

CHAPTER III

ACCESS OF FORMAL AND INFORMAL CREDIT

This chapter is broadly dealt in three sections. Section I is focused on supply side of the credit markets. It is attempted to answer the questions such as a) what is the contribution of each agency to the supply of credit?¹ b) Is the credit supplied by an agency (i) segmented by purpose and (ii) segmented by the size classes?

Section II dealt with the demand side aspects of rural credit market such as the extent by which the credit needs of various size classes are being met by the formal and informal credit agencies, factors influencing the accessibility of formal credit etc. Finally in Section III, the major conclusions of the chapter are outlined.

SECTION I

Contribution of each Agency to the Supply of Credit in Selected Villages:

The relative contribution of various formal and informal agencies to supply of credit in the selected villages is depicted in Table 3.1. The informal credit agencies dominate by supplying about 70 to 80 per cent of total credit in all the villages. Among formal credit agencies, commercial banks operate in all the three villages supplying about 10 to 20% of total credit, while co-operative societies supplied to the

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1. Here credit refers total credit including both short term credit upto one year and long term credit, whose repayment period spreads over more than one year. Here amount of credit refers to the amount of loan availed during the reference year and not the outstanding at a point of time.

Table 3.1

**Extent of credit provided by various types of credit agencies to the sample households in the
selected Villages during 1991-92**

(Amount in Rupees)

Type of Agencies	Developed village		Commercialised village		Backward village	
	No.	Amount	No.	Amount	No.	Amount
I FORMAL AGENCIES	43	195500 (33.14)	21	63700 (22.19)	22	586(10 (19.4ft)
1. Cooperative!	21	83300 (14.13)	18	29700 (10.35)	-	-
2. Cessercial banks	21	110000 (18.63)	3	34000 (11.84)	22	58600 (19.48)
3. Regional Rural Banks	1	2000 (0.34)	-	-	-	-
II INFORMAL AGENCIES	129	394490 (66.86)	77	223315 (77.81)	113	242185 (80.32)
1) FARMER-LENDERS	66	214590 (36.37)	40	79485 (27.69)	65	138835 (46.16)
a. Landlords	6	28000 (4.75)	-	" -	6	14200 (4.72)
b. Employer farmers	10	37000 (6.27)	24	47850 (16.67)	15	48500 (16.12)
c. Agricultural aoney	30	149590 (25.35)	16	31635 (11.01)	44	76165 (25.32)
2) TRADER-LENDERS	37	111500 (18.90)	29	121230 (42.24)	30	68920 (22.92)
a. Input traders	27	82000 (13.90)	-	-	-	-
b. CoMission agents	10	29500 (5.00)	29	121230 (42.24)	30	68920 (22.92)
3) OTHER LENDERS	26	68400 (11.59)	8	22600 (7.88)	18	344G0 (11.44)
a. Maistries/labour	4	16000 (2.71)	4	11600 (4.04)	5	2700 (0.90)
b. Friends and relatives	9	34000 (5.76)	3	10000 (3.49)	7	14200 (4.72)
c. Professional loney lenders	3	8600 (1.46)	1	1000 (0.33)	6	17500 (5.82)
d. Infortal wital funds	8	3300 (0.90)	-	-	-	-
e. Others	2	4500 (0.76)	-	-	-	-
III ALL CREDIT AGENCIES	172	589990 (100.00)	98	287015 (100.00)	135	300785 (100.00)

Note: No. denotes number of credit transactions i.e., No. of loans during the reference year.

Figures in brackets indicate percentage to total.

Amount refers Mount of loan availed during reference year and not outstanding credit a point of tite.

Source: Field data.

extent of about 10 to 15% in the two selected villages. However Regional Rural Banks (RRBa) are almost absent in the study area, except a credit transaction in the developed village.

Among the three major categories of informal lenders i.e., farmer-lenders, trader-lenders and other-lenders; farmer-lenders are the major source of credit for the developed and the backward villages contributing about 36% and 46% of total credit supply respectively. However, in the commercialised village, the trader-lenders are the dominant credit agencies by providing about 40% of the total credit (Table 3.1).

Among the various types of lenders, the agricultural money lenders contributed about one-fourth of the total credit in both the developed and backward villages. Trader-lenders also provided about 20% of total credit in these two villages. It is interesting to note that among all the ten different types of formal and informal lenders, the commission agents singularly provided more than 40% of the total credit supplied in the commercialised village. The other notable agencies are input traders in the developed village and the employer-farmers in the commercialised and backward villages. By and large, it can be observed that agricultural money lenders, commercial banks and input traders In the developed village, commission agents and employer-farmers in the commercialised village and the agricultural money lenders, commission agents, commercial banks and the employer-farmers in the backward village are the important sources of credit in that order.

Table 3.2**Purpose-wise distribution of formal credit among Sample Households in selected villages**

(Amount in Rupees)

Purpose	Developed village		Commercialised village		Backward village	
	No	Amount	No.	Amount	No.	Amount
1. Crop production	38	170100	19	33700	17	44600
	(88.37)	(87.01)	(90.48)	(52.90)	(77.27)	(76.11)
2. Agricultural investment	4	23400	2	30000	3	8500
	(9.30)	(11.97)	(9.52)	(47.10)	(13.64)	(14.51)
3. Other purposes	1	2000	-	-	2	5500
(business, service etc.)	(2.33)	(1.02)			(9.09)	(9.38)
All purposes	43	195500	21	63700	22	58600
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Note: 1. Figures in brackets indicate percentages

2. No. denotes number of loans during the reference year.

3. Amount refers amount of loan availed during reference year not outstanding credit at a point of time.

4. Agricultural investment credit is the long-term credit repayable in more than a year.

Source: Field data.

After observing the relative contribution of the various types of formal and informal lenders operating in the study area, it is in order here to examine how they distribute their lending's to various purposes and to know whether any of the lenders give credit specially for certain purposes only i.e., segmentation ion of credit by purpose. The purpose-wise distribution of formal and informal credit is discussed first and subsequently the purpose-wise distribution of credit by various typos of informal lenders is also analysed.

Tables 3.2 and 3.3 shows the purpose-wise distribution of formal and informal credit respectively in the selected villages. Formal credit agencies provide almost all of their credit to crop production and agricultural investment purposes only (Table 3.2). However, it is interesting to note from Table 3.3 that the largest proportion of informal credit has also gone for crop production purposes only (constituting about 50 to 60%) in the selected villages. However, it can also be seen that while 25 to 35 per cent of informal credit has gone for consumption purposes, no formal loan *l&* granted for consumption purposes.⁸ Among the various purposes of consumption, the marriage and medical purposes are prominent in all the villages, for which most of the consumption credit has gone.

The foregoing analysis reveals ..that though informal agencies provided credit for consumption purposes to the considerable extent, it seems that their major supply of

2. It can be argued here that knowing the requirements of formal agencies, borrowers though in need *of* consumption loan, may present a demand for a production loan to the formal agencies. This practice is quite prevalent, given the fungibility of credit.

Table 3.3

**Number of Informal Credit Transactions and Amount Involved under Various Purposes
of Utilisation among the Sample Households**

(Amount in Rs.)

Sl. No.	Purpose	Developed village		Commercialised village		Backward village	
		No.	Amount	No.	Amount	No.	Amount
I	Crop production	87 (67.44)	239990 (60.84)	40 (51.95)	134165 (60.08)	67 (59.29)	113085 (46.69)
II	Agricultural investtent	4 (3.10)	14000 (3.55)	1 (1.30)	10000 (4.48)	18 (15.93)	67300 (27.79)
	i) Minor irrigation and bullock	3 (2.33)	6500 (1.65)	1 (1.30)	10000 (4.48)	18 (15.93)	67300 (27.79)
	ii) Allied activities to agriculture (dairy, sheep etc.)	1 (0.77)	7500 (1.90)	-	-	-	-
III	Consumption	36 (27.91)	139500 (35.36)	31 (40.26)	64150 (28.72)	25 (22.12)	60500 (24.98)
	i) House construction	4 (3.10)	32000 (8.11)	1 (1.30)	5000 (2.24)	1 (0.88)	4000 (1.65)
	ii) Marriage	15 (11.63)	80900 (20.51)	13 (16.88)	38700 (17.33)	6 (5.31)	26000 (10.74)
	iii) Medical	7 (5.43)	15500 (3.93)	4 (5.20)	14300 (6.40)	7 (6.19)	13400- (5.53)
	iv) Clothing	1 (0.77)	1000 (0.25)	-	-	-	-
	v) Education	-	-	-	-	-	-
	vi) Social ceremonies	2 (1.55)	3000 (0.76)	-	-	4 (3.54)	7000 (2.89)
	vii) Food and other consumption	7 (5.43)	7100 (1.80)	13 (16.88)	6150 (2.75)	7 (6.20)	10100 <4.17)
IV	Other purposes	2 (1.55)	1000 (0.25)	5 (6.49)	15000 (6.72)	3 (2.66)	1300 (0.54)
	(Redemption of old and other purposes not specified)						
	Total informal credit	129 (100.00)	394490 (100.00)	77 (100.00)	223315 (100.00)	113 (100.00)	242185 (100.00)

Note: 1. No. indicates number of credit transactions i.e., number of loans during the reference year.

2. Figures in brackets indicate percentages to total.

3. Amount refers amount of loan availed during the reference, not the outstanding credit at a point of time.

4. Host of the loans under agricultural investment are long-ten loans repayable in more than a year.

Source: Field data

Table 3.4
Purpose-wise Distribution of Total Credit (formal and informal) availed
by Sample Households in Selected Villages During 1991-92

Purpose	Developed Village		Commercialised Village		Backward Village	
	No.	Amount	No.	Amount	No.	Amount
1. Crop Production	125 (72.67)	410090 (69.51)	59 (60.21)	167865 (58.49)	84 (62.22)	157685 (52.42)
2. Agrl. Investment	8 (4.65)	37400 (6.34)	3 (3.06)	40000 (13.94)	21 (15.56)	75800 (25.20)
3. Consumption	36 (20.93)	139500 (23.64)	31 (31.63)	64150 (22.35)	25 (18.52)	60500 (20.12)
4. Other Purposes	3 (1.75)	3000 (0.51)	5 (5.10)	15000 (5.22)	5 (3.70)	6800 (2.26)
All Purposes	172 (100.00)	589990 (100.00)	98 (100.00) ¹	287015 [100.00)	135 (100.00) ¹	300785 (100.00)

Note: 1) No. indicates number of credit transactions i.e., No. of loans during reference year.

2) Amount refers amount of loan availed during the reference year, not the outstanding credit at a point of time.

3) Agricultural investment loans include long-term loans which are repayable in more than a year.

4) Other purpose loan include loans for business and service in case of formal credit and loans for redemption of old debts in case of informal credit.

credit is for crop production purpose only in the selected villages, contrary to the general premise which is vice-versa. Further, the majority of the total credit transacted in the study area is for production purpose only (Table 3.4).

A further analysis is made to examine how the different types of informal lenders distribute their leadings to various types of purposes and presented in Table 3.5. It can be seen that there is a clear dichotomy in deployment of credit between farmer-lenders and trader-lenders. While the farmer lenders provide major portion of their credit amount to the consumption purposes, the trader-lenders provide entire credit only to crop production purposes. This pattern is observed in all the three sample villages. This may be due to the association of farmer lenders with agricultural labourers whose need is mostly consumption and while that of trader lenders is with cultivators, who borrow" production credit.

Contribution of Formal and Informal Credit Agencies to Various Purposes of Credit

Contribution of various credit agencies to the production credit (Table 3.6) reveals that the share of informal agencies is higher ranging from about 60% (developed village) to 80% (commercialised village), while the formal agencies contributed to the extent of about 20% (commercialised village) to 40% (developed village) to the production credit. Among the informal agencies, the trader lenders contributed to about 70% and 40% of total production credit in commercialised and backward villages respectively. On the other hand, the contribution of formal agencies to the investment credit is quite higher in both the developed and

Table 3.5**Distribution of Informal Credit Provided by Lender Types among Various Purposes**

Village/Type of lenders	Crop produ- ction	Agricul- tural in- vestment	Consu- mption	Other purposes	All purposes
Developed Village	85690	14000	114700	-	214590
Farmer-lenders	(40.03)	(6.52)	(53.45)		(100.00)
Trader-lenders	110500	-	-	1000	111500
	(99.10)			(Q.90)	(100.00)
Other-lenders	43600	-	24800	-	68400
	(63.74)		(36.26)		(100.00)
All lenders	239990	14000	139500	1000	394490
	(60.84)	(3.55)	(35.36)	(0.25)	(100.00)
CoMertialised Village	11935	10000	52550	5000	79485
Farter-lenders	(15.02)	(12.56)	(66.11)	(6.29)	(100.00)
Trader-lenders	121230	-	-	-	121230
	(100.00)				(100.00)
Other-lenders	1000	-	11600	10000	22600
	(4.42)		(51.33)	(44.25)	(100.00) -
All lenders	134165	10000	64150	15000	223315
	(60.08)	(4.48)	(28.72)	(6.72)	(100.00)
Backward Village	37165	44800	56900	-	138865
Farter-lenders	(26.76)	(32.26)	(40.98)		(100.00)
Trader-lenders	68920	-	-	-	68920
	(100.00)				(100.00)
Other-lenders	7000	22500	3600	1300	34400
	(20.35)	(65.41)	(10.46)	(3.78)	(100.00)
All lenders	113085	67300	60500	1300	242185
	(46.69)	(27.79)	(24.98)	(0.54)	(100.00)

Note: Figures in brackets indicate percentages

Source: Field data

Table 3.6

Contribution of Formal and Informal Credit to Sample Household for Various Purposes of Credit

(Figures in percentages)

Type of Credit agency	Quantum of Credit Provided for the Purposes of				
	Crop production	Agri. investment	Consumption	Other purposes	All purposes
Developed Village					
I. FORMAL AGENCIES	41.48	62.57	-	66.67	33.14
1. Cooperatives	15.87	49.20	—	-	14.15
2. Commercial banks	25.61	13.37		-	18.65
3. Regional Rural Banks				66.67	0.34
II. INFORMAL AGENCIES	58.51	37.43	100.00	33.33	66.86
1. Farter-lenders	20.94	37.43	82.22	- 33.33	36.37
2. Trader-lenders	26.95	-	-	-	18.90
3. Other lenders	10.63	-	17.78		11.59
III. ALL CREDIT AGENCIES	100.00	100.00	100.00	100.00	100.00
Commercialised Village					
I. FORMAL AGENCIES	20.08	75.00	-	-	22.19
1. Cooperatives	17.69	-	-	-	10.35
2. Commercial banks	2.39	75.00	-	-	11.84
II. INFORMAL AGENCIES	79.92	25.00	100.00	100.00	77.81
1. Farter-lenders	7.11	25.00	81.92	33.33	27.69
2. Trader-lenders	72.22	-	18.08	-	42.24
3. Other lenders	0.59	-		66.	7.88 19.48
III. ALL CREDIT AGENCIES	100.00	100.00	100.00	100.00	100.00
Backward Village					
I. FORMAL AGENCIES	28.28	11.21	-	80.88	19.48
1. Cooperatives	-	-	-	-	-
2. Commercial banks	28.68	11.21	-	80.88	19.48
II. INFORMAL AGENCIES	71.72	88.79	100.00	19.12	80.52
1. Farter-lenders	23.57	59.11	94.05	80.52	46.17
2. Trader-lenders	43.71	-	-	-	22.91
3. Other lenders	4.44	29.68	5.95	19.12	11.44
III. ALL CREDIT AGENCIES	100.00	100.00	100.00	100.00	100.00

Source: Field data.

commercialised villages though the amount involved in it is very low. However, it is interesting to note that most of the investment credit in backward village is supplied by informal lenders only.³ Most of the consumption credit is supplied by farmer lenders only in all the selected villages. The contribution of formal credit agencies and trader lenders to the consumption credit is nil in all the three villages (Table 3.6).

The above analysis reveals that the share of trader lenders in production credit is the highest among all other lending agencies, while the farmer lenders provided most of the consumption credit. On the other hand, the cooperatives and commercial banks supplied majority of the investment credit in developed and commercialised villages respectively. This shows the clear segmentation of credit to the different purposes. This in turn might have been resulted due to different needs/purposes of various size groups to which the credit has been segmented by various agencies. Therefore, we may now examine the segmentation pattern of credit of various formal and informal agencies by size groups of farm households.

Segmentation of Credit of an Agency by Size Group of Farm Households

A perusal of Table 3.7 in which the proportions of credit provided by each formal and informal agency to various size groups is presented, reveals that the formal credit

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3. The reason for high proportion of informal credit for agricultural investment purposes in the backward village are explained in the subsequent chapters.

Table 3.7
Segmentation of Credit of in Agency by Size Groups

(Figures in percentages)

Type of Credit	Proportions of credit provided by each agency to							
	Landless agrl. labourers	Landed agril. labourers	All agrl. abourers	Stall farters	Medim farters	Large farters	All culti- vators	All house holds
Developed Village								
I. FORMAL AGENCIES	1.02	4.81	5.83	22.66	30.08	41.43	94.17	100.00
1. Cooperatives	-	4.07	4.07	21.92	24.91	49.10	95.93	100.00
2. Coiaercial banks	-	5.45	5.45	23.64	34.55	36.36	94.55	100.00
3 Regional Rural Banks	100.00	-	-	-	-	-	-	100.00
II. INFORMAL AGENCIES	10.04	27.29	37.33	29.16	29.46	4.05	62.67	100.00
1. Farter-lenders	14.26	41.54	55.80	19.83	22.04	2.33	44.20	100.00
2. Trader-lenders	0.90	4.03	4.93	40.81	44.39	9.87	95.07	100.00
3. Other lenders	11.70	20.46	32.16	39.48	28.36	-	67.84	100.00
III. ALL CREDIT AGENCIES								
<u>Commercialised Village</u>								
I. FORMAL AGENCIES	2.83	12.40	15.23	28.41	36.11	20.25	84.77	100.00
1. Cooperatives	6.06	26.60	32.66	27.27	10.10	29.97	67.34	100.00
2. Cottercial banks	-	-	-	29.41	58.83	11.76	100.00	100.00
II. INFORMAL AGENCIES	13.08	24.82	37.90	12.76	14.60	34.74	62.10	100.00
1. Farter-lenders	22.14	49.82	71.96	11.31	15.35	1.38	28.04	100.00
2. Trader-lenders	-	4.81	4.81	16.08	16.00	63.10	95.19	100.00
3 Other lenders	51.33	44.25	95.58	-	4.42	-	4.42	100.00
III. ALL CREDIT AGENCIES								
Backward Village								
I. FORMAL AGENCIES	0.85	11.09	11.94	15.36	34.13	38.57	88.06	100.00
1. Cooperatives	-	-	-	-	-	-	-	-
2. Cottercial banks	0.85	11.09	11.94	15.36	34.13	38.57	88.06	100.00
II. INFORMAL AGENCIES	3.63	33.94	37.57	23.90	27.79	10.74	62.43	100.00
1. Farter-lenders	4.82	46.13	50.95	25.46	18.55	5.04	49.05	100.00
2. Trader-lenders	-	17.46	17.46	22.27	32.70	27.57	82.54	100.00
3. Other lenders	6.10	17.74	23.84	20.93	55.23	-	76.16	100.00
III , ALL CREDIT AGENCIES								

Note: The satple is self-weighted.

Source: Field data.

agencies provided most of the credit (ranging 85% to 95%) to the cultivators only. Among the formal credit agencies, both the cooperatives and commercial banks supplied most of the credit to medium and large farmers in all the three villages. On the other hand, among the informal credit agencies, there is contrasting feature observed in case of farmer lenders and trader lenders. While farmer lenders supplied majority of the credit to landed agricultural labourers (ranging between 40 to 50%), the trader lenders provided most of their credit amount to medium and large farmers. This reveals that there is a broad segmentation of credit between the agencies and size groups. While both the formal credit agencies and trader lenders supply most of their credit amount to medium and large farmers, the farmer lenders provide the credit mostly to landed agricultural labourers.

The average amount per loan* provided by formal credit agencies is higher than that of informal agencies in all the selected villages, since they supply credit mostly to medium and large farmers whose credit needs are higher (Table 3.8). Among the informal credit agencies, the average amount of production loan provided by trader lenders is higher than that of other informal lenders since they also mostly confined only to medium and large farmers in providing credit. The average amount per loan supplied to agricultural investment purposes is higher than that of other purposes. It is interesting to note that the average amount of loan for consumption purposes is higher than that of production credit in two of the villages. It may be due to the long term

4. It refers to the amount of loan at the disbursement stage.

Table 3.8
Average taunt per Loan by Agency by Purpose
(Amount in Rs.)

Type of Credit agency	Amount per loan for				
	Crop production	Agri. investment	Consum-ption	Other purposes	All purposes
Developed Village			-		
I. FORMAL AGENCIES	4476	5850		2000	4546
1. Cooperatives	3426	9200	—	2000	3976
2. CoMercial banks	5526	2500	-	-	5238
3. Regional Rural Banks	-	-	-	2000	2000
II. INFORMAL AGENCIES	2759	3500	3875	500	3058
1. Farter-lenders	2321	3500	4588	-	3251
2. Trader-lenders	3157	-	-	500	3013
3. Other lenders	2907	-	2254	-	2631
III. ALL CREDIT AGENCIES	3281	4675	3875	1000	3430
Cowfrcialisfd Villaot	1774	15000	-	-	3033
I. FORMAL AGENCIES					
1. Cooperatives	1650	-	-	-	1650
2. CoMercial banks	4000	15000	-	-	11333
II. INFORMAL AGENCIES	3354	10000	2069	3000	2900
1. Faner-lenders	1194	10000	1946	2500	1987
2. Trader-lenders	4180	-	-	-	4180
3. Other lenders	1000	-	2900	3333	2825
III. ALL CREDIT AGENCIES	2845	13333	2069	3000	2929
Backward Village					
I. FORMAL AGENCIES	2624	2833	-	2750	2664
1. Cooperatives	-	-	-	-	-
2. CoMercial banks	2624	2833	-	2750	2664
II. INFORMAL AGENCIES	1688	3739	2420	433	2143
1. Farter-lenders	1161	3733	2709	-	2136
2. Trader-lenders	2297	-	-	-	2297
3. Other lenders	1400	3750	900	433	1911
III. ALL CREDIT AGENCIES	1877	3609	2420	1360	2228

Source: Field data.

labour contracts such as annual farm servant system and migration contracts in which the employer farmers and labour contractors provide consumption credit to agricultural labourers in sizable amounts largely to perpetuate the contracts.

SECTION II

Accessibility of Formal Credit to Various Size Groups

Extensive evidences⁵ on lower access of formal credit to backward regions and to the less endowed sections of rural areas have been widely documented in the literature. Therefore it is envisaged in the study to examine the extent to which the credit needs are being met by formal agencies.

The proportion of farm households borrowing from formal agencies was as low as 5.56% to the smallest size group and as high as 75% to the large farmers in the developed village (Table 3.9). By and large similar pattern was observed in other two villages also. Further it is also clear that the percentage of households borrowing from formal agencies increases largely with the increase in farm size.⁶ It can also be observed in Table 3.9 that higher proportions of cultivators ranging from 35 to 45% availed formal credit, while only a few of the agricultural labourers (about 12% to 19%) borrowed formal credit. In the earlier section also we have already observed that major portion of credit supplied

5. Rao (1970), AIDIS (1980-81), Bhende (1986), Desai (1988), Sarap (1991).

6. However, the proportion of medium farmer households borrowing formal credit is significantly lower than that of small farmers in two of the villages.

Table 3.9

Borrowing of Satple Households according to Fan Size Groups in Selected Villages (1991-92)

Size group	Percentage of HHS in each group		Percentage of HHS in each group borrowing			Proportion of formal credit availed out of total credit borrowed (%)	Percentage of short term credit need met by formal agencies	Amount of loan per household (Rs.)	
	borrowing from		Only formal	Only in-formal credit	Both sources			Formal	Informal
	Formal agencies	Informal agencies							
1	2	3	4	5	6	7	8	9	10
Developed Village									
I. AGRL. LABOURERS	12.50	67.50	5.00	60.00	7.50	7.19	15.76	285	3681
1. Landless AL	5.56	66.67	-	61.11	5.56	4.81	-	111	2200
2. Landed AL	18.18	68.18	9.09	59.09	9.09	8.03	15.76	427	4893
II. CULTIVATORS	45.90	81.97	14.75	50.82	31.15	42.68	44.80	3018	4053
Small farmers	42.33	87.88	9.09	54.55	33.33	27.80	30.40	1342	3486
Medium farmers	40.00	85.00	10.00	55.00	30.00	33.60	38.13	2940	5810
Large farmers	75.00	50.00	50.00	25.00	25.00	83.51	80.23	10125	2000
III. ALL FARM HOUSEHOLDS	32.67	76.24	10.89	54.46	21.78	33.13	41.48	1936	3906
Commercialised Village									
I. AGRL. LABOURERS	19.44	69.44	8.33	58.33	11.11	10.28	47.01	269	2351
1. Landless AL	15.38	69.23	15.38	69.23	-	5.81	-	138	2246
2. Landed AL	21.39	69.56	4.35	52.17	17.39	12.47	47.01	343	2410
II. CULTIVATORS	37.84	83.78	5.41	51.35	32.43	28.03	16.30	1459	3748
Small farmers	35.29	70.59	5.88	41.18	29.41	38.85	25.77	1065	1676
Medium farmers	20.00	80.00	10.00	70.00	10.00	41.37	11.81	2300	3260
Large farmers	50.00	50.00	-	50.00	50.00	14.25	14.27	1290	7760
III ALL FARM HOUSEHOLDS	28.77	76.91	6.85	54.79	21.92	22.19	20.03	873	3059
Backward Village									
I. AGRL. LABOURERS	14.29	77.15	-	62.86	14.29	7.14	10.04	200	2600
1. Landless AL	11.11	44.44	-	33.33	11.11	5.38	-	56	978
2. Landed AL	15.38	88.46	-	73.08	15.38	7.33	10.04	250	3161
II. CULTIVATORS	35.55	82.22	11.11	57.78	24.44	25.44	32.55	1147	3360
Small farmers	17.39	82.61	4.35	69.57	13.04	13.45	21.93	391	2517
Medium farmers	42.85	92.85	7.14	57.14	35.71	22.91	27.00	1429	4807
Large farmers	75.00	62.50	37.50	25.00	37.50	46.50	47.25	2825	3250
III ALL FARM HOUSEHOLDS	26.25	80.00	6.25	60.00	20.00	19.40	28.28	733	3027

Source: Field data.

by formal agencies (85 to 95%) has gone in favour of cultivators. It is possible that it may be due to higher production credit requirements of cultivators. Since the formal agencies are heavily biased in favour of production credit as observed earlier, they might have supplied more credit to the cultivators. To examine the above proposition, it is analysed the extent to which the short term credit requirements for crop production purposes of various size groups are met by the formal agencies. It is revealed from the analysis (Table 3.9, column 8) that formal agencies could meet about 32 to 44% of the short term credit requirements of cultivators, while agricultural labourers could get only about 10 to 15% of their short term credit requirements from formal sources in backward and developed villages. On the other hand, the picture is quite contrasting in the commercialised village. However, it is quite specific to the commercialised village, as field observations reveal that the cultivators who were the extensive recipients of formal credit earlier to the reference year and chronic defaulters to the formal agencies, could not get formal credit during the reference year.⁷ Further the extent to which the formal credit agencies are meeting total, credit requirements of the size groups also increases with the increase in farm size in all the villages.

7. During the reference year (1991.-92), the Farmers Service Cooperative Society (FSCS) disbursed for the first time, the production credit in the commercialised village, only to the- non-defaulters.

8. Large farmers of commercialised village is an exception largely due to their chronic default.

Though the accessibility of formal credit is better to the higher size groups, almost all the size groups are largely dependent on informal sources for meeting their credit needs in all the three villages. Only the large farmers in developed village could get more than 80% of their credit needs from formal agencies. It is also interesting to note that the percentage of households borrowing informal credit are higher (more than 80%) among cultivators than that of agricultural labourers (about 67 to 77%). About one fourth of the households among agricultural labourers have not borrowed from any of the two sources. Among the agricultural labourers, in the landless category, about 56% of the households in backward village and about 33% in the developed village could not get in access of both the formal and informal sources of credit.

Regarding the average amount of formal loan borrowed per household it also increases with increase of farm size except in case of large farmers in commercialised village. Similar pattern is observed in case of average amount of informal loan borrowed by an household. However average amount of loan availed by large farmers is lower than that of medium farmers in the developed and backward villages.

It is clear from the foregoing analysis that though majority of the households in almost all the size groups largely depend on informal agencies for their credit requirements in the study area, the lower size groups had comparatively lower access to formal credit than that of higher size groups. There are no considerable inter-village differences in the accessibility of formal credit, since all

the three villages belong to one of the most backward districts in Andhra Pradesh i.e., Wahabnagar district.

Factors affecting lower Access of Formal Credit:

Given the supply of credit, various factors may be responsible to make the formal credit inaccessible to the poor endowed sections, such as asset based lending policies of formal agencies, rigid formalities, and procedures to be undergone by the households etc. The resource endowments like owned farm size, percentage of irrigated area, percentage of area leased in, value of per capita non-land assets etc. can play a major role in satisfying the asset based lending policies of formal agencies. Further, the rigid formalities and procedures can raise the actual cost of borrowing of formal credit by inflicting more transaction costs in obtaining the loan. The personal characteristics such as lower education, caste status etc. may also be the causal factors. The agricultural labourers and small farmers having lower education with lower social status may hesitate even to approach the personnel of formal credit agencies. Sometimes the village from which the household hails also play an important role, since supply of formal credit to a village is generally influenced by the past experience of formal agencies operating in the village such as repayment.

Thus we may expect that size of formal credit obtained by an household is likely to be positively associated with the land holding owned by the household, value of per capita non-land farm assets possessed by the household, percentage of irrigated area out of total operated area, education of head of household, caste status and family size of the

household. We expect the percentage of leased in land out of total, operated area as negatively associated with size of formal credit. In fact with higher leased in land, the credit requirements of the household may increase and hence the formal credit demand also should increase. But in reality, since the formal agencies do not finance to the crop expenses of leased in land, the tenant approaches other source of credit. Hence we expected negative relationship. We also expect that the size of formal credit received by an household is likely to have the positive association if the household hails from developed and commercialised villages. Since the average amount of loan per household was higher in both the villages than that of backward village.

We have used multiple regression analysis using formal credit borrowed (Rs.) by the household as dependent variable (Y). The independent variables used are as follows:

X_1 , =	Caste :	SC/ST	= 0
		Otherwise	= 1.
X_2 =	Education of head of household:		
		Illiterate	= 0
		Otherwise	= 1
X_3 =	Family size		
X_4 =	Area owned (acres)		
X_5 =	Percentage of leased in land out of total operated area		
X_6 =	Percentage of irrigated area out of total operated area		
X_7 =	Per capita value of non-land farm assets (Rs)		
X_8 =	Village from which the household hails from:		
		Developed village	= 1
		Otherwise	= 0
X_9 =	Village from which the household hails from:		
		Commercialised village	= 1
		Otherwise	= 0

Table 3.10
Dependent Variable: Formal Credit availed by Farm Households
(Rs. per household)

Sl. No.	Explanatory variables	Regression coefficient	‘t’ Value
1.	Caste: SC/St = 0 Otherwise = 1	713.99	0.47
2.	Education: Illiterate = 0 Otherwise = 1	451.55	0.39
3.	Family size	281.34	1.96***
4.	Area owned in acres	310.67	2.19**
5.	Percentage of leased in land out of total operated area	-23.70	-0.95
6.	Percentage of irrigated area out of total operated area	-79.79	-0.43
7.	Per capita value of non-land farm assets (Rs.)	0.28 -	1.71***
8.	Villagel Developed = 1 Otherwise = 0	3412.38	2.26**
9.	Village2 Commercialised = 1 Otherwise = 0	1609.72	1.17
Intercept		-3258.96	
No. of observations: 71		R ² = 0.44	Adj R ² = 0.36
		F Value = 5.42	

** The coefficient is significant at 5% level.

*** The coefficient is significant at 10% level.

Here X_5 is expected to be negatively associated, while all other independent variables are to be positively associated. The results of the multiple regression analysis are presented in Table 3.10.

The signs of all variables except X^* i.e., the percentage of irrigated area out of total operated area are as expected. The coefficients of X_3 , X_4 , X_7 and X_8 i.e., family size, area owned, per capita value of non-land farm assets, and developed village are statistically significant. The coefficients of X_4 and X_5 are significant at 5% level and that of X_3 and X_7 are significant at 10% level.

As expected, the formal credit borrowed is positively associated with owned farm size, and higher per capita value of farm assets and households in developed village. The households who are endowed with above factors could satisfy the asset based lending policies of formal credit agencies.

Besides the above factors which influenced the access of formal credit, the higher transaction costs involved in obtaining the formal credit due to the rigid formalities and procedures of formal agencies can also affect the availability formal credit to the various size groups of farm households. Therefore, it is attempted here to estimate the transaction costs involved to find out inter-size group variations in the effective cost of formal credit.

Household Characteristics of Formal Loan Borrowers and Non-Borrowers :

In the foregoing analysis, we have attempted to analyse the various factors involved in getting formal credit among the households who actually borrowed formal credit. Now it

is envisaged here to examine the differences in characteristics of formal loan borrowers with that of non-borrowers of formal credit by employing Binary Logit model. It is attempted to assess the factors which influenced the probability of an household getting formal credit. Though it is envisaged to examine the characteristics among agricultural labourers and cultivators separately, since the number of formal loan borrowers among agricultural labourers are only 17, we could not employ the Binary Logit analysis for them. Hence only cultivator households are considered for the analysis.

Specification of Variables:

Dependent Variable: Dummy dependent variable 1, if the cultivator household is a formal loan borrower and '0' otherwise.

Explanatory Variables:

CASTE 1: 0, if the household belongs to SC/ST categories, and 1 if the household belongs to Backward Caste (BC) category.

CASTE2: 0, if the household belongs to SC/ST categories and 1 if it belongs to other caste (OC) category.

EDU: 0, if the head of household is illiterate and 1 otherwise.

EDM: 0, if all the major members of the household are illiterates and 1 if any one of the major members is literate.

TOTOP: Total operated area of the household in acres.

IR/OP: Percentage of irrigated area of the household out of the total operated area

$$= \frac{\text{Total irrigated area}}{\text{Total operated area}} \times 100$$

PCC: Per capita crop income in Rs.

PCNLA: Per capita value of non-land farm assets in Rs.

VIL1: 1, if the village to which the household belongs is commercialised village and 0 if belongs to the backward village.

VIL2: 1, if the village to which the household belongs is the developed village and 0 if it belongs to the backward village.

We expect a positive sign both for CASTE 1 and CASTE 2, as the probability of getting formal loan may be higher if the household is other than from SC/ST category. We also expect positive association with dependent variable both for EDU and EDM since the possibility of getting formal loan is higher for literate households. We further expect positive signs for TOTOP, IR/OP, PCC, and PCNLA, as the probabilities of getting formal credit are higher for the households having higher resource endowments. We finally expect positive signs for VIL1 and VIL2 also, since the households of commercialised and developed villages have better probabilities of getting formal loan than that of backward village.

The results of the Binary Logit analysis presented in Table 3.11 show that all the coefficients of the variables have the expected signs except that of CASTE1 i.e., the probability of getting a formal loan is even lower if the household belongs to backward caste category than that of the households belonging to SC/ST categories. The coefficients of variables IR/OP, TOTOP, EDM are statistically significant. while the coefficient of IR/OP is significant at 5% level, the coefficients of TOTOP and EDM are significant at 10% level. Thus the analysis reveals that the probability of an household getting formal loan is higher if the percentage of

Table 3.11

Maximum Likelihood Estimation of Dichotomous Logit
Relationship (Dummy dependent variable=1, if the farm
household has availed formal loans and '0' otherwise)

Cultivator Households

Explanatory households	Coefficient	T-Ratio
1. CASTE1	-0.6389	-0.9266
2. CASTE2	0.5329	0.6240
3. EDU	0.8604	1.0134
4. EDM	0.8997	1.7367***
5. TOTOP	0.1038	1.8226***
6. IR/OP	0.0203	2.2008**
7. PCC	0.00001	0.0670
8. PCNLA	0.0001	1.3394
9. VIL1	0.2600	0.4364
10. VIL2	0.2473	0.3772
Constant	-2.2421	
Log likelihood function	-65.405	
No. of observation	118	
Degrees of freedom	10	
Percentage of right prediction	74.58%	

** The coefficient is significant at 5% level.

*** The coefficient is significant at 10% level.

irrigated area out of total operated area is higher, total operated area is higher and the presence of literate members in the household.

The above analysis further confirms that the resource endowments and education level of the household are playing an important role in the accessibility of formal credit. The large farmers who are better endowed with the above factors are able to satisfy the lending norms and procedures of formal agencies and are getting a better access of formal credit, while it is vice-versa in case of the households with poor resource endowments and education and caste status.

Transaction Costs to Size Groups of Farm Households

To obtain a loan from a formal agency, a farmer has to submit various certificates, forms and documents issued by different authorities along with his loan application for which he will incur (1) out of pocket expenses for travelling, official charges for obtaining various certificates, sundry expenses for food/snacks for himself and guarantor/middleman involved while they were on the job of fulfilling the formalities of loan and commission/bribes for middlemen, officials and non-officials of formal credit agencies and (2) opportunity/time costs in terms of wages/work lost for the time involved to comply with the formalities and procedures. These are considered as transaction costs for the formal loans.⁹ Only production loans are considered for estimating the transaction costs.

9. The details of various items of costs considered for estimation of transaction costs are given in Appendix-1.

The average transaction costs per loan decreased with increase of farm size; they are highest for the landless labour households and lowest for large farmers. In all the three selected villages (Table 3.12). The higher transaction costs are mainly due to higher travel and time costs incurred by the lower size groups than that of larger size groups. Similar pattern is observed regarding transaction costs per Rs.100 of loan also.

It is also observed from Table 3.11 that the transaction costs are very high for households of commercialised village compared to that of their corresponding size groups in the other two villages. This is due to the higher costs incurred by them for travel and time costs.¹⁰ It is also interesting to note that though the transaction costs per loan are lower in backward village than that of developed village, the transaction costs per Rs.100 loan are higher in the backward village. It is due to the lower size of loans in backward village.

Total Costs of Borrowing of Formal Credit

For arriving at the true costs of borrowing of formal credit, the actual transaction costs estimated were added to the interest payments. However, the interest costs vary among the households based on the actual duration of loan, as they availed and repaid at different intervals of time,

10. Since the commercialised village was considered as a bad village for recovery by the concerned commercial bank branch as most of medium and large farmers are defaulters, the cooperative society (FSCs) which entered for the first time in the village took a long time to sanction loans. Hence farmers had visited the society office for many times and hence higher costs.

Table 3.12
Transaction Costs of Formal Credit for Crop Production for Sample Households in Selected Villages
for 1991-92

(Amount in Rs.)

Size group	Developed village		Commercialised village		Backward village	
	Per loan	Per .100	Per loan	Per Rs.100	Per loan	Per Rs.100
I. Agrl labourers	110.33	4.47*	332	24.02	118.50*	7.90
Landless AL	-	-	350*	38.89*	-	-
Landed AL	110.33-	4.47*	326	20.63	118.50*	7.90*
II. Cultivators	75.11	1.61	228	11.40	56.26	2.02
Small farmers	87.86	3.16	272	20.18	63.33	2.53
Medium farmers	83.10	1.41	200	6.67	52.33	2.33
Large farmers	51.64	0.87	180	6.98	56.67	1.65
III. All fart HHs	77.89	1.74	267	15.03	63.59	2.42

* Observations are less than 5.

Source: Field data.

though the due date is same. The duration of the crop loan in the study area ranges between 7 to 10 months. Therefore, the interest costs of different duration were standardised for one year to make them uniform.

The transaction costs incurred by the farm households was taken actuals, and not standardised for one year as they did not have any relationship with the duration of loan and incurred to the borrower once in the loan duration.

$$\text{Total costs of borrowing} = \text{Annualised interest costs per annum} + \text{Actual transaction costs}$$

The total costs of borrowing per annum expressed as a percentage of the loan borrowed to get the effective rate of interest.

$$\text{Effective interest rate per annum} = \frac{\text{Total costs of borrowing per annum} *}{\text{Formal loan borrowed}} \times 100$$

The proportion of transaction costs out of total costs of borrowing decreases with increase of farm size in all the three villages (Table 3.13). However, the proportion of transaction costs are quite higher for all the size groups of households in commercialised village than that of the corresponding size groups in the other two villages. Further, the effective rates of interest per annum for formal credit also decreases with farm size in all the villages. However, the effective rates of interest of formal credit in commercialised village are almost double over the other two villages. It is mainly due to high transaction costs incurred by the households in commercialised village

Table 3.13

**Transaction Costs, Interest Costs, Total Costs of Borrowing and Effective Interest Rates Per Annum
Per Formal Loan**

Size group	Average size of loan (Rs.)	Annual interest costs (% to total costs)	Average transa- ction costs (% to total costs)	Total costs (Rs.)	Effective in- terest rate (% p.a.)
Developed village					
Agri labourers	2467	73.65	26.35	418.70	16.97
Landless AL	-	-	-	-	-
Landed AL	2467	73.65	26.35	416.70	16.97
Cultivators	4649	89.14	10.86	691.33	14.87
Small farmers	2779	79.81	20.19	435.23	15.66
Medium farmers	5880	90.49	9.51	873.66	14.86
Large farmers	5909	93.93	6.07	851.42	14.41
III. All farm HHs	4476	88.37	11.63	669.71	14.96
Commercialised village					
I. Agri labourers	1386	34.29	65.71	505.25	36.45
Landless AL	900	24.32	75.68	462.50	51.39
Landed AL	1580	37.33	62.27	523.50	33.13
II. Cultivators	2000	52.30	47.70	478.00	23.90
Small farmers	1350	38.29	61.71	440.75	32.65
Medium farmers	3000	65.22	34.78	575.00	19.17
Large farmers	2580	64.18	35.82	502.50	19.48
III. All farm HHs	1774	45.37	54.63	488.73	27.55
Backward village					
I. Agri labourers	1500	61.27	38.73	306.00	20.40
Landless AL	1500	61.27	38.73	306.00	20.40
Landed AL					
II. Cultivators	2773	86.04	13.96	402.89	14.53
Stall farmers	2500	83.15	16.85	375.83	15.03
Medium farmers	2250	84.31	15.69	333.58	14.83
Large farmers	3433	86.33	11.67	485.80	14.15
III. All farm HHs	2623	83.75	16.25	391.46	14.92

Source: Field data.

SECTION III

CONCLUSIONS

It is observed in the study that the informal agencies dominate in the study area supplying 70 to 80 per cent of total credit. Among the informal agencies, the farmer lenders in developed and backward villages, and the trader lenders in commercialised village are the dominant credit agencies. It is also found in the study that there is broad segmentation between formal and informal agencies by purpose of loan as well as by size groups of farm households. The analysis reveals that the share of trader lenders is the highest among all lenders out of the total production credit, while the farmer lenders contributed majority of the consumption credit supplied in the study area. On the other hand, the formal credit agencies supplied majority of the agricultural investment credit in two of the villages though the amount involved in it quite low. This shows the clear augmentation of credit by purpose. Moreover, while farmer lenders provided credit mostly to landed agricultural labourers, the formal credit agencies and trader lenders supplied most of their credit to medium and large farmers.

Though the majority of the households in almost all the size groups largely dependent on informal agencies for their credit requirements in the study area, the lower size groups have comparatively lower access to the formal credit than that of larger size groups. The study reveals that the resource endowments and education level of the household are playing an important role in the accessibility of formal credit. The large farmers who are better endowed with the

above factors are able to satisfy the lending norms of formal agencies and are getting a better access of formal credit, while it is vice-versa in case of households with poor resource endowments as well as lower education and social status.