



# **AGRICULTURAL CRISIS, CREDIT AND INDEBTEDNESS OF FARMERS IN PALAKKAD DISTRICT : FINDINGS OF A FIELD SURVEY**

**B.A. PRAKASH**

Professor and Head, Dept.of Economics

University of Kerala

Published in March 2008

Republication

Thiruvananthapuram Economic Studies Society

August 2017

## **CONTENTS**

|  | Page No. |
|--|----------|
| Foreword   |          |
| Preface  |          |
| Chapter 1      Introduction  | 1 - 3    |
| Chapter 2      Agricultural situation in Palakkad District   | 4 - 14   |
| Chapter 3      Profile of Sample Grama Panchayats and Sample Households                                  | 15 - 20  |
| Chapter 4      Cultivation, Production, Prices of Crops and Problems of Farming : Findings of the Survey | 21 - 30  |
| Chapter 5      Loans and Indebtedness of Farmers : Findings of the Survey                                | 31 - 37  |
| Chapter 6      Summary of Findings and Policy Suggestions  | 38 - 42  |
| Appendix I   | 43       |
| References   | 44       |

## **Foreword**

Palakkad district has been experiencing an agricultural crisis due to severe drought of 2003 and 2004, rising cost of cultivation due to increase in input costs, acute shortage of agricultural workers, fall in prices, lack of timely irrigation etc. The crisis has adversely affected a large section of the population as 86 percent of the population lives in rural areas and more than half of the rural workers are engaged in agriculture and allied activities. Due to the crisis, the farmers are forced to borrow money from institutional and informal sources resulting in high incidence of indebtedness.

The Department of Economics, University of Kerala having a statewide agricultural data collecting agency 'Scheme of Cost of Cultivation of Principal Crops in Kerala' has conducted a series of studies on the agricultural crisis of Kerala. The present study in Palakkad district is the third in the series, the earlier being carried out in the districts of Wayanad (August 2007) and Idukki (February 2008). The study serves as a basic source of valuable information on many aspects of agricultural crisis and indebtedness of farmers in Palakkad district. I hope the findings and policy suggestions of the study will be of much use to all those who are concerned about the agricultural crisis in Kerala.

**Dr. M.K. Ramachandran Nair**  
Vice-Chancellor  
University of Kerala

March 10, 2008

## **Preface**

Kerala has been experiencing a severe crisis in agricultural sector in recent years due to fall in production, prices and income and rise in cost of production making cultivation unprofitable. The districts which experienced severe crisis are Wayanad and Idukki. Palakkad is another district which face agricultural crisis due to the peculiar problems of paddy cultivation. As majority of the farmers are marginal and poor, the crisis has severely affected the well being of a large section of farming population in the district. In this context the present study examines the causes and magnitude of the agricultural crisis the study also presents a few policy suggestions. Data for the study was collected from a sample survey conducted in five Grama Panchayats in Palakkad district during June and July 2007. The study is conducted with the financial support of Special Assistance Programme (SAP) of UGC. The study found that factors such as severe drought of 2003 and 2004 resulting in widespread destruction of paddy crop, rising cost of cultivation due to the increase in wages and cost of other inputs, acute shortage of agricultural workers, fall in price of paddy, lack of timely availability of water for irrigation, spread of diseases etc. contributed to the crisis.

Sri. M.P. Sankaranarayanan, Sri. I. Hakkim, and Sri. K.P. Sudheer conducted the field survey in five Grama Panchayats in Palakkad district. Sri. K. Balan has supervised the field survey. Sri. S.M. MohanKumar has tabulated the data. Sri. B.K. Viswakumar and Sri. N. Prathap Kumar provided assistance for the study. I take this opportunity to thank all of them for their co-operation and help for conducting this study.

Kariavattom  
March 10, 2008

**B.A.Prakash**

## Chapter 1

### Introduction

#### 1.1 The Agricultural Crisis

Kerala has been experiencing an acute crisis in agricultural sector in recent years due to fall in production, prices and earnings and rise in cost of cultivation making cultivation unprofitable. The factors that can be attributed to the crisis are given below. As majority of the farmers in Kerala are marginal or poor farmers having very small, uneconomic agricultural holdings, the crisis has destroyed the economic well being of vast majority of the farmers who solely depend on agricultural income for their living. Due to acute crisis, these farmers are forced to borrow excessively for agriculture, non-agricultural purposes and also for meeting their day to day expenditure from institutional and informal sources resulting in high incidence of indebtedness and suicides of farmers.

#### 1.2 Factors that contributed to the crisis

- frequent failures of monsoons
- drought conditions in some regions
- lack of irrigational facilities
- spread of diseases and pest attacks of major crops
- failure of agriculture research to contain the diseases
- fall in prices of agricultural commodities
- absence of effective price stabilisation measures
- poor attention on crops
- acute shortage of labour for paddy cultivation
- increase in wage rate
- withdrawal of young labour force from agriculture
- failure to develop agro processing industries
- increase in the cost of cultivation
- fall in earnings from cultivation
- unprofitable nature of cultivation.

#### 1.3 Suicides of Farmers

The statistics of farmer suicides suggest that there has been very high incidence of farmer suicides in Kerala especially in Wayanad and Idukki districts. According to one estimate presented in the Kerala Legislative Assembly in March 26, 2007, the number of farmer suicides in Kerala between 2001-2006 was 841 (Table 1.1). It is reported that 101 farmers committed suicides during the period of the present Left Democratic Front rule. According to National Bank for Agriculture and Rural Development (NABARD), the total number of suicide cases reported since first January 1999 in Kerala was 803. Out of this 632 farmers were indebted to banking institutions including cooperative banks involving an amount of Rs. 2.38 crore.

According to the available data, of the total farmer suicides in Kerala, Wayanad district accounted for about 63 percent. Idukki is the second district having the largest number of farmer suicides. The Kerala State Farmers' Debt Relief Commission estimated the number of farmer suicides in Idukki district as 89 between 2000 and 2006 (Table 1.2). It is reported by the Commission that 19 farmers committed suicide in the district between February 2006 and March 2007.

**Table 1.1**  
**Number of suicides of farmers in Kerala**

| Agency               | Period                   | Number of suicides |
|----------------------|--------------------------|--------------------|
| Government of Kerala | 2001-06                  | 841                |
| NABARD               | Since first January 1999 | 803                |

**Table 1.2**  
**Number of suicides of farmers in Districts**

| Period                      | District | Number of suicides |
|-----------------------------|----------|--------------------|
| 2001 - 2006                 | Wayanad* | 528                |
| 2000 - 2006                 | Idukki** | 89                 |
| February 2006 to March 2007 | Idukki** | 19                 |

\* Kerala State Farmers' Debt Relief Commission, Sou Motu Proceedings No.1 of 2007

\*\* Kerala State Farmers Debt Relief Commission, Minutes of the meeting held on 18-4-2007

#### **1.4 Agricultural Crisis in Palakkad**

Besides Wayanad and Idukki the district which experienced agricultural crisis in recent times in Palakkad district. But the nature and magnitude of the crisis is much different in Palakkad. The district has not reported any farmer suicides. Compared to the crisis of Wayanad and Idukki, the crisis in Palakkad is of mild in nature. The cropping pattern of Palakkad is also much different. Palakkad is basically a seasonal crop growing area and the magnitude of the crisis will be lower compared to the districts cultivating perennial crops. The factors which contributed to the crisis in Palakkad are (1) severe drought of 2003 and 2004 resulting in the widespread destruction of paddy crop and financial losses to the farmers. (2) The rising cost of cultivation arising out of increase in wage rate, increase in cost of inputs etc. on the one side and fall in the prices of paddy on the other. (3) The acute shortage of agricultural labourers for paddy cultivation, and (4) The lack of timely availability of water for irrigation and diseases of crops also contributed to the crisis.

1.5 Though Palakkad district has been facing an agricultural crisis in recent years, not much attempts have been made to study the causes of the crisis or farmer indebtedness. Hence we are ignorant about the ground realities of the agricultural situation in the district. The only exception is the notes or adhoc reports prepared by different government agencies or banks as part of the implementation of relief measures. These reports are prepared for official purposes, unpublished in nature and not available for public. This is the context in which the study attempts to examine the agricultural crisis and indebtedness of farmers in Palakkad district.

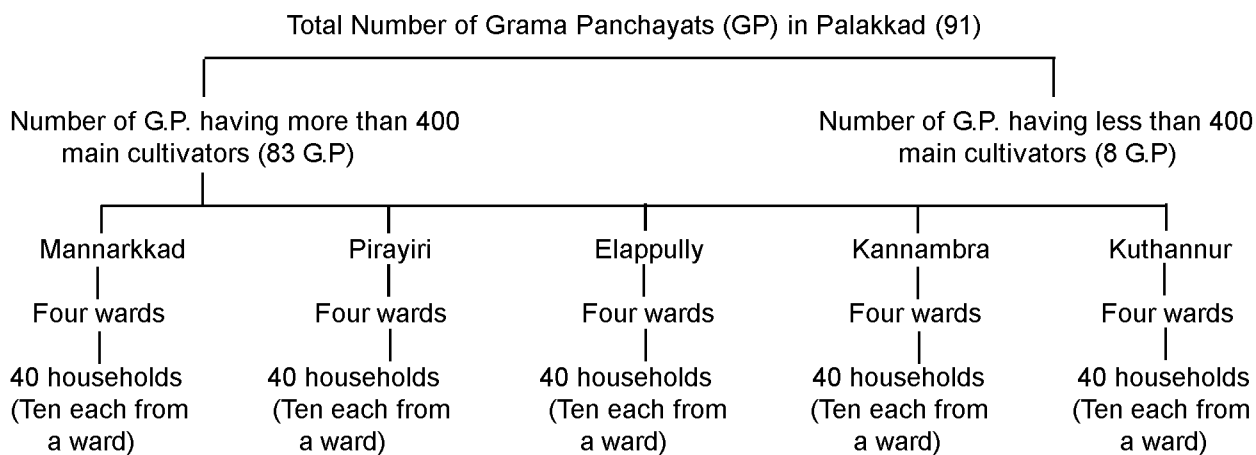
#### **1.6 Objectives of the Study**

1. To study the causes of the present agricultural crisis.
2. To examine the area and crops cultivated, production and productivity of crops, prices of agricultural products, cost incurred for cultivation and problems of cultivation.
3. To analyse the loans taken by farmers, sources and utilisation of loans and indebtedness of farmers, and
4. To suggest policy measures for agricultural crisis and indebtedness of the farmers.

#### **1.7 Data Source**

Primary and secondary data are used for the study. The major items of secondary data used in the study are the agriculture statistics published by Department of Economics and Statistics. A sample survey was conducted in five Grama Panchayats in Palakkad to collect data using an interview schedule. The sampling procedure followed is as follows. First, we have stratified the Grama Panchayats on the basis of number of farmers (having more or less than 400 farmers). Of the total 91 Grama Panchayats 83 have more than 400 cultivators per Panchayat. From this five Grama Panchayats were selected at random basis. From these Grama Panchayats four wards each are selected again on random basis. Then from each ward 10 households are selected based on simple random sampling procedure. The sampling procedure and the names of the Grama Panchayats selected for the field survey are given below.

### 1.8 Sampling Procedure



#### Selected Sample Grama Panchayats

| Selected Sample Grama Panchayats | Block Panchayat to which it belong | Number of Sample Households |
|----------------------------------|------------------------------------|-----------------------------|
| 1. Mannarkkad                    | Mannarkkad                         | 40                          |
| 2. Pirayiri                      | Palakkad                           | 40                          |
| 3. Elappully                     | Malampuzha                         | 40                          |
| 4. Kannambra                     | Alathur                            | 40                          |
| 5. Kuthannur                     | Kuzhalmannam                       | 40                          |
| Total                            |                                    | 200                         |

### 1.9 Period of the Survey

The survey was conducted in Palakkad district during the months of June and July 2007.

## Chapter 2

### Agricultural Situation in Palakkad District

2.1 The chapter is divided into two parts. The first part discusses the profile of the district such as area and administrative set up, physical profile, population, district income, employment, migration and poverty. And the second part presents the agricultural situation of the district such as land utilisation pattern, rain fall and irrigation, size of operational holdings, area of cultivation, production and productivity, trends in farm prices of agricultural commodities, livestock population, banks and agricultural credit.

#### I. Profile of the District

##### Area and Administrative Setup

2.2 Palakkad or Palghat is the land of Palmyrahs and Paddy fields. Palakkad was formerly part of the erstwhile Malabar district of Madras Presidency. At present the district accounts for about 11.5 percent of the total land area of the state of Kerala, with the share of population is 8.22 percent. The district is bounded on the North by Malappuram district, in the East by Coimbatore district of Tamil Nadu, in the South by Thrissur district and in the West by Thrissur and Malappuram districts. The district headquarters is located at Palakkad, which is about 160 kms. away from Kochi and 370 kms. from Thiruvananthapuram.

2.3 For administrative purposes the district is divided into five Taluks viz., Alathur, Chittur, Palakkad, Ottappalam and Mannarkkad and 156 revenue villages. The district has 13 Block Panchayats and 91 Grama Panchayats. The Municipal towns are Palakkad, Ottappalam, Shornur and Chittur Thathamangalam. Palakkad Municipality is one of the oldest Municipalities of the state having a history of 130 years. The details about the area and the administrative set up of the district is given in Table 2.1.

**Table 2.1**  
**Area and Administrative Setup**

|                                      | Palakkad         | State              |
|--------------------------------------|------------------|--------------------|
| I. Area                              |                  |                    |
| 1. Total Area (sq. km)               | 4480<br>(11.5)   | 38863<br>(100.0)   |
| Wet area (Hectare)                   | 7599<br>(1.6)    | 462797<br>(100.0)  |
| Dry area (Hectare)                   | 243378<br>(10.7) | 2273603<br>(100.0) |
| 2. Forest Area (Hectare)             | 136257<br>(12.6) | 1081509<br>(100.0) |
| II. Administrative Setup             |                  |                    |
| 1. Number of Revenue Divisions       | 2                | 21                 |
| 2. Number of Taluks                  | 5                | 63                 |
| 3. Number of Revenue Villages        | 156              | 1452               |
| 4. Number of Municipalities          | 4                | 53                 |
| 5. Number of Block Panchayats        | 13               | 152                |
| 6. Number of Grama Panchayats        | 91               | 999                |
| 7. Number of Assembly Constituencies | 11               | 140                |

Source : DES 2006, Panchayat Level Statistics 2006, Palakkad District

#### Physical Profile

##### Topography

2.4 Topographically the district can be divided into two regions, the low land comprising the midland and the high land formed by the hilly portion. The soil is laterite in the hill and mid regions. Coconut, Arecanut, Cashew, Pepper, Rubber and Paddy are cultivated in midland.

## **Rivers**

2.5 The important river in the district is the Bharathapuzha. The tributaries of Bharathapuzha are Malampuzha, Walayar, Mangalam, Meenkara, Ayalure, Pothundy and Kanjirapuzha. There are also two tributaries of the Cauvery in Attappady hill range, viz., Bhavani and Siruvani. The other important river flows through the district is Korapuzha.

## **Climate**

2.6 The district has a humid climate with a very hot season extending from March to June. The important rainy season is during South West Monsoon, which sets the 2nd week of June and extends upto September. About 75% of the annual rain is received during the south west monsoon period. During the period December to May, practically no rain is received.

## **Land and Soil**

2.7 The total geographical area of Palakkad district is 4480 sq.kms. Out of this area under forest is 1363 sq.kms. Palakkad, Chittur and Alathur taluks are more or less plain except for Nelliampathy area of Chittur Taluk. But Ottappalam and Mannarkkad taluks are undulating. The district falls in the midland region except Attappady block.

There are three types of soil (1) laterite soil seen in Ottappalam, Alathur, Chittur and Palakkad taluks, (2) Virgin forest soil of Mannarkkad Taluk and (3) Black soil in Chittur and Attappady Valley which is used for the cultivation of Cotton.

## **Tourist Centres**

2.8 Palakkad has the tourist attractions such as ever green tropical forests, dams, wild life sanctuaries, rivers, rare birds and animals, historical monuments, places of worship and traditional and Ayurvedic treatment centres. The district is gifted with the beauty of Nelliampathy hills, Silent Valley National Park, Parambikulam Wildlife Sanctuary, Attappady hills and more than half a dozen dams like Malampuzha, Mangalam, Pothundi, Kanjirapuzha, Siruvani and Parambikulam.

## **Silent Valley**

2.9 The Silent Valley National Park, with an area of 90 sq.kms, is situated in the north eastern corner of the district. The Silent Valley National Park, is probably one of the most magnificent gift of nature to mankind, a unique preserve of tropical rain forests in all its pristine glory with an almost unbroken ecological history. Thanks largely to its difficult terrain and the extent of degradation is minimum comparison with other sanctuaries.

## **Palakkad Fort**

2.10 Palakkad Fort, situated in the Palakkad Town, is the most beautiful and best preserved forts in Kerala. It was constructed in 1766 by Hyder Ali of Mysore and his son Tipu Sulthan. In 1790 the fort was taken over and remodified by the British East India Company. The fort is protected by the Archeological Survey of India.

## **Population**

2.11 According to 2001 census the district had a population of 2617482 comprising 1266985 males and 1350497 females (Table 2.2). In spite of the development of the district during the last half a century the growth in urban population was small. The percentage of urban population and urban households was only 14 percent in 2001. The district is a backward rural economy and 86 percent of the population lives in rural areas. The SC/ST population accounted for 18 percent of the total population of the district. The density of the population in the district is lower compared to the state average. The literacy rate for male and female in the district are also lower compared to the state average. The demographic features of the district is given in Table 2.2. A block wise details about the number of Grama Panchayats, area, number of wards and number of households are given in Table 2.3. The district has 13 Block Panchayats and four Municipalities. The Block Panchayat and Municipality wise distribution of male, female, and total population is given in Table 2.4.

**Table 2.2**  
**Demographic Features of Palakkad District (2001 Census)**

|                               | Palakkad           | State               |
|-------------------------------|--------------------|---------------------|
| 1. Total Population (Number)  | 2617482<br>(100.0) | 31841374<br>(100.0) |
| Male                          | 1266985<br>(48.4)  | 15468614<br>(48.6)  |
| Female                        | 1350497<br>(51.6)  | 16372760<br>(51.4)  |
| 2. Rural Population           | 2260907<br>(86.4)  | 23574449<br>(74.0)  |
| 3. Urban Population           | 356575<br>(13.6)   | 8266925<br>(26.0)   |
| 4. S.C. Population            | 432578<br>(16.5)   | 3123941<br>(9.8)    |
| 5. S.T. Population            | 39665<br>(1.5)     | 364189<br>(1.1)     |
| 6. Total Number of Households | 530216<br>(100.0)  | 6726356<br>(100.0)  |
| 7. Urban Households           | 74305<br>(14.0)    | 1716097<br>(25.5)   |
| 8. Rural households           | 455911<br>(86.0)   | 5010259<br>(74.5)   |
| 9. Other Aspects              |                    |                     |
| Density of population         | 584                | 819                 |
| Growth Rate (1991 to 2001)    | 9.88               | 9.43                |
| Sex ratio                     | 1068               | 1058                |
| Literacy rate (Percent)       | 84.35              | 90.86               |
| Male                          | 89.52              | 94.24               |
| Female                        | 79.56              | 87.72               |

Source : Same as Table 2.1

**Table 2.3**  
**Block wise Distribution of Grama Panchayats and Households**

| Sl. No. | Name of Block/Jilla Panchayat | Number of Grama Panchayats | Area in sq.km. | No. of wards 2005 | No. of households in 2001 |
|---------|-------------------------------|----------------------------|----------------|-------------------|---------------------------|
| 1.      | Alathur                       | 9                          | 371.17         | 150               | 52822                     |
| 2.      | Attappady                     | 3                          | 703.23         | 45                | 16315                     |
| 3.      | Chittur                       | 6                          | 261.24         | 96                | 35487                     |
| 4.      | Coyalmanam                    | 7                          | 192.12         | 105               | 34846                     |
| 5.      | Kollengode                    | 5                          | 163.32         | 77                | 25316                     |
| 6.      | Malampuzha                    | 8                          | 468.04         | 134               | 48424                     |
| 7.      | Mannarkkad                    | 10                         | 482.35         | 158               | 52509                     |
| 8.      | Nenmara                       | 6                          | 741.35         | 90                | 29026                     |
| 9.      | Ottapalam                     | 5                          | 165.07         | 82                | 27813                     |
| 10.     | Palakkad                      | 8                          | 205.88         | 125               | 40164                     |
| 11.     | Pattambi                      | 10                         | 224.21         | 161               | 46768                     |
| 12.     | Sreekrishnapuram              | 7                          | 219.41         | 104               | 33151                     |
| 13.     | Thrithala                     | 7                          | 172.16         | 112               | 34691                     |
|         | Block Total                   | 91                         | 4369.55        | 1439              | 477332                    |
|         | Mun. Total                    | 4                          | 106.75         | 139               | 52884                     |
|         | Dist. Total                   | 95                         | 4476.3         | 1578              | 530216                    |

Source: Same as Table 2.1

**Table 2.4**  
**Block wise Distribution of Population**

| Block Panchayat/<br>Municipality | Population (2001) |                |                |
|----------------------------------|-------------------|----------------|----------------|
|                                  | Male              | Female         | Total          |
| 1. Alathur                       | 123172            | 130213         | 253385         |
| 2. Attappady                     | 33294             | 32877          | 66171          |
| 3. Chittur                       | 78148             | 80362          | 158510         |
| 4. Kollengode                    | 60832             | 63076          | 123908         |
| 5. Kuzhalmannam                  | 80391             | 85638          | 166029         |
| 6. Malampuzha                    | 110266            | 113542         | 223808         |
| 7. Mannarkkad                    | 140238            | 149300         | 289538         |
| 8. Nenmara                       | 66398             | 69484          | 135882         |
| 9. Ottappalam                    | 65044             | 72874          | 137918         |
| 10. Palakkad                     | 95092             | 101372         | 196464         |
| 11. Pattambi                     | 127324            | 139575         | 266899         |
| 12. Sreekrishnapuram             | 76872             | 85040          | 161912         |
| 13. Thrithala                    | 86805             | 96329          | 183134         |
| <u>Municipalities</u>            |                   |                |                |
| 1. Chittur - Thathamangalam      | 15534             | 16352          | 31886          |
| 2. Ottappalam                    | 23186             | 26056          | 49242          |
| 3. Palakkad                      | 64379             | 66388          | 130767         |
| 4. Shornur                       | 20010             | 22019          | 42029          |
| <b>District Total</b>            | <b>1266985</b>    | <b>1350497</b> | <b>2617482</b> |

Source: Same as Table 2.1

### The District Income

2.12 The Net State Domestic Product of the district at current prices was estimated as Rs. 6255.34 crores in 2004-05. Of the total income, the share of agriculture and allied activities were 16.5 percent. The sector has been witnessing a decline. Industry and construction are the major activities in the secondary sector and accounted for 19.6 percent of total district income. The tertiary sector is the major sector of the district economy and accounted for 63.8 percent of the district income (Table 2.5). The major activities of the sector are trade, hotels and restaurants, services, transport and storage, real estate business and legal services.

**Table 2.5**  
**Net State Domestic Product of Palakkad District for 2004-05**

| Industry of Origin                       | Current Prices<br>Rs. in lakhs | Percent | Constant Prices<br>(1993-94 prices)<br>Rs. in lakhs | Percent |
|--|--------------------------------|---------|---|---------|
| 1. Agriculture                           | 88978                          | 14.2    | 39827   | 12.7    |
| 2. Forestry & Logging                    | 13284                          | 2.1     | 11303   | 3.6     |
| 3. Fishing                               | 523                            | 0.08    | 270   | 0.08    |
| 4. Mining and Quarrying                  | 900                            | 0.14    | 654   | 0.2     |
| I. Total Primary                         | 103685                         | 16.5    | 52054   | 16.6    |
| 5. Manufacturing                         | 43374                          | 6.9     | 24935   | 7.9     |
| 6. Electricity gas & Water supply        | 21018                          | 3.4     | 9792  | 3.1     |
| 7. Construction                          | 58052                          | 9.3     | 17872   | 5.7     |
| II. Total Secondary                      | 122444                         | 19.6    | 52599   | 16.7    |
| 8. Transport, Storage & Communication    | 52861                          | 8.4     | 51951   | 16.5    |
| 9. Trade, Hotel & Restaurants            | 160264                         | 25.6    | 71150   | 22.6    |
| 10. Banking & Insurance                  | 47977                          | 7.7     | 27841   | 8.8     |
| 11. Real Estate Ownership Business legal | 52496                          | 8.4     | 15093   | 4.8     |
| 12. Public administration                | 26164                          | 4.2     | 18881   | 6.0     |
| 13. Other services                       | 59643                          | 9.5     | 24921   | 7.9     |
| III. Total Tertiary                      | 399405                         | 63.8    | 209837  | 66.7    |
| Net Domestic Product                     | 625534                         | 100.0   | 314490  | 100.0   |
| Per capita income (in Rs.)               | 23014                          | --      | 11571   | --      |

Source: Same as Table 2.1

## Employment

2.13 The census has classified the workers in two categories viz., main workers and marginal workers. Of the total workers in the district 81 percent were main workers and 19 percent were marginal workers (Table 2.6). Among the marginal workers female workers accounted a larger share compared to male workers. Of the total female workers the percentage of marginal workers was 28 percent.

**Table 2.6**  
**Total workers in Palakkad district (2001 Census)**

|                  | Total  | Male   | Female | Total<br>(Percent) | Male<br>(Percent) | Female<br>(Percent) |
|------------------|--------|--------|--------|--------------------|-------------------|---------------------|
| Main workers     | 768620 | 562952 | 205668 | 81.3               | 85.4              | 71.8                |
| Marginal workers | 176432 | 95813  | 80619  | 18.7               | 14.5              | 28.2                |
| Total workers    | 945052 | 658765 | 286287 | 100.0              | 100.0             | 100.0               |

Source: Same as Table 2.1

2.14 According to 2001 census the total workers in the district was 9.45 lakhs comprising 6.58 lakh males and 2.86 lakh females (Table 2.7). The structure of employment in Palakkad district showed that 42 percent of the employment was in agriculture as cultivators and agricultural labourers (Table 2.8). Of the total workers in the district 33 percent were agricultural labourers mainly engaged in casual employment. Among the total female workers, the major share is engaged as agricultural labourers. As paddy is the major crop in the district, the agricultural employment is mostly seasonal in nature.

**Table 2.7**  
**Total, main and marginal workers (number) in Palakkad district (as per 2001 census)**

| Category                        | Main workers |        |        | Marginal workers |       |        | Total workers |        |        |
|---------------------------------|--------------|--------|--------|------------------|-------|--------|---------------|--------|--------|
|                                 | Total        | Male   | Female | Total            | Male  | Female | Total         | Male   | Female |
| 1. Cultivators                  | 73945        | 58638  | 15307  | 11693            | 6488  | 5205   | 85638         | 65126  | 20512  |
| 2. Agricultural labourers       | 223203       | 115398 | 107805 | 93989            | 40892 | 53097  | 317192        | 156290 | 160902 |
| 3. Household industry labourers | 27167        | 19331  | 7836   | 5665             | 2725  | 2940   | 32832         | 22056  | 10776  |
| 4. Other workers                | 444305       | 369585 | 74720  | 65085            | 45708 | 19377  | 509390        | 415293 | 94097  |
| Total                           | 768620       | 562952 | 205668 | 176432           | 95813 | 80619  | 945052        | 658765 | 286287 |

Source: Same as Table 2.1

**Table 2.8**  
**Total, main and marginal workers in Palakkad district (percentage)**

| Category                        | Main workers |       |        | Marginal workers |       |        | Total workers |       |        |
|---------------------------------|--------------|-------|--------|------------------|-------|--------|---------------|-------|--------|
|                                 | Total        | Male  | Female | Total            | Male  | Female | Total         | Male  | Female |
| 1. Cultivators                  | 9.6          | 10.4  | 7.4    | 6.6              | 6.8   | 6.4    | 9.0           | 9.9   | 7.2    |
| 2. Agricultural labourers       | 29.0         | 20.5  | 52.4   | 53.3             | 42.7  | 65.8   | 33.5          | 23.7  | 56.2   |
| 3. Household industry labourers | 3.5          | 3.4   | 3.8    | 3.2              | 2.8   | 3.6    | 3.5           | 3.3   | 3.7    |
| 4. Other workers                | 57.8         | 65.6  | 36.3   | 36.9             | 47.7  | 24.0   | 54.0          | 63.0  | 32.8   |
| Total                           | 100.0        | 100.0 | 100.0  | 100.0            | 100.0 | 100.0  | 100.0         | 100.0 | 100.0  |

Source: Same as Table 2.1

## Migration

2.15 During the last three decades migration to foreign countries especially to the Gulf and the consequent flow of remittances had been a basic factor which accelerated the process of development in all districts in Kerala except Wayanad and Idukki. Palakkad district has a moderately high rate of emigration i.e., 33 emigrants per 100 households (Table 2.9). This emigration and consequent flow of remittances have also acted as disincentive for cultivation. We have noticed that the district has been witnessing a rapid withdrawal of young labour force from agriculture especially from paddy cultivation. Our survey revealed that the district has been facing acute shortage of agricultural labourers.

**Table 2.9**  
**Number of emigrants from Kerala, 2004**

| Districts             | Emigrants | Emigrants per 100 Households |
|-----------------------|-----------|------------------------------|
| 1. Thiruvananthapuram | 168046    | 21.5                         |
| 2. Kollam             | 148457    | 24.4                         |
| 3. Pathanamthitta     | 133720    | 44.3                         |
| 4. Alappuzha          | 75036     | 15.2                         |
| 5. Kottayam           | 106569    | 24.0                         |
| 6. Idukki             | 7880      | 2.9                          |
| 7. Ernakulam          | 121237    | 16.9                         |
| 8. Thrissur           | 178867    | 27.2                         |
| 9. Palakkad           | 177876    | 32.6                         |
| 10. Malappuram        | 271787    | 45.0                         |
| 11. Kozhikode         | 167436    | 28.6                         |
| 12. Wayanad           | 7704      | 4.4                          |
| 13. Kannur            | 202414    | 43.2                         |
| 14. Kasaragode        | 71449     | 30.6                         |
| Kerala                | 1838478   | 26.7                         |

Source: K.C. Zachariah and S.Irudaya Rajan, 2004, Gulf Revisited, Working paper 363, C.D.S.

## II. Agricultural Situation in Palakkad District

### Land Utilisation Pattern

2.16 Palakkad district account for 11.3 percent of the total geographical area and 12.6 percent of the total forest area of the state. The net area sown in the district was estimated as 1.98 lakhs hectares accounting for 9.2 percent of the net area sown of the state. The total cropped area of the district was estimated as 3.24 lakh hectares. Land utilisation pattern of the district and of the state are given in Table 2.10.

**Table 2.10**  
**Land Utilization Pattern of Palakkad District 2004-05 (Area in Hectare)**

|                            | Palakkad | State   | Share of Palakkad (Percent) |
|----------------------------|----------|---------|-----------------------------|
| 1. Total geographical area | 438980   | 3885497 | 11.3                        |
| 2. Forest area             | 136257   | 1081509 | 12.6                        |
| 3. Current fallow          | 12617    | 68634   | 18.4                        |
| 4. Net area sown           | 198474   | 2154885 | 9.2                         |
| 5. Total cropped area      | 324480   | 2996293 | 10.8                        |

Source: Same as Table 2.1

### Rainfall and Irrigation

2.17 In the district, the main rainy season is South West monsoon lasting from June to September. And about 75 percent of the annual rain is received during the period. Lack of availability of normal rainfall,

untimely rains and drought conditions have adversely affected the agriculture in the district (Table 2.11). Between 1997 and 2006, the actual rainfall received in the district was lower for six years. The percentage departure from normal rainfall varied between 8 percent to 30 percent. The severe drought in 2003 had resulted in widespread destruction of paddy crop during 2003 and 2004.

**Table 2.11**  
**Actual and Normal Rainfall with Percentage Departure (in Millimetre)**

| Year     | Palakkad        |                 |                      | State           |                 |                      |
|----------|-----------------|-----------------|----------------------|-----------------|-----------------|----------------------|
|          | Actual Rainfall | Normal Rainfall | Percentage Departure | Actual Rainfall | Normal Rainfall | Percentage Departure |
| 1. 1997  | 2405            | 2363            | (+)1.8               | 3213            | 3052            | (+)5.3               |
| 2. 1998  | 2407            | 2363            | (+)1.8               | 3115            | 3052            | (+)2.0               |
| 3. 1999  | 2173            | 2363            | (-)8.0               | 2859            | 3052            | (-)6.3               |
| 4. 2000  | 1862            | 2228            | (-)16.4              | 2515            | 2919            | (-)13.8              |
| 5. 2001  | 1970            | 2363            | (-)16.6              | 2800            | 2929            | (-)4.4               |
| 6. 2002  | 1833            | 2363            | (-)22.4              | 2518            | 2929            | (-)14.0              |
| 7. 2003  | 1728            | 2472            | (-)30.1              | 2380            | 3092            | (-)23.0              |
| 8. 2004  | 2227            | 2473            | (-)10.0              | 2877            | 3092            | (-)6.9               |
| 9. 2005  | 2301            | 2133            | (+)7.8               | N.A.            | N.A.            | N.A.                 |
| 10. 2006 | 2104            | 2134            | (-)1.4               | 2587            | 2630            | (-)1.6               |

Source: Department of Agriculture 2005, Facts and Figures of Agriculture in Kerala, and SPB, Economic Reviews 2005 and 2006.

2.18 Palakkad is one of the districts which achieved progress with regard to irrigational development. In the case of paddy Palakkad account for one fourth of the gross area under irrigation in the state (Table 2.12). The gross area under irrigation of paddy crop was 46,831 hectares in 2004-05. The water brought through canals from Malampuzha dam is the major source of irrigation. The other crops to which irrigation are provided are vegetables, coconut, arecanut, spices and condiments, banana etc.

**Table 2.12**  
**Gross Area (in Hectare) under Irrigation : Cropwise, 2004-05**

| Crops                        | Palakkad | Kerala | Share of Palakkad (Percent) |
|------------------------------|----------|--------|-----------------------------|
| 1. Paddy                     | 46831    | 183601 | 25.5                        |
| 2. Tubers                    | 23       | 2253   | 1.0                         |
| 3. Vegetables                | 1351     | 14274  | 9.5                         |
| 4. Coconut                   | 19874    | 157768 | 12.6                        |
| 5. Arecanut                  | 2432     | 36858  | 6.6                         |
| 6. Cloves                    | 9        | 540    | 1.7                         |
| 7. Nutmeg                    | 30       | 5745   | 0.5                         |
| 8. Other spices & condiments | 704      | 3403   | 20.7                        |
| 9. Banana                    | 4343     | 30265  | 14.3                        |
| 10. Other crops              | 3214     | 18163  | 17.7                        |

Source: Same as Table 2.1

### Size of Operational Holdings

2.19 The agricultural census of 2000-01 gave the size of operational holdings of the farmers in Palakkad district. The total number of individual operational holdings in the district was estimated as 5.15 lakhs (Table 2.13). Of the total holdings 85 percent of them had a size below 0.5 hectare. Another 7 percent of the operational holdings had a size of 0.5 to one hectare. Thus, 92 percent of the holdings come under the category of marginal holdings having an area less than one hectare. These marginal holdings can be classified as uneconomic holdings as the farmers cannot earn a reasonable income from the holdings.

**Table 2.13**  
**Number of individual operational holdings 2000-01**

| Sl. No.    | Block / Municipality | Below 0.5 hectare | 0.5 to 1.0 hectare | 1.0 to 2.0 hectare | 2 to 4 hectare | Above 4 hectare | Total  |
|------------|----------------------|-------------------|--------------------|--------------------|----------------|-----------------|--------|
| 1.         | Alathur              | 44035             | 3969               | 2656               | 1279           | 325             | 52264  |
| 2.         | Attappady            | 8891              | 4197               | 3394               | 1395           | 296             | 18173  |
| 3.         | Chittoor             | 27492             | 2426               | 2924               | 1881           | 640             | 35363  |
| 4.         | Kollengode           | 19523             | 1143               | 1261               | 1077           | 257             | 23261  |
| 5.         | Kozhalmannam         | 27661             | 2148               | 1630               | 1039           | 196             | 32674  |
| 6.         | Malampuzha           | 37376             | 2333               | 1912               | 932            | 240             | 42793  |
| 7.         | Mannarakkad          | 42160             | 4678               | 3212               | 1596           | 402             | 52048  |
| 8.         | Nenmara              | 21835             | 1630               | 1300               | 725            | 210             | 25700  |
| 9.         | Ottapalam            | 24394             | 2291               | 1000               | 262            | 55              | 28002  |
| 10.        | Palakkad             | 35635             | 2670               | 1510               | 675            | 140             | 40630  |
| 11.        | Pattambi             | 43518             | 3345               | 1536               | 407            | 70              | 48876  |
| 12.        | Sreekrishnapuram     | 33447             | 3195               | 1567               | 451            | 65              | 38725  |
| 13.        | Thrithala            | 30948             | 2624               | 1516               | 380            | 55              | 35523  |
| 14.        | Chittoor (M)         | 5286              | 261                | 241                | 101            | 25              | 5914   |
| 15.        | Ottapalam (M)        | 8210              | 322                | 160                | 69             | 5               | 8766   |
| 16.        | Palakkad (M)         | 17135             | 175                | 115                | 50             | 25              | 17500  |
| 17.        | Shornur (M)          | 8633              | 367                | 74                 | 15             | 5               | 9094   |
| Total      |                      | 436179            | 37774              | 26008              | 12334          | 3011            | 515306 |
| Percentage |                      | 84.6              | 7.3                | 5.0                | 2.4            | 0.6             | 100.0  |

Source: Same as Table 2.1

2.20 A feature of the size of operational holdings was that 92 percent of the number of marginal holdings accounted for 46 percent of the total area of cultivation (Table 2.13 and Table 2.14). Another 5 percent of the holdings was small holdings and accounted for 23 percent of the total area of cultivation. The structure of agricultural holdings in the district indicate that a small percentage of farmers (3 percent) possess nearly 30 percent of the total area of holdings (Table 2.14).

**Table 2.14**  
**Area of individual operational holdings 2000-01 (in hectare)**

| Sl. No.    | Block / Municipality | Below 0.5 | 0.5 to 1.0 | 1.0 to 2.0 | 2 to 4 | Above 4 | Total  |
|------------|----------------------|-----------|------------|------------|--------|---------|--------|
| 1.         | Alathur              | 4107      | 2820       | 3631       | 3408   | 1633    | 15599  |
| 2.         | Attappady            | 1841      | 3084       | 4389       | 3502   | 1357    | 14173  |
| 3.         | Chittoor             | 1767      | 1828       | 4112       | 4969   | 3132    | 15808  |
| 4.         | Kollengode           | 1250      | 842        | 1782       | 2848   | 1188    | 7910   |
| 5.         | Kozhalmannam         | 2762      | 1505       | 2213       | 2785   | 950     | 10215  |
| 6.         | Malampuzha           | 2611      | 1659       | 2608       | 2356   | 1137    | 10371  |
| 7.         | Mannarakkad          | 4600      | 3342       | 4347       | 3912   | 2052    | 18253  |
| 8.         | Nenmara              | 1833      | 1171       | 1838       | 1908   | 1003    | 7753   |
| 9.         | Ottapalam            | 3035      | 1598       | 1320       | 668    | 286     | 6907   |
| 10.        | Palakkad             | 3380      | 1868       | 2010       | 1723   | 659     | 9640   |
| 11.        | Pattambi             | 4881      | 2338       | 2019       | 1051   | 364     | 10653  |
| 12.        | Sreekrishnapuram     | 4281      | 2196       | 2112       | 1124   | 325     | 10038  |
| 13.        | Thrithala            | 3586      | 1854       | 2020       | 1010   | 281     | 8751   |
| 14.        | Chittoor (M)         | 342       | 200        | 347        | 248    | 124     | 1261   |
| 15.        | Ottapalam (M)        | 699       | 236        | 228        | 180    | 21      | 1364   |
| 16.        | Palakkad (M)         | 638       | 134        | 157        | 129    | 103     | 1161   |
| 17.        | Shornur (M)          | 692       | 252        | 98         | 41     | 24      | 1107   |
| Total      |                      | 42305     | 26927      | 35231      | 31862  | 14639   | 150964 |
| Percentage |                      | 28.0      | 17.8       | 23.3       | 21.1   | 9.7     | 100.0  |

Source: Same as Table 2.1

### Area and Crops Cultivated

2.21 The major crops cultivated in the district are paddy, coconut, rubber, banana, plantains, mango, arecanut, pepper and tamarind (Table 2.15). The other important crops are jack, pulses, sugarcane, cashew, tapioca, coffee and vegetables. Paddy is the most important crop having the largest area of cultivation and accounted for 38 percent of the total area of cultivation of the state during 2004-05. Paddy is cultivated thrice in a year viz., Autumn, Winter and Summer. Irrigation is also provided for the cultivation of paddy.

**Table 2.15**  
**Area of cultivation (in Hectares) 2004-05**

| Crops                   | Palakkad | State  | Share of Palakkad (Percentage) |
|-------------------------|----------|--------|--------------------------------|
| 1. Paddy                | 111029   | 289974 | 38.3                           |
| 2. Pulses including Tur | 4701     | 8428   | 55.8                           |
| 3. Sugar crops          | 4633     | 9480   | 48.8                           |
| 4. Pepper               | 7305     | 237669 | 3.1                            |
| 5. Arecanut             | 6464     | 107572 | 6.0                            |
| 6. Jack                 | 6003     | 97536  | 6.1                            |
| 7. Mango                | 9999     | 90631  | 11.0                           |
| 8. Banana               | 10705    | 58866  | 18.2                           |
| 9. Other plantain       | 6871     | 54612  | 12.6                           |
| 10. Cashew              | 4814     | 81547  | 6.0                            |
| 11. Tapioca             | 4186     | 88486  | 4.7                            |
| 12. Other vegetables    | 4404     | 26837  | 16.4                           |
| 13. Coconut             | 55533    | 899267 | 6.2                            |
| 14. Coffee              | 4650     | 84644  | 5.5                            |
| 15. Rubber              | 29900    | 480661 | 6.2                            |
| 16. Tamarind            | 7170     | 19564  | 36.6                           |

Source: Same as Table 2.1

### Production and Productivity

2.22 Palakkad district is the largest producer of paddy in Kerala. More than 40 percent of the total paddy in the state is produced in the district at present. Mango, banana and other plantains are the other important agricultural products produced in the district. Rubber production in the district account for 6.3 and arecanut 5.7 percent of the total production in the state in 2004-05. Sugarcane, pulses and tamarind are the other important agricultural products produced in the district. The crop wise production in the district and its share to total production of the state for 2004-05 is given in Table 2.16.

**Table 2.16**  
**Production of Important Crops 2004-05**

| Crops                              | Palakkad | State   | Share of Palakkad (Percent) |
|------------------------------------|----------|---------|-----------------------------|
| 1. Rice (in tonnes)                | 260118   | 667105  | 39.0                        |
| 2. Sugarcane(in tonnes)            | 6723     | 15430   | 43.6                        |
| 3. Pulses (in tonnes)              | 3533     | 8390    | 42.1                        |
| 4. Black pepper (in tonnes)        | 991      | 74980   | 1.3                         |
| 5. Arecanut betel nuts (in tonnes) | 6248     | 110340  | 5.7                         |
| 6. Jack (Nos. in million nuts)     | 23       | 348     | 6.6                         |
| 7. Mango (in tonnes)               | 95205    | 525326  | 18.1                        |
| 8. Banana (in tonnes)              | 86083    | 475371  | 18.1                        |
| 9. Other plantains (in tonnes)     | 55419    | 416115  | 13.3                        |
| 10. Raw cashew nuts (in tonnes)    | 2436     | 60584   | 4.0                         |
| 11. Tapioca (in tonnes)            | 101867   | 2400043 | 4.2                         |
| 12. Coconut (million nuts)         | 344      | 6001    | 5.7                         |
| 13. Coffee (in tonnes)             | 2050     | 54300   | 3.8                         |
| 14. Rubber (in tonnes)             | 43353    | 690778  | 6.3                         |
| 15. Tamarind (in tonnes)           | 8819     | 29945   | 29.4                        |

Source: Same as Table 2.1

2.23 An analysis of productivity (output per hectare) of rice in Autumn and Winter crops show that the productivity of the district is higher compared to the state average. But in the summer crop the productivity is lower. The productivity of crops such as plantains, coconut, rubber are high in the district compared to the state average. On the other hand, the productivity is low in the district in the case of pepper, arecanut, banana, cashew, tapioca and jack. A crop wise productivity of the major crops in Palakkad district as well as the state is given in Table 2.17.

**Table 2.17**  
**Productivity of major crops 2005-06**

| Crops                              | Palakkad | State |
|------------------------------------|----------|-------|
| 1. Rice (in kg/hectare)            |          |       |
| Autumn                             | 2269     | 2163  |
| Winter                             | 2395     | 2299  |
| Summer                             | 2434     | 2733  |
| 2. Black pepper (in kg/hectare)    | 151      | 368   |
| 3. Arecanut (in kg/hectare)        | 973      | 1099  |
| 4. Banana (in kg/hectare)          | 7347     | 8010  |
| 5. Other plantains (in kg/hectare) | 8906     | 8064  |
| 6. Raw cashew nuts (in kg/hectare) | 407      | 872   |
| 7. Tapioca (in kg/hectare)         | 26370    | 28367 |
| 8. Coconut (number/hectare)        | 7486     | 7046  |
| 9. Rubber (in kg/hectare)          | 1602     | 1495  |
| 10. Jack (Number/hectare)          | 3236     | 3688  |

Source: DES 2006, Agricultural Statistics 2005-06

#### **Trends in farm prices of agricultural commodities**

2.24 Table 2.18 gives the trends in average farm price of important agricultural commodities in Kerala between 2000-01 and 2005-06. From the table we may draw the following observations regarding the major crops in Palakkad district. In the case of paddy, there had been a fall in the prices in three years between 2000-01 and 2005-06. Though there had been a substantial increase in the cost of cultivation of paddy, the price prevailed in 2005-06 is lower than that of 2000-01. The price of arecanut registered a fall since 2000-01. It registered a marginal increase only from 2004-05. In the case of coconut, the price registered a steep fall since 2004-05. But the only crop which witnessed a sustained increase in the price since 2000-01 is rubber. Thus, the fall in the price of paddy, the major crop, is one of the important causes for the agricultural crisis in the district.

**Table 2.18**  
**Average farm price of agricultural commodities in Kerala (Rs.)**

| Crops                             | 2000 - 01 | 2001 - 02 | 2002 - 03 | 2003 - 04 | 2004 - 05 | 2005 - 06 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1. Paddy (Qtl.)                   | 646.36    | 600.27    | 649.76    | 694.69    | 651.00    | 610.78    |
|                                   | --        | (-)7.1    | 8.2       | 7.0       | (-)6.3    | (-)6.2    |
| 2. Arecanut (100 number)          | 41.88     | 32.81     | 32.11     | 34.62     | 40.00     | 43.73     |
|                                   | --        | (-)21.6   | (-)2.1    | 7.8       | 15.5      | 9.3       |
| 3. Banana (100 number)            | 1042.51   | 949.51    | 971.34    | 1167.00   | 1112.00   | 1247.81   |
|                                   | --        | (-)9.0    | 2.3       | 20.1      | (-)4.7    | 12.2      |
| 4. Coconut with husk (100 number) | 281.43    | 340.64    | 475.63    | 582.73    | 635.00    | 494.89    |
|                                   | --        | 21.0      | 39.6      | 22.5      | 9.0       | (-)22.0   |
| 5. Rubber (Qtl.)                  | 3036      | 3228      | 3919      | 5040      | 5224      | 6699      |
|                                   | --        | 6.3       | 21.4      | 28.6      | 3.6       | 28.2      |

\* Relates to the years 2001, 2002, 2003, 2004, 2005 and 2006.

Source: SPB, 2007, Economic Review 2006.

### Livestock Population

2.25 Livestock rearing is an important subsidiary activity in the district. The district had 263763 cattle, 9269 buffaloes, 125890 goats, 1507 pigs, 1885 sheep during the year 2004-05. There has been a decline in livestock rearing due to the withdrawal of youth from agriculture and related activities. Table 2.19 gives the livestock population of the district and the total of the state.

**Table 2.19**  
**Livestock Population in 2004-05 (Number)**

| Item         | Palakkad | State   | Share of Palakkad (Percent) |
|--------------|----------|---------|-----------------------------|
| 1. Cattle    | 263763   | 2122453 | 12.4                        |
| 2. Buffaloes | 9269     | 64618   | 14.3                        |
| 3. Goats     | 125890   | 1213173 | 10.4                        |
| 4. Pigs      | 1507     | 76452   | 2.0                         |
| 5. Sheep     | 1885     | 3631    | 52.0                        |

Source: Same as Table 2.1

### Bank Branches

2.26 The statistics on banking showed that the total number of bank branches in the district was 523 on 2005. Of the bank branches 258 were the commercial banks, 249 were co-operative banks and 16 were other banks. Among the Block Panchayats Attappadi has the lowest number of bank branches. Table 2.20 gives the Block Panchayat wise distribution of bank branches in the district.

**Table 2.20**  
**Number of Bank branches in Palakkad District (2005)**

| Block Panchayat/<br>Municipality             | Commercial<br>Banks | Co-operative<br>Banks | Other<br>Banks | Total |
|--|---------------------|-----------------------|----------------|-------|
| 1. Alathur                                   | 22                  | 16                    | 1              | 39    |
| 2. Attappady                                 | 5                   | 3                     | -              | 8     |
| 3. Chittur                                   | 12                  | 14                    | 1              | 27    |
| 4. Kollengode                                | 12                  | 12                    | 2              | 26    |
| 5. Kuzhalmannam                              | 15                  | 13                    | -              | 28    |
| 6. Malampuzha                                | 24                  | 15                    | -              | 39    |
| 7. Mannarkkad                                | 16                  | 30                    | 3              | 49    |
| 8. Nenmara                                   | 21                  | 19                    | -              | 40    |
| 9. Ottappalam                                | 5                   | 16                    | -              | 21    |
| 10. Palakkad                                 | 21                  | 18                    | -              | 39    |
| 11. Pattambi                                 | 13                  | 20                    | 1              | 34    |
| 12. Sreekrishnapuram                         | 13                  | 20                    | 1              | 34    |
| 13. Thrithala                                | 11                  | 13                    | 1              | 25    |
| 14. Chittur - Thathamangalam<br>Municipality | 8                   | 7                     | 1              | 16    |
| 15. Ottappalam Municipality                  | 8                   | 12                    | 1              | 21    |
| 16. Palakkad Municipality                    | 47                  | 17                    | 4              | 68    |
| 17. Shoranur Municipality                    | 5                   | 4                     | -              | 9     |
| Total  | 258                 | 249                   | 16             | 523   |

Source : Same as Table 2.1

2.27 The analysis on the agricultural situation in Palakkad district can be concluded as follows. The district is a backward rural economy where 86 percent of the people live in rural areas. Though agriculture and allied activities account for 17 percent of the district income, 42 percent of the employment is in this sector. The district has a moderately high rate of emigration and it has contributed to the withdrawal of youth from agriculture. The district is also facing acute shortage of agricultural workers. Paddy is the most important crop in the district. The other major crops cultivated in the district are coconut, rubber, banana, other plaintains, mango, arecanut, pepper and tamarind. The fall in the price of paddy was one of the major causes for the agricultural crisis of Palakkad.

## Chapter 3

### Profile of Sample Grama Panchayats and Sample Households

3.1 The chapter is divided into two parts. In the first part we present the profile of sample Grama Panchayats based on secondary data. In the second part we present the profile of sample agricultural households based on the field survey conducted in the five Grama Panchayats.

#### I. Profile of Sample Grama Panchayats

##### Area and Population

3.2 The area of the sample Grama Panchayats varies between 18.69 sq.kms. to 63.38 sq.kms. The Grama Panchayat which has largest area is Mannarkkad followed by Elappully, Kuthannur, Kannambra and Pirayiri (Table 3.1). The number of households in the five sample Grama Panchayats ranged between 4859 and 9581. Mannarkkad has the largest population followed by Elappully, Pirayiri, Kannambra and Kuthannur. Table 3.1 gives the area, number of wards, number of households, and the breakup of male and female population of the five sample Grama Panchayats.

**Table 3.1**  
**Profile of the Sample Grama Panchayats**

|    |                         | Grama Panchayats |          |           |           |           |
|----|-------------------------|------------------|----------|-----------|-----------|-----------|
|    |                         | Mannarkkad       | Pirayiri | Elappully | Kannambra | Kuthannur |
| 1. | Area                    | 63.38            | 18.69    | 49.07     | 29.72     | 35.83     |
| 2. | Number of wards         | 20               | 20       | 21        | 15        | 15        |
| 3. | Number of households    | 9581             | 6668     | 8064      | 5207      | 4859      |
| 4. | <u>Total Population</u> |                  |          |           |           |           |
|    | Male                    | 25272            | 17463    | 18593     | 11875     | 11056     |
|    | Female                  | 27109            | 17808    | 19162     | 12743     | 11989     |
|    | Total                   | 52381            | 35271    | 37755     | 24618     | 23045     |

Source: DES, 2006, Panchayat Level Statistics 2006, Palakkad District.

##### Livestock

3.3 Livestock rearing is an important subsidiary occupation of the farmers in the sample Grama Panchayats. The major items of livestock are Cattle, Buffaloes and Goats. The farmers possess cross breed as well as indigenous cattle. Besides this the farmers also have fowls such as cock, hen and ducks. The data on livestock population is given in Table 3.2.

**Table 3.2**  
**Livestock Population in Sample Grama Panchayats**

| Livestock              | Name of Grama Panchayats |          |           |           |           |
|------------------------|--------------------------|----------|-----------|-----------|-----------|
|                        | Mannarkkad               | Pirayiri | Elappully | Kannambra | Kuthannur |
| 1. Cattle(Cross breed) | 2590                     | 1887     | 4183      | 1655      | 2809      |
| 2. Cattle(Indegeneous) | 1075                     | 67       | 987       | 23        | 346       |
| 3. Buffaloes           | 76                       | 93       | 345       | 49        | 143       |
| 4. Goats               | 1607                     | 693      | 1529      | 672       | 1133      |
| 5. Fowls               | 30865                    | 9979     | 11836     | 13489     | 11244     |
| 6. Ducks               | 528                      | 1001     | 383       | 120       | 125       |
| Total                  | 36741                    | 13720    | 19263     | 16008     | 15800     |

Source: Same as Table 3.1

## Bank Branches

3.4 The five sample Grama Panchayats have 35 bank branches consisting of 19 commercial banks, 14 co-operative banks and 2 other banks. Mannarkkad Grama Panchayat has the largest number of bank branches. On the other hand, Elappully has only 4 banks. Table 3.3 gives the number of bank branches in sample Grama Panchayats.

**Table 3.3**  
**Bank Branches in Sample Grama Panchayats**

| Grama Panchayats | Number of Commercial banks | Number of Co-operative banks | Other banks* | Total |
|------------------|----------------------------|------------------------------|--------------|-------|
| 1. Mannarkkad    | 6                          | 6                            | 2            | 14    |
| 2. Pirayiri      | 5                          | 1                            | -            | 6     |
| 3. Elappully     | 2                          | 2                            | -            | 4     |
| 4. Kannambra     | 3                          | 3                            | -            | 6     |
| 5. Kuthannur     | 3                          | 2                            | -            | 5     |
| Total            | 19                         | 14                           | 2            | 35    |

\* Other banks includes Land Mortgage bank Branches and Kerala State Agricultural Rural Development Banks

Source: Same as Table 3.1

## II. Profile of Sample Agricultural Households (Survey Data)

3.5 In this section we present the findings of the survey conducted in five Grama Panchayats viz., Mannarkkad, Pirayiri, Elappully, Kannambra and Kuthannur on the profile of sample agricultural households.

### Population in Sample Households

3.6 The survey enumerated the male-female break up of the population, the number of students, the category of all employed persons in the households including the head of the household. It was found that total population of the 200 sample agricultural households was 946 persons. A sex wise distribution of the population showed that the number of males were 486 and females 460. The average number of persons per household was 4.7. There was not much variation in the average size of the households in the five Grama Panchayats (Table 3.4).

**Table 3.4**  
**Population in the Sample Households**

| Grama Panchayat | Number of sample households | Total Number of Persons |        |       | Average number of persons per household |
|-----------------|-----------------------------|-------------------------|--------|-------|---|
|                 |                             | Male                    | Female | Total |   |
| 1. Mannarkkad   | 40                          | 95                      | 102    | 197   | 4.9                                     |
| 2. Pirayiri     | 40                          | 97                      | 101    | 198   | 4.9                                     |
| 3. Elappully    | 40                          | 109                     | 86     | 195   | 4.8                                     |
| 4. Kannambra    | 40                          | 88                      | 83     | 171   | 4.3                                     |
| 5. Kuthannur    | 40                          | 97                      | 88     | 185   | 4.6                                     |
| Total           | 200                         | 486                     | 460    | 946   | 4.7                                     |

3.7 The total number of students in the sample households was enumerated as 146. A distribution of households on the basis of number of students showed that 44 households had one student, 39 households had two students and 8 households had three students each (Table 3.5). The number of students per household gives an indication about the need for spending a good part of the household income as educational expenditure.

**Table 3.5**  
**Students in the Sample Households**

| Students per Household | Number of Households | Number of Students |
|------------------------|----------------------|--------------------|
| 1. One student         | 44                   | 44                 |
| 2. Two students        | 39                   | 78                 |
| 3. Three students      | 8                    | 24                 |
| Total                  | 91                   | 146                |

#### **Households solely dependent on agricultural income**

3.8 In order to distinguish the households which solely depend on agriculture and which depend both on agriculture and non-agricultural activities, we have made the following classification.

#### **Definition of Households solely dependent on agricultural income**

3.9 The households solely dependent on agricultural income are the households where sole source of income including wages of all the members of the households are from primary sector activities like agriculture livestock, forestry, fishing etc.(as principal status employed).

#### **Households dependent on agricultural and non-agricultural income**

3.10 In this category, a member or members of the agricultural household receive income including wages from non-primary activities such as secondary or tertiary as the main source of income (as principal status employed) in addition to the income from primary sector activities.

3.11 A major finding of the survey was that 53 percent of the sample households belonged to the category of households solely dependent on agricultural income (Table 3.6). On the other hand, 47 percent of the households received income or wages from agriculture as well as from non-agricultural (secondary and tertiary) activities. The impact of the agricultural crisis arising out of fall in production, fall in prices of agricultural commodities and fall in income of the farmers is severe among the first category of households. This study identified this as one of the basic issues of the agricultural crisis in Palakkad.

**Table 3.6**  
**Sample Households Solely Dependent on Agricultural Income**

| Grama Panchayat | Number of sample households | Households solely dependent on Agricultural income (Number) | Percentage |
|-----------------|-----------------------------|---|------------|
| 1. Mannarkkad   | 40                          | 25  | 62.5       |
| 2. Pirayiri     | 40                          | 15  | 37.5       |
| 3. Elappully    | 40                          | 22  | 55.0       |
| 4. Kannambra    | 40                          | 22  | 55.0       |
| 5. Kuthannur    | 40                          | 23  | 57.5       |
| Total           | 200                         | 107   | 53.5       |

#### **Employed persons in the households**

3.12 The survey collected information about the occupation of the head of the households. A classification of the occupation of the head of the households showed that 90 percent of them were farmers. Another 4 percent were farmers cum casual labourers. A notable feature is that 94 percent of the head of the households were farmers or farmer cum casual labourers (Table 3.7). The rest of them worked in public sector, business, trade etc. The educational level of the head of the household ranged between primary to graduation. Among the head of the households 22 percent had primary education, 25 percent had middle school education and another 25 percent had secondary level education. Fourteen percent of the head of the households are illiterate (Table 3.8).

**Table 3.7**  
**Occupation of the Head of the Households**

| Occupation                     | Number of sample households | Percentage |
|--------------------------------|-----------------------------|------------|
| 1. Farmer                      | 181                         | 90.5       |
| 2. Farmer cum casual labourers | 8                           | 4.0        |
| 3. Public sector jobs          | 4                           | 2.0        |
| 4. Business and Trade          | 1                           | 0.5        |
| 5. Others                      | 3                           | 1.5        |
| 6. Unemployed                  | 3                           | 1.5        |
| Total                          | 200                         | 100.0      |

**Table 3.8**  
**Education level of the Head of the households**

| Education level     | Number of Head of the household | Percentage |
|---------------------|---------------------------------|------------|
| 1. Illiterate       | 29                              | 14.5       |
| 2. Primary          | 44                              | 22.0       |
| 3. Middle           | 50                              | 25.0       |
| 4. S.S.L.C.         | 51                              | 25.5       |
| 5. Higher Secondary | 14                              | 7.0        |
| 6. Graduation       | 12                              | 6.0        |
| Total               | 200                             | 100.0      |

3.13 We have also collected information about the occupation of all employed persons in the sample households including head of the households. It was found that the total number of employed persons in the sample households were 343. Of them, 55 percent were farmers and 5 percent were farmer cum casual labourers (Table 3.9). The others worked in non-agricultural activities. Seven percent of persons from sample households migrated to other parts of India and abroad.

**Table 3.9**  
**Occupation of all employed persons in the sample households**

| Occupation                            | Number of employed persons | Percentage |
|---------------------------------------|----------------------------|------------|
| 1. Farmer                             | 190                        | 55.4       |
| 2. Farmer cum casual labourers        | 18                         | 5.2        |
| 3. Business & Trade                   | 12                         | 3.5        |
| 4. Private Establishments             | 28                         | 8.2        |
| 5. Driver                             | 13                         | 3.8        |
| 6. Public sector employment           | 11                         | 3.2        |
| 7. Teacher                            | 6                          | 1.7        |
| 8. Tailors                            | 5                          | 1.4        |
| 9. Others                             | 37                         | 10.8       |
| 10. Migration to Gulf countries       | 12                         | 3.5        |
| 11. Migration to other parts of India | 11                         | 3.2        |
| Total                                 | 343                        | 100.0      |

### **Livestock**

3.14 The data collected from the sample households indicated that livestock rearing is a major subsidiary activity of the households. The study found that 45 percent of the sample households had livestock such as cow, goat and other draught animals. Among the sample households having livestock, 70 percent had milch cow and calf and 19 percent had milch cow (Table 3.10). The households having milch animals were selling milk and getting small earnings.

**Table 3.10**  
**Sample households having Livestock**

| Item                          | Number of households having livestock | percentage |
|-------------------------------|---------------------------------------|------------|
| 1. Milch cow only             | 17                                    | 18.9       |
| 2. Milch cow and calf         | 63                                    | 70.0       |
| 3. Milch cow, calf and others | 2                                     | 2.2        |
| 4. Milch cow and milch goat   | 1                                     | 1.1        |
| 5. Calves                     | 3                                     | 3.4        |
| 6. Others                     | 4                                     | 4.4        |
| Total                         | 90                                    | 100.0      |

### Housing and electrification

3.15 All the families in the sample households are living in their own houses. The study found that there had been considerable progress in electrification in the study area. The survey results showed that 96 percent of the houses were electrified (Table 3.11).

**Table 3.11**  
**Electrification of sample houses**

| Grama Panchayat | Total number of sample households | Number of houses electrified | Percentage |
|-----------------|-----------------------------------|------------------------------|------------|
| 1. Mannarkkad   | 40                                | 37                           | 92.5       |
| 2. Pirayiri     | 40                                | 40                           | 100.0      |
| 3. Elappully    | 40                                | 37                           | 92.5       |
| 4. Kannambra    | 40                                | 40                           | 100.0      |
| 5. Kuthannur    | 40                                | 38                           | 95.0       |
| Total           | 200                               | 192                          | 96.0       |

### Possession of consumer durables

3.16 In order to know the possession of consumer durables, we have collected information about the possession of durables like, Television, Landphone, Mobile phone, Radio, Pumpset, Refrigerator, Motor vehicles etc. The survey revealed that 81 percent of the households had Television sets, 60 percent had landphone, 38 percent had mobile phone, 30 percent had pumpset, 28 percent had motor bikes and 14 percent had other motor vehicles (Table 3.12). This indicated that nearly thirty percent of the households possess consumer durables like Television, landphone, mobile phone, Radio, fridge and motor vehicles and enjoy a moderately good level of consumption.

**Table 3.12**  
**Consumer Durables possessed by Sample Households**

| Item            | Total Number of sample households | Number of households having the item of consumer durables | Percentage of households having consumer durables |
|-----------------|-----------------------------------|---|---|
| 1. Television   | 200                               | 163   | 81.5  |
| 2. Land phone   | 200                               | 121   | 60.5  |
| 3. Mobile phone | 200                               | 77  | 38.5  |
| 4. Pumpset      | 200                               | 61  | 30.5  |
| 5. Radio        | 200                               | 58  | 29.0  |
| 6. Fridge       | 200                               | 49  | 24.5  |
| 7. Motor cycle  | 200                               | 57  | 28.5  |
| 8. Cycle        | 200                               | 20  | 10.0  |
| 9. Car          | 200                               | 8   | 4.0   |
| 10. Autorikshaw | 200                               | 1   | 0.5   |

3.17 From the above analysis, we may draw the following major observations. The total population in the sample Grama Panchayats varied between 23045 to 52381. The average number of persons per sample household was 4.7. An important finding of the survey was that 53.5 percent of the sample households belong to the category of households solely dependent on agricultural income or wages. Another finding was that 94 percent of the head of the households, were either farmers or farmer cum casual labourers. Of the total workers in the sample households 61 percent was engaged in agriculture and allied activities. Livestock rearing is an important subsidiary occupation of the people. The study found that all the households had their own houses and 96 percent were electrified. It was found that nearly one-third of the households possessed a number of consumer durables and enjoyed a moderately good level of consumption.

## Chapter 4

### Cultivation, Production, Prices of Crops and Problems of Farming : Findings of the Survey

4.1 In this chapter we examine area and crops cultivated, cost incurred for cultivation, production and productivity of crops and prices of agricultural products.

#### Marginal Farmers

4.2 In the survey, data was collected about the area cultivated by all sample households including households that solely dependent on agricultural income. It is found that 63.5 percent of the households had an operational holding below one hectare (Table 4.1). As the marginal farms are defined as farms having a cultivated area of below one hectare, all of them came under marginal farms. Thirty nine percent of the farms are submarginal and the size of holding was below half a hectare. Thus, nearly two-third of the households were marginal farmers having uneconomic holdings. From the cultivation they cannot earn an adequate income for meeting their essential needs in life.

#### Small farmers

4.3 Small farm is defined as the farm having an operational holding between one to two hectares. The survey found that 21.5 percent of the farms are small farms (Table 4.1).

**Table 4.1**  
**Distribution of Sample Households by Area Cultivated (Number of Households)**

| Area cultivated<br>(in hectare) | Total sample<br>households | Percentage |
|---------------------------------|----------------------------|------------|
| 1. Less than 0.25               | 25                         | 12.5       |
| 2. 0.25 to 0.50                 | 53                         | 26.5       |
| 3. 0.50 to 1                    | 49                         | 24.5       |
| Total Marginal                  | 127                        | 63.5       |
| 4. 1 to 2 (small)               | 43                         | 21.5       |
| 5. 2 to 4 (semi-medium)         | 23                         | 11.5       |
| 6. Above 4 (Medium)             | 7                          | 3.5        |
| Total                           | 200                        | 100.0      |

Note: One hectare is 2.47 acres

#### Semi medium and Medium farmers

4.4 Semi medium farm is defined as a farm having an operational holding of two to four hectares. Eleven percent of the sample farms belonged to this category. Another 3.5 percent of the farms belonged to the category of medium farms, having an area ranged between four to ten hectares (Table 4.1). In Palakkad, these are the categories of farmers who are getting a good income from cultivation.

#### Area cultivated by households solely dependent on agriculture

4.5 A distribution of the households on the basis of solely dependent on agriculture showed that 64.5 percent of them had an area of cultivation upto one hectare (Table 4.2). Thirty eight percent of the households which are solely dependent on agriculture had an area of cultivation less than half a hectare. This is the category of marginal farmers who are facing acute crisis in the district due to two reasons. First, their income from cultivation is very small and highly insufficient to meet their essential needs. Secondly, these households are solely depending on primary sector activities for their income. Though the situation of small farmers is better compared to marginal farmers, they also face the crisis. On the other hand, the farmers having an area of holding more than two hectares (semi medium and medium) can earn a reasonable income from agricultural operations.

**Table 4.2**  
**Distribution of Households solely dependent on Agricultural income**

| Area cultivated<br>(in hectare) | Total sample<br>households<br>(Number) | Number of households<br>solely dependent on<br>agricultural income | Percentage of<br>solely dependent<br>households |
|---------------------------------|--|--|---|
| 1. Less than 0.25               | 25                                     | 15<br>(14.0)   | 60.0  |
| 2. 0.25 to 0.50                 | 53                                     | 26<br>(24.3)   | 49.0  |
| 3. 0.50 to 1                    | 49                                     | 28<br>(26.2)   | 57.1  |
| Total Marginal                  | 127                                    | 69<br>(64.5)   | 54.3  |
| 4. 1 to 2<br>(small)            | 43                                     | 23<br>(21.5)   | 53.5  |
| 5. 2 to 4<br>(semi-medium)      | 23                                     | 12<br>(11.2)   | 52.2  |
| 6. Above 4<br>(Medium)          | 7                                      | 3<br>(2.8)   | 42.8  |
| Total                           | 200                                    | 107<br>(100.0)   | 53.5  |

\*Figures in brackets are percentages

### Crops Cultivated

4.6 Paddy and coconut are the two major crops cultivated in the study area. Paddy is generally cultivated in low lying wet lands. On the other hand, coconut, pepper and arecanut are cultivated as mixed crop in dry areas. Coconut is also cultivated in the boundaries of the paddy fields. The survey found that 95 percent of the farmers were cultivating paddy (Table 4.3). More than half of the households were cultivating paddy and coconut. Pepper was cultivated by 5.5 percent and arecanut one percent of the sample households.

**Table 4.3**  
**Crops cultivated by the sample Households**

| Crops cultivated | Total number of<br>households | Crops cultivated<br>(Number of households) | Crops cultivated<br>(Percentage of households) |
|------------------|-------------------------------|--|--|
| 1. Paddy         | 200                           | 191  | 95.5   |
| 2. Coconut       | 200                           | 115  | 57.5   |
| 3. Pepper        | 200                           | 11   | 5.5  |
| 4. Arecanut      | 200                           | 2  | 1.0  |

### Paddy crop and Paddy varieties

4.7 Two crops were cultivated in the study area during a year viz., Virippu and Mundakan. The initial phase of the Virippu crop starts during the months April-May and harvesting is done in September-October (Table 4.4). The initial phase of cultivation of Mundakan crop starts during the months of September and October and harvesting is done in February and March (Table 4.4). In Palakkad district except Chittoor Taluk, Mundakan crop is harvested during the months of February and March. In Chittoor Taluk, harvesting is done during the months of March and April.

**Table 4.4**  
**Number of Paddy crops cultivated by Sample Households**

| Crops             | Period of Cultivation                  |
|-------------------|--|
| Virippu (Autumn)  | April - May → September - October      |
| Mundakan (Winter) | September - October → February - March |

4.8 Different paddy varieties are cultivated during the Virippu and Mundakan crops. In Virippu, short duration varieties such as Kanchana, Sujatha, Jothi, Varsha, Bhadra etc. are used (Table 4.5). This crop season is rainy season and the yield rate is lower compared to Mundakan crop.

**Table 4.5**  
**Paddy varieties cultivated in Virippu**

| Variety     | Duration of crops<br>(Number of Days) |
|-------------|---------------------------------------|
| 1. Kanchana | 115 - 110                             |
| 2. Sujatha  | 110 - 120                             |
| 3. Jothi    | 110 - 125                             |
| 4. Varsha   | 110 - 115                             |
| 5. Bhadra   | 120 - 125                             |

4.9 On the other hand, long duration varieties such as Ponniwhite, Ponni, Ponmani, and Mashuri are cultivated in Mundakan crop (Table 4.6). The yield of the varieties are high compared to the varieties used in Virippu crop. As the size of the paddy plant is big, the farmers will get more straw from the crops. Hence the Mundakan crop will fetch a better production and income to the farmers compared to Virippu crop.

**Table 4.6**  
**Paddy varieties cultivated in Mundakan**

| Variety          | Duration of crops<br>(Number of Days) |
|------------------|---------------------------------------|
| 1. Ponni (White) | 135 - 140                             |
| 2. Ponni         | 140 - 145                             |
| 3. Ponmani       | 160 - 165                             |
| 4. Mashuri       | 125 - 145                             |

### **Irrigation**

4.10 The study found that nearly 81 percent of the farmers provided irrigation to the paddy crop (Table 4.7). Irrigation is provided by the public canals and also from the ponds and wells owned by the farmers. In Kannambra Panchayat, only half of the farmers provided irrigation to the crop. Irrigation is vital for the crop, Mundakan, and the yield and production are largely determined by the irrigation. Past experience indicated that failure of water supply through public canals had resulted in the fall in yield or destruction of the Mundakan crop.

**Table 4.7**  
**Irrigation provided to paddy crop**

| Grama panchayats | Number of households<br>cultivated paddy | Number of households<br>provided irrigation | Percentage |
|------------------|--|---|------------|
| 1. Mannarkkad    | 40                                       | 34  | 85.0       |
| 2. Pirayiri      | 38                                       | 31  | 81.6       |
| 3. Elappully     | 38                                       | 32  | 84.2       |
| 4. Kannambra     | 35                                       | 18  | 51.4       |
| 5. Kuthannur     | 40                                       | 40  | 100.0      |
| Total            | 191                                      | 155   | 81.1       |

### **Diseases**

4.11 The farmers reported Gall fly and pest attacks were the major diseases of the crop in the study area. Of the 191 farmers cultivating paddy crop 29 percent reported the Gall fly and other diseases. Farmers in Elappully and Kuthannur Grama Panchayats reported higher incidence of the diseases (Table 4.8).

**Table 4.8**  
**Number of households reported diseases for paddy crop**

| Grama panchayats | Number of households cultivated paddy | Number of households reported diseases | Percentage |
|------------------|---------------------------------------|--|------------|
| 1. Mannarkkad    | 40                                    | 4                                      | 10.0       |
| 2. Pirayiri      | 38                                    | 3                                      | 8.0        |
| 3. Elappully     | 38                                    | 22                                     | 58.0       |
| 4. Kannambra     | 35                                    | 4                                      | 11.4       |
| 5. Kuthannur     | 40                                    | 22                                     | 55.0       |
| Total            | 191                                   | 55                                     | 28.8       |

#### **Mechanisation in Paddy Cultivation**

4.12 In the context of acute labour shortage and rising cost of labour, Palakkad has been witnessing rapid mechanisation of the paddy cultivation and harvesting. Our study revealed that more than 90 percent of the farmers used either tractor or triller for preparation of land for sowing or transplanting the paddy saplings. Tractors are used for trampling in majority of cases. On the other hand harvesting machine was used only about 20 percent of the sample farmers. Due to the bigger size of the machine, unsuitability to use in small plots of land and plots having different slopes, the possibility of destruction of large amount of straw, the farmers are not using the machine for harvesting. Hence for harvesting, the farmers rely heavily on agricultural labourers.

#### **Production of paddy in Mundakan crop 2006-07 : Best yield in recent years**

4.13 As the survey was conducted immediately after the harvesting season of Mundakan (during June-July 2007). We were able to collect information about the production of the crops. The average production was estimated as 3502 kg. of paddy per hectare. The survey results indicated that there was wide variation in average production per hectare in the five sample Grama Panchayats (Table 4.9). Elappally Grama Panchayat, belonged to Malampuzha Block Panchayat had the highest production of paddy followed by Mannarkkad and Pirayiri Grama Panchayats. The average production of paddy per acre and variations in the production are given in Table 4.10. The average production per acre was estimated as 1418 kg for the Mundakan crop 2006-07. Majority of the farmers reported that they had received the best yield in this Mundakan crop in recent years especially since the drought of 2003-04.

**Table 4.9**  
**Average production of paddy (Mundakan) in 2006-07 (per hectare)**

| Grama Panchayats | Variation in production per hectare (kg) | Average production (per hectare) |
|------------------|--|----------------------------------|
| 1. Mannarkkad    | 2670 - 4446                              | 3512                             |
| 2. Pirayiri      | 2223 - 4446                              | 3239                             |
| 3. Elappully     | 3087 - 6215                              | 4499                             |
| 4. Kannambra     | 2634 - 4490                              | 3177                             |
| 5. Kuthannur     | 2634 - 4841                              | 3083                             |
| Total            | 2223 - 6215                              | 3502                             |

**Table 4.10**  
**Average production of paddy (Mundakan) in 2006-07 (per acre)**

| Grama Panchayats | Variation in production per acre (kg) | Average production (per acre) |
|------------------|---------------------------------------|-------------------------------|
| 1. Mannarkkad    | 1081 - 1800                           | 1422                          |
| 2. Pirayiri      | 900 - 1800                            | 1311                          |
| 3. Elappully     | 1250 - 2516                           | 1821                          |
| 4. Kannambra     | 1066 - 1818                           | 1286                          |
| 5. Kuthannur     | 1066 - 1960                           | 1248                          |
| Total            | 900 - 2516                            | 1418                          |

### Cost of cultivation of paddy (Mundakan Crop) 2007-08

4.14 We have estimated the cost of cultivation of the Mundakan crop 2007-08 in the study area. For calculation of cost of cultivation the following items of costs are included. The cost of cultivation comprises cost on labour, machinery used, seed, manure, fertilisers, pesticides, interest on working capital, land tax, water charges, and other expenses. We have also considered the practice of cultivation in the study area using agricultural labour and machinery and assessed the requirements of labour and machinery. The items of costs are estimated for the different phases of cultivation from the initial phase to the final phase, harvesting. As the land cultivated for the crop are owned by the sample farmers, we have not included the rental value of the land. For the machinery used for cultivation such as tractor, triller, pesticides spraying equipments etc. the hiring charges at the market rate is taken. All the items of labour required for cultivation are estimated on the basis of market wage rate and includes the household labour and hired labour. Based on the above items of cost of cultivation we have estimated the cost of cultivation which prevailed in the study area during the month March 2008. The total cost of cultivation of paddy including preparation of land and sowing, cultivation, harvesting etc. was estimated as Rs. 28,753 per hectare for the Mundakan crop in 2007-08 (Table 4.11). And for an acre of land, the cultivation cost was Rs. 11641. An item wise estimate of the cost of cultivation per acre for all items of cultivation and harvesting for the Mundakan crop 2007-08 is given in Appendix I. The cost which we have estimated is an average cost based on the items of cost prevailed in the study area.

**Table 4.11**  
**Cost of cultivation of paddy (Mundakan crop) in Palakkad (2007-08)**

| Items   | Per hectare     | Per acre        |
|---|-----------------|-----------------|
| I. Preparation of land and sowing   | 1408.00         | 570.00          |
| II. Cultivation (Tilling of land, Transplantation, Removing weeds, irrigation, application of fertilizers and pesticides) | 18975.50        | 7682.40         |
| III. Harvesting   | 7342.00         | 2972.00         |
| IV. Others  | 1027.50         | 416.00          |
| <b>Total</b>  | <b>28753.00</b> | <b>11640.90</b> |

Note: The estimate was done based on the items of average cost prevailed in the study area during the month of March 2008

### Profitability of Cultivation

4.15 In order to get an idea about the profitability of cultivation of paddy (Mundakan crop) we have worked out the revenue from the cultivation. For estimating the total revenue we have also included the price of straw. The total revenue at the prevailing price of Rs. 9 per kg. was estimated as Rs. 34980 for one hectare (Table 4.12). The state government through the Civil Supplies Corporation is also procuring the paddy in Palakkad at the rate of Rs. 9 per kg. in March 2008. This shows that farmers are getting profit margin of Rs. 6227 per hectare for the Mundakan crop 2007-08 (Table 4.13).

**Table 4.12**  
**Revenue from paddy cultivation (Mundakan 2007-08)**

| Revenue                               | Per hectare (Rs.) | Per acre (Rs.)  |
|---------------------------------------|-------------------|-----------------|
| 1. Average production (Rs. 9 per kg.) | 31522.00          | 12762.00        |
| 2. Price of straw                     | 3458.00           | 1400.00         |
| <b>Total</b>                          | <b>34980.00</b>   | <b>14162.00</b> |

Note: The estimate was done based on the price of paddy and straw prevailed in the study area during the month of March 2008

**Table 4.13**  
**Profitability of cultivation of paddy (Mundakan crop 2007-08)**

|                           | Per hectare (Rs.) | Per acre (Rs.) |
|---------------------------|-------------------|----------------|
| 1. Total Revenue/Earnings | 34980.00          | 14162.00       |
| 2. Total cost             | 28753.00          | 11640.90       |
| 3. Profit margin          | 6227.00           | 2521.10        |

#### **Paddy Procurement**

4.16 The state government implemented a paddy procurement scheme in Palakkad. Under the scheme paddy is procured from the farmers by the Civil Supplies Corporation at the rate of Rs. 8.50 per kg. during 2006-07. This has helped to ensure an assured market for the paddy cultivators. Besides this also contributed to an increase in the price in the open market. Paddy procurement is an important measure which helped to achieve price stability and encouragement to the farmers to continue the cultivation.

4.17 However, the 62 percent of the sample farmers in our study reported that they were supplying paddy to the Civil Supplies Corporation (Table 4.14). In Mannarkkad Grama Panchayat there was no agency to procure the paddy and the farmers were forced to sell in the open market. The farmers who are supplying to Civil Supplies Corporation are facing the following problems with regard to the procurement. (1) There was delay in payment from one to two months, which create financial difficulties to the farmers. (2) It is reported that the collection of paddy is not done in time and waiting for collection creates serious storage and other problems. (3) Certain varieties of the paddy are not collected. (4) The agency collect transportation charges from the farmers.

**Table 4.14**  
**Households selling paddy to Civil Supplies Corporation**

| Grama Panchayats | Number of households cultivated paddy | Number of households selling to the civil supplies (Procurement Agency) | Percent |
|------------------|---------------------------------------|---|---------|
| 1. Mannarkkad    | -                                     | No procurement  | -       |
| 2. Pirayiri      | 38                                    | 26  | 68.4    |
| 3. Elappully     | 38                                    | 31  | 81.6    |
| 4. Kannambra     | 35                                    | 19  | 54.3    |
| 5. Kuthannur     | 40                                    | 18  | 45.0    |
| Total            | 151                                   | 94  | 62.25   |

4.18 Some of the farmers prefer to sell the paddy to the open market at lower price because of convenience and immediate payment. The farmers obtained advance amount from the mills and other agencies for meeting cultivation cost and they sell the paddy to them. Lack of proper facilities for storage of paddy also forced farmers to sell the paddy to private agencies. Financial difficulties also compell the farmers to sell the paddy to them immediately after the harvest.

4.19 We have also estimated the average price received by the farmers in the study area who sold paddy to the open market and Civil Supplies Corporation. It was found that the farmers received an average price ranging between Rs. 6.50 and 8.50 for the Mundakan crop 2006-07 (Table 4.15). The average price received was estimated as Rs. 7.40 per kg.

**Table 4.15**  
**Average price received by the farmers for the Mundakan crop (2006-07)**

| Grama Panchayats | Range (Rs.) per kg. | Average price (Rs.) per kg. |
|------------------|---------------------|-----------------------------|
| 1. Mannarkkad    | 6.50 - 7.00         | 6.60                        |
| 2. Pirayiri      | 7.00 - 8.50         | 7.20                        |
| 3. Elappully     | 7.00 - 8.50         | 8.00                        |
| 4. Kannambra     | 6.50 - 8.50         | 7.60                        |
| 5. Kuthannur     | 6.50 - 8.50         | 7.50                        |
| Total            | 6.50 - 8.50         | 7.40                        |

## Coconut

4.20 Coconut is the second major crop cultivated in the study area. Of the total sample households 57 percent cultivate coconut (Table 4.3). The survey results showed that the average yield per hectare was 8607 coconuts for the year 2006-07 (Table 4.16). There was considerable variations in the yield among the five sample Grama Panchayats. Among the sample Grama Panchayats, Kuthannur has the highest yield followed by Kannambra, Pirayiri and Mannarkkad.

**Table 4.16**  
**Average yield of coconut in 2006-07 (per hectare)**

| Grama Panchayats | Variation in yield (Number) | Average yield (per hectare) |
|------------------|-----------------------------|-----------------------------|
| 1. Mannarkkad    | 2223 - 7057                 | 4231                        |
| 2. Pirayiri      | 3705 - 12350                | 8847                        |
| 3. Elappully     | 950 - 3293                  | 1823                        |
| 4. Kannambra     | 8645 - 19760                | 13315                       |
| 5. Kuthannur     | 14820 - 14820               | 14820                       |
| Total            | 950 - 19760                 | 8607                        |

4.21 The survey found that 70 percent of the sample farmers who cultivate coconut provide irrigation to the crop (Table 4.17). In Pirayiri and Mannarkkad Grama Panchayats, a high proportion of the coconut area was provided irrigation (Table 4.17). On the other hand, less than half of the sample farmers provided irrigation in Elappully and Kannambra Grama Panchayats. The spread of the disease, coconut mite is a serious problem faced by the farmers in the study area. Twenty one percent of the sample farmers who cultivate coconut reported diseases such as coconut mite and pest attacks to the crop (Table 4.18).

**Table 4.17**  
**Irrigation provided to coconut crop**

| Grama Panchayats | Number of households cultivated coconut | Number of households provided irrigation | Percent |
|------------------|---|--|---------|
| 1. Mannarkkad    | 28                                      | 24                                       | 85.7    |
| 2. Pirayiri      | 32                                      | 29                                       | 90.6    |
| 3. Elappully     | 27                                      | 13                                       | 48.1    |
| 4. Kannambra     | 25                                      | 12                                       | 48.0    |
| 5. Kuthannur     | 3                                       | 3  | 100.0   |
| Total            | 115                                     | 81                                       | 70.4    |

**Table 4.18**  
**Number of households reported diseases for coconut**

| Grama panchayats | Number of households cultivated coconut | Number of households reported diseases | Percentage |
|------------------|---|--|------------|
| 1. Mannarkkad    | 28                                      | 1                                      | 3.6        |
| 2. Pirayiri      | 32                                      | 1                                      | 3.1        |
| 3. Elappully     | 27                                      | 12                                     | 44.4       |
| 4. Kannambra     | 25                                      | 9                                      | 36.0       |
| 5. Kuthannur     | 3                                       | 1                                      | 33.3       |
| Total            | 115                                     | 24                                     | 20.8       |

## Changes in Cropping Pattern

4.22 The survey results, indicated that there was only marginal change in the cropping pattern in the study area during 2006-07. Of the 200 sample households only 17 reported shift in cultivation from paddy to other crops such as rubber, plaintains, tapioca etc. (Table 4.19). The shift towards other crops such as coconut, sugarcane, soyabean and ginger were negligible. Thus it is clear that in spite of the agrarian changes, Palakkad still remained as a region cultivating paddy as principal crop.

**Table 4.19**  
**Changes in Cropping Pattern**

| Shift in crop cultivation        | Number of households | Percentage |
|----------------------------------|----------------------|------------|
| 1. Paddy to Rubber               | 5                    | 29.4       |
| 2. Paddy to Plantains            | 5                    | 29.4       |
| 3. Paddy to Tapioca              | 3                    | 17.6       |
| 4. Paddy to Coconut and Arecanut | 1                    | 5.9        |
| 5. Paddy to Sugarcane            | 1                    | 5.9        |
| 6. Paddy to Soyabean             | 1                    | 5.9        |
| 7. Paddy to Ginger               | 1                    | 5.9        |
| Total                            | 17                   | 100.0      |

**Value of farm output of all sample households**

4.23 The survey results showed that the sample farmers cultivated mainly paddy and coconut. Only a few cultivated pepper and arecanut. As we collected information of Mundakan crop, we have worked out the total value of Mundakan crop of paddy and other crops namely coconut, pepper and arecanut for a period of six months. And the half yearly value of farm output of the sample households by area of cultivation is given in Table 4.20. The survey results showed that 31 percent of the sub-marginal farmers having an area below half a hectare produced farm output upto Rs. 10,000 for six months. Another 27 percent of the sample farmers who have an area of cultivation between half a hectare to one hectare produced farm output worth Rs. 10,000 to Rs. 20,000. Majority of the small farmers having an area of cultivation between one to two hectares produced an output worth Rs. 20,000 to Rs. 50,000. The farmers who have a size of holding more than two hectares produced an output worth Rs.50,000 and above. From the above it is clear that the marginal farmers are the category who have very low income and face distress. And in determining norms for giving relief the farmers, top priority should be given to marginal farmers (below one hectare) in Palakkad.

**Table 4.20**  
**Half yearly value of farm output of households by Area of Cultivation**

| Value of Production (Rs.) | Below 0.50 (hectare) | 0.51 to 1 (hectare) | 1 to 2 (hectare) | 2 to 4 (hectare) | Above 4 (hectare) | Total        |
|---------------------------|----------------------|---------------------|------------------|------------------|-------------------|--------------|
| 1. Below 5000             | 13                   | -                   | -                | -                | -                 | 13<br>(6.5)  |
| 2. 5001 - 10,000          | 47                   | 2                   | -                | -                | -                 | 49<br>(24.5) |
| 3. 10,001 - 20,000        | 14                   | 34                  | 5                | 1                | -                 | 54<br>(27.0) |
| 4. 20,001 - 30,000        | 2                    | 5                   | 11               | -                | 1                 | 19<br>(9.5)  |
| 5. 30,001 - 50,000        | -                    | 6                   | 18               | 3                | 1                 | 28<br>(14.0) |
| 6. 50,001 - 75,000        | -                    | -                   | 4                | 6                | 3                 | 13<br>(6.5)  |
| 7. 75,001 - 100,000       | -                    | -                   | 3                | 8                | -                 | 11<br>(5.5)  |
| 8. Above one lakh         | -                    | 2                   | 2                | 5                | 2                 | 11<br>(5.5)  |
| No information            | 2                    | -                   | -                | -                | -                 | 2<br>(1.0)   |
| Total                     | 78                   | 49                  | 43               | 23               | 7                 | 200          |
| Percentage                | (39.0)               | (24.5)              | (21.5)           | (11.5)           | (3.5)             | (100.0)      |

### Acute shortage of labour

4.24 One of the basic problems faced by paddy farmers in Palakkad district is the acute shortage of labour. Among the seasonal crops, paddy is the most labour intensive crop requiring frequent attention from the beginning of cultivation till the harvest of the crop. Among the sample households, 96.5 percent reported shortage of labour (Table 4.21). All the sample households in Kannambra and Kuthannur Grama Panchayats reported shortage of agricultural labour. In other two Grama Panchayats, Mannarkkad and Elappully, 97 percent reported shortage of agricultural labour. A major reason for the acute labour shortage is the withdrawal of young labour force from agriculture. Paddy cultivation involves physical labour and is considered as a dirty job by youth especially those having school education. The employment opportunities in non-agricultural sector, chances for migration of labour to other parts of India and abroad also discourage youth from doing agricultural work.

**Table 4.21**  
**Households reported shortage of Agricultural labour**

| Grama Panchayats | Sample Households | Households reported shortage of labour | Percentage |
|------------------|-------------------|--|------------|
| 1. Mannarkkad    | 40                | 39                                     | 97.5       |
| 2. Pirayiri      | 40                | 35                                     | 87.5       |
| 3. Elappully     | 40                | 39                                     | 97.5       |
| 4. Kannambra     | 40                | 40                                     | 100.0      |
| 5. Kuthannur     | 40                | 40                                     | 100.0      |
| Total            | 200               | 193                                    | 96.5       |

### National Rural Employment Guarantee Scheme (NREGS) and rise in wage rate

4.25 In this context of labour shortage, the implementation of NREGS in the district have resulted in more labour shortages in agriculture. As major share of paddy cultivation in the district depended on hired labour, the implementation of the NREGS scheme have resulted in increase in wage rate and escalation in cost of cultivation. The study found that the average daily wage prevailed in June 2007 for male agricultural worker was Rs. 135 and female Rs. 75 (Table 4.22). There was much variation in the wage rate of male and female workers in the different sample Grama Panchayats.

**Table 4.22**  
**Daily wage rate of Agricultural labourers (June 2007)**

| Grama Panchayats | Average wage for males per day (Rs.) | Average wage for females per day (Rs.) |
|------------------|--------------------------------------|--|
| 1. Mannarkkad    | 144                                  | 100                                    |
| 2. Pirayiri      | 139                                  | 73                                     |
| 3. Elappully     | 120                                  | 64                                     |
| 4. Kannambra     | 145                                  | 75                                     |
| 5. Kuthannur     | 127                                  | 63                                     |
| Total            | 135.00                               | 75.00                                  |

### Suspension of NREGS scheme during peak agricultural seasons

4.26 In this context of the acute labour shortage of agricultural labour for paddy cultivation in Palakkad it is suggested to suspend the scheme during the peak agricultural seasons of Virippu and Mundakan crops. The months recommended for the suspension of NREGS scheme are 1st June to 15th July, September and October, and February and March (Table 4.23).

**Table 4.23**  
**Suspension of National Rural Employment Guarantee Scheme(NREGS)**

| Period recommended              | Nature of paddy cultivation   |
|---------------------------------|---|
| 1st June to 15th July           | Initial stage of cultivation of Virippu (Tilling of land, transplanting etc.) |
| Months of September and October | Harvesting of Virippu and initial stage of cultivation of Mundakan            |
| Months of February* and March   | Harvesting of Mundakan  |

\* In Palakkad, except Chittoor Taluk, harvesting of Mundakan crop is done during the months of February and March. In Chittoor Taluk, harvesting is done during March and April

### **Mechanisation as a solution to labour shortage**

4.27 The survey identified the most serious problem faced by farmers to cultivate paddy is the acute labour shortage. The withdrawal of young workers from agriculture, preference of youth to go for non-agricultural employment, increasing job opportunities in non-agricultural sectors, implementation of NREGS, rising wage rate, and the other developments in rural labour market have been contributing to labour shortage in agriculture in Palakkad district. In this context, rapid mechanisation of different process of farming such as tilling, preparation of land for sowing, trampling, harvesting etc. is the feasible solution. It is pointed out that the harvesting machine which is available is not suited to use in small plots of land and plots having different slopes. Development of more appropriate technology with affordable cost, suited to the different process of farming and harvesting is a pre-condition for sustaining paddy cultivation. Currently adequate number of tractors or other harvesting machines are not available in Palakkad. They are brought from the neighbouring districts of Tamil Nadu. In this context the banks and other agricultural credit institutions should provide adequate credit to farmers, farmer co-operatives and others who supply these machines on rent, to purchase more farm machinery. The state and central governments should also follow favourable policies to promote the mechanisation of agriculture through appropriate policies like provision of subsidies, tax exemption, interest waiver and other measures. It is suggested that all the taxes imposed by the central and state governments on farm machinery and other capital stock required for agricultural operations may be withdrawn.

### **Conclusions**

4.28 From the above analysis we may draw the following observations. The survey found that majority of farmers in the sample households were marginal farmers having uneconomic holdings. The major crops cultivated in the study area are paddy and coconut. Two crops of paddy are usually cultivated viz., Virippu and Mundakan. Farmers cultivate both short duration and long duration varieties of paddy in the two crops. Nearly 81 percent of the farmers provided irrigation to the crops. More than one-fourth of the farmers reported the spread of diseases such as Gallfly and pest attacks in their paddy farms. More than 90 percent of the farmers used tractors, trillers etc. for preparation of land for sowing or transplantation of paddy. On the other hand harvesting machine is used only by a few farmers. During the Mundakan crop 2006-07 the farmers got one of the best yield in recent years. Based on the farming practices in the study area, we have estimated the cost of cultivation in Mundakan crop as Rs. 28753 per hectare (Rs. 11641 per acre) for 2007-08. Paddy procurement is a measure which helped to achieve price stability in Palakkad. Majority of the sample farmers reported that they were supplying paddy to the Civil Supplies Corporation. Coconut is the second major crop cultivated and 70 percent of the sample farmers provided irrigation to the crop. Acute shortage of labour is the basic problem faced in Palakkad. The implementation of NREGS scheme has resulted in the increase in labour shortage and wage rate of agricultural workers. The study indicates that the need for rapid mechanisation of paddy farming and harvesting to solve the acute shortage of labour.

## Chapter 5

### Loans and Indebtedness of Farmers : Findings of the Survey

5.1 This chapter examines the sources and uses of loan, the major items of expenditure of the households and the indebtedness of the farmers. The sources from which the farmers borrowed money are commercial banks, co-operative banks, kudumbasree and money lenders. The loans were used for the purposes like agriculture, construction of houses, education of children, marriage expenses, medical treatment, purchasing consumer durables, meeting day to day expenses etc.

#### Loans taken by sample households from all sources

5.2 This section examines the number of households that borrowed funds from all sources, major items of expenditure, and the sources of borrowing. The survey found that of the total 200 sample households, 40 percent of the households had taken loan from various sources (Table 5.1). But we feel that the above data is an under estimate due to two reasons. Firstly, many farmers have not disclosed the actual amount of loan borrowed by pledging gold etc. as they consider it as a socially bad thing to go for such loans. Secondly, many of the farmers have not availed loan from co-operative banks as the bank demands joint personal surety of farmers. In two sample Grama Panchayats, more than half of the sample households borrowed money. In Elappully Panchayat 65 percent and Mannarkkad 55 percent of the sample households availed loan.

**Table 5.1**  
**Loan taken by sample households (All sources)**

| Grama Panchayats | Number of sample households | Number of households taken loan | Percentage |
|------------------|-----------------------------|---------------------------------|------------|
| 1. Mannarkkad    | 40                          | 22                              | 55.0       |
| 2. Pirayiri      | 40                          | 17                              | 42.5       |
| 3. Elappully     | 40                          | 26                              | 65.0       |
| 4. Kannambra     | 40                          | 7                               | 17.5       |
| 5. Kuthannur     | 40                          | 8                               | 20.0       |
| Total            | 200                         | 80                              | 40.0       |

#### Total Amount of the loan from all sources

5.3 We have classified the sample households on the basis of the amount borrowed from all sources. It was found that the total amount of loan taken by the sample households ranged between below Rs. 20,000 to 3 lakhs and above. Twenty seven percent of the households borrowed an amount below Rs. 20,000 (Table 5.2). Another 30 percent of the households borrowed an amount ranging between Rs.20,000 and 50,000. About 24 percent of the households had taken a loan ranging between Rs. 50,000 and one lakh. The households which borrowed more than one lakh was 19 percent.

**Table 5.2**  
**Total amount of loan taken by sample households (All sources)**

| Amount of Loan (Rs.) | Households taken Loan (Number) | Percentage |
|----------------------|--------------------------------|------------|
| Upto 20,000          | 22                             | 27.5       |
| 20001 - 30,000       | 11                             | 13.7       |
| 30001 - 40,000       | 5                              | 6.2        |
| 40001 - 50,000       | 8                              | 10.0       |
| 50001 - 75,000       | 11                             | 13.7       |
| 75,001 - 100,000     | 8                              | 10.0       |
| 1,00,001 - 1,50,000  | 6                              | 7.5        |
| 150001 - 200000      | 3                              | 3.7        |
| 200001 - 300000      | 3                              | 3.7        |
| Above 3,00,000       | 3                              | 3.7        |
| Total                | 80                             | 100.0      |

### Major items of expenditure of sample households

5.4 The survey collected information about the major items of expenditure incurred by the sample households during the three years preceding the date of survey are construction of house, major repair of house, marriage, medical treatment, purchase of livestock, educational expenditure of children, and purchase of consumer durables. Among the items, the major items of expenditure were marriage, medical treatment, construction and repair of house and consumer durables (Table 5.3). A distribution of the sample households on the basis of consumer durables purchased showed that television sets and motor vehicles were the two major items purchased during the last three years. (Table 5.4).

**Table 5.3**  
**Major items of expenditure of sample households during last three years**

| Items of expenditure                                   | Number of sample households | Households incurred expenditure (Number) | Percentage |
|--|-----------------------------|--|------------|
| 1. Construction of house                               | 200                         | 6  | 3.0        |
| 2. Major repair of house                               | 200                         | 20                                       | 10.0       |
| 3. Marriage expenses                                   | 200                         | 29                                       | 14.5       |
| 4. Medical treatment in hospital as inpatient          | 200                         | 27                                       | 13.5       |
| 5. Livestock purchased                                 | 200                         | 9  | 4.5        |
| 6. Educational expenses for students staying in hostel | 200                         | 5  | 2.5        |
| 7. Purchase of consumer durables                       | 200                         | 17                                       | 8.5        |

**Table 5.4**  
**Households purchased consumer durables in the last three years**

| Item           | Number of households | Percent |
|----------------|----------------------|---------|
| 1. Television  | 10                   | 58.8    |
| 2. Fridge      | 1                    | 5.9     |
| 3. Motor cycle | 2                    | 11.7    |
| 4. Car         | 3                    | 17.6    |
| 5. Jeep        | 1                    | 5.9     |
| Total          | 17                   | 100.0   |

### Sources of funds borrowed

5.5 The sources from which the farmers took loans were co-operative banks, commercial banks, Kudumbasree, money lenders etc. the survey found that of the sample households that took loan, 62.5 percent borrowed from co-operative banks, 41 percent from commercial banks, 2.5 percent from Kudumbasree, 1.2 percent from money lenders (Table 5.5). The other sources included the loan availed from Kerala State Financial Enterprises, Telecom Department etc. A notable aspect is that the farmers in Palakkad district availed only few loans from the institutional and informal sources. They availed loans only for meeting essential requirements and also taking into consideration, their ability to repay the amount. This is in sharp contrast with the farmers in Wayanad and Idukki districts where farmers availed loans from all available sources without considering their ability to repay.

**Table 5.5**  
**Loan taken by Sample Households (All sources)**

| Sources               | Number of households taken loan from all sources | Households taken from the item of loan (Number) | Percentage |
|-----------------------|--|---|------------|
| 1. Co-operative Banks | 80   | 50  | 62.5       |
| 2. Commercial Banks   | 80   | 33  | 41.2       |
| 3. Kudumbasree        | 80   | 2   | 2.5        |
| 4. Money lenders      | 80   | 1   | 1.2        |
| 5. Others             | 80   | 5   | 6.2        |

### Loans taken from Commercial Banks

5.6 In this section we examine the amount of loan availed, security given for the loan, year of borrowing, purpose of borrowing, and the repayment of the loan taken from commercial banks.

#### Amount of loan

5.7 The survey found that of the total 80 households availed loan from various sources, 33 households borrowed from commercial banks (Table 5.5). This is the second major source from which the sample households borrowed funds. Eighteen percent of households borrowed an amount below Rs. 20,000. Another 18 percent of the households borrowed a bank loan ranging between Rs. 20,000 to 30,000. On the other hand, 18 percent of the households borrowed an amount of above Rs. One lakh (Table 5.6). The interest rate charged by the commercial banks ranged between 9 to 12 percent.

**Table 5.6**  
**Amount of loan taken from Commercial Banks**

| Amount of loan (Rs.) | Households taken loan (Number) | Percentage |
|----------------------|--------------------------------|------------|
| Upto 20,000          | 6                              | 18.2       |
| 20001 - 30,000       | 6                              | 18.2       |
| 30001 - 40000        | 2                              | 6.0        |
| 40001 - 50,000       | 7                              | 21.2       |
| 50001 - 75000        | 4                              | 12.1       |
| 75,001 - 1,00,000    | 2                              | 6.0        |
| 100001 - 1,50,000    | 2                              | 6.0        |
| 1,50,001 - 3,00,000  | 2                              | 6.0        |
| Above 3,00,000       | 2                              | 6.0        |
| Total                | 33                             | 100.0      |

#### Security given

5.8 The major items of security given for obtaining bank loan were land, and personal surety. The survey found that 73 percent of loans were taken from commercial banks by giving land as security (Table 5.7). Eighteen percent of the loans were borrowed by giving personal surety. The other items of surety given were gold and others.

**Table 5.7**  
**Security given for loans from Commercial banks (Number of households)**

| Amount (Rs.)        | Land | Gold | Personal surety | Others | Total |
|---------------------|------|------|-----------------|--------|-------|
| Upto 20,000         | 5    | -    | 1               | -      | 6     |
| 20001 - 30,000      | 4    | -    | 1               | 1      | 6     |
| 30001 - 40000       | 2    | -    | -               | -      | 2     |
| 40001 - 50,000      | 3    | 1    | 2               | 1      | 7     |
| 50001 - 75000       | 3    | -    | 1               | -      | 4     |
| 75,001 - 1,00,000   | 2    | -    | -               | -      | 2     |
| 100001 - 1,50,000   | 2    | -    | -               | -      | 2     |
| 1,50,001 - 3,00,000 | 1    | -    | 1               | -      | 2     |
| Above 3,00,000      | 2    | -    | -               | -      | 2     |
| Total               | 24   | 1    | 6               | 2      | 33    |
| Percentage          | 72.7 | 3.0  | 18.2            | 6.0    | 100.0 |

#### Year of borrowing

5.9 The survey collected information about the year of borrowing of funds from commercial banks. It was found that about 64 percent of the loans were availed between 2004 and 2006 (Table 5.8). It is likely that the acute drought in 2003 and 2004 and the consequent widespread destruction of paddy crop have forced the farmers to avail loans in the subsequent period.

**Table 5.8**  
**Year of borrowing of commercial bank loans**

| Amount (Rs.)      | Upto 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Total |
|-------------------|-----------|------|------|------|------|------|------|------|------|-------|
| Upto 20,000       | -         | -    | -    | 1    | -    | 2    | 2    | 1    | -    | 6     |
| 20001 - 30,000    | -         | -    | -    | -    | 3    | 1    | 1    | 1    | -    | 6     |
| 30001 - 40,000    | -         | -    | 1    | -    | -    | 1    | -    | -    | -    | 2     |
| 40001 - 50,000    | -         | -    | -    | 1    | -    | -    | 3    | 3    | -    | 7     |
| 50001 - 75,000    | 1         | -    | -    | -    | -    | 1    | 2    | -    | -    | 4     |
| 75001 - 100,000   | -         | -    | -    | -    | -    | 1    | -    | 1    | -    | 2     |
| 100,001-1,50,000  | -         | -    | -    | -    | -    | -    | -    | 1    | 1    | 2     |
| 1,50,001-3,00,000 | 1         | -    | -    | -    | 1    | -    | -    | -    | -    | 2     |
| Above 3,00,000    | -         | -    | -    | 1    | -    | -    | -    | -    | 1    | 2     |
| Total             | 2         | -    | 1    | 3    | 4    | 6    | 8    | 7    | 2    | 33    |
| Percentage        | 6.0       | -    | 3.0  | 9.0  | 12.1 | 18.2 | 24.2 | 21.2 | 6.0  | 100.0 |

### Purpose of borrowing

5.10 In the survey we have collected data about the purpose of loans availed from the commercial banks. The purpose of borrowing were reported as agriculture, construction of house, education, marriage, purchase of consumer durables, meeting day to day expenses, medical treatment and others. The most important purpose of borrowing was cited as agriculture by the farmers (Table 5.9). The other important purposes mentioned by the farmers were construction of house, marriage, medical treatment, and meeting day to day expenses. Though, agriculture was mentioned as the major purpose, it is likely that major part of the money borrowed was spent for non-agricultural purposes.

**Table 5.9**  
**Purpose of loan from Commercial Banks**

| Purpose                          | Number of households taken loan | Purpose of borrowing (Number of households) | Percentage |
|----------------------------------|---------------------------------|---|------------|
| 1. Agriculture                   | 80                              | 25  | 31.2       |
| 2. Construction of house         | 80                              | 4   | 5.0        |
| 3. Education of children         | 80                              | 1   | 1.2        |
| 4. Marriage                      | 80                              | 6   | 7.5        |
| 5. Day to day expenses           | 80                              | 7   | 8.7        |
| 6. Purchase of consumer durables | 80                              | 1   | 1.2        |
| 7. Medical treatment             | 80                              | 4   | 5.0        |
| 8. Business                      | 80                              | 1   | 1.2        |
| 9. Others                        | 80                              | 2   | 2.5        |

### Repayment of loan

5.11 Data was also collected regarding the repayment of loan borrowed from commercial banks. The survey found that 58 percent of the households had not made any repayment of the loan taken (Table 5.10). It was reported that some of the farmers had renewed the loan. Majority of the farmers are not repaying the loans due to the expectation that the government or Farmers Debt Relief Commission will announce debt relief to them.

**Table 5.10**  
**Repayment of the loan from Commercial banks**

| Amount (Rs.)        | Number of Households taken bank loan | Number of Households not made any repayment | Percentage |
|---------------------|--------------------------------------|---|------------|
| Upto 20,000         | 6                                    | 4   | 66.7       |
| 20001 - 30,000      | 6                                    | 4   | 66.7       |
| 30,001 - 40,000     | 2                                    | 1   | 50.0       |
| 40,001 - 50,000     | 7                                    | 5   | 71.4       |
| 50,001 - 75,000     | 4                                    | 2   | 50.0       |
| 75,001 - 1,00,000   | 2                                    | 1   | 50.0       |
| 1,00,001 - 1,50,000 | 2                                    | 1   | 50.0       |
| 1,50,001 - 3,00,000 | 2                                    | -   | -          |
| Above 3,00,000      | 2                                    | 1   | 50.0       |
| Total               | 33                                   | 19  | 57.6       |

#### **Loan taken from Co-operative banks**

5.12 Another source from which the farmers borrowed funds was co-operative banks. In this section we examine the amount of loan borrowed, security given for loans, year of borrowing, purpose of borrowing, and the repayment of the loan borrowed from co-operative banks.

#### **Amount of loan**

5.13 It was found that of the 80 households who borrowed funds from various sources, 62 percent borrowed from co-operative banks (Table 5.5). The amount borrowed by the farmers from co-operative banks were much lower than that borrowed from the commercial banks. Nearly 36 percent of the loans borrowed from co-operative banks were below Rs.20,000. Another 24 percent of the households borrowed an amount between Rs. 20,000 and Rs. 40,000. The survey results showed that only 8 percent borrowed an amount of more than Rs.one lakh (Table 5.11). The interest rate charged by the co-operative banks ranged between 8 percent to 12 percent.

**Table 5.11**  
**Amount of loan taken from co-operative banks**

| Amount (Rs.)      | Households taken loan (Number) | Percentage |
|-------------------|--------------------------------|------------|
| Upto 10,000       | 7                              | 14.0       |
| 10,001 - 20,000   | 11                             | 22.0       |
| 20,001 - 30,000   | 8                              | 16.0       |
| 30,001 - 40,000   | 4                              | 8.0        |
| 40,001 - 50,000   | 8                              | 16.0       |
| 50,001 - 75,000   | 4                              | 8.0        |
| 75,001 - 1,00,000 | 4                              | 8.0        |
| Above 1,00,000    | 4                              | 8.0        |
| Total             | 50                             | 100.0      |

#### **Security given**

5.14 The security given for obtaining loan was mainly land and personal surety. Of the types of security given for obtaining the loan 52 percent was land. The survey found that 38 percent of the loans were secured on the basis of personnel surety (Table 5.12). The other items of surety given are gold and others.

**Table 5.12**  
**Security given for Co-operative Bank Loans (Number of households)**

| Amount (Rs.)      | Land | Gold | Personel surety | Others | Total |
|-------------------|------|------|-----------------|--------|-------|
| upto 10,000       | 2    | -    | 4               | 1      | 7     |
| 10,001 - 20,000   | 6    | -    | 5               | -      | 11    |
| 20,001 - 30,000   | 5    | -    | 3               | -      | 8     |
| 30,001 - 40,000   | 2    | -    | 2               | -      | 4     |
| 40,001 - 50,000   | 3    | 2    | 2               | 1      | 8     |
| 50,001 - 75,000   | 3    | -    | 1               | -      | 4     |
| 75,001 - 1,00,000 | 2    | 1    | 1               | -      | 4     |
| Above 1,00,000    | 3    | -    | 1               | -      | 4     |
| Total             | 26   | 3    | 19              | 2      | 50    |
| Percentage        | 52.0 | 6.0  | 38.0            | 4.0    | 100.0 |

#### Year of borrowing

5.15 The survey results showed that the farmers had been taking loans regularly from co-operative banks since 2001 (Table 5.13). It seemed that this is the source of loan which was easily available to the farmers compared to the other loans. More than half of the number of loans were availed during the years 2005 and 2006. It is likely that the farmers were forced to borrow more loans during these years due to the acute drought in 2003 and 2004.

**Table 5.13**  
**Year of borrowing of co-operative bank loans**

| Amount (Rs.)     | upto 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Total |
|------------------|-----------|------|------|------|------|------|------|------|------|-------|
| upto 10,000      | 1         | -    | -    | -    | -    | -    | 3    | 3    | -    | 7     |
| 10,001 - 20,000  | -         | 1    | -    | 1    | -    | 3    | 2    | 4    | -    | 11    |
| 20,001 - 30,000  | -         | -    | -    | 1    | 1    | 2    | 1    | 3    | -    | 8     |
| 30,001 - 40,000  | -         | -    | -    | 1    | 1    | -    | 2    | -    | -    | 4     |
| 40,001 - 50,000  | -         | -    | -    | -    | 1    | 2    | 3    | -    | 2    | 8     |
| 50,001 - 75,000  | 1         | -    | 1    | -    | -    | -    | 1    | 1    | -    | 4     |
| 75001 - 1,00,000 | 2         | -    | -    | -    | -    | 1    | -    | 1    | -    | 4     |
| Above 1,00,000   | -         | -    | 1    | -    | -    | -    | 2    | 1    | -    | 4     |
| Total            | 4         | 1    | 2    | 3    | 3    | 8    | 14   | 13   | 2    | 50    |
| Percentage       | 8.0       | 2.0  | 4.0  | 6.0  | 6.0  | 16.0 | 28.0 | 26.0 | 4.0  | 100.0 |

#### Purpose of borrowing

5.16 We have collected information about purpose of loan taken from co-operative banks. Nearly three-fourth of the loans were availed for agricultural purposes (Table 5.14). The other purposes mentioned were meeting day to day expenses, marriage, construction of house, medical treatment, purchase of consumer durables, business and others.

**Table 5.14**  
**Purpose of Loan from Co-operative Banks**

|    | Purpose                                    | Number of households taken loan | Purpose of borrowing (number of households) | Percentage |
|----|--|---------------------------------|---|------------|
| 1. | Agriculture                                | 50                              | 37  | 74.0       |
| 2. | Construction of house                      | 50                              | 5   | 10.0       |
| 3. | Marriage                                   | 50                              | 7   | 14.0       |
| 4. | Day to day expenses                        | 50                              | 10  | 20.0       |
| 5. | Medical treatment in hospital as inpatient | 50                              | 3   | 6.0        |
| 6. | Purchase of consumer durables              | 50                              | 1   | 2.0        |
| 7. | Business                                   | 50                              | 1   | 2.0        |
| 8. | Others                                     | 50                              | 3   | 6.0        |

### Repayment of the loan

5.17 We have collected information about repayment of the loan taken from co-operative banks. It was found that 50 percent of the households had not made any repayment (Table 5.15). Some of the farmers told us that instead of repaying the loan they had renewed the loan. A notable aspect was that the non-repayment rate was higher in the case of farmers who availed loan amount ranging between above Rs.20,000 and Rs. one lakh. Many farmers are not repaying the loan due to the expectation that the government or Debt Relief Commission will announce debt relief.

**Table 5.15**  
**Repayment of Loan from Co-operative Banks**

| Amount (Rs.)      | Number of households taken loan | Number of households not made any repayment | Percentage |
|-------------------|---------------------------------|---|------------|
| upto 10,000       | 7                               | 3   | 42.8       |
| 10,001 - 20,000   | 11                              | 5   | 45.4       |
| 20,001 - 30,000   | 8                               | 5   | 62.5       |
| 30,001 - 40,000   | 4                               | 2   | 50.0       |
| 40,001 - 50,000   | 8                               | 5   | 62.5       |
| 50,001 - 75,000   | 4                               | 2   | 50.0       |
| 75,001 - 1,00,000 | 4                               | 2   | 50.0       |
| Above 1,00,000    | 4                               | 1   | 25.0       |
| Total             | 50                              | 25  | 50.0       |

### Loan from Other sources

5.18 Five households taken loan from sources other than those mentioned earlier. Two households availed loan from Telecom Department as the members of the households were employed in the Department. One household availed loan from Kerala State Financial Enterprises Ltd. by offering gold as security. Another two loans were obtained from private financial firms by giving land as surety.

### Conclusions

5.19 The above analysis may be concluded as follows. The survey found that 40 percent of the sample households had taken loans mainly from co-operative banks and commercial banks. But we feel that the above estimate is an under estimate. The amount borrowed ranged from below Rs.20,000 to 3 lakhs and above. Majority of the farmers who borrowed belong to the marginal category of farmers. They borrowed money not only to meet cultivation expenses but also meet the other items of expenditure such as construction and repair of house, marriage of family members, medical treatment, purchase of livestock, education of children, purchase of consumer durables, business etc. Regarding loans from commercial banks the survey found that 58 percent of the farmers had not made any repayment so far. In the case of loan from co-operative banks 50 percent had not made any repayment so far. Financial problem is not the sole reason for the repayment of the majority of loans availed from co-operative and commercial banks. Majority of the farmers who availed loans are not repaying due to the expectation that the state government or the Farmers Debt Relief Commission will announce debt relief to them.

## Chapter 6

### Summary of Findings and Policy Suggestions

6.1 In this chapter we present the summary of findings of the study and a few policy suggestions. The first part contains objectives of the study, data source and agricultural situation in Palakkad district. The second part deals with the major findings of the field survey and the third on policy suggestions.

#### I. Objectives of study, data source, and agricultural situation in Palakkad

##### 6.2 Objectives of the study

1. To study the causes of the present agricultural crisis.
2. To examine the area and crops cultivated, production and productivity of crops, prices of agricultural products, cost incurred for cultivation and problems of cultivation.
3. To analyse the loans taken by farmers, sources and utilization of loans and indebtedness of farmers.
4. To suggest policy measures for agricultural crisis and indebtedness of the farmers.

##### 6.3 Data Source

- \* Chapter on agricultural situation of Palakkad district is based on secondary data.
- \* A sample survey was conducted in five Grama Panchayats Viz. Mannarkad, Pirayiri, Elappully, Kannambra and Kuthannur to collect primary data.
- \* Total sample of agricultural households covered is 200.
- \* The survey was conducted in June and July 2007.

##### Agricultural situation in Palakkad

##### 6.4. General Features

- \* Palakkad is the land of paddy fields.
- \* The district has the features of a backward rural agricultural economy.
- \* The district has 91 Grama Panchayats and 4 Municipalities.
- \* Rural population accounts for 86 percent of the total population in the district.
- \* SC/ST population accounts for 18 percent.
- \* The district has a moderately high rate of emigration (33 emigrants per 100 households).
- \* The district has 258 branches of commercial banks and 249 co-operative banks.

##### 6.5 Agriculture

- \* Agriculture and allied activities accounted for 16.5 percent of the district income (NSDP) and the sectoral share has been witnessing a decline.
- \* Agricultural workers accounted for 42 percent of the total workers in the district (cultivators 9 percent and agricultural labourers 33 percent)
- \* Rainfall availability fell down compared to normal rainfall in six years during the last ten years.
- \* The severe drought in 2003 had resulted in widespread destruction of paddy crop during 2003 and 2004.
- \* Major crops cultivated in the district are paddy, coconut, rubber, banana, plantains, mango, arecanut, pepper and tamarind.
- \* Other important crops cultivated are Jack, pulses, sugarcane, cashew, tapioca, coffee, and vegetables.
- \* The district had 263763 cattle, 9269 buffaloes, 125890 goats, and 1507 pigs in 2004-2005.

##### 6.6 Paddy crop in Palakkad district in 2004- 05.

- |                                    |   |                            |
|------------------------------------|---|----------------------------|
| * Area of cultivation              | - | 1,11,029 hectares          |
| * Area as share of state total     | - | 38 percent                 |
| * Production of rice               | - | 260118 tonnes              |
| * Production as share of the state | - | 39 percent                 |
| * Number of harvest in a year      | - | 3 (Autumn, winter, summer) |

### 6.7 Coconut crop in Palakkad district in 2004- 05

|                                    |   |                  |
|------------------------------------|---|------------------|
| * Area of cultivation              | - | 55,533 hectares  |
| * Area as share of state total     | - | 6.2 percent      |
| * Production of coconut            | - | 344 million nuts |
| * Production as share of the state | - | 5.7              |

### 6.8 Features of the five sample Gramapanchayats.

- \* Area of the Gramapanchayats varied between 18.69 sq.km to 63.38 sq.km.
- \* Number of wards varied between 15 and 21.
- \* Number of households varied between 4859 and 9581.
- \* Total population varied between 23045 and 52381.
- \* Livestock rearing is an important subsidiary occupation.
- \* Number of bank branches in five Gramapanchayats is 35.

## II. Major findings of the survey

### 6.9 Profile of the sample households

- \* The households heavily relied on agriculture and allied activities for their survival.
- \* Fifty three percent of the sample households belong to the category of those who solely dependent on agricultural income.
- \* Ninety four percent of the heads of the households are farmers or farmer cum casual labourers.
- \* Of the total workers, 60 percent is engaged in agriculture and allied activities.
- \* Livestock rearing is an important subsidiary occupation of the farmers.
- \* Thirty Nine percent submarginal farmers having a size of holding less than 0.50 hectare.
- \* Twenty five percent of the farmers have a size of holding ranging between 0.50 and one hectare.
- \* Twenty two percent of the farmers are small farmers having a size of holding between one and two hectares.

### 6.10 Production of paddy crop

- \* Paddy is the principal crop cultivated.
- \* Ninety five percent of the sample farmers were cultivating paddy.
- \* Two crops of paddy are cultivated in a year viz. Virippu and Mundakan.
- \* Short duration paddy varieties are cultivated in Virippu crop.
- \* Long duration paddy varieties are cultivated in Mundakan crop.
- \* Eighty one percent of the sample farmers provided irrigation.
- \* Average production in Mundakan crop was 3502 kg. per hectare.
- \* Twenty Nine percent of the farmers reported spread of diseases to the crops.

### 6.11 Mechanisation of paddy cultivation

- \* Ninety percent of the farmers were using either tractor or triller for cultivation.
- \* Twenty percent of the sample farmers were using harvesting machines.
- \* Harvesting machines are not being used widely due to its unsuitability and destruction of straw in the process of harvesting.

### 6.12 Cost of cultivation of Mundakan crop of paddy (per hectare) in 2007- 08

- \* Cost of preparation of land and sowing Rs. 1408.
- \* Cost on tilling of land, transplantation, removing weeds, irrigation, application of fertilisers and pesticides etc - Rs. 18975
- \* Cost of harvesting -Rs. 7342
- \* Other items of cost - Rs. 1028
- \* Total cost per hectare - Rs. 28753
- \* Cost of cultivation per acre - Rs. 11641

### 6.13 Profitability of cultivation of Mundakan crop in 2007- 08

- \* Profit per hectare - Rs. 6227
- \* Profit per acre - Rs. 2521

### 6.14 Paddy procurement

- \* Sixty two percent of the farmers were supplying paddy to the procurement agency.
- \* The farm price of the procured paddy was Rs. 8.50 per kg.
- \* No procurement in Mannarkkad Grama Panchayat.
- \* Delay in payment, lack of timely collection of paddy, collection of transportation charges from the farmers were the problems of procurement.

### 6.15 Production of coconut

- \* Fifty seven percent of the sample households cultivated coconut.
- \* Average yield of coconut per hectare is 8607 nuts per year.
- \* Variation in yield of coconut is from 950 to 19760 nuts per year.
- \* Seventy percent of the coconut cultivators provided irrigation.
- \* Twenty one percent of the coconut cultivators reported spread of diseases.

### 6.16 Half yearly value of farm output produced

- \* Thirty one percent of the sub-marginal farmers produced an agricultural output worth less than Rs. 10,000.
- \* Twenty seven percent of households produced farm output worth Rs. 10,000 to Rs. 20,000.
- \* The small farmers produced an output worth Rs. 20,000 to Rs. 50,000.
- \* Eighteen percent of the farmers produced output worth morethan Rs. 50,000.

### 6.17 Shortage of labour

- \* The most serious problem of paddy cultivation is acute shortage of labour.
- \* Ninety six percent of the sample farmers reported shortage of labour.
- \* The young labour force are not willing to work as agricultural workers.
- \* The implementation of NREGS have resulted in increasing labour shortage and wage rate.

### 6.18 Loans and indebtedness of farmers

- \* Forty percent of the households had taken loans from various sources like mommercial banks, co-operative banks, Kudumbasree money lenders etc.
- \* The amount borrowed ranged between Rs. 20,000 and 3 lakhs and above.
- \* Farmers borrowed money not only to meet cultivation expenses but also to meet other items of expenditure such as construction and repair of house, marriage, medical treatment, purchase of livestock, education of children, purchase of consumer durables, business etc.
- \* The repayment of the loans availed from commercial and co-operative banks are poor and unsatisfactory.
- \* Farmers in Palakkad district availed less amount of loans from the institutional and informal sources compared to other districts.
- \* Majority of loans are not repaid due to the expectation that the state Government or Farmers Debt Relief commission will announce debt relief.

## III. Policy Suggestions

Palakkad district is facing a mild agricultural crisis due to the peculiar problems of paddy cultivation. Instead of following a short term development approach, a long term approach has to be formulated. Sustaining the cultivation of paddy in Palakkad is very crucial from the point of view of food security of the state and overall development of the district.

### 6.19 Promotion of irrigation

- \* Complete the execution of all ongoing major and minor irrigation projects in the district without delay.
- \* Construct new check dams, minor irrigation projects and other macro irrigation projects suited to the irrigational requirement of the district by giving subsidies and other assistance.
- \* Renovate all existing ponds, water sources, canals and streams.
- \* Provide financial support and loans to farmers to construct micro irrigation projects, community irrigation projects, developing new water sources, constructing irrigational infrastructure, installation of pump sets etc.

### 6.20 Crop diseases

- \* Strengthen the agricultural research and development activities of the Kerala Agricultural University and other agencies to find out solutions to contain the diseases of paddy and coconut.
- \* Efforts are required to develop new high yielding seed varieties of paddy suited to the agroclimatic conditions of the district.
- \* Expand the measures of the Department of Agriculture and other agencies to help the farmers through pest control measures, distribution of medicines etc.

### 6.21 Price stabilisation measures

- \* The state government should continue to procure paddy to stabilise prices.
- \* The paddy procurement machinery and payment system should be made more efficient.
- \* The procurement agency should bear the transportation cost of paddy from farmers.
- \* The government should also make an arrangement with the Rice mills to purchase paddy from the district. And incentives in the form of subsidies or tax concessions should be given to the Rice Mills.

### 6.22 Relief to distressed farmers

- \* Relief to the farmers are to be given only in situation where there is crop damage due to natural calamities like flood, drought and spread of diseases etc. resulting in loss in production.
- \* Relief to the distressed farmers are to be distributed based on criteria such as size of agricultural holding, levels of dependency of agricultural income, the crops cultivated and the magnitude of the damage of crops.
- \* While formulating norms for relief high priority has to be given to sub-marginal farmers (having holdings upto 0.5 hectare) and other marginal farmers (0.5 to 1 hectare) who solely dependent on agricultural income (all workers of the households are getting income or wage from agriculture and allied activities).

### 6.23 Debt relief

- \* A debt relief scheme may be implemented to give relief to the following categories of farmers viz. sub-marginal farmers (having holdings upto 0.5 hectare) other marginal farmers (0.5 to 1 hectare) and others (more than one hectare).
- \* A debt relief of Rs. 20,000, Rs. 30,000 and Rs. 40,000 may be given respectively to the three categories.
- \* The debt relief may be distributed by waiving the loans in the case of farmers who availed loans from institutional sources such as commercial banks, co-operative banks, co-operative societies etc. On the other hand, those who borrowed from informal sources like money lenders may be given relief in cash.

### 6.24 Credit support to farmers

- \* Long term loans at low rate of interest should be given to farmers for development of infrastructure purchase of agricultural machinery and irrigation purposes by commercial banks, co-operative banks and other financial institutions.
- \* Short term loans at low rate of interest may be given to farmers for meeting the working expenses of cultivation and purchasing livestock.
- \* New non-agricultural loan scheme may be started for the farmers to provide credit to construct houses, repair houses, marriage purpose, medical treatment, education of children, purchasing consumer durables etc.

### **6.25 Restructure the National Rural Employment Guarrantee Scheme (NREGS)**

- \* Instead of exclusively executing local public works, the workers may also be allotted to the marginal and small farmers for cultivation development of agriculture infrastructure, irrigational development etc.
- \* The farmers who utilise the services of the workers have to contribute 50 percent of the wages and other 50 percent has to be borne by the NREGS.
- \* To prevent the shortage of agricultural workers in agricultural seasons, the NREGS may be suspended during the peak agricultural season in the district (1st June to 15th July, months of September, October, February and March).

### **6.26 Promotion of mechanisation of paddy cultivation**

- \* Follow a strategy to promote mechanisation of all activities of paddy farming.
- \* Development of appropriate and financially viable agricultural machinery.
- \* Provision of long term loans to farmers, farmer-co-operatives, and others to purchase agricultural machinery like tractors, trillers, harvesting and thresher machine etc.
- \* Provision of subsidies to purchase agricultural machinery.
- \* Training programmes to youth for operating repairing and servicing the agricultural machinery.
- \* Development of infrastructural parks providing facilities for servicing and repairing all kinds of agricultural machinery.
- \* Provision of credit and other support for rapid mechanisation by banks and other agricultural credit and promotional agencies.

### **6.27 Distribution of subsidised fertilisers**

- \* Many farmers are not utilising the subsidised fertilisers distributed through 'Padasekhara Samithi' due to lack of timely distribution or non availability of the required item of fertilisers.
- \* It is reported that some of the 'Padasekhara Samithis' are selling the unutilised fertilisers in the black market.
- \* Steps may be taken to distribute subsidised fertilisers to the farmers directly by the Krishi Bhavans.

### **6.28 Organic Manure**

- \* There has been a steep fall in the production and use of organic fertilisers like ash, cow dung, composite manure etc adversely affecting the fertility of soil.
- \* Promotional measures may be taken to promote the production of organic manure.
- \* Liberal credit and other support should be given to promote livestock development.

## Appendix - I

### Cost of Cultivation per acre (0.40 Hectare) Paddy in Mundakan crop (Sept - Oct. 2007 to Feb. - March 2008) in Palakkad

|             | Items  | Number of Workers |        | Wage (Rs.) |        | Total    |
|-------------|--|-------------------|--------|------------|--------|----------|
|             |  | Male              | Female | Male       | Female |          |
| <b>I.</b>   | <b>Preparation of land and sowing</b>  |                   |        |            |        |          |
| 1.          | Labour charge  | 1                 | 1      | 135        | 75     | 210.00   |
| 2.          | Cost of seed<br>(Rs.12 per kg for 30 kgm)  | -                 | -      | -          | -      | 360.00   |
|             | <b>I. Sub Total</b>  |                   |        |            |        | 570      |
| <b>II.</b>  | <b>Cultivation</b>   |                   |        |            |        |          |
| 1.          | Tilling of land (Tractor charges Rs.350 per hour for 3½ hours)                                   | -                 | -      | -          | -      | 1225.00  |
| 2.          | Boundary setting   | 4                 | -      | 135        | -      | 540.00   |
| 3.          | Transplantation  | 1                 | 22     | 135        | 75     | 1785.00  |
| 4.          | Removing Weeds<br>(Two times)  | -                 | 20     | -          | 75     | 1500.00  |
| 5.          | Irrigation and Transportation  | 4                 | -      | 135        | -      | 540.00   |
| 6.          | Application of Fertilisers   | 1½                | -      | -          | -      | 203.00   |
| 7.          | Cost of Fertiliser   |                   |        |            |        |          |
|             | a) Factum fos (100 kg)   | -                 | -      | -          | -      | 761.50   |
|             | b) Uria (75 Kg)  | -                 | -      | -          | -      | 378.50   |
|             | c) Potash (50 Kg)  | -                 | -      | -          | -      | 233.00   |
| 8.          | Spraying of pesticides (3 times)   | -                 | -      | -          | -      | 216.00   |
| 9.          | Cost of pesticides   | -                 | -      | -          | -      | 300.00   |
|             | <b>II. Sub Total</b>   |                   |        |            |        | 7682.40  |
| <b>III.</b> | <b>Harvesting</b>  |                   |        |            |        |          |
| 1.          | Reaping, tramplimg, transport etc. (one seventh of the total paddy harvested)<br>262.5 Kg x Rs.9 | -                 | -      | -          | -      | 2362.50  |
| 2.          | Tractor charges for tramplimg  |                   |        |            |        | 250.00   |
| 3.          | Collecting, drying and piling of straw   | 1                 | 3      | 135        | 75     | 360.00   |
|             | <b>III. Sub total</b>  |                   |        |            |        | 2972.50  |
| <b>IV.</b>  | <b>Others</b>  |                   |        |            |        |          |
| 1.          | Land tax and water tax   | -                 | -      | -          | -      | 66.00    |
| 2.          | Interest on working capital/loan (Rs.5000/-)   | -                 | -      | -          | -      | 350.00   |
|             | <b>IV. Sub total</b>   |                   |        |            |        | 416.00   |
|             | <b>Grand Total (I + II + III + IV)</b>   |                   |        |            |        | 11640.90 |

Note: The estimate was done based on the average cost prevailed in the study area during the months of March 2008.

## References

- Department of Agriculture, 2005, Facts and Figures of Agriculture in Kerala, DA, Trivandrum.
- Department of Economics and Statistics (DES), 2006, Agricultural Statistics 2005-2006, DES, Trivandrum.
- DES, 2006, Panchayat Level Statistics, 2006, Idukki District, DES, Trivandrum.
- DES, 2006, Report on Cost of Cultivation of Important Crops in Kerala 2004-05, DES, Trivandrum.
- DES, 2006, Area, Production and Productivity Trend of Important Crops in Kerala, DES, Trivandrum.
- DES, 2005, Statistics for Planning 2005, DES, Trivandrum.
- Department of Agriculture and Co-operation, 2006, Report of the Commission for Agricultural Costs and Prices for 2005-2006, DAC, Ministry of Agriculture, New Delhi.
- Department of Agriculture and Co-operation, 2005, Agricultural Statistics at a Glance, 2005, DAC, Ministry of Agriculture, New Delhi.
- Government of Kerala, 2006, Report of the Commission on WTO concern in Agriculture: Building a Sustainable Agricultural Trade Security System for Kerala, SPB, Trivandrum.
- Kerala State Farmers Debt Relief Commission 2007, Suo Motu Proceedings No.1 of 2007, Recommendation made to Government of Kerala to declare Wayanad District as Distress Affected Area, Trivandrum.
- Mohan Kumar S and R.K. Sharma, 2006, "Analysis of Farmer Suicides in Kerala", Economic and Political Weekly, April 22.
- Prakash B A, 2004, Impacts of Drought on Agriculture in Kerala: Findings of a Field Survey in Thirty Agricultural Clusters, Department of Economics, University of Kerala, Trivandrum.
- Prakash B A, 2007, Agricultural Crisis, Credit and Indebtedness of Farmers in Wayanad District: Findings of a Field Survey, Department of Economics, University of Kerala, Trivandrum.
- Prakash B.A, 2008, Agricultural Crisis, Credit and Indebtedness of Farmers in Idukki district: Findings of a Field Survey, Department of Economics, University of Kerala, Trivandrum.
- State Planning Board, 2005, Study Report of the Working Groups on Non-Banking Financial Institutions in Kerala, SPB, Trivandrum.
- State Planning Board, 2007, Economic Review 2006, SPB, Trivandrum.

## **Agriculture Study Series of the Department of Economics University of Kerala**

### **1. Impacts of Drought on Agriculture in Kerala : Findings of a Field Survey in Thirty Agricultural Clusters - (April 2004)**

Author : B.A. Prakash

(The study examines the impact of the drought of 2003 on fall in production, damage to seasonal and perennial crops and the financial losses incurred by farmers based on a sample survey of 900 households in 30 Grama Panchayats spread over 29 Taluks covering all the districts of Kerala).

### **2. Agricultural crisis, Credit and Indebtedness of Farmers in Wayanad District : Findings of a Field Survey - (August 2007)**

Author : B.A. Prakash

(The study examines the causes of the agricultural crisis, production and productivity of crops, prices of agricultural commodities, problems of cultivation, sources and utilisation of loans and indebtedness of farmers in Wayanad district based on a sample survey of 160 households in four Grama Panchayats).

### **3. Agricultural Crisis, Credit and Indebtedness of Farmers in Idukki District : Findings of a Field Survey - (February 2008)**

Author : B.A. Prakash

(The study examines the causes of agricultural crisis, production and productivity of crops, prices of agricultural commodities, problems of cultivation, sources and utilisation of loans and indebtedness of farmers in Idukki district based on a sample survey of 120 households in three Grama Panchayats).