

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

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Foreword

Wayanad district has been experiencing an unprecedented agricultural crisis due to failure of monsoons, spread of diseases to major crops, fall in prices of Agricultural commodities etc. As majority of the farmers in the district are marginal and poor farmers, the crisis has adversely affected the well being of vast majority of the people in the district. Due to the acute crisis, the farmers are forced to borrow money from institutional and informal sources resulting in high incidence of indebtedness and suicides of farmers. The district also have the largest number of farmer suicides in Kerala.

The Department of Economics which is having a statewide agricultural data collecting agency (Scheme of cost of Cultivation of Principal Crops in Kerala) has conducted a study on the agricultural crisis of Wayanad District with the financial support of the Special Assistance Programme (SAP) of U.G.C. The study, a basic study on the agricultural crisis gives valuable information on all important aspects of the crisis and indebtedness of farmers. 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. I take this opportunity to congratulate the Department of Economics, which has recently awarded Special Assistance Programme (Departmental Research Support) Status by U.G.C, for conducting this important study.

Dr. M.K. Ramachandran Nair
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Preface

Kerala has been experiencing an unprecedented crisis in agricultural sector in recent years due to fall in production, prices and income and rise in cost of production making cultivation unprofitable. Among the district which face the crisis, Wayanad has been facing the acute crisis. Many factors such as frequent failure of monsoons, continuous drought condition, spread of diseases and pest attacks of major crops, fall in the prices of agricultural commodities etc have contributed to the crisis. As majority of the farmers are marginal and poor farmers, the crisis has severely affected the well beings of majority of the population in the district. In this context, the study examines the causes of the agricultural crisis, production and productivity of crops, prices of agricultural commodities, sources and utilisation of loans, and indebtedness of farmers. The study also present a few policy suggestions. Data for the study was collected from a sample survey conducted in our Grama Panchayats in Wayanad District during May 2007. The study is conducted with the financial support of Special Assistance Programme (SAP), of U.G.C.

Sri.V.K. Santhosh Kumar has conducted the field survey in three Grama Panchayats and collected secondary data from Krishi Bhavans, Commercial Banks, Grama Panchayats etc. Sri. P.M.Satheesan has conducted in the field survey in one Grama Panchayat. Smt. Anna Ibrahim Pachayil and Smt. Nimmi S. Prathap, Ph.D Scholars of the Department gave the research support for the study. The MA students of the Department have helped in tabulation of data. Sri.B.K. Viswakumar and Sri. N. Prathap Kumar also 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
8-8-2007

B.A. Prakash

Chapter 1

Introduction

1.1 The Agricultural Crisis

Kerala has been experiencing an unprecedented crisis in agricultural sector in recent years due to fall in production, prices and income 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
- continuous 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.
- failure of government agencies to control the spread of diseases
- fall in prices of agricultural commodities
- absence of price stabilisation measures
- poor attention on crops
- labour shortage and wage increase
- withdrawal of younger labour force from agriculture.
- failure to give effective relief measures to farmers.
- failure to develop agro processing industries.
- increase in the cost of cultivation.
- fall in income below the cost of cultivation.
- unprofitable cultivation

1.3 Suicides of Farmers

The statistics on farmer suicides suggest that there has been very high incidence of farmer suicides in Kerala especially in Wayanad district in recent years. 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. It is reported that 101 farmers committed suicides during the period of the present Left Democratic Front rule, of which 46 were in Wayanad. 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. The Kerala State Farmers Debt Relief Commission, based on the data of Director of Agriculture says that the total number of farmer suicides in Wayanad district was 371 between 1999 and 2006. Another 46 farmer suicides were reported during the period between May 2006 and March 2007. These figures on the farmer suicides indicate the grave situation prevailing in Wayanad due to agricultural crisis. This has created very serious social and economic problems in Wayanad district.

Number of suicides of farmers in Kerala		
Agency	Period	Number of Suicides
Government of Kerala	2001-06	841
NABARD	since first January 1999	803

Number of suicides of farmers in Wayanad District		
Agency	Period	Number of Suicides
Director of Agriculture, Kerala*	1999-2006	371
Director of Agriculture, Kerala*	May 2006 to March 2007	46
Kerala State Farmers Debt Relief Commission*	2001-2006	528

* Number of suicides mentioned in the Kerala State Farmers Debt Relief Commission, Sou Motu Proceedings No.1 of 2007

1.4 Though Wayanad has been facing an acute and unprecedented agricultural crisis and farmer suicides 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 Wayand. 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 Wayanad district.

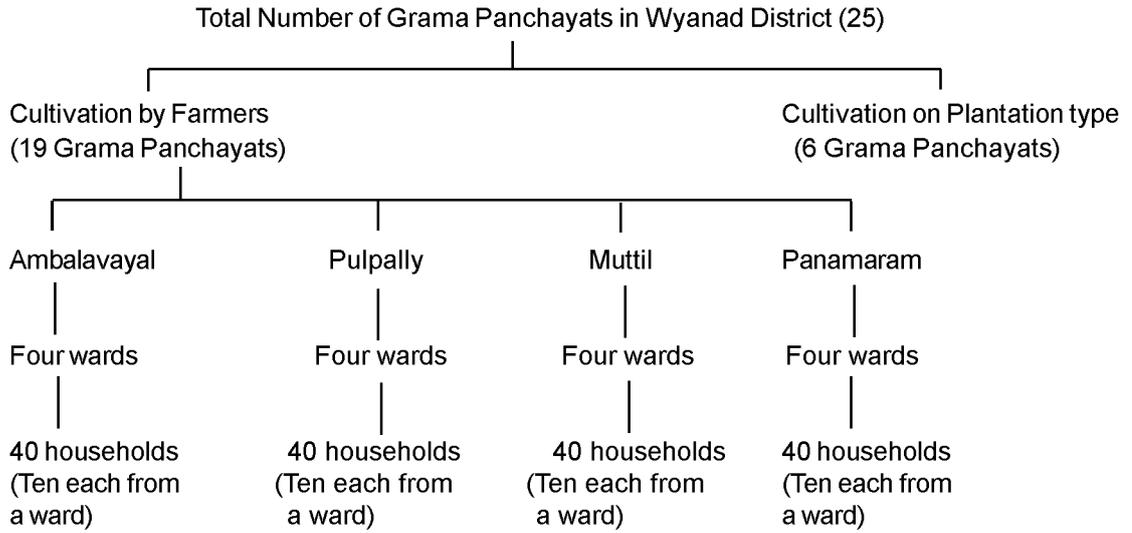
1.5 Objectives of the Study

1. To study the causes of the present agricultural crisis in Wayanad district.
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.

1.6 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 four Grama Panchayats in Wayanad 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 cultivation by farmers (marginal, small and medium category) and on plantation type. Here by plantation type we mean Grama Panchayats where more than 10 percent of the cultivable area is covered by plantations. From the 19 Grama Panchayats where cultivation is done by the farmers, four are selected at random basis. From these four 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 four Grama Panchayats selected for the field survey are given below.

1.7 Sampling Procedure



Selected Sample Agricultural Households			
	Selected Sample Grama Panchayats	Block Panchayat to which it belong	Number of Sample Households
1.	Ambalavayal	Sulthan Bathery	40
2.	Pulpally	Sulthan Bathery	40
3.	Muttil	Kalpetta	40
4.	Panamaram	Mananthavady	40
	Total		160

1.8 Period of the Survey

The survey was conducted in Wayanad district during the month of May 2007.

Chapter 2

Agricultural Situation in Wayanad District

2.1 The chapter is divided into two parts. The first part discusses the profile of the district such as area and administrative setup, 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

2.2 Area and administrative setup

Wayanad, one of the youngest districts in the state with several unique features, came into existence on 1st November 1980 as the 12th district, carved out of Kozhikode and Kannur districts. The district, with a total geographical area of 2131 sq.km forms 5.5 percent of the total area of the state (Table 2.1). The district is located at a distance of 75kms from Calicut and lies at a height of 700-2000 meters above the sea level. The district is bounded on the east by Nilgiris and Mysore districts in Tamil Nadu and Karnataka respectively, on the north by Kodagu district of Karnataka on the south by Malappuram and on the west by Kozhikode and Kannur. It is the main route connecting Calicut with the other south Indian tourist centres such as Mysore, Ooty, and Bangalore.

2.3 For administrative purposes the district is divided into three Taluks viz. Mananthavady, Sulthan Bathery and Vythiri and 49 revenue villages. The district head quarters is at Kalpetta. The district has three block panchayats viz. Kalpetta, Sulthan Bathery and Mananthavady with 25 Grama Panchayats. The district has three assembly constituencies viz. North Wayanad, Sulthan Bathery and Kalpetta. The district is basically a rural economy having only one municipality viz. Kalpetta. The details about area and administrative setup of Wayanad district is given in Table 2.1.

Table 2.1
Area and administrative setup

		Wayanad	State
I. Area			
1.	Total Area (sq.km)	2131 (5.5)	38863 (100.0)
	Wet Area (hectare)	24731 (5.3)	462797 (100.0)
	Dry Area (hectare)	100869 (4.4)	2273603 (100.0)
2.	Forest Area (hectare)	78787 (7.3)	1081509 (100.0)
II. Administrative setup			
1.	Number of Revenue Division	1	21
2.	Number of Taluks	3	63
3.	Number of Revenue Villages	49	1452
4.	Number of Municipalities	1	53
5.	Number of Block Panchayats	3	152
6.	Number of Grama Panchayats	25	999
7.	Number of Assembly Constituencies	3	140

Note: Figures in brackets are percentages

Sources: DES, 2006, Panchayat Level Statistics 2006, Wayanad District.

Physical Profile

2.4 Geology

Geologically, the area falls under the category of residual laterites. The geological formations have originated from crystalline rocks of Archean age and include granite, charkonite and schist. Nearly 37 percent of the total area of the district is covered by forest. Most of the reserve forests in the state are in this districts. But the continued and indiscriminate exploitation of the natural resources point towards an imminent environmental crisis.

2.5 Physiography

Physiographically, the area is hilly with an undulating terrain set high on the majestic Western Ghast with altitudes ranging from 700 to 2000 meters. The most important rivers originating from the district are 'Kabani' which is a tributary of 'Cauvery' river. The climatic condition of the district is similar to that which is experienced in other hilly tracts of the state. The district has a tropical humid climate.

2.6 Soil

Soil of the district can be broadly classified under the forest soil which is characterised by a surface layer of humus and other organic matter at various stages of decomposition and laterite soil.

2.7 Mountains

Chembra peak (2345 m), Vellaimala (2145 m), Banasuran mala (2061 m), Elembileri mala (1839 m), Brahmagiri (1608 m), Kunnelipadimala (1607 m), Thariode mala (1553 m) are some of the important mountains in the district.

2.8 Rivers

The Kabini river, one of the three east flowing rivers of Kerala, is an important tributary of the Cauvery river. Almost the entire Wayanad district is drained by Kabini and its three tributaries, the Panamaram River, Manathavady River, and Kalindy River. The Banasura Sagar Dam crosses one of tributaries of the Kabini River.

2.9 Climate

The distance from the mean sea level and surrounding forest creates a salubrious climate. Generally the year is divided into four seasons; cold weather (December to February) hot weather (March to May) South West Monsoon (June to September) and North East monsoon (October to November). During the hot weather the temperature goes up to the maximum of 35°C and during the cold weather the temperature goes down to 10°C. The more perceived temperature variation in habitational areas since last 5-6 years is in the range of 18-28 degree Celsius.

2.10 Infrastructure

The Kozhikode - Mysore National Highway No.212 and SH 39 from Chundale to Gadallur passes through Wayanad district. Nearest railway station is at Kozhikode 75km from Kalpetta. Kozhikode airport at Karippur is the nearest airport. There are good road connections to various parts of Kerala and other neighbouring states.

2.11 Tourist Centres

The important tourist centres in the district are Pookot Lake, Kuruva Islands, Thirunelly Temple, Edakkal Cave, Wild life sanctuaries at Muthanga and Tholpetty, Waterfalls at Sujipara, Kanthanpara, and Meenmuttery, Pazhassi Tomb at Mananthavady, Mananthavady park, Bansurasagar dam and Trekking centres at Chembra peak and Pakshipathalam.

2.12 Population

According to 2001 census the district had a population of 780,619 comprising of 391273 males and 389346 females (Table 2.2). In spite of the development of district during the last half a century the urbanisation

process has not started in the district. The percentage of urban population and urban households was only 4 percent in 2001. The district has a high proportion of Scheduled Caste and Tribe population. The SC and ST population accounted for 22 percent of the total population. The district has a low density of population (366 persons) compared to the state average. The sex ratio and literacy rate were lower in Wayanad district compared to the state average. However, the population growth in the district was higher. The demographic features of the district is given in Table 2.2. A block panchayat wise demographic features are given in Table 2.3.

Table 2.2
Demographic features of wayanad district (2001 census)

		Wayanad	State
1.	Total Population (Number)	780619 (100.0)	31841374 (100.0)
	Male	391273 (50.2)	15468614 (48.6)
	Female	389346 (49.8)	16372760 (51.4)
2.	Rural Population	751007 (96.2)	23574449 (74.0)
3.	Urban Population	29612 (3.8)	8266925 (26.0)
4.	SC Population	33364 (4.3)	3123941 (9.8)
5.	ST Population	136062 (17.4)	364189 (1.1)
6.	Total Number of Households	166763 (100.0)	6726356 (100.0)
7.	Rural Households	160398 (96.2)	5010259 (74.5)
8.	Urban Households	6365 (3.8)	1716097 (25.5)
9.	Other Aspects		
	Density of Population	366	819
	Growth rate (1991to 2001)	16.14	9.43
	Sex ratio	995	1058
	Literary rate (Percent)	85.25	90.86
	Male	89.77	94.24
	Female	80.72	87.72

Note: Figures in brackets are percentages

Sources: same as Table 2.1

Table 2.3
Blockwise distribution of population of Wayanad district (2001 census)

	Name of Block/ Municipality	Area in sq. km	Number of wards	Number of Households	Total Population			Density of Population (sq. km)
					Male	Female	Total	
1.	Mananthavady	747.41	133	50933	123046	121495	244541	327
2.	Sulthan Bathery	761.9	154	63005	142062	140188	282250	370
3.	Kalpetta	582.23	157	46460	111316	112900	224216	385
	Block Total	2091.52	446	160398	376424	374583	751007	359
4.	Kalpetta Municipality	40.47	25	6365	14849	14763	29612	732
	District Total	2131.99	471	166763	391273	389346	780619	366

Source: same as Table 2.1

2.13 The District Income

The Net State Domestic Product of the district at current prices was estimated as Rs.2108.74 crores in 2004-05. Of the total income, the share of agriculture and allied activities were 35.5 percent. Industrially the district is very backward. Construction is an important activity. Transport, storage, communication, trade and hotels are the major activities outside agriculture. They accounted for 31 percent of the state income. The other major activities are real estate and related activities and services. The tertiary sector is the major sector of the district economy. A sector wise breakup of district income in current and constant prices is given in Table 2.4.

Table 2.4
Net State Domestic Product of Wayanad district for 2004 - 05

Industry of Origin	Current Prices Rs. in lakhs	Percent	Constant Prices (1993-94 prices) Rs. in lakhs	Percent
1. Agriculture	66889	31.7	29940	29.6
2. Forestry & Logging	7686	3.6	6829	6.7
3. Mining and Quarrying	229	0.1	166	0.1
I. Total Primary	74804	35.5	36935	36.5
4. Manufacturing	3549	1.7	2040	2.0
5. Electricity gas and water supply	2134	1.0	1032	1.0
6. Construction	12199	5.8	3756	3.7
II. Total Secondary	17882	8.5	6828	6.7
7. Transport, storage and communication	31504	15.0	18750	18.5
8. Trade, Hotel and Restaurants	33014	15.6	14657	14.5
9. Banking & Insurance	13725	6.5	7965	7.8
10. Real estate Ownership, Business, legal	15938	7.5	4582	4.5
11. Public administration	4645	2.2	3352	3.3
12. Other services	19362	9.2	8090	8.0
III. Total Tertiary	118188	56.0	57396	56.7
Net Domestic Product	210874	100.0	101159	100.00
Percapita income (in Rs.)	25811		12382	

Source: same as Table 2.1.

2.14 Employment

The census has classified the workers into two categories viz. main workers and marginal workers. Of the total workers in the district 71 percent were main workers and 29 percent were marginal workers (Table 2.5). In the case of female nearly 43 percent were marginal workers.

Table 2.5
Total workers in Wayanad district (2001 Census)

	Total	Male	Female	Total (percent)	Male (percent)	Female (percent)
Main workers	219789	168126	51663	71.2	77.0	57.3
Marginal Workers	88824	50269	38555	28.8	23.0	42.7
Total Workers	308613	218395	90218	100.0	100.0	100.0

Source: same as Table 2.1.

2.15 The structure of employment in Wayanad district showed that 47 percent of the employment was in agriculture as cultivators and agricultural labourers (Table 2.6 and 2.7). Of the total workers in the district, 30 percent were agricultural labourers mainly engaged in casual employment. Of the total agricultural labourers

nearly half (45 percent) belonged to the category of marginal labourers. Thus, the agricultural employment available is mostly seasonal and casual in nature.

Table 2.6
Total main and marginal workers (number) in Wayanad district
(as per 2001 census)

	Category	Main workers			Marginal workers			Total workers		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
1.	Cultivators	43186	37987	5199	8565	4510	4055	51751	42497	9254
2.	Agricultural Labourers	52076	36889	15187	42063	23699	18364	94139	60588	33551
3.	Household industry labourers	2557	1884	673	1043	461	582	3600	2345	1255
4.	Other workers	121970	91366	30604	37153	21599	15554	159123	112965	46158
	Total	219789	168126	51663	88824	50269	38555	308613	218395	90218

Source: same as Table 2.1.

Table 2.7
Total main and marginal workers in Wayanad district (percentage)

	Category	Main workers			Marginal workers			Total workers		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
1.	Cultivators	19.6	22.6	10.0	9.6	9.0	10.5	16.7	19.4	10.2
2.	Agricultural labourers	23.7	22.0	29.4	47.3	47.1	47.6	30.5	27.7	37.2
3.	Household Industry labourers	1.2	1.1	1.3	1.1	0.9	1.5	1.2	1.1	1.4
4.	Other workers	55.5	54.3	59.2	42.0	43.0	40.3	51.6	51.7	51.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

2.16 The lack of employment opportunities in rural area force them to remain in agriculture related activities. And the economic change that had been taking place had not created much new employment opportunities outside agriculture.

2.17 Migration

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. The backward districts in northern region viz. Kasaragode, Kannur, Kozhikode, Malappuram and Palakkad had a high rate of emigration. But the emigration from Wayanad district was very small. While the rate of emigration (emigrants/100 households) was 26.7 percent for the state, the rate in Wayanad was only 4.4 (Table 2.8). Due to very low rate of migration the economic development and employment generation in the non-agriculture sectors are very small in Wayanad.

Table 2.8
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.

2.18 Poverty

The district has very high incidence of poverty. The below Poverty Line (BPL) households in the district is estimated as 40 percent in June 2006 (Table 2.9). This can be attributed to many factors such as very small and uneconomic agricultural holdings of majority of farmers, lack of employment opportunities outside agriculture, industrial backwardness, absence of urbanisation, lack of emigration to the Gulf and fall in the production and productivity of crops. Besides this, the excessive borrowing for non-agricultural purposes and meeting day to day expenditure resulting in higher indebtedness of farmers have also contributed to this situation.

Table 2.9
Families Below Poverty Line (BPL) as on 1.6.2006

	Block Panchayat/ Municipality	Number of Houses	Number of BPL families (card holders)	Percentage
1.	Kalpetta	49016	22824	46.5
2.	Kalpetta Municipality	6346	1496	23.6
3.	Mananthavady	52019	20409	39.2
4.	Sulthan Bathery	62869	23630	37.6
	District Total	170250	68359	40.1

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

II. Agricultural Situation in Wayanad District

2.19 Land Utilization Pattern

Wayanad district account for 5.5 percent of the total geographical area and 7.3 percent of the total forest area of the state. The net area sown in the district was estimated as 1.17 lakh hectares accounting for

5.4 percent of the net area sown of the state. The total cropped area of the district was estimated as 2.05 lakh hectares. Land utilisation pattern of the district and of the state are given in Table 2.10.

Table 2.10
Land Utilisation Pattern of Wayanad District
(Area in hectare) 2004 - 05

		Wayanad	State	Share of Wayanad (percent)
1.	Total Geographical Area	212560	3885497	5.5
2.	Forest Area	78787	1081509	7.3
3.	Current fallow	1598	68634	2.3
4.	Net Area Sown	117384	2154885	5.4
5.	Area Sown more than one	87643	841408	10.4
6.	Total Cropped Area	205027	2996293	6.8

Source: Same as Table 2.9

2.20 Rainfall and Irrigation

Wayanad is a hilly district and the cultivation of crops mainly depend on the availability of timely rainfall. The south west monsoon lasting from June to August or sometimes nearly September is the main rainy season in Wayanad. Roughly about 75 percent of the districts rainfall is during this season. In September, the north east monsoon starts, which lasts upto November, accounting for about 25 percent of the rainfall.

2.21 The important crops cultivated in the district are perennial crops such as pepper, arecanut, coconut, tea, coffee, and rubber which solely depend on rainfall. Lack of availability of normal rainfall, untimely rains and drought will create serious problems to the cultivators. Rainfall data for the last ten years showed that the district had been getting low quantities of rainfall continuously. The percentage of departure from normal rainfall varied between (-)7.5 to (-)43.8 percent (Table 2.11). Between 1999 and 2003 the shortfall in rain varied between 31 to 43 percent. The acute and unprecedented drought during the last quarter of 2003 and first quarter of 2004 had resulted in widespread damage to almost all the perennial crops in Wayanad. The continuous drought situation that had prevailed in the district during this decade is one of the basic causes for the present agricultural crisis in Wayanad.

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

Year	Wayanad			State		
	Actual Rainfall	Normal Rainfall	Percentage Departure	Actual Rainfall	Normal Rainfall	Percentage Departure
1997	2921	3622	(-)19.3	3213	3052	(+)5.3
1998	2438	3622	(-)32.7	3115	3052	(+)2.0
1999	2219	3622	(-)38.7	2859	3052	(-)6.3
2000	2350	3408	(-)31.0	2515	2919	(-)13.8
2001	1980	3409	(-)41.9	2800	2929	(-)4.4
2002	2098	3409	(-)38.4	2518	2929	(-)14.0
2003	1915	3409	(-)43.8	2380	3092	(-)23.0
2004	2608	3411	(-)23.5	2877	3092	(-)6.9
2005	2857	3090	(-)7.5	NA	NA	NA
2006	2042	3090	(-)33.9	2587	2630	(-)1.6

Source: Dept. of Agriculture, 2005 Facts and figures of Agriculture in Kerala, 2005 and SPB, Economic Review 2005 and 2006.

2.22 Drought will affect the health and life of the plant, resulting in the decline in productivity during the succeeding years. In the case of perennial crops it will take 3 to 5 years for the plants to get out of the adverse effects of drought. If the drought is severe the entire plant will be destroyed. Continuous drought conditions will result in scarcity of water in all places and affect the availability of grass and fodder to the livestock as well.

2.23 With regard to irrigation, the district was not able to achieve much progress during the last five decades. The net area irrigated in the district was estimated as 9719 hectares in 2004-05. Irrigation facilities was provided in low lying wet land where paddy, tubers, vegetables, banana etc were cultivated (Table 2.12). A notable aspect is that irrigation facilities are not available for major crops like coffee, pepper, tea, ginger etc. As majority of the farmers are marginal farmers, they cannot afford irrigation. Thus, lack of irrigation facilities is one of the important constraints faced by the farmers in the district.

Table 2.12
Gross Area (in hectare) under irrigation: Cropwise 2004-05

	Source	Wayanad	Kerala	Share of Wayanad (percent)
1.	Paddy	7758	183601	4.2
2.	Tubers	202	2253	9.0
3.	Vegetables	570	14274	4.0
4.	Coconut	134	157768	0.1
5.	Arecanut	382	36858	1.0
6.	Cloves	15	540	2.8
7.	Nutmeg	15	5745	0.3
8.	Other spices & Condiments	10	3403	0.3
9.	Banana	5532	30265	18.3
10.	Other crops	1075	18163	6.0

Source: Same as Table 2.9

2.24 Size of Operational holdings

The agricultural census of 2000-01 gave the size of operational holdings of the farmers in Wayanad district. The total number of individual operational holdings in the district was estimated as 1.59 lakhs (Table 2.13). Of the total holdings 74 percent of them had a size below 0.5 hectare. Another 12 percent of the operational holdings had a size of 0.5 to one hectare. Thus, 86 percent of the holdings come under the category of marginal holdings having an area less than one hectare. From the marginal holdings a farmer cannot earn a reasonable income from cultivation. And the holdings can be classified as uneconomic.

Table 2.13
Number of Individual operational holdings 2000 - 01

	Block/ Municipality	Below 0.5 (hectare)	0.5 to 1.0 (hectare)	1.0 to 2.0 (hectare)	2.0 to 4.0 (hectare)	Above 4 (hectare)	Total (hectare)
1.	Kalpetta	32853	3810	3259	1517	825	42264
2.	Mananthavady	35085	7135	4954	2045	600	49819
3.	Sulthan Bathery	44444	7938	5682	2239	445	60748
4.	Kalpetta Municipality	5599	174	173	63	83	6092
	Total	117981	19057	14068	5864	1953	158923
	Percentage	(74.2)	(12.0)	(8.8)	(3.7)	(1.2)	(100.0)

Source: Same as Table 2.9.

2.25 A feature of the size of operational holdings was that 86 percent of the marginal holdings accounted for 32 percent of the total area of cultivation (Table 2.13 and Table 2.14). Another 9 percent of the holdings was small holdings and accounted for 20 percent of the total area of cultivation. The district also have 1953 large holdings mostly plantations having an average size more than 4 hectares and covering 29636 hectares (Table 2.14).

Table 2.14
Area of Individual Operational Holdings 2000 - 2001 (in Hectare)

	Block/ Municipality	Below 0.5	0.5 to 1.0	1.0 to 2.0	2.0 to 4.0	Above 4	Total
1.	Kalpetta	3791	2662	4373	3958	14929	29713
2.	Mananthavady	5477	5070	6779	5187	7011	29524
3.	Sulthan Bathery	6303	5635	7533	5649	6294	31414
4.	Kalpetta Municipality	365	115	240	152	1402	2274
	Total Percentage	15936 (17.1)	13482 (14.5)	18925 (20.4)	14946 (16.0)	29636 (32.0)	92925 (100.0)

Source: Same as Table 2.9.

2.26 The unequitable pattern of ownership is one of the basic causes for the agrarian crisis. It may be noted that the vast majority of the farmers were marginal farmers possessing very small and uneconomic holdings.

2.27 Area and Crops Cultivated

The major crops cultivated in the district are coffee, pepper, banana and other plantains, coconut, paddy, arecanut and jack. The other important crops are rubber, tea, ginger, cardamom and mango. Coffee was the most important crop having the largest area of cultivation and accounted for 80 percent of the total area of cultivation of the state during 2004-05 (Table 2.15). Kerala is the second largest coffee producing state in India. Coffee is grown both as a pure crop and mixed crop along with pepper. Pepper is grown largely along with coffee in the north eastern part of the district. Coffee is cultivated in small farms by farmers as well as plantations. Nearly 75 percent of the total area was cultivated by farmers having an area upto 4 hectares. The rest of them are bigger plantations and the total employment in the sector is about 45000 labourers. Pepper is the second major crop in the district and accounts for 17 percent of the total area of cultivation of the state (Table 2.15).

Table 2.15
Area of Cultivation (in Hectares) 2004 - 05

	Crops	Wayanad	State	Share of Wayanad (percent)
1.	Paddy	11331	289974	4.0
2.	Pepper	41573	237669	17.5
3.	Ginger	5731	9991	57.4
4.	Cardamom	4110	41378	10.0
5.	Arecanut	10204	107572	9.5
6.	Jack	10521	97536	10.8
7.	Mango	4926	90631	5.4
8.	Banana & other Plantains	13997	113478	12.3
9.	Coconut	11337	899267	1.3
10.	Tea	5503	35040	15.7
11.	Coffee	67389	84644	79.6
12.	Rubber	6820	480661	1.4

Source: Same as Table 2.9

Coffee and pepper are harvested once in a year and farmers will have to wait one year to harvest the crops and to earn an income. As they are in urgent need of cash they are usually forced to sell the crops at a low price prevailing in the harvesting season. Anticipating the harvest they usually borrow money from several sources. Destruction of crops due to lack of rainfall or crop diseases will create acute problems to the farmers. Another aspect is that once the crop is damaged due to drought or diseases it will affect the production in the subsequent years. A fall in prices of the crop will also push the farmers to the financial crisis. Due to these factors the farmers cultivating coffee and pepper are more vulnerable and have to face acute distress compared to those cultivating seasonal crops.

2.28 Production and Productivity

Total production of coffee in Wayanad was 45775 tonnes in 2004-05. It accounted for 84 percent of the total production in the state. The production of black pepper was estimated as 13897 tonnes in 2004-05 accounting for 18.5 percent of the total production of the state. The other two crops which had substantial production are tea and banana and other plantains. Table 2.16 gives the total production of the major crops in the district for the year 2004-05.

Table 2.16
Production of Important Crops 2004- 05

	Crops	Wayanad	State	Share of Wayanad (percent)
1.	Rice (in tonnes)	29206	667105	4.4
2.	Black Pepper (in tonnes)	13897	74980	18.5
3.	Cured Ginger (in tonnes)	362	45305	0.8
4.	Arecanut (betel nuts) (in tonnes)	5711	110340	5.2
5.	Mango (in tonnes)	16158	525326	3.1
6.	Jack (Numbers in Million nuts)	26	348	7.5
7.	Banana & Other Plantains	120949	891486	13.6
8.	Coconut (Million nuts)	40	6001	0.7
9.	Tea (jn tonnes)	12028	49508	24.3
10.	Coffee (in tonnes)	45775	54300	84.3
11.	Rubber (in tonnes)	6685	690778	0.9

Source: Same as Table 2.9

2.29 A comparative analysis of productivity of crops in Wayanad and state average showed that for wet land crops like rice, banana and other plantains, the productivity of the district is better. On the other hand, the productivity was much lower in the case of perennial crops like pepper, arecanut, jack, coconut and rubber. It is likely that the continuous drought conditions and diseases of the crops are the major factors contributed to the poor productivity of the perennial crops. Table 2.17 gives the comparative productivity figures of the crops in Wayanad district and state average.

Table 2.17
Productivity of major crops 2005 - 06

	Crops	Wayanad	State
1.	Rice (in kg per hectare)		
	Winter	2376	2299
	Summer	2846	2733
2.	Pepper (kg per hectare)	277	368
3.	Arecanut (kg per hectare)	575	1099
4.	Jack (Number)	2625	3688
5.	Banana (kg per hectare)	8967	8010
6.	Other Plantains (kg per hectare)	9103	8064
7.	Coconut (Number)	3299	7046
8.	Rubber (kg per hectare)	864	1495

Source: DES, 2006, Agricultural Statistics, 2005-06.

2.30 Trends in farm prices of agricultural commodities

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 of the Wayanad district. In the case of pepper there had been a steep fall in the prices since 2001-02. The price fell by 46 percent between 2000-01 to 2001-02. The fall in price of pepper continued during the subsequent years (Table 2.18). This fall in the price is an important cause of the present agrarian crisis in Wayanad. The cardamom crop witnessed continuous fall in its prices during the period. The other crops that witnessed a fall in price were arecanut, tea and paddy. Thus, the large fall in the prices of pepper and cardamom and slight fall in the prices of other crops had contributed to the agrarian crisis in Wayanad.

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	646.36	600.27	649.76	694.69	651.00	610.78
	(Qtl.)	--	(-7.1	8.2	7.0	(-6.3	(-6.2
2.	Pepper	12401.24	6745.43	7692.17	6802.46	6032.00	5979.84
	(Qtl.)	--	(-45.6	14.0	(-11.6	(-11.3	(-0.8
3.	Cardamom	--	62287	56126	36103	29813	21742
	(Qtl.)	--	--	(-10.0	(-35.7	(-17.4	(-27.1
4.	Arecanut	41.88	32.81	32.11	34.62	40.00	43.73
	(100 number)	--	(-21.6	(- 2.1	7.8	15.5	9.3
5.	Banana	1042.51	949.51	971.34	1167.00	1112.00	1247.81
	(100 number)	--	(- 9.0	2.3	20.1	(- 4.7	12.2
6.	Coconut	281.43	340.64	475.63	582.73	635.00	494.89
	with husk						
	(100 number)	--	21.0	39.6	22.5	9.0	(-) 22.0
7.	Tea*	6166	5595	5627	6457	5806	5844
	(Qtl.)	--	(- 9.3	0.6	14.7	(-) 10.0	0.6
8.	Coffee*	2854	2812	3299	3534	5123	5952
	(Qtl.)	--	(- 1.5	17.3	7.1	45.0	16.2
9.	Rubber	3036	3228	3919	5040	5224	6699
	(Qtl.)	--	6.3	21.4	28.6	3.6	28.2

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

Source: SPB, 2002, Economic Review 2006.

2.31 At the sametime, coffee, the major crop of Wyanad witnessed an increase in the price since 2001-02. Similarly the rubber crop also registered an increase in price throughout the period. The other crops which registered a moderate rise in prices are coconut and banana.

2.32 Livestock Population

Livestock rearing is not well developed in Wayanad district. But due to the agricultural crisis, the marginal farmers and agricultural labourers are giving more attention to livestock in recent years. The district had a livestock population of 103809 cattle, 3934 Buffaloes, 43019 goats and 3684 pigs during the year 2004-05. Table 2.19 gives the livestock population of the district and total of the state.

Table 2.19
Livestock Population in 2004- 05 (Number)

		Wayanad	State	Share of Wayanad (percent)
1.	Cattle	103809	2122453	5.0
2.	Buffaloes	3934	64618	6.1
3.	Goats	43019	1213173	3.5
4.	Pigs	3684	76452	4.8
5.	Sheeps	36	3631	1.0

Source: Same as Table 2.9

2.33 Banks and Agricultural Credit

The statistics on banking showed that the total number of bank branches in Wayanad district was 125 as on March 2006. Of the bank branches 97 were commercial banks and 28 were co-operative banks. Table 2.20 gives the block panchayat wise distribution of bank branches in the district.

Table 2.20
Number of Bank branches in Wayanad District as on 31.3.06

	Block panchayat/ Municipality	Commercial Banks	Co-operative Banks	Total
1.	Kalpetta	20	9	29
2.	Mananthavady	27	9	36
3.	Sulthan Bathery	34	6	40
4.	Kalpetta Municipality	16	4	20
	District Total	97	28	125

Source: Same as Table 2.9

2.34 The bank had issued an amount of loan worth 557.13 crores during the year 2004-05 (Table 2.21). With regard to the issue of agricultural loans, banks had achieved 105 percent target. But the disbursements of loans to small scale industries and tertiary sector were not satisfactory.

Table 2.21
Sectorwise Performance under District Credit Plan 2004-05 as on 31.3.2005
(Rs. in thousand)

	Sector	Target	Achievement	Percent
1.	Agriculture	4328320	4543233	105
2.	Small Scale Industries	118990	50140	42
3.	Tertiary	1525884	977975	64
	Total	5973194	5571348	93

Source: Same as Table 2.9

2.35 The analysis on the agricultural situation in Wayanad district can be concluded as follows: Wayanad district is basically a rural economy with very little urban area or urban activities. Of the total population a high proportion is socially and economically backward SC/ST population (22 percent). Agriculture and allied activities account for 35 percent of the district income. Nearly half of the total workers in the district are engaged in agriculture and allied activities. The migration to foreign countries is very low and hence the impacts of migration and remittances are very little. The district has high incidence of poverty. The cultivation of perennial crops such as pepper, coffee, coconut, arecanut, tea etc. depend on rainfall. The district had witnessed continuous fall in rainfall during the last one decade. The drought conditions prevailed had considerably destroyed the perennial crops in the district. Nearly 86 percent farmers are marginal farmers having agricultural holdings of less than one hectare. The productivity of the perennial crops in Wayanad is lower compared to the state average. The fall in prices especially the prices of pepper, cardamom, tea, arecanut, paddy etc. had resulted in large fall in income of cultivators.

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 four Grama Panchayats.

I. Profile of Sample Grama Panchayats

3.2 Agricultural area

The agricultural area of the sample Grama Panchayats varies between 46 Sq. kms. to 75 Sq. kms. The panchayat which has largest agricultural area is Panamaram followed by Ambalavayal, Pulpally and Muttill. The Panchayats are mostly dry areas and rainfall is the only source of water for cultivation. Table 3.1 gives the classification of agricultural area into dry and wet lands. In Ambalavayal and Pulpally the percentage of dry land is 84 percent.

Table 3.1
Agricultural area of Sample Grama Panchayats (Area in Sq. km)

	Grama Panchayats	Total Agricultural Area	Total Dryland	Total Wetland	Percentage of Dry land
1.	Ambalavayal	60.70	50.85	9.85	84.0
2.	Pulpally	50.80	42.65	8.15	84.0
3.	Muttill	45.75	34.38	11.37	75.1
4.	Panamaram	75.06	52.59	22.47	70.0
	Total	232.31	180.47	51.84	77.7

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

3.3 Population

The number of households in the four sample Grama Panchayats varies between 6407 to 8858. The Panamaram has the largest population (42922) followed by Ambalavayal, Pulpally and Muttill. There is a wide variation in the density of population in the Panchayats. A notable demographic aspect is the difference in the sex ratio. The two Grama Panchayats have a sex ratio above 1000, but another two have below 1000. Table 3.2 gives the features of population of the four sample Grama Panchayats.

Table 3.2
Population of the Sample Grama Panchayats

	Grama Panchayat			
	Ambalavayal	Pulpally	Muttill	Panamaram
Number of wards	19	19	18	22
Number of Households	7607	7981	6407	8858
Total Population				
Male	17110	17425	15535	21769
Female	17235	16868	15692	21153
Total	34345	34293	31227	42922
Density of Population (sq.km)	566	441	659	530
Sex ratio (Females/1000 males)	993	1033	990	1029

Source: Same as Table 3.1

3.4 BPL Families

The data on the Below Poverty Line (BPL) families indicates very high incidence of poverty in the sample Grama Panchayats. It is reported that in Pulpally Grama Panchayat the percentage of BPL families is as high as 59 percent. In the other three Grama Panchayats it ranges between 39 to 50 (Table 3.3). It is likely that these Panchayats have high incidence of poverty due to the high proportion of marginal farmers and agricultural labourers.

Table 3.3
Families below poverty line in Sample Grama Panchayats (as on 1-6-2006)

	Grama Panchayat	Number of Houses	Number of BPL families (card holders)	Percentage of BPL families
1.	Ambalavayal	8019	3865	48.2
2.	Pulpally	7810	4629	59.3
3.	Muttill	7306	3683	50.4
4.	Panamaram	8959	3510	39.2
	Total	32094	15687	49.0

Source: Same as Table 3.1

3.5 Livestock

Livestock rearing is an important subsidiary occupation of the farmers in the sample Grama Panchayats. The major items of livestock are Cattle, Buffaloes, Goats and Pigs. 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 3.4.

Table 3.4
Livestock Population in Sample Grama Panchayats 2004-05

Livestock	Name of Grama Panchayat			
	Ambalavayal	Pulpally	Muttill	Panamaram
Cattle (Cross Breed)	4459	4942	3198	6314
Cattle (Indegeneous)	743	256	122	570
Buffaloes	629	66	90	222
Goat	2668	2200	1084	1858
Pigs	56	137	42	191
Total	8555	7601	4536	9155
Fowls				
Desi	7595	6051	8333	7635
Improved	4337	11279	2094	11383
Ducks	127	151	208	325
Total	12059	17481	10635	19343

Source: Same as Table 3.1.

3.6 Bank branches

The four sample Grama Panchayats have 21 bank branches consisting of commercial and co-operative banks. Panamaram Grama Panchayat has the largest number of bank branches. On the other hands, Muttill Panchayat has only 3 branches. Table 3.5 gives the number of bank branches in sample Grama Panchayats.

Table 3.5
Bank Branches in Sample Grama Panchayats as on 31-3-2006

	Grama Panchayat	Number of Commercial Banks	Number of Co-operative Banks	Total
1.	Ambalavayal	3	1	4
2.	Pulpally	5	1	6
3.	Muttil	2	1	3
4.	Panamaram	6	2	8
	Total	16	5	21

Source: Same as Table 3.1.

II. Profile of Sample Agricultural Households (Survey Data)

3.7 In this section we present the findings of the survey conducted in four sample Grama Panchayats viz. Ambalavayal, Pulpally, Muttil and Panamaram on the profile of sample agricultural households.

3.8 Population in sample households

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 the total population of the 160 sample agricultural households was 722 persons. A sex-wise distribution of the population showed that the number of males were 386 and females 336. The average number of persons per household was 4.51. There was not much variation in the average size of the households in the four Grama Panchayats (Table 3.6).

Table 3.6
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.	Ambalavayal	40	90	93	183	4.57
2.	Pulpally	40	96	84	180	4.50
3.	Muttil	40	94	79	173	4.32
4.	Panamaram	40	106	80	186	4.65
	Total	160	386	336	722	4.51

Source: Survey Data

3.9. The total number of students in the sample households was enumerated as 176. A distribution of the households on the basis of number of students showed that 34 households had one student, 52 households had two students, 10 households had 3 students and 2 households had 4 students each (Table 3.7). 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 3.7
Students in the sample households

	Students per Household	Number of Households	Number of students
1.	One student	34	34
2.	Two student	52	104
3.	Three students	10	30
4.	Four students	2	8
	Total	98	176

Source: Survey Data

3.10 Households solely dependent on agricultural income

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.

3.11 Definition of Households solely dependent on agricultural income

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)

3.12 Households dependent on agricultural and non-agricultural income

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.

3.13 A major finding of the survey was that 60 percent of the sample households belonged to the category of households solely dependent on agricultural income (Table 3.8) On the other hand 40 percent of the households received income or wages from agricultural 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 Wayanad. The survey results also showed that the incidence of poverty is high among the category of households that solely depend on agricultural income. In our sample of 160 households, 33 belonged to Below Poverty Line (BPL) households. Among the 33 BPL households, 24 were found as coming under the category of households solely dependent on agricultural income (Table 3.9).

Table 3.8
Sample Households Solely dependent on Agricultural Income

	Grama Panchayat	Number of of sample households	Households solely dependent on agricultural income (Number)	Percentage households solely dependent on agricultural income
1.	Ambalavayal	40	28	70.0
2.	Pulpally	40	24	60.0
3.	Muttil	40	24	60.0
4.	Panamaram	40	20	50.0
	Total	160	96	60.0

Source: Survey Data

Table 3.9
Below Poverty Line (BPL) Households in the Sample

	Grama Panchayat	Number of BPL Households in the sample	BPL households solely dependent on agricultural income	Percentage Households solely dependent on agricultural income
1.	Amabalavayal	9	7	77.8
2.	Pulpally	7	3	42.8
3.	Muttil	12	10	83.4
4.	Panamaram	5	4	80.0
	Total	33	24	72.3

Source: Survey Data.

3.14. Employed persons in the households

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 68.7 percent of them were farmers. Another 13.1 percent were farmers cum casual labourers. Thus, the occupation of 81.8 percent of the head of the households were farmers or farmer cum casual labourers (Table 3.10). The rest of them worked in business, trade, private establishments etc. The educational level of the head of the household ranged between primary education to graduation. Among the head of the households 23.7 percent had primary education, 28.7 percent had middle school education and 29.4 percent had secondary level education (Table 3.11).

Table 3.10
Occupation of the Head of the Households

	Occupation	Number of sample households	Percentage
1.	Famer	110	68.7
2.	Farmer cum casual labour	21	13.1
3.	Business & Trade	5	3.1
4.	Private establishments	6	3.8
5.	Driver	4	2.5
6.	Others	12	7.5
7.	Unemployed	2	1.2
	Total	160	100.0

Source: Survey Data.

Table 3.11
Educational Level of the Head of the Households

	Educational Level	Number of Head of the households	Percentage
1.	Illiterate	6	3.8
2.	Primary	38	23.7
3.	Middle	46	28.7
4.	S.S.L.C	47	29.4
5.	Plus-Two	20	12.5
6.	Graduate	3	1.8
	Total	160	100.0

Source: Survey Data.

3.15 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 245. Of them, 56.7 percent were farmers. Another 15.1 percent were farmer cum casual labourers (Table 3.12). A notable aspect is that only 2.9 percent of the total are employed in public sector jobs. Only a few persons migrated from the sample households.

Table 3.12
Occupation of all Employed Persons in the Sample Households

	Occupation	Number of employed persons	Percentage
1.	Farmer	139	56.7
2.	Farmer cum casual labourers	37	15.1
3.	Business & Trade	9	3.7
4.	Private Establishments	17	6.9
5.	Driver	13	5.3
6.	Public sector employment	7	2.9
7.	Others	16	6.5
8.	Migration to Gulf countries	5	2.0
9.	Migration (within India)	2	0.8
	Total	245	100.0

Source: Survey Data.

3.16 Livestock

The data collected from the sample households indicated that livestock rearing is a major subsidiary activity of the households. The study found that 60 percent of the sample households had livestock such as cow, goat and other draught animals. Among the sample households having livestock 49 percent had milch cow and 13 percent had milch cow and goat (Table 3.13). Total number of livestock in the sample households was 316 consisting of milch cow, milch goat and other draught animals.

Table 3.13
Sample Households having Livestock

	Item	Number of Households having livestock	Percentage
1.	Milch Cow only	47	49.0
2.	Milch Goat only	29	30.2
3.	Both milch cow and Goat	13	13.5
4.	Others (calf and draught animals)	7	7.3
	Total	96	100.0

Source: Survey Data.

3.17 The households having milch animals were selling milk and getting small earnings. It was found that one-third of the sample households sold milk. The sample households also rear poultry. Twenty six households had poultry and the average number of birds were 3.7.

3.18 Housing and electrification

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 show that 94 percent of the houses were electrified.

3.19 Possession of Consumer durables

In order to know the possession of consumer durables, we have collected information about the possession of durables like Television, Radio, Landphone, Mobile phone, pumpset, Refrigerator, Motor vehicle etc. The survey revealed that 74 percent of the households had Television sets 65 percent had Landphone 43 percent had pumpset, 36 percent had Mobile phone 13 percent had motor bikes and 11 percent had other motor vehicles. This indicated that the farmer households had been enjoying a higher level of consumption. It is likely that a good part of the expenditure for purchasing the consumer durables was met from loans taken from various sources.

3.20 From the above analysis, we may draw the following major observations. The sample Grama Panchayats under study are mostly dry areas and rainfall is the only source of water for cultivation. There is a wide variation in the density of population in the Grama Panchayats. The sample Grama Panchayats are very backward rural areas and the incidence of poverty is very high. In two Grama Panchayats, the percentage of poverty were 59 and 50 percent respectively. Livestock rearing is an important subsidiary occupation of the people. An important finding of the field survey was that 60 percent of the sample households belong to the category of households solely dependent on agricultural income or wages. Another important finding was that 82 percent of the head of the households were either farmers or farmer cum casual labourers. Of the total workers in the sample households 72 percent was engaged in agriculture and allied activities. The study found that all the households had their own houses and 94 percent were electrified. The sample households possessed a fairly good number of consumer durables. The study showed that in spite of the economic growth and development during the last five decades, there has been not much change in the structure of employment of the Wayanad district. A faster change in the structure of employment from primary to non primary and generation of new employment opportunities in non-agricultural sectors are the pre conditions required for the rapid development of Wayanad. Investment, credit, employment and educational policies should focus on this aspect.

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, prices of agricultural products and problems of cultivation.

Area cultivated

4.2 Marginal Farmers

The survey collected information about the area cultivated by all sample households as well as households that solely depend on agricultural income. It is found that 61.2 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. More than one third of the farms are submarginal and the size of holding was below half a hectare. Thus, majority of the farmers in the sample households were marginal farmers having uneconomic holdings. From the cultivation they cannot earn an income for meeting their essential needs in life. And this is the category which face acute and severe economic crisis in Wayanad.

4.3 Small Farmers

Small farm is defined as a farm having an operational holding between one to two hectares. The survey found that 21.3 percent of the farms are small farms (Table 4.1). This category of farmers have a size of holding which is not sufficient to get a reasonable earnings from the cultivation.

4.4 Semi medium and Medium Farmers

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 six percent of the farms belonged to the category of medium farms, having an area ranged between four to ten hectares (Table 4.1). In Wayanad, these are the categories of farmers who are getting a good income from cultivation.

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

	Area cultivated (in hectare)	Total Sample Households	Percentage
1.	Less than 0.25	14	8.7
2.	0.25 to 0.50	44	27.5
3.	0.50 to 1	40	25.0
	Total Marginal	98	61.2
4.	1 to 2 (small)	34	21.3
5.	2 to 4 (semi-medium)	18	11.2
6.	Above 4 (Medium)	10	6.2
	Total	160	100.0

Note: One hectare is 2.47 acres.

4.5 Area cultivated by Households solely dependent on agriculture

The area cultivated by the households solely dependent on agricultural income, show that 62.5 percent came under the category of marginal farmers (Table 4.2). Of them, more than half of the farmers had operational

holdings below half a hectare. This category of marginal farmers are facing acute crisis and distress in Wayanad due to two reasons. First, their income from cultivation is very small and highly insufficient to meet their essential needs in the context of steep fall in production and prices. Secondly, these households, are solely depending on primary sector activities for their income. While providing relief to the farmers in Wayanad, this category should be given the maximum thrust.

Table 4.2
Distribution of Households solely dependent on Agricultural Income

	Area cultivated (in hectare)	Total sample households (Number)	Number of households solely dependent on agriculture	Percentage of solely dependent households
1.	Less than 0.25	14	5 (5.2)	35.7
2.	0.25 to 0.50	44	27 (28.1)	61.4
3.	0.50 to 1	40	28 (29.2)	70.0
	Total Marginal	98	60 (62.5)	61.2
4.	1 to 2 (small)	34	19 (19.8)	56.0
5.	2 to 4 (semimedium)	18	12 (12.5)	66.7
6.	Above 4 (medium)	10	5 (5.2)	50.0
	Total	160	96 (100.0)	60.0

Figures in brackets are percentages.

4.6 Crops Cultivated

The crop pattern in the study area is a mixed one. In an agricultural holding coffee, pepper, coconut, ginger etc. are cultivated simultaneously. Due to the mixed crop it is difficult to identify the share of each crop cultivated. The survey revealed that more than 90 percent of the farmers were cultivating coffee and pepper in the same agricultural holding as mixed crop (Table 4.3). More than 75 percent of the farmers were cultivating coconut and arcanut. It is found that more than one-fourth of the cultivators were cultivating Paddy. The other major crops cultivated were Ginger, Rubber, Banana and Vanilla.

Table 4.3
Crops Cultivated by the Sample Households

	Crops cultivated	Total Number of sample households	Crops Cultivated (Number of Households)	Crops Cultivated (Percentage of households)
1.	Coffee	160	146	91.2
2.	Pepper	160	145	90.6
3.	Ginger	160	23	14.4
4.	Coconut	160	124	77.5
5.	Arecanut	160	127	79.4
6.	Rubber	160	21	13.1
7.	Paddy	160	43	27.0
8.	Banana	160	21	13.1
9.	Vanila	160	18	11.2
10.	Cardamom	160	3	1.8
11.	Tapioca	160	2	1.2

4.7 Coffee and pepper, the principal crops of Wayanad, were harvested once in a year and hence the farmers will get income once in a year. And any fall in production or price will create very serious economic consequences to the farmers. Besides, they have to meet the expenditure throughout the year from the income they get once in a year. Due to the peculiarities, the cultivators of coffee and pepper are more vulnerable and indebtedness among them will be higher compared to the cultivators of other crops.

4.8 There is not much difference in the crop pattern of the households solely depending on agricultural income, and households depending on both agricultural and non-agricultural income.

4.9 Changes in Cropping Pattern

The survey results indicated that there had not been much change in the cropping pattern in the study area during 2006-07. The number of households that reported a change in cropping pattern was 17 which accounts for 11 percent of the total sample households. The crops to which the shift had taken place were Rubber and Ginger. The widespread damage of the crop, Pepper due to diseases and fall in the prices had resulted in a small change in cropping pattern from Coffee and Pepper to Rubber and Ginger.

4.10 Cost incurred in cash for cultivation

We have collected information about the cost incurred in cash by the households for cultivation purposes during the year 2006-07. Usually cost of cultivation includes all actual expenses in cash and kind incurred in production by owner, rent paid by leased in land, imputed value of family labour, interest on the capital borrowings, rental value of the own land etc. But here, by cost incurred in cash we mean actual amount spent by the farmer in cash other than the cost incurred in kind family labour, charges on capital stock, interest on capital etc.

4.11 The survey found that the cost incurred in cash for cultivation was less than Rs.3000 in the case of one-fourth of the households. Another one-fourth of the households incurred an expenditure ranged between Rs.3000 and Rs.10,000. Nineteen percent of the households spent an amount between Rs.10,000 and Rs.20,000 (Table 4.4). This is due to the fact that 62 percent of the farmers were marginal farmers having an area less than one hectare of land. The households which spent more than Rs.20,000 were 29 percent.

Table 4.4
Cost incurred in Cash for Cultivation of the Sample Households

	Cost incurred in cash in 2006 - 07 (Rs.)	Total Number of Households	Percent
1.	Less than 3000	40	25.0
2.	3001 - 10,000	44	27.5
3.	10,001 - 20,000	30	18.7
4.	20001 - 40,000	28	17.5
5.	40,001 - 50,000	3	1.9
6.	Above 50,000	15	9.4
	Total	160	100.0

4.12 Sources of Fund

We have examined the sources of funds for meeting the expenditure incurred in cash for cultivation. It was found that 49 households met the expenditure from their own funds. On the other hand, 111 households borrowed money from commercial banks, co-operative banks, private financial firms, Kudumbasree, money lenders, friends and relatives etc. The distribution of the households by the sources of funds are given in Table 4.5.

Table 4.5
Source of funds for meeting the cost incurred in cash

	Cost incurred in cash 2006-2007 (Rs.)	Expenditure met from own fund (Number of Households)	Percent	Expenditure met from borrowing (Number of Households)	Percent
1.	Less than 3000	18	36.7	22	19.8
2.	3001 - 10,000	14	28.6	30	27.0
3.	10001 - 20,000	7	14.3	23	20.7
4.	20,001 - 40,000	6	12.2	22	19.8
5.	40001 - 50,000	2	4.1	1	0.9
6.	Above 50,000	2	4.1	13	11.7
	Total	49	100.0	111	100.0

4.13 The survey collected information about the magnitude of borrowing to meet the cost of cultivation. Of the 111 households borrowed money for cultivation 78 borrowed more than the expenditure incurred in cash. It is reported that 50 households borrowed more than three times the expenditure incurred in cash. This indicates that the sample households are resorting to borrowing for non-agricultural purposes.

Agricultural Labour and Wage rate

4.14 Shortage of Labour

Though the crops cultivated in Wayanad are perennial crops requiring less labour, the farmers reported that they experienced shortage of labour and increase in wage rate. Among the crops cultivated Paddy is the only labour intensive crop. Among the sample households 67.5 percent of the households reported shortage of labour (Table 4.6). The generation of employment opportunities in secondary and tertiary sectors, the educational development and the changes in job preferences of the youth, withdrawal of young labour force from agriculture etc. had contributed to the shortage of labour.

Table 4.6
Households Reported Shortage of Agricultural Labour

	Grama Panchayats	Sample households	Households reported shortage of Labour	Percentage reported shortage
1.	Ambalavayal	40	23	57.5
2.	Pulpally	40	34	85.0
3.	Muttill	40	15	37.5
4.	Panamaram	40	36	90.0
	Total	160	108	67.5

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

The farmers reported that the NREGS implemented in 2006 in the district had resulted in the shortage of agricultural labour and rise in wage rate. The wage rate given to the workers in NREGS is Rs.125 for male and female perday. The implementation of the uniform wages for male and female had resulted in the enhancement of the female wage rate which was much lower than the wages for males. The survey results showed that the average wage per day prevailed in the study area was Rs.132 for male and Rs.87.5 for female (Table 4.7). It is reported that the implementation of NREGS had resulted in the rise in wages of female labourers.

Table 4.7
Daily wage rate of Agricultural labourers

	Grama Panchayat	Average wage for* males per day (Rs.)	Average wage for* females per day (Rs.)
1.	Ambalavayal	140	90
2.	Pulpally	140	96
3.	Muttill	140	95
4.	Panamaram	127	90
	Total	132.2	87.5

* Average wage includes the expenses given for food for two times valued at Rs.25.

4.16 The Grama Panchayats have been employing the workers in public works such as construction of ponds, canals, unmettled roads and cleaning drainage, ponds, repairs of roads etc. The public works which comes under the scheme are works where the cost of materials should be less than 40 percent. It is pointed out that the public works executed by the Panchayats to provide jobs under the scheme are not much useful or relevant. In many instances works are being done just for the sake of providing some jobs. In this context it is suggested that besides doing the public works the workers may be utilised to help the farmers in improving their agricultural infrastructure, irrigation, replanting perennial crops etc. The workers may be allotted to the needy farmers belonging to the categories such as marginal, small and semi-medium. The farmers who are utilising the services of the workers should bear 50 percent of the wages. This measure will ease the shortage of workers and help the farmers to increase production. Another suggestion is to suspend the operation of NREGS during the two peak agricultural seasons in Wayanad for five months. (From May, June and upto 15th July (2½ months) and November, December and upto 15th January (2½ months)).

Agricultural Production of the Households

4.17 Value of farm output

The sample farmers in the study area are following a mixed crop pattern and produce a number of agricultural products. We have collected data about the total population of the farmer households which include agriculture output sold to the market as well as the output used by the households for consumption, seeds etc. Based on the prevailing prices at the time of the survey, we have estimated the total value of the agricultural output produced by the farmer households. It may be noted that this is the total value of the farm output and not the income of the farmers. For getting farmers income we have to deduct the cost of cultivation incurred in cash and kind.

4.18 Value of farm output of all sample households

The survey results showed that more than one-fourth of the sample households produced agricultural output worth below Rs.10,000 per year. Another one-fourth produced agricultural output ranging between Rs.10,000 and Rs.20,000 (Table 4.8). If we earmark a portion for meeting the cost of cultivation the balance amount will be very small. In the sample households only 21 percent produced agricultural output having a value above Rs.50,000 per year.

Table 4.8
Annual value of Farm Production by Area of Cultivation (2006-2007) (Hectare)

	Annual value of Production (Rs.)	Below 0.5	0.51 to 1	1 to 2	2 to 4	Above 4	Total
1.	Below 10,000	40	6	-	-	-	46 (28.7)
2.	10001 - 20,000	17	19	6	2	-	44 (27.5)
3.	20,001 - 30,000	3	5	6	2	-	16 (10.0)
4.	30,001 - 50,000	1	4	11	4	1	21 (13.1)
5.	50,001 - 75,000	-	2	6	5	4	17 (10.6)
6.	75,001 - 1,00,000	-	-	4	2	2	8 (5.0)
7.	Above one lakh	-	1	1	3	3	8 (5.0)
	Total	61	37	34	18	10	160
	Percentage	38.1	23.1	21.2	11.2	6.2	100.0

Note: One hectare is 2.47 acres.

Figures in brackets are percentages.

Table 4.8 gives the relationship between annual value of farm output and size of agricultural holdings. The survey found that 38 percent of the sub marginal farmers having an area below half a hectare produced farm output valued below Rs.20,000 per year. Another 23 percent who had an agricultural holding between half to one hectare had produced farm products worth below Rs.30,000 per year. There are a few exceptions in the above categories who had a higher income due to cultivation of rubber and other crops. After meeting the cost of cultivation these marginal farmers cannot get an income to meet their essential needs in life. This category of farmers can be considered as the poorest farmers who faced severe financial difficulties and are in acute distress. The situation of the small farmers having a holding ranging between one to two hectare is also not better. Majority of them also had farm output below Rs.50,000 per year. The survey results showed that only those who have an operational holdings more than two hectares produced farm output valued more than Rs.50,000 per year. Thus in determining norms for giving relief to the farmers, top priority should be given to sub-marginal farmers (below half a hectare) and other marginal farmers (half a hectare to one hectare). The next category of farmers deserves assistance are small farmers (1 to 2 hectares).

4.19 Farm output of households that solely dependent on agricultural income

We have also estimated the annual value of farm production of the household solely depend on agricultural income. Of the 96 households which belonged to this category, majority had produced an agricultural output below Rs.20,000 per year. Another one-fourth of this category had produced an annual output valued between Rs.20,000 and Rs.50,000 (Table 4.9). This category of the farmers who had low output and solely depend on agriculture are the category which is facing the accute crisis in Wayanad.

Table 4.9
Annual value of Farm production of Households solely dependent on Agricultural income (2006-07)

	Amount (Rs.)	Number of Households	Percentage
1.	Below 10,000	22	23.0
2.	10001 - 20,000	27	28.0
3.	20,001 - 30,000	12	12.5
4.	30001 - 50,000	12	12.5
5.	50001 - 75,000	9	9.4
6.	75001 - 1,00,000	9	9.4
7.	Above one lakh	5	5.2
	Total	96	100.0

4.20 Fall in Production

Estimation of productivity ie, yield of crops per hectare is difficult due to the mixed crop pattern in the study area. Based on the data supplied by the farmers we have made an attempt to estimate the yield of crops per hectare in the mixed cropped area. We have collected data about better yield received in 2000-01 prior to the drought 2003. The fall in production is estimated by comparing the yield per hectare in 2000-01 with 2006-07.

4.21 Yield of Coffee

In 2000, the average yield per hectare in a mixed crop area for coffee was estimated as 654 kgs. But there had been a decline in subsequent years. And between 2000 and 2006 the yield rate fell by 46 percent (Table 4.10). The survey revealed that there was considerable variation in the yield of coffee in the four Grama Panchayats during 2006-07 (Table 4.11).

Table 4.10
Fall in the yield rate of Coffee (per hectare)

Grama Panchayat	Average yield per Hectare 2000 - 01	Average yield per hectare 2006 - 07	Fall in yield (percent)
Ambalavayal	780	348	55.4
Pulpally	757	358	52.7
Muttill	674	423	37.2
Panamaram	523	281	46.3
Total	654	353	46.0

Table 4.11
Average yield of Coffee in 2006 - 07 (per Hectare)

Grama Panchayat	Variation in yield (kg)	Average yield
Ambalavayal	173 - 538	348
Pulpally	173 - 494	358
Muttill	247 - 617	423
Panamaram	178 - 494	281
Total	173 - 617	353

4.22 Yield of Pepper

Pepper is the crop which witnessed the largest fall in yield since 2000. The yield per hectare of pepper in a mixed cropped area was estimated as 676 in 2000. Currently the yield of pepper was 146 kg. It is estimated that the fall in production was 78 percent (Table 4.12). There was considerable variation the yield of pepper in the four Grama Panchayats (Table 4.13).

Table 4.12
Fall in the Yield rate of Pepper (per Hectare)

Grama Panchayat	Average yield per Hectare 2000 - 01	Average yield per Hectare 2006 - 07	Fall in yield (percent)
Ambalavayal	803	200	75.1
Pulpally	481	91	81.0
Muttill	879	141	84.0
Panamaram	721	168	76.7
Total	676	146	78.4

Table 4.13
Average yield of Pepper in 2006 - 07 (per Hectare)

Grama Panchayat	Variation in yield (Kg)	Average yield (per Hectare)
Ambalavayal	52 - 370	200
Pulpally	40 - 286	91
Muttill	49 - 247	141
Panamaram	49 - 375	168
Total	40 - 375	146

4.23 Yield of Arecanut

In Wayanad, the tender arecanut seed is sold after peeling the outer part of the raw nut. Hence the yield is estimated on the basis of tender arecanut seed in Kilograms. In 2000 the yield was estimated as 988 kgms per hectare. Between 2000 and 2006 the average yield fell by 55.3 percent (Table 4.14). There is much variation in yield in the three Grama Panchayats during 2006-07 (Table 4.15).

Table 4.14
Fall in Yield rate of Arecanut (per Hectare)

Grama Panchayat	Average yield per Hectare 2000 - 01	Average yield per Hectare 2006 - 07	Fall in yield (percent)
Ambalavayal	385	289	25.0
Pulpally	657	222	66.2
Muttill	1544	679	56.0
Total	988	442	55.3

Table 4.15
Average yield of Arecanut in 2006 - 07 (per Hectare)

Grama Panchayat	Variation in yield (Kg)	Average yield per Hectare
Ambalavayal	62 - 865	289
Pulpally	62 - 741	222
Muttill	185 - 1235	679
Total	62 - 1235	442

4.24 Yield of Paddy

In Wayanad paddy crop is cultivated twice a year. The yield per hectare was 3364 kg in 2000. Between 2000 and 2006 the average yield fell 40 percent (Table 4.16). Due to the increase in cost of cultivation of paddy some of the farmers have leased out the paddy land for cultivation of banana and vegetables. There was considerable variation in yield in the three Grama Panchayats during 2006-07 (Table 4.17).

Table 4.16
Fall in the Yield rate of Paddy (Per Hectare)

Grama Panchayat	Average yield per Hectare 2000 - 01	Average yield per Hectare 2006 - 07	Fall in yield (percent)
Ambalavayal	2960	1548*	47.7
Pulpally	3819	2100*	45.0
Panamaram	2727	2023**	25.8
Total	3364	2018	40.0

* Mostly single crop per year.

** Two crops per year.

Table 4.17
Average yield of Paddy in 2006 - 07 (Per Hectare)

Grama Panchayat	Variation in yield (Kg)	Average yield (per Hectare)
Ambalavayal	741 - 2717	1548
Pulpally	1235 - 3211	2100
Panamaram	617 - 3705	2023
Total	617 - 3705	2018

4.25 Causes for fall in yield

The survey results showed that some of the factors which contributed to the fall in the yield rate were lack of proper attention of crops, lack of manure and irrigation. One reason cited by the farmers was the poor attention given to the crops relating to cultivation, manuring, pest control and harvesting etc. Of the 114 farmers provided information, 80 percent reported poor attention (Table 4.18). This was largely due to the fall in production and prices of the agricultural products. Nearly 19 percent of the farmers reported that they have not used adequate quantities of manures for the crops. Another 46 percent pointed out the lack of irrigation facilities as a major factor for fall in the yield. As majority of the farmers are marginal farmers they cannot afford to use pumpsets or other irrigation facilities for cultivation.

Table 4.18
Reasons for fall in yield

	Reasons	Number of Households provided information	Number of Households reported the reasons	Percentage
1.	Poor attention of crops	114	91	80.0
2.	Lack of Manure	114	22	19.3
3.	Lack of Irrigation	114	52	45.6
4.	More than one reasons	114	43	38.0

4.26 Drought and failure of monsoons

All the farmers in our survey reported that they were solely depending on rainfall for their cultivation. For the perennial crops such as coffee, pepper, coconut, arecanut etc. timely availability of rainfall is a pre-condition for getting a good harvest. But the severe drought experienced during the last quarter of 2003 and first quarter of 2004 had created severe and widespread damage to the perennial crops in Wayanad. During 2003 Wayanad district registered a 43 percent fall in rainfall. The district registered the largest fall in rainfall compared to other districts in Kerala during the year 2003. The severe drought had partially or fully destroyed the major perennial crops in Wayanad. The severe destruction of the crops had resulted in fall in production in the subsequent years and pushed the farmers to acute financial crisis.

2.27 Consequences of drought

Sixty two percent of the farmers who gave information on the causes of fall in production pointed out the severe drought of 2003 and 2004 and the subsequent drought conditions prevailed as the major factors (Table 4.19). Lack of timely availability of rainfall and the drought were cited as the reasons for fall in production by 71 percent of the farmers. Thus, the drought of 2003 and 2004 and the fall in rainfall and lack of availability of timely rainfall in the subsequent years were the major causes for the fall in yield and production in recent years.

Table 4.19
Reasons for fall in production (Drought and Rainfall)

	Reasons	Number of Households provided information	Number of Households reported the reasons	Percentage
1.	Drought reduced yield of crops	137	85	62.0
2.	Lack of rainfall reduced yield of crops	137	98	71.5

4.28 Spread of diseases of crops

The survey revealed that the spread of various diseases of most of the crops in Wayanad was one of the basic causes for the fall in yield of production and the consequent financial crisis of the farmers.

4.29 Coffee

Coffee, the major crop of Wayanad is affected by certain diseases like stem borer and scale insect. Nineteen percent of the cultivators of coffee reported the spread of the diseases which affected the yield and production (Table 4.20).

Table 4.20
Number of households reported diseases of crops

	Diseases of Crops	Number of Households cultivating the crops	Number of Households reported diseases	Percentage
1.	Coffee (Stem Borer and Scale Insect)	146	28	19.1
2.	Pepper (Quick wilt)	145	128	88.3
3.	Pepper Standard (Erythrina gall wasp)	145	55	38.0
4.	Coconut (Coconut Mite)	124	80	64.5
5.	Ginger (Soft rot)	23	10	43.5
6.	Arecanut (Mahali and bud rot)	127	45	35.4

4.30 Pepper

The rapid spread of disease in pepper plant (Quick Wilt) had been the most serious problem faced by the farmers in recent years. It is alarming to note that 88 percent of farmers cultivating pepper reported the spread of disease resulting in partial or full destruction of pepper plants (Table 4.20). Another serious disease which destroyed the pepper crop is the spread of the disease (Erythrina gall wasp) to the pepper standard, "Muruku" in which the plant is grown (Table 4.20). The spread of these diseases had destroyed more than 75 percent of the pepper crops in the study area.

4.31 Coconut

The disease which affects the coconut crop is 'Coconut Mite. As a result of the disease the size of the coconut nut become very small and coconut cannot be used for the usual purposes. Sixty four percent of the farmers who cultivate coconut reported the disease (Table 4.20). The efforts made by the farmers to contain the diseases by using spraying of medicines etc. proved to be futile.

4.32 Ginger

The rapid spread of disease of ginger (soft rot) is creating very serious problems. The spread of the disease results in the gradual destruction of the entire plant. Forty three percent of the farmers who cultivate ginger reported the spread of the disease in their agricultural holdings (Table 4.20).

4.33 Arecanut

Arecanut, another important crop which is affected by the spread of diseases (Mahali and bud rot). Thirty five percent of the farmers who cultivate arecanut reported the spread of disease (Table 4.20).

4.34 Failure to contain the diseases of crops

We have asked the farmers about the measures taken by the Krishi Bhavans and other agencies to treat the diseases. Farmers told us that Krishi Bhavans are taking some steps to prevent the spread of diseases by giving some medicines and other help. But the farmers pointed out that these measures had not succeeded in containing the diseases. The methods and medicines prescribed by them were not effective in preventing the diseases. In this context, there is a need to strengthen the agriculture research to find out effective measures and medicines to contain the diseases. The Department of Agriculture should seek the help of the research Agencies like Kerala Agriculture University, Indian Council of Agriculture Research and other National Agriculture Research Institutions for the purpose.

4.35 Fall in agricultural prices

Fall in prices of agriculture products is cited as a major cause for the present agricultural crisis in Wayanad district. In order to examine this aspect we have collected information about the prices received by the farmers at the time of the survey and the best prices received by them during the last five years. Though

there has been small variations in the prices in four Grama Panchayats, we have taken the average prices for the comparison. The farmers told us that the highest farm or market price received by them during the last five years was as follows. For pepper the maximum price they received during the last five years was Rs.191.2 per kg, for coffee, Rs.41.2 per kg, and for tender arecanut seed, Rs.35.6 per kg. The maximum prices received for other crops such as paddy, coconut, rubber, ginger etc are given in Table 4.21. We have also estimated the average price received by the farmers during the period between December 2006 and May 2007 which is also given in Table. It is evident from the table that there had been a fall in the prices of almost all crops except rubber. It was found that the fall in the average price of pepper was 40 percent, coffee 20 percent and coconut 20 percent (Table 4.21). But in the case of rubber there has been an increase in prices and the farmers are getting the highest price at the time of survey. Thus the survey results showed that the large fall in the price of crops such as pepper, coffee, coconut and paddy during the last five years had contributed to a substantial fall in the agricultural income of the farmers and contributed to the present crisis.

Table 4.21
Average price received by the farmers: The highest price and current price

	Agricultural Products	Highest price during the last five years	Current price (Dec. - 2006 to May 2007)	Percentage change
1.	Paddy (per Kg)	9.6	7.4	(-) 22.9
2.	Pepper (per Kg)	191.2	114.4	(-) 40.1
3.	Coffee (per Kg)	41.2	33.0	(-) 19.9
4.	Tender Arecanut (per Kg)	35.6	34.0	(-) 4.5
5.	Coconut (per nut)	8.0	6.4	(-) 20.0
6.	Rubber (per Kg)	80.0	88.2	
7.	Green Ginger (per Kg)	40.0	8.4	(-) 79.0

4.36 From the above analysis we may draw the following observations. The survey found that majority of the farmers in the sample households were marginal farmers having uneconomic holdings. Only 20 percent of the farmers who had an operational holdings of two hectares and above earned a reasonable income. The crop pattern in the study area is a mixed one and a number of crops viz. Coffee, Pepper, coconut, ginger etc. are cultivated. Compared to the cost incurred in cash for cultivation the farmers had borrowed large amounts from banks and other sources. It was reported that the farmers had been experiencing the shortage of labourers and the NREGS had enhanced the wage rate and availability of labour. It was found that majority of the sample farmers had produced agricultural products worth less than Rs.20,000. A major finding of the study was that there had been a fall in the production and yield rate of all major crops such as coffee, pepper, ginger, coconut and arecanut in Wayanad in recent years. The survey results showed that fall in the price of crops such as pepper, coffee, coconut, paddy, ginger etc. during the recent years was another major factor contributed to the agricultural crisis. The lack of availability of timely rainfall, the persistent drought situation, spread of diseases of major crops in recent years, failure of government agencies to control the spread of crop diseases, rise in cost of cultivation, fall in income and unprofitable nature of cultivation were found as other major causes for the agricultural crisis.

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 major sources from which the farmers borrowed money are commercial banks co-operative banks, Kudumbasree, money lenders and private financing firms. The loans were used for the purposes like agriculture, construction of houses, education of children, purchasing livestock, marriage expenses, medical treatment, purchasing consumer durables, meeting day to day expenses etc.

5.2 Loans taken by sample households from all sources

This section examines the number of households that borrowed funds from all sources, major items of expenditure of sample households, and the sources of borrowing.

5.3 Number of households that borrowed funds

The survey found that of the total 160 sample households, 85 percent of the households had taken loan from various sources (Table 5.1). In Pulpally Grama Panchayat all the sample households have taken loans. Five percent of the sample households had not taken loan. The other 10 percent of the households had not given information on the loan availed.

Table 5.1
Loan taken by sample households (All sources)

Grama Panchayat	Number of sample Households	Number of Households taken Loan	Percentage
Ambalavayal	40	34	85.0
Pulpally	40	40	100.0
Muttill	40	28	70.0
Panamaram	40	34	85.0
Total	160	136	85.0

5.4 Total amount of the loan from all sources

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 from all the sources ranged between below Rs.20,000 to 4 lakhs and above. Fifteen percent of the households borrowed an amount below Rs.20,000 (Table 5.2). Another 16 percent of the households borrowed an amount ranging between Rs.20,000 and Rs.50,000. About 29 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 40 percent.

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

	Amount of Loan (Rs.)	Households taken Loan (Number)	Percentage
1.	Below 20,000	20	14.7
2.	20001 - 30000	8	5.9
3.	30001 - 40,000	6	4.4
4.	40001 - 50,000	8	5.9
5.	50001 - 75,000	17	12.5
6.	75001 - 1,00,000	22	16.2
7.	100001 - 1,50,000	22	16.2
8.	1,50,001 - 2,00,000	8	5.9
9.	2,00,001 - 3,00,000	11	8.0
10.	3,00,001 - 4,00,000	6	4.4
11.	Above 4 lakh	8	5.9
	Total	136	100.0

5.5 Majority of the farmers who borrowed belong to the marginal category of farmers. It may be noted that 62 percent of the sample households belong to the category of marginal farmers having an operational holding upto one hectare of land. This category of farmers were forced to borrow money to meet the essential needs as the income from the agricultural activities is highly insufficient. Among the marginal farmers, the category which had shown very high incidence of indebtedness were those farmers who solely depend on agricultural income. The steep fall in the income of the farmers due to drought, lack of rainfall, spread of crop diseases and fall in prices had also forced the farmers to borrow more for meeting their essential needs in life.

5.6 Major items of expenditure of sample households

The survey collected information about the major items of expenditure incurred by the sample households other than those incurred for routine daily expenditure. The items of expenditure included construction of new house, major repair of house, marriage of family members, medical treatment as inpatients in hospitals, purchase of livestock, educational expenditure of children and purchase of consumer durables. It was found that the major items of expenditure were medical treatment in hospitals, purchase of consumer durables and marriage expenses. The survey found that 32 percent of the sample households spent on medical treatment as inpatients. Another 26 percent of the households spent for purchasing consumer durables and 16 percent on marriage expenses. Table 5.3 gives the major items of expenditure of the sample households. A distribution of the sample households on the basis of consumer durables purchased showed that mobile phones and television sets 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	160	9	5.6
2.	Major repair of House	160	15	9.4
3.	Marriage Expenses	160	26	16.2
4.	Medical treatment in hospital as inpatient	160	51	32.0
5.	Livestock Purchased	160	15	9.4
6.	Educational expenses for students staying in hostel	160	11	7.0
7.	Purchase of consumer Durables	160	41	25.6

Table 5.4
Households purchased consumer durables in the last three years

	Item	Number of Households	Percent
1.	Mobile Phone	20	49.0
2.	Television	12	29.3
3.	Fridge	1	2.4
4.	Washing Machine	2	4.8
5.	Motor cycle	2	4.8
6.	Pumpset	2	4.8
7.	Others	2	4.8
	Total	41	100.0

5.7 Sources of funds borrowed

The sources from which the farmers took loans were commercial banks, co-operative banks, Kudumbasree, private financial firms and money lenders. The survey found that of the households that took

loans, 68 percent borrowed from commercial banks, 60 percent from co-operative banks, 41 percent from Kudumbasree and 7 percent from private financial firms and 7 percent from money lenders. (Table 5.5) The other source from which farmers availed loan was friends, relatives and others. It may be noted that majority of the farmers availed loans from more than one source such as commercial banks, co-operative banks, Kudumbasree, private financing firms, money lenders etc. It seemed that the farmers borrowed money from all the available sources without considering their ability to repay them.

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.	Commercial Banks	136	93	68.4
2.	Co-operative Banks	136	82	60.3
3.	Kudumbasree	136	56	41.2
4.	Money Lenders	136	10	7.3
5.	Private financial firms	136	10	7.3
6.	Friends relatives and others	136	38	28.0

5.8 Loan taken from commercial banks

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

5.9 Amount of loan

The survey found that of the total 136 households availed loan from various sources, 68 percent borrowed from commercial banks (Table 5.5). The single source from which the largest number of households borrowed funds was commercial banks. This was the source from which farmers borrowed more money. Nearly half of the households borrowed an amount below Rs.50,000. Another one-fourth of the households borrowed a bank loan ranging between Rs.50,000 and one lakh. On the other hand, more than one fourth borrowed an amount of loan ranging between one to five lakhs (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
1.	Below 20,000	9	9.7
2.	20,001 - 30,000	15	16.1
3.	30001 - 50,000	21	22.6
4.	50001 - 75,000	10	10.7
5.	75,001 - 1,00,000	14	15.0
6.	1,00,001 - 1,50,000	14	15.0
7.	1,50,001 - 2,00,000	1	1.0
8.	2,00,001 - 3,00,000	5	5.4
9.	3,00,001 - 4,00,000	2	2.1
10.	Above 4 lakh	2	2.1
	Total	93	100.0

5.10 Security given

The major items of security given for obtaining bank loan were land, gold and personal surety. The survey found that 83 percent of the loans were taken from commercial banks by giving land as a security (Table 5.7).

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

	Amount (Rs.)	Land	Gold	Personal Surety	Others	Total
1.	Below 20,000	5	1	3	-	9
2.	20001 - 30000	13	2	-	-	15
3.	3,0001 - 50,000	19	1	-	1	21
4.	50,001 - 75,000	8	1	-	1	10
5.	75001 - 1,00,000	11	1	-	2	14
6.	1,00,001 - 1,50,000	12	-	-	2	14
7.	1,50,001 - 2,00,000	-	-	1	-	1
8.	2,00,001 - 3,00,000	5	-	-	-	5
9.	3,00,001 - 4,00,000	2	-	-	-	2
10.	Above 4 lakhs	2	-	-	-	2
	Total	77	6	4	6	93
	Percentage	82.8	6.5	4.3	6.4	100.0

5.11 Year of borrowing

The survey collected information about the year of borrowing of funds from commercial banks. It was found that 60 percent of the bank loans were taken prior to the agricultural crisis in 2003. It is likely that the farmers have taken more loans prior to the agricultural crisis due to their better financial condition. On the other hand, the number of loans availed during the post crisis period was lower. Between 2003 and 2007 40 percent loans were taken (Table 5.8). The survey results showed that the farmers were not able to repay the interest or principal amount during the post crisis period.

Table 5.8
Year of borrowing of commercial bank loans

	Amount (Rs.)	upto 1999	2000	2001	2002	2003	2004	2005	2006	2007 (May)	Total
1.	Below 20,000	1	-	1	2	1	1	1	1	1	9
2.	20001 - 30,000	1	4	2	2	1	1	-	4	-	15
3.	30,001 - 50,000	1	6	2	3	1	2	2	4	-	21
4.	50,001 - 75000	2	3	1	1	1	-	-	2	-	10
5.	75,001 - 1,00,000	3	2	-	2	2	2	2	-	1	14
6.	100001 - 1,50,000	2	5	2	3	-	2	-	-	-	14
7.	1,50,001 - 2,00,000	-	-	-	-	-	-	1	-	-	1
8.	2,00,001 - 3,00,000	2	1	-	-	2	-	-	-	-	5
9.	3,00,001 - 4,00,000	-	-	-	-	2	-	-	-	-	2
10.	Above 4 lakhs	-	2	-	-	-	-	-	-	-	2
	Total	12	23	8	13	10	8	6	11	2	93
	Percentage	13.0	24.7	8.6	14.0	10.7	8.6	6.4	11.8	2.1	100.0

5.12 Purpose of borrowing

In the survey we have collected data about the purpose of loans availed from the commercial banks. The purposes of borrowing were reported as agriculture, construction of house, education, purchase of livestock, marriage, purchase of consumer durables, meeting day to day expenses, medical treatment and others. Twenty seven households reported more than one reason for taking the loan. 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 marriage, education of children staying in hostels, medical treatment and construction of houses. 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	93	72	77.4
2.	Construction of House	93	4	4.3
3.	Educational expense for students staying in Hostels	93	8	8.6
4.	Purchase of Livestock	93	1	1.0
5.	Marriage	93	13	14.0
6.	Purchase of consumer durables	93	2	2.1
7.	Day to day expenses	93	3	3.2
8.	Medical treatment in hospital as inpatient	93	8	8.6
9.	Others	93	9	9.7
10.	More than one item	93	27	29.0

5.13 Repayment of loan

Data was also collected regarding repayment of loan borrowed from commercial banks. The survey found that 89 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 by adding interest amount to be paid to the principal amount. The non-repayment of the loan was attributed to following reasons. The agricultural crisis due to fall in production and prices had destroyed the financial stability of the farmers, and their ability to repay the loan. Secondly, nearly 90 percent of the farmers did not earn an income which was sufficient to meet the repayment of interest and principal amount. Among the farmers who were facing the acute crisis was the marginal farmers solely dependent on agricultural income. Currently for meeting non-routine category of expenditure like marriage, medical treatment, educational expenditure, purchase of consumer durables etc., the marginal and small categories of farmers have no other option other than borrowing money.

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
1.	Below 20,000	9	6	66.7
2.	20001 - 30,000	15	15	100.0
3.	3,0001 - 50,000	21	20	95.2
4.	50,001 - 75,000	10	9	90.0
5.	75,001 - 1,00,000	14	11	78.6
6.	1,00,001 - 1,50,000	14	13	93.0
7.	1,50,001 - 2,00,000	1	1	100.0
8.	2,00,001 - 3,00,000	5	5	100.0
9.	3,00,001 - 4,00,000	2	1	50.0
10.	Above 4 lakhs	2	2	100.0
	Total	93	83	89.2

5.14 Loan taken from co-operative banks

The second major 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.

5.15 Amount of loan

It was found that of the 136 households who borrowed funds from various sources, 60 percent borrowed from co-operative banks (Table 5.5). This is the second major source of borrowing. The amount borrowed by the farmers from co-operative banks were much lower than the commercial banks. Nearly half of the number of loans borrowed from the co-operative banks was below Rs.30,000. Another 18 percent of the loans were in the range between Rs.30,000 and Rs. 50,000. Only 10 percent of the loan was above one lakh (Table 5.11). The interest rate charged by the co-operative banks ranged between 8.5 to 12 percent.

Table 5.11
Amount of loan taken from co-operative banks

	Amount of Loan (Rs.)	Households taken Loan (Number)	Percentage
1.	Below 10,000	14	17.0
2.	10001 - 20,000	16	19.5
3.	20001 - 30,000	10	12.2
4.	30,001 - 40,000	6	7.3
5.	40,001 - 50,000	9	11.0
6.	50,001 - 75,000	4	4.9
7.	75,001 - 1,00,000	15	18.3
8.	Above one lakh	8	9.7
	Total	82	100.0

5.16 Security given

The security given for obtaining loan were land, gold, personal surety and others. Of the different types of security given for obtaining the loan, 68 percent was land. The survey found that 11 percent of the loan was secured on the basis of gold and 15 percent on personal surety (Table 5.12).

Table 5.12
Security given for co-operative bank loans (Number of households)

	Amount (Rs.)	Land	Gold	Personal Surety	Others	Total
1.	Below 10,000	7	2	4	1	14
2.	10001 - 20000	10	3	2	1	16
3.	2,0001 - 30,000	9	-	1	-	10
4.	30001 - 40,000	4	1	1	-	6
5.	40001 - 50,000	5	1	1	2	9
6.	50001 - 75000	3	1	-	-	4
7.	75001 - 1,00,000	11	1	2	1	15
8.	Above one lakh	7	-	1	-	8
	Total	56	9	12	5	82
	Percentage	68.3	11.0	14.6	6.1	100.0

5.17. Year of borrowing

The survey results showed that farmers had been taking more loans during the post crisis period ie, since 2003 compared to the earlier period (Table 5.13). It seemed that there had been a shift in borrowing from

commercial banks to co-operative banks. During the post crisis period farmers availed more loans from co-operative banks compared to commercial banks. Majority of the loans availed since 2003 was below Rs.30,000.

Table 5.13
Year of borrowing of co-operative bank loans

	Amount (Rs.)	upto 1999	2000	2001	2002	2003	2004	2005	2006	2007 (May)	Total
1.	Below 10,000	1	1	1	1	3	2	4	1	-	14
2.	10001 - 20,000	2	1	1	1	1	2	2	5	1	16
3.	20001 - 30,000	-	1	1	2	-	2	3	-	1	10
4.	30001 - 40,000	1	1	1	1	-	-	1	1	-	6
5.	40,001 - 50,000	2	1	1	-	1	1	1	1	1	9
6.	50,001 - 75,000	-	1	1	-	-	-	1	1	-	4
7.	75001 - 1,00,000	5	2	2	-	2	2	1	1	-	15
8.	Above one lakh	2	2	1	1	-	1	-	1	-	8
	Total	13	10	9	6	7	10	13	11	3	82
	Percentage	15.8	12.2	11.0	7.3	8.5	12.2	15.8	13.4	3.6	100.0

5.18 Purpose of borrowing

We have collected information about purpose of loan taken from co-operative banks. Fourteen households reported more than one purpose for taking the loan. Seventy five percent of the households reported agriculture as the purpose of borrowing (Table 5.14). The other purpose mentioned were education of the children, marriage expenses, construction of houses, purchase of livestock, purchase of consumer durables, medical treatment etc.

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	82	62	75.6
2.	Construction of House	82	3	3.6
3.	Educational expenditure for students staying in hostel	82	5	6.1
4.	Marriage expenses	82	5	6.1
5.	Livestock purchased	82	3	3.6
6.	Purchase of consumer durables	82	3	3.6
7.	Medical treatment in hospital as inpatient	82	3	3.6
8.	Others	82	5	6.1
9.	More than one item	82	7	8.5

5.19. Repayment of the loan

The survey collected information about repayment of the loan taken from co-operative banks. It was found that only 16 percent of the households made repayment of the loan. On the other hand, 84 percent of the households did not made any repayment (Table 5.15). Some of the farmers told us that instead of repaying the loan, they had renewed the loan by adding interest to be paid to the principal amount. The financial crisis of the farmers was the principal reason for the non-repayment of the loans. Majority of the farmers hope that the government will give some relief to the farmers by waving a part or full of the loan amount.

Table 5.15
Repayment of the loan from co-operative banks

	Amount (Rs.)	Number of Households taken Co-operative Bank Loan	Number of Households not made any repayment	Percentage
1.	Below 10,000	14	12	85.7
2.	10,001 - 20,000	16	14	87.5
3.	20,001 - 30,000	10	8	80.0
4.	30001 - 40000	6	6	100.0
5.	40,001 - 50,000	9	8	88.9
6.	50,001 - 75,000	4	4	100.0
7.	75,001 - 1,00,000	15	10	66.7
8.	Above one lakh	8	7	87.5
	Total	82	69	84.1

5.20 Loan taken from Kudumbasree

The survey found that of the 136 households that borrowed funds from various sources, 41 percent borrowed from Kudumbasree (Table 5.5). This was the third major source of borrowing. The amounts borrowed from Kudumbasree were small amount compared to the amounts borrowed from commercial banks and co-operative banks. The survey found that 37 percent of the loan borrowed from Kudumbasree was below Rs.5000. Another 25 percent of the loan was in the range between Rs.5000 and 10,000. Only 7 percent of the loan taken was in the range of Rs.30,000 to Rs.50,000 (Table 5.16). The loans were taken mainly to meet the consumption and other day to day expenditure of the farmer households. The interest rate charged for the loans was 12 percent.

Table 5.16
Amount of loan taken from Kudumbasree

	Amount (Rs.)	Households taken loan (Number)	Percentage
1.	Below 5,000	21	37.5
2.	5001 - 10,000	14	25.0
3.	10001 - 20,000	7	12.5
4.	20,001 - 30,000	10	17.8
5.	30,001 - 40,000	1	1.8
6.	40,001 - 50,000	3	5.4
	Total	56	100.0

5.21 Data was also collected on the repayment of Kudumbasree loan. A notable thing was that the farmers who had taken loan from Kudumbasree had been promptly repaying the loan. This is in contrast to the non-repayment of loan taken from commercial banks and co-operative banks. The social factors like pressure from Kudumbasree members also contribute to prompt repayment. The survey revealed that 48 percent of the households were repaying the installments of the loan (Table 5.17). Of the 56 households borrowed loan, 22 made repayment during the year 2006-07.

Table 5.17
Repayment of loan from Kudumbasree

	Amount (Rs.)	Number of Households taken loan	Number of Households made repayment partly	Percentage
1.	Below 5000	21	9	43.0
2.	5001 - 10,000	14	7	50.0
3.	10,001 - 20,000	7	3	43.0
4.	20,001 - 30,000	10	6	60.0
5.	30,001 - 40,000	1	-	0.0
6.	40,001 - 50,000	3	2	66.7
	Total	56	27	48.2

5.22 Loan from Money Lenders

The survey found that of the 136 households who borrowed funds from various sources, 10 borrowed from money lenders. Of the 10 households five borrowed an amount below Rs. 15,000 and another five ranging between Rs.20,000 and 1.5 lakhs. The interest charged ranged from 10 to 48 percent (Table 5.18). The purpose of borrowing reported were agriculture, marriage and medical treatment. A notable aspect is that except two households the rest of them borrowed between 2005 and 2007 (Table 5.19). This suggests that during the recent years the farmers are relying more on loans from money lenders.

Table 5.18
Rate of interest of loan from money lenders

	Amount (Rs.)	Number of Households	Rate of Interest						No information
			10%	18%	24%	32%	36%	48%	
1.	Below 5,000	3	-	-	-	-	2	1	-
2.	15,000	2	1	-	1	-	-	-	-
3.	20,000	1	-	-	-	-	-	-	1
4.	30,000	2	-	1	-	1	-	-	-
5.	38,000	1	-	-	-	-	1	-	-
6.	1,50,000	1	-	-	-	-	1	-	-
	Total	10	1	1	1	1	4	1	1

Table 5.19
Year of loan taken from money lenders

	Amount (Rs)	Number of Households	Year			No information
			2005	2006	2007	
1.	Below 5000	3	-	-	2	1
2.	15,000	2	1	1	-	-
3.	20,000	1	-	1	-	-
4.	30,000	2	2	-	-	-
5.	38,000	1	-	1	-	-
6.	1,50,000	1	-	-	-	1
	Total	10	3	3	2	2

5.23 Loan from Private financial firms

The survey found that of the 136 households borrowed funds from various sources, 10 households borrowed from private financial firms. Large amount of money was borrowed from the private financial firms. Of the ten households, 6 borrowed an amount ranging between Rs.50,000 and 2 lakhs. For securing the loans, land, gold and personal sureties were offered. The rate of interest charged by the financial firms ranged between 9 to 60 percent. Of the 10 households who borrowed funds, 5 were paying 12 percent interest and 3 were paying an interest rate of 15 percent, 24 percent, and 60 percent.

5.24 The purpose of borrowing of the loan reported were agriculture, meeting marriage expenses, medical treatment and purchase of motor vehicles. A notable aspect is that except two cases the rest of them borrowed during the post crisis period. The loan was borrowed in 2004, 2006 and 2007 (Table 5.20). The lack of availability of loan from commercial banks due to non repayment of loan forced the farmers to borrow money from private financial firms at higher interest rates. This trend of relying more on private financial firms will further worsen the financial crisis of the farmers.

Table 5.20
Amount and Year of loan taken from Private financial firms

	Amount (Rs.)	Number of Households taken Loan	Year of Borrowing				Information not supplied
			2000	2004	2006	2007	
1.	5000	1	-	-	-	1	-
2.	10,000	2	-	1	1	-	-
3.	25,000	1	1	-	-	-	-
4.	50,000	3	-	2	1	-	-
5.	1,00,000	1	1	-	-	-	-
6.	1,40,000	1	-	-	-	-	1
7.	2,00,000	1	-	-	-	-	1
	Total	10	2	3	2	1	2
	Percentage	100.0	20.0	30.0	20.0	10.0	20.0

5.25. Loans from Friends, Relatives and Others

Borrowing from friends, relatives and others is another source of loan. Of the 136 households who borrowed from various sources, 38 households borrowed from friends, relatives and others. The amount borrowed ranged between below Rs.10,000 to more than one lakh. Of the households who borrowed funds, 29 percent has taken a loan below Rs.20,000 and another 24 percent borrowed an amount ranged between Rs.20,000 and Rs.30,000. The households that borrowed more than one lakh accounted for 18 percent. The households have not provided more information on this aspect.

5.26 The above analysis may be concluded as follows. The survey found that 85 percent of the households had taken loans from various sources like commercial banks, co-operative banks, Kudumbasree, money lenders, private financial firms and friends, relatives and others. The amount borrowed ranged between Rs.20,000 and 4 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 of new house, major repair of house, marriage of family members, medical treatment, purchase of livestock, expenses for education of children, purchase of consumer durables etc. Regarding loans from commercial banks the survey found that the farmers were not making any repayment in recent years. The practice followed is renewal of loan by adding interest amount to the principal amount. In the case of loan from co-operative banks only a few percent (16%) made repayment of the loan. Renewing the old loan without repayment is the practice that is followed. On the other hand, loans taken from Kudumbasree to meet the consumption and other day to day expenditure were repaid promptly by majority of the borrowers.

5.27 Loan taken from money lenders and private financial firms are other major sources of credit. The rate of interest charged by the money lenders and private financial firms was reported as very high. A disturbing development taking place with regard to agricultural loans in recent years has been the heavy reliance of farmers on money lenders, private financial firms etc. This will worsen the credit situation of farmers.

Chapter 6

Summary of Findings and Policy Suggestions

6.1 In this chapter we present the summary of the findings of the study and a few policy suggestions. The first part contains objectives of the study, data source and agricultural situation in Wayanad 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 Wayanad

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, and
4. To suggest policy measures for agricultural crisis and indebtedness of the farmers.

6.3 Data Source

- * Chapter on agricultural situation of Wayanad district is based on secondary data.
- * A sample survey was conducted in four Grama Panchayats viz. Ambalavayal, Pulpally, Muttil and Panamaram to collect primary data.
- * Total sample agricultural households covered is 160.
- * The survey was conducted in May 2007.

Agricultural situation in Wayanad

6.4 General features

- * The district has the features of a backward rural agricultural economy.
- * The district has 25 Grama Panchayats and one Municipality.
- * Another notable feature is the absence of urbanization. Urban area is just 2% and the urban population is 4 percent of the total population district.
- * SC/ST population account for 22 percent of the total population of the district.
- * Migration to foreign countries for employment is negligible (Emigrants from 100 households is 4.4).
- * Percentage of Below Poverty Line families is 40 percent in 2006.
- * Wayanad district has 97 branches of commercial banks and 28 co-operative banks.

6.5 Agriculture

- * Agriculture and allied activities account for 36 percent of the district income (NSDP).
- * Agricultural workers account for 47 percent of the total workers in Wayanad district (cultivators 17 percent and Agricultural labourers 30 percent).
- * Seventy four percent of the individual operational holdings have a size below 0.5 hectare (1.23 acre).
- * Twelve percent of the individual operational holdings have a size between 0.5 hectare and one hectare (1.23 acres to 2.47 acres).
- * Continuous fall in rainfall compared to normal rainfall during the last 10 years.
- * Drought conditions prevailed in some regions of district due to failure of monsoons.
- * All perennial crops solely depend on rainfall for cultivation.
- * Major crops cultivated in the district are coffee, pepper, banana and other plantains, coconut, arecanut, paddy and jack.
- * Other important crops cultivated are ginger, cardamom, mango, tea and rubber.
- * Wayanad district had 103809 cattle, 3934 Buffaloes, 43019 goats and 3684 pigs in 2004-05.

6.6 Coffee crop in Wayanad district in 2004-05

- * Area of cultivation in Wayanad district 67389 (in hectares).

- * Area as share of state (percent) 80
- * Production in Wayanad district (in Tonnes) 45775.
- * Production as share of the state (percent) 84.
- * Number of harvests in a year – 1.

6.7 Pepper crops in Wayanad district in 2004-05

- * Area of cultivation in Wayanad district 41573 (in hectares)
- * Area as share of state total (percent) 17
- * Production in Wayanad district (in Tonnes) 13897
- * Production as share of state (percent) 18.
- * Number of harvests in a year – 1.

6.8 Features of the four sample Grama Panchayats

- * Density of population in the Grama Panchayats varied between 441 and 659 per sq.km.
- * The Grama Panchayats are mostly dry areas and rainfall is the only source of water for cultivation.
- * Incidence of poverty is very high in the Grama Panchayats. The percentage of BPL families in Ambalavayal, Pulpally, Muttill and Panamaram Panchayats are 48, 59, 50 and 39 respectively.
- * Livestock rearing is an important subsidiary occupation.
- * Number of bank branches in four Grama Panchayats is 21.

II. Major Findings of the Survey

6.9 Profile of Sample Households

- * The households heavily relied on agriculture and allied activities for their survival.
- * Sixty percent of the sample households belonged to the category of households solely dependent on agricultural income.
- * Eighty two percent of the heads of the households were farmers or farmer cum casual labourers.
- * Of the total workers 72 percent was engaged in agriculture and allied activities.
- * Livestock rearing is an important subsidiary occupation of the farmers.
- * Thirty six percent of the farmers were sub marginal farmers having a size of holding less than 0.50 hectare.
- * Twenty five percent of the farmers having a size of holding between 0.50 to one hectare.
- * Twenty one percent of the farmers were small farmers having a size of holding between one to two hectares.
- * Majority of the marginal farmers (61 percent) belonged to the category of households solely dependent on agricultural income.

6.10 Production and Productivity of Crops

- * The crop pattern is a mixed one.
- * Major crops cultivated are coffee, pepper, coconut, arecanut and paddy.
- * The other important crops cultivated are ginger, rubber, banana and vanilla.
- * More than 90 percent of the farmers were cultivating coffee and pepper as mixed crop.
- * More than 75 percent of the farmers were cultivating coconut and arecanut.
- * Coffee and pepper, the principal crops of Wayanad, are harvested once in a year and farmer's entire income of the year is from the single harvest.
- * Any fall in production or price of these crops will put them into severe crisis.
- * A root cause of the agricultural crisis has been the fall in production and productivity.
- * The productivity of all major crops such as coffee, pepper, arecanut, coconut and paddy had registered a fall since 2000-01.
- * Yield rate for coffee declined by 46 percent, pepper by 78 percent, arecanut by 55 percent, paddy by 40 percent between 2000 – 01 to 2006-07.

6.11 Causes for the Crisis

- * Continuous fall in rainfall compared to normal rainfall during the last 10 years.
- * Lack of timely rainfall, failure of monsoons, fall in rainfall and prolonged drought conditions.
- * Poor attention of crops, lack of manure and irrigation resulting in a fall in the yield rate.
- * Widespread diseases and pest attacks on crops are basic reasons for the fall in production.

- * Eighty eight percent of the farmers reported the spread of 'Quick wilt' in pepper crop.
- * Thirty eight percent reported that spread of Erythrina gall wasps in pepper standards.
- * Sixty four percent reported spread of 'coconut mite' in coconut trees.
- * For ginger, 43 percent reported spread of soft rot.
- * For arecanut, 35 percent reported spread of Mahali and bud rot.
- * For coffee, 19 percent reported spread of diseases such as 'Stem borer' and 'Scale insect'.
- * Failure of agricultural research to contain the diseases.
- * Failure of government agencies to control the spread of diseases.
- * Farmers reported fall in prices of major crops during the last five years –
 - * The price of pepper fell by 40 percent.
 - * The price of coffee fell by 20 percent.
 - * The price of green ginger fell by 79 percent.
 - * The price of coconut fell by 20 percent.
 - * The price of paddy fell by 23 percent.
- * Absence of price stabilization measures by the government agencies.

6.12 Cost incurred and value of agricultural products

- * Due to small scale cultivation, majority of the farmers incurred an expenditure in cash below Rs.10,000 per year.
- * Nearly eighty percent of the farmers borrowed money from various sources to meet the cost of cultivation.
- * The daily wage rate for male agricultural labourer per day was Rs.132, and for female, Rs.87.
- * The implementation of National Rural Employment Guarantee Scheme (NREGS) has resulted in shortage of labour and increased the wage rate of female labourers.
- * Sixty seven percent of the farmers reported shortage of labourers.
- * The annual value of agricultural output was very small (29 percent farmers had below Rs.10,000, 27 percent Rs.10,000 to 20,000, and 10 percent, Rs. 20,000 to 30,000).
- * The marginal farmers were getting only a very low income.
- * An operational holding of more than two hectares was required to get a reasonable net income.

6.13 Loans and indebtedness of Farmers

- * Eighty five percent of the households had taken loans from various sources like commercial banks, co-operative banks, Kudumbasree, money lenders, private financial firms and friends, relatives and others.
- * The amount borrowed ranged between Rs.20,000 and 4 lakhs and above.
- * Farmers, especially marginal farmers borrowed money not only to meet cultivation expenses but also to meet the other items of expenditure such as construction of new house, major repair of house, marriage of family members, medical treatment, purchase of livestock, expenses for education of children, purchase of consumer durables etc.
- * Farmers who had taken loans from commercial and co-operative banks were not making any repayment in recent years.
- * Renewal of loan by adding interest amount to the principal amount is a common practice.
- * Majority of the borrowers had repaid the loan availed from Kudumbasree.
- * Due to the lack of repayment of loan to commercial and co-operative banks, farmers are forced to seek loans from money lenders, private financial firms and others in recent years.

III. Policy Suggestions

6.14 Wayanad district has been facing an unprecedented agricultural crisis and majority of the population are severely affected due to it. In this context the following strategy may be pursued to face the 'acute crisis.'

- * Implement measures to solve the problems such as failure of monsoons, widespread spread of diseases of crops, and fall in prices of agricultural commodities.
- * Give relief and credit support to solve the financial problems of farmers.
- * Encourage the farmers to change the crops cultivation from crops which give yield once in a year to crops such as rubber which gives yield frequently.
- * Helps the farmers to earn income from non-farming activities like livestock, forestry, cottage industries, agro processing trade etc.

- * Accelerate the process of economic growth and structural change of the district through more public and private investment thereby generating more income and employment in non-agricultural sector.

6.15 Failure of Monsoons and drought

- * Complete the execution of all ongoing major and minor irrigation projects in Wayanad district without delay.
- * Construct new check dams, minor irrigation projects and other micro irrigation projects suited to the irrigation of perennial crops cultivated in dry land.
- * Renovate all existing ponds, water sources, canals, streams to promote irrigation.
- * 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.

6.16 Crop Diseases

- * Strengthen the agricultural research of the Kerala Agricultural University and other agencies to find out solutions to contain the diseases of pepper, coffee, coconut, arecanut and ginger.
- * In the context of the failure of the state agencies, National Research Agencies may be requested to find out solutions to contain the diseases of crops.
- * Expand the measures of the Department of Agriculture and other agencies to help the farmers through pest control measures, distribution of medicines etc.

6.17 Price Stabilisation Measures

- * Ministry of Commerce, Government of India should start a price Monitoring cell to monitor price movements of the agricultural commodities such as pepper, cardamom, coffee, tea, coconut and rubber and take steps to stabilize the domestic prices. Appropriate policy instruments may be used to control the import of the commodities and stabilize the domestic prices to enable the farmers to get a remunerative price.
- * The commodity Boards coming under the Central government such as Coffee Board, Spices Board, Rubber Board, Coconut Development Board etc. should resort to market intervention measures and procurement of agricultural commodities to stabilize the prices.
- * In situation of steep fall in prices, the state government may also resort to market intervention by procuring the agricultural products such as pepper, cardamom, coffee, tea, ginger etc. to maintain remunerative prices in Wayanad district.

6.18 Relief to distressed farmers

- * Relief to the distressed farmers are to be distributed based on criteria such as size of agricultural holding levels of dependency of agricultural income and the magnitude of the damage of perennial crops.
- * Households having an agricultural holdings up to 0.5 hectare and solely dependent on agricultural income (all workers of the households are getting income or wages from agriculture and allied activities) are the first category facing acute crisis and deserve maximum relief.
- * The second category of distressed farmers are households having a size of agricultural holdings 0.5 hectare to one hectare and are solely dependent on agricultural income.
- * The third category of distressed farmers are households having a size of agricultural holdings one to two hectares and are solely dependent on agricultural income.
- * Magnitude of crop damage of perennial crops due to diseases, drought etc should be taken as additional criteria. One third of the damage of perennial crops cultivated by the farmers may be taken as the cut off point for determining relief to be given for damage.
- * The distressed farmers belonging to the first three categories may be given a debt relief of Rs.25,000 Rs.40,000 and Rs.50,000 respectively. The debt relief may be distributed by waving the loans in the case of farmers availed loans from institutional sources such as commercial banks, cooperative banks, co-operative societies etc. On the other hand those who borrowed from informal sources like money lenders may be given relief in cash.

6.19 Credit Support to Farmers

- * Long term loans at low rate of interest should be given to farmers for replanting perennial crops, shifting cultivation to rubber and irrigational 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 purchasing livestock by financial institutions.
- * 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.
- * More loans for starting self-employment activities in non-agricultural sector to generate more non-farm rural employment for the youth and unemployed.
- * The Commercial Banks, Co-operative Banks, NABARD etc should give liberal credit support to Kudumbasrees to expand their activities and issue of credit to women.

6.20 Encourage shift in Cultivation

- * Assistance, financial support and long term credit may be given to farmers to shift from the diseases affected crops like pepper to new crops.
- * Encouragement should be given to farmers to shift from crops which give yield once in a year like pepper, coffee to crops which give frequent yield such as rubber.
- * Promotion of cultivation of seasonal crops like ginger.

6.21 Restructure the National Rural Employment Guarantee Scheme (NREGS)

- * Instead of exclusively executing local public workers, the workers may also be allotted to the marginal and small farmers for cultivation, development of agricultural infrastructure, irrigational development etc.
- * The farmers who utilize the services of the workers have to contribute 50 percent of the wages and other 50 percent will be borne by the NREGS.
- * To prevent the shortage of agricultural workers in agricultural seasons, the NREGS may be suspended during the following five months in Wayanad.

6.22 Generate more non-agricultural employment

- * Banks and financial institutions should provide liberal credit to the people to invest in non-agricultural activities.
- * The Grama and Block Panchayats should organise Vocational Training Scheme to train young people to engage in non-agricultural activities such as small scale industries, agro-processing, trade, commerce, tourism, services etc.
- * Promote migration of educated youth to other parts of India and abroad for jobs.
- * Promote tourism development of the Wayanad District through the implementation of tourist promotion schemes.

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