference to the objective of the study. All the required information pertaining to the study was collected through personal interview. As farmers do not maintain any record of their farming activities, investigation was done carefully through cross-checks to minimize recall bias.

Period of study

The study is confined to the period fifteen years from 1999 to 2013. This period is chosen because during this period agricultural sector underwent significant change due to the change in the liberalized policies of the Government of India.

4.3 Tools of Analysis

The data collected from the respondents were analysed with reference to the objectives of the study with the help of tabulation and percentile analysis. The following tools were employed for the study.

1. Chi-square test was employed to understand the role of socio-economic characteristics of the farmer respondents. Likerts Scaling Method was also used for ranking the economic motivation of the respondents.

2. T-test has been employed to find out the significant difference between the seasons, varieties, marketable surplus and other variables, such as retention, profit income.

3. Anova test has been used to test whether there is any significant difference between the variables and the categories of farmers.

4.4 Concept and Classification

Marginal farmer

Farmers having upto 2.50 acres of land are called marginal farmers.   : \

Small farmer

Farmer having an operational area of 2.51 acres to 5.00 acres is classified as small farmers.

Medium farmer

Farmers having an operational area of 5.01acres to 10.00 acres are called as medium farmers.   \

Large farmer

Farmer having an operational area of more than 10.0 acres are comes under large farmers' size.

Season I

Season I refers to the period of paddy cultivation during the month of June-July to September – October. Normally these seasons are called as Kuruvai. It will differ among the size of the farmers.

Season II

Season II represents the period of paddy cultivation during the month of November-December to January-February. This season is called as Thaladi.

Coarse variety

Coarse variety refers to high yielding varieties grown mainly in Season I and sparely in season II.

Fine Variety

Fine varieties of paddy is refers to the yielding variety which is grown mainly in season II and sparely in season I.

Retention

A portion of production kept for raw material and for future uses

Marketable surplus

After retention the residual of production left with the producer – farmer.

Marketed surplus

Refers to quantity of production actually sold in the market. Generally marketable surplus is actually sold in the study area.

Cost of cultivation:

Cost of cultivation Refers to Cost as per the "Comprehensive Scheme" for studying the cost of cultivation of Principal crops.

Return

Refers to the profit made on paddy cultivation which is arrived at by deducted the total cost (Cost of cultivation and cost of marketing) from the sales.

The cost of cultivation varies according to the type of the farmers even between the first crop and the second crop. There may be variations in the cost of

cultivation even between two different sample areas. This will have an impact on return also.

There are many cost concepts which are in frequent use in the farm management literature. Cost A1, Cost A2, Cost B and Cost C; working or variable or operational cost and fixed cost; machine costs, labour costs, livestock costs, crop costs etc. A brief discussion of these costs concepts is given below.

Cost A$_1$: It includes the following 16 items.

1. Value of hired human labour (Permanent and casual)

2. Value of owned bullock labour

3. Value of hired bullock labour

4. Value of owned machinery

5. Hired machinery changes

6. Value of fertilizers

7. Value of manures (produced on the farm and purchase)

8. Value of seed (both farm produced and purchased)

9. Value of insecticides and fungicides.

10. Irrigation charges (both of the owned and hired tube wells , pumping sets etc.)

11. Canal – Water charges

12. Land revenue, cess and other taxes

13. Depreciation of farm implements (both bullock drawn and worked with human labour)

14. Depreciation on farm buildings farm machinery and irrigation structures.

15. Interest on the working capital

16. Miscellaneous expenses (wages of artisans, cost of ropes and repairs to small farm implements)

(ii) **Cost A$_2$**: It is cost A$_1$ plus

(17) Rent paid for leased land

(iii) **Cost B**: It is cost A$_2$ plus

(18) Imputed rental value of owned land (less land revenue paid there upon)

(19) Imputed interest on owned fixed capital (excluding land)

(iv) **Cost C**: It is cost B Plus

(20) Imputed value of family labour

Cost C is a very comprehensive concept. But the risk and uncertainty costs are not taken care of.

Variable Costs

These are the costs which are of the recurring type, and have to be incurred during every production period, e.g. seed fertilizers and insecticides. These are also known as operational costs or working costs.

Fixed Costs

These costs are of non-recurring nature including cost of the tractor and other machinery buildings, irrigation, structures, livestock etc.,

Crop costs

These costs refer to the value of seeds and plants, manures and fertilizers, insecticides and fungicides and irrigation charges.

Machinery Costs

These costs include the living charges of machinery cost of fuel and lubricants, elect5icity bills minor machinery repairs, depreciation and interest on machines and equipment.

Labour costs

They include the wages paid in cash or kind to the hired labour and the imputed value of family labour used in the farm.

Livestock Costs

They include the costs of veterinary medicines and services, fodders, feeds, interest on the values of livestock and depreciation.

Land Costs

They   refer to the rent of land owned and taken on lease.

Building Costs

They include the interest on the value of the building structure and depreciation on them.

Benefits

Benefits are measured in terms of Income.

Gross Income

Gross income is a measure of size as well as of the volume of business. It is derived by adding gross sales, the home consumption of farm products, changes in the inventory and purchase together. It refers to the volume of output per year.

Cash Income

This relates to the cash receipts from the farm sales and from the custom hiring out of the deducting resources. The net cash income derived after deducting

cash expenses from the cash income shown the amount available for investments in the farm to bring about improvements.

Net Operating Income

Net operating income: Gross income – operating expenses + depreciation on working assets.

The comparisons of net operating income of different farms are a good measure of their relative efficiency. Return from individual factors can be derived from this measure.
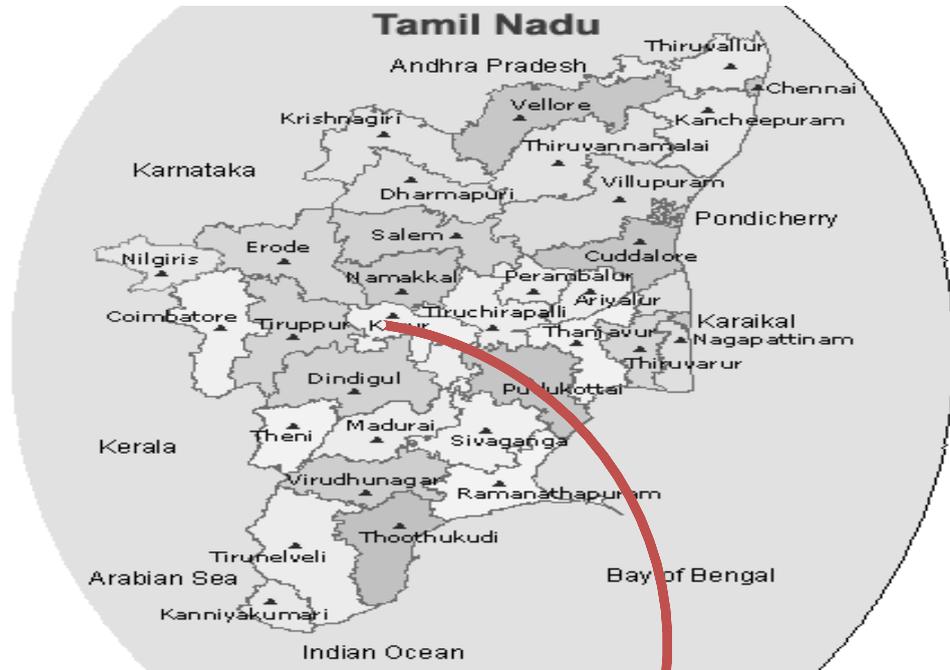
Net Farm Family Income

1. Net Farm Income = Net operating income – Fixed expenses + depreciation on fixed assets

2. Net Family income = Net farm income + off farm income

The net farm income shows the earning of the farm as whole after deducting the various expenses. These are the return from the four factors of production and are a good measure to compare different farm situation. The net family income shows the total earnings of the farm family from all sources and is a good measure of their welfare.

KARUR DISTRICT MAP

Tamil Nadu

KARUR DISTRICT