Thanjavur district is said to be the granary of Tamil Nadu. It is naturally inferred that agriculture is the primary source of livelihood for the majority of people in Thanjavur district. The economy is predominately agrarian with about 75 per cent of work force depending on agriculture. Paddy is the principal crop which accounts for the major portion of cropped area while the other corps are sugarcane, banana, coconut, pulses and Oilseeds. And in the context of marketing again the farmers are not able to obtain satisfactory returns from paddy cultivation. Therefore this research is of great significance from the point of view of production and marketing of paddy.

In recent years the agricultural problem has become much more severe and intense. Thanjavur district has differed by deficit of irrigation. Thanjavur district agriculture has continued to be a gamble in the hands of monsoon, failure of rainfall and excessive rains and consequent floods also affected this area. The Mettur Dam* was not opened for delta irrigation on the usual date of June 12, but was opened later on many occasions.
This study attempts to analyse the different situations of marketable surplus of paddy and how the farmers it in terms of channel, price line pattern of sales. In addition to that it attempts to study the character of market, marketing practices and channels involved in the marketing of paddy to estimate the marketing cost, margins and price spread in different channels and to find out constraints experienced in the post harvest period. The objectives of the study are (i) To identify the marketing practices and channels involved in marketing of paddy (Private trades and DPC), (ii) To estimate the marketing cost, margins and price spread in different channels, (iii) To find out constraints experienced in the post harvest period that is, from field level to consumer. Thanjavur district was selected purposely for the study because it covers major part of area under paddy cultivation in Tamil Nadu. Three zones namely Vennar (Papanasam taluk), Grand Anaicut (Orathanadu taluk) and Cauvery (Kumbakonam taluk) division were selected purposely for the present study on the basis of the highest area under paddy cultivation. All paddy cultivating farmers were stratified into three zones. From each zone there is one division selected based on intensive paddy cultivation. On the whole these are three sample divisions. From the sample division farmers are categorized and classified on the basis of land holding pattern, such as small farmers, medium and large farmers from each sample division is done on the basis of local consideration of each division (Irrigation potentiality, cropping pattern and acres of paddy cultivation). From each sample division 100 sample respondents have been selected and 300 respondents are selected based on random sampling method. The sample
respondents are paddy cultivators. To study the paddy marketing a well structured interview schedule has been prepared based on the objectives of the prepared.

7.1. MAJOR FINDINGS OF THE STUDY

The following are the major findings of the study

- Among the districts of Tamil Nadu, Thanjavur occupies the first place both in the area of cultivation, production and marketing.

  The cultivation of different varieties of paddy consequently results in increase in the area of cultivation. With the result the farmers are facing the problem of marketing. Difficulty in getting pest resistant, quality seeds, increase in loss, inability to protect the crops from cyclone are some of the production problems faced by the farmers. Moreover, the farmers are also facing the problems of marketing due to uneconomic transport cost, inadequate marketing structure and the problems of finance.

- The more important factor in the cultivation of paddy is the cost. The cost factor plays a vital role because it is the cost, which determines the profitability of the farmers. So the computation of cost of cultivation is paramount before analyzing the marketing behaviour. Estimation of cost has been in the following manner. (a) Human labour and family labour including, bullock labour and machine labour, b) Seeds and manure, c) depreciation on implements, d) land revenue, e) interest on working capital.
• As regards the socio economic constraints the ten top most damaging problems are irregular power supply for irrigation, non availability of labour during peak period, high cost of plant protection, chemicals, high wage rate of labour, high cost of chemical fertilizer, non availability of quality seeds, price risk non availability of canal water and low price of farm products (low price of output).

• The analysis shows that the farmers sold through the private agency like rice millers, retailers and wholesalers because the private agencies pay more price than the regulated price of Govt. The study area Papanasam shows the highest sale of 62 per cent with the lower of 35 per cent in Kumbakonam and 42 per cent in Orathanadu. The private agencies wholesalers and pre-dominant buyers of paddy in the study area are followed by retailers and rice millers. During the peak season the private traders are present in the paddy field.

• From the analysis we come to understand that the majority of farmers are selling their products through wholesalers Orathanadu accounted for 78 per cent followed by Papanasam and Kumbakonam which accounted for 48 and 41 per cent respectively.

• Most of the farmers in marginal, small, medium and large category prefer to sell their produce to private agencies which accounted for 70 per cent, 14 per cent, 60 per cent and 28 per cent respectively.

• The analysis of agewise survey of respondents in the three taluks of Kumbakonam, Orathanadu and Papanasam shows that middle aged farmers are pre-dominant with 70.0 per cent.
In the analysis of educational status of three taluks the majority of the respondents are High school educated (51%). No farmer has technical education or training in agriculture.

70 per cent of the respondents have joint families and the remaining 30 per cent belong to nucleus families.

The analysis found that Kumbakonam taluk stands first having 76 farmers belonging to backward caste followed by Orathanadu and Papanasam taluks with 71 and 75 belonging to backward caste.

The Papanasam taluk stands first having 80 farmers depending on canal source i.e., 80 per cent. Followed by Orathanadu and Kumbakonam taluks having 76 and 40 depending on canal sources.

The researcher found out that for the sources of money available for irrigation, Co-operative banks play a leading role in extending farm loan to a majority of farmers in Kumbakonam Orathanadu and Papanasam taluks. The role of commercial banks and private money lenders is only meagre in the area of study.

The majority of the farmers are dependent on either own or private seed for cultivation in Kumbakonam, Orathanadu, Papanasam with 90 and 93 farmers respectively. The government depot seed is the lowest in Kumbakonam, Orathanadu, Papanasam with 7, 10 and 7 farmers respectively.

The researcher found out the pattern of fertilizer and manure use. One may observe that majority of the farmers in the study area covering Kumbakonam, Orathanadu and Papanasam applied fertilizer and
manure maximum of twice for their crop and only very few farmers applied fertilizer and manure more than two times.

- It is interesting to note that out of the sample of 300 farmers 86 per cent are not aware of the existence of the crop insurance scheme at all. Hence there is a need to popularize this scheme among the paddy farmers.

- In the study area the variety of paddy has been classified under two categories called common and fine. In Kuruvai and Thaladi season only those varieties are cultivated. Common varities are IR-20, ADT-36, TKM-9, Co-43, CR-1009 and fine varieties are white Ponni and Katta Ponni.

- The researcher found that Kumbakonam taluk, stands first having 66 farmers cultivating IR-20 followed by 52 and 36 farmers producing to IR-20 variety.

- The researcher found when both Kuruvai and Thaladi productions are compared in the study area, Kuruvai production is much higher than the Thaladi production. This is an example of marginal diminishing utility. When land is being used repeatedly, the production capacity of the land keeps on decreasing.

- Paddy is the major food crop grown in all villages in the district. The tank and well irrigation encouraged the farmers to undertake paddy cultivation. There are two main crops in Thanjavur district, single cropping and double cropping. The double cropping is called Kuruvai / Thaladi season. Generally production of paddy is relatively higher in Kuruvai season.
The analysis of the inter linkage of the paddy reveals that farmers have to depend on the private money lenders for getting required funds for carrying out the farming operations. Further many of the farmers are not aware of the scheme offered by the Government.

The analysis of trends of variations in paddy prices and analysis of market prices and analysis of market integration reveal that there is wide fluctuation in the price of paddy due to Government policy and controls imposed and also it is very much dependent on the demand and supply of paddy.

7.2. POLICY IMPLICATIONS

1. More regulated marketing centres of government agency should be opened in many places in the district.

2. Government should provide subsidized loans to farmers to dig wells and to install pumpset to overcome the problem of water supply.

3. Government should popularize the various finance schemes among the farmers, so that, they can avail themselves of the benefit of those schemes without resorting to the private financiers.

4. Details regarding crop insurance, soil testing centres, use of modern methods of cultivation are to be informed to the farmers by conducting group meetings at various places with in the taluk.

5. Educate the farmers through conducting training programmes to inform of the need for modernization.
6. Co-operative marketing system should be revived mainly to reap the benefits of price etc.

- Since, Thanjavur is the granary of paddy and is meeting the demand for rice of the state special attention should be paid by the Government to increase the production of paddy by alleviating the problems faced by the farmers.
- The majority of farmers sell immediately after harvest to meet the cash requirement at the time of harvest. As a result they get lower income. To overcome this, Government should extend schemes like pledge loan so that their financial requirements are met with. At the same time, it would help them to fetch a higher price by postponing their sale.
- Monopoly procurement prices should be enhanced so that it leaves a sufficient margin to the cultivators. To avoid higher transportation cost and hardship faced by the farmers while selling on TNCSC, large number of procurement centres should be opened.
- The Government should follow differential marketing policies for different seasons. In season in (Kuruvai) Government should follow monopoly procurement schemes. In season I, irrespective of farm size, the majority of the farmers market paddy immediately after harvest primarily due to higher moisture context, and the climatic conditions prevailing in the harvest period. It there is no Government procurement, private traders will offer only very low price to the farmers. In this arrangement, the procurement price will act as floor
price for open market price. So, the monopoly procurement system is essential for Kuruvai season.

- The major problem faced by the farmers is the price of fertilizers, which is very high. Adequate steps should be taken to bring down the cost.

- Paddy cultivation under rainfed conditions is always a gamble with weather factors especially rainfall. Excessive or deficit rainfall, uneven distribution and untimely rainfall usually lead to high risks and uncertainties. Owing to more risks, farmers are discouraged to use more purchased inputs since returns to inputs applied are quite uncertain. Thus, drought resistant, submergent / flood tolerant varieties and late planting varieties that stand are needed to reduce risks to some extent. Utilization of ground water sources for establishing early crop is another means of averting the uncertainties of planting time.

- Banking assistance may be provided to the farmers at a reasonable rate of interest so as to enable to say the machinery and agricultural instruments.

- Co-operative farming can be undertaken, where possible. This will enable the growers to minimize the fixed cost of cultivation like. Cost of machine power, depreciation of fixed investment etc. If the fixed cost of cultivation is reduced, it will reduce the input cost. This will increase the average profit per acre.

- Permitting outside traders to take part in the commission at the open market will pave the way for competitive bidding and consequently increase the prices offered to the farmer.
- Provision of community borewells, community paddy nursery and good paddy seed at proper time to the marginal and small farmers will also enable them to get higher prices by earlier harvesting. Presently, because of the lack of these facilities, small and marginal farmers get lower price than the large groups.

- Some of the farmers from lower size groups reported that the immediate cash requirement is the reason for sale immediately after the harvest. So, the Government should formulate schemes like hypothecation loans against stock to the needy farmers. This will help in fetching higher price for small and marginal farmers through sale at a later period.

- There are wide differences among the farm groups in the percentage of marketable surplus of paddy in a given season. The percentage is low for marginal and small farm groups, because a large proportion of paddy is retained for irrigation charges for purchased water, seed etc. Government assistance to these farm groups in the form of establishing community borewells and providing good quality paddy seed at reasonable prices will enable them to mobilize more surpluses to the market.

7.3. CONCLUSION

The state-of-living-of-the-people depends mainly on the profits which they derive from their produce. But, the farmers are facing numerous problems like lack of infrastructure facilities, poor transport facility, inadequate storage facility, etc. The government should take
immediate steps in creating basic facilities like creation of infrastructure, provision of storage facilities etc. The timely release of Cauvery water will also alleviate the problem faced by the farmers. The government should also take necessary steps to provide loans to farmers to modernize agricultural operation and also to remove the middlemen from exploiting the farmers. Since, this sector can bring so much foreign exchange to the country by exporting rice, the government should extend all the assistance to the farmers not only to solve their problems but also to take the agricultural industry to the global level.

7.4. FURTHER RESEARCH AREA

The present research has been undertaken only a micro level study. Further research can be undertaken state level, to have an appropriate policy making.