

**RESEARCH ARTICLE :**

Credit need of the farmers in Bikaner region of Rajasthan

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SUMMARY : The credit need to the farmers of Sriganganagar and Hanumangarh was about 40-42 per cent and 68 to 74 per cent to the farmers of Bikaner and Churu district of the total amount registered for recommended dose of inputs. In case of term loan about 42 to 54 per cent was needed to the farmers of study area for purchasing of farm equipments and machinery, minor irrigation system and for land development purposes. Of the credit need about 28 to 49 per cent short term credit was supplied to the farmers of study area. In case of term credit about 50 to 69 per cent term loan was supplied to the borrower farmers by financial institutions in study area. Purpose wise highest term credit (58 to 54 %) was provided for farm machinery and equipment to the farmers of Hanumangarh and Sriganganagar district. However, the higher 54-60 per cent term credit was supplied for minor irrigation to the farmers of Bikaner and Churu district. The total credit supplied varied from 82 to 87 per cent of the total credit need. The utilization pattern of the short term credit among small, medium and large farms of the study area was about 68 per cent (small) to 92 per cent (large farms). On an average utilized amount of the short term loan by the farmers of Bikaner region as whole was about 77 to 85 per cent of the total credit supplied for production purposes. About 79 to 85 per cent term loan and 82 to 87 per cent total loan was utilized by the farmers of Bikaner region. The short term credit gap of the borrower farmers of Bikaner region was estimated about 13 to 19 per cent, however, the supply gap in respect of term credit was 19 to 48 per cent of the total term credit need. The financial institutions preferred to provide the credit to the farmers having larger land holding. The repayment performance was found higher on small farmers followed by medium and large farmers in the study area. The repayment performance of short term loan on overall level was about 69 to 86 per cent. About 65 to 85 per cent difference farm large to small farms was found in repayment performance in the study area. The overdues amount was increased with increase in size of land holding. The extent of overdues increase of term loan ranged 15 to 33 per cent. The gross farm income, non farm income, cropping intensity, amount put for productive purposes and total land holding was significantly negative effect in overdues and variables such as amount put for unproductive farm expenses, old debts, live stock expenditure were having positive relationship with overdues.

KEY WORDS :

Credit need, Farmers, Large farms, Live stock

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BACKGROUND AND OBJECTIVES

To meet the need of intuitional credit to

the needy farmers, Government of India nationalized fourteen banks on 19th July 1969

and thereafter six more banks were nationalized on 15th April 1980. Under the guidance issued by the RBI, commercial banks are required to formulate agricultural credit schemes within the framework of district credit plans in close co-ordination with state government agencies. Besides, schemes for providing crop loans and loans for irrigation, land development etc., complementary scheme have to be formulated for financing and distribution of inputs, construction for buildings, and transportation of agricultural products etc. Commercial banks provide direct finance to the agricultural sector through a variety of credit schemes. The banks also provide loans to other type of credit schemes. These include location specific area schemes, credit schemes linked with the world bank assisted projects, centrally sponsored programmers such as SFDA (Small Farmers Development Agency), MFAL (Marginal Farmers and Agricultural Labours), DPAP (Drought Prone Area Programme) projects sponsored by the state government and schemes prepared by AFC (Agricultural Finance Corporation). The rapid expansion of commercial banking network in rural areas has subsequently increased the demand for investment in agriculture sector. Thus, India now has a wide network of rural financing institutions and as a result of this expansion of rural financing agriculture credit has increased significantly while that of money lenders has declined (Mishra and Puri, 2004). This signifies that the instructional sources have increased their participation in rural credit considerably. Millions of first generation depositors and borrowers have been introduced to the banking system and they have shifted their loyalties from the non-instructional money lenders and pawnbrokers to the banking institutions and co-operatives.

RESOURCES AND METHODS

The present study was conducted in Bikaner region of Rajasthan. Bikaner region comprises of four districts namely Bikaner, Sriganganagar, Hanumangarh and Churu.

Credit need :

Credit need and credit gap of the borrower farmers was estimated as under:

Credit need :

The credit need of the sample borrower farmers

was worked out separately for short-term and term (medium and long-term) credit needs.

Short term credit need :

The short term credit need was worked out by using the following formula:

$$SCN = Vr - Vu$$

where,

SCN = Short-term credit need

Vr = Value of cash inputs recommended as per package of practices, by Agricultural Research Station and KVK of the study area and

Vu = Value of cash inputs actually used by the borrower farmers

Medium and long-term (term credit) credit need:

The medium and long-term (term loan) credit for purchase of MIS (Minor Irrigation System), land development and for purchasing farm implements and machinery was worked out on the basis of requirement and savings of the famers. The requirement for purchasing of MIS, farm implements and machinery and land development was collected through personal interview from the selected borrower farmers as per their demand and resource availability for the year 2011-12. To find out the household saving of sample borrower farmers, the gross income, farm cash expanses, expanses on livestock, expanses on family consumption and other miscellaneous expenditure etc. were estimated. The saving of the borrower farmers was workout by using the following formula:

$$S = GI - (Ce + Fe + LI + MI + OD)$$

where

S = Saving

GI = Gross income (Farm and non-farm income)

Ce = Farm cash expanses

Fe = Family consumption expanses

LI = Livestock expanses

MI = Miscellaneous cash expanses

OD = Old debts

Medium and long-term credit need was worked out by using the following formula:

$$MLCN = Am - S$$

where, MLCN = Medium and long-term credit need (Term credit)

Am = Amount required to purchase MIS, farm machinery and implements and land development

S = Savings

Total credit need:

Total credit need was estimated by summing up the short-term, and term credit needs of the borrower farmer. It was calculated by using the following formula:

$$TCN = SCN + LCN$$

where

TCN = Total credit need

SCN = Short-term credit need

LCN = Term credit need

OBSERVATIONS AND ANALYSIS

The results obtained from the present study as well as discussions have been summarized under following heads:

Short term credit need :

The short term credit need to the borrower farmers was estimated on the basis of the working expenses incurred from the available funds with the farmers (owned funds) in cash on various inputs such as seed, manures and fertilizers, insecticide and pesticide, irrigation water and hired labour (both human and machinery labour) for each crop grown by the farmers and were subtracted from the estimated expenditure on recommended quantities of these inputs. The recommended quantities of the inputs were obtained from the package of practices published by the Agriculture Research Station and Krishi Vigyan Kendras situated in selected district of the Bikaner region. The details of the short term credit need of borrower farmers for the selected districts is presented in Table 1 to 4.

The short term credit need of the borrower farmers of Sriganganagar district presented in Table 1. The per farm credit need for small, medium and large farms was Rs. 49629.80, Rs. 69383.90 and Rs. 121482.73, respectively. Likewise the per hectare short term credit

need of these farms was Rs. 23410.28, Rs. 17087.64 and Rs. 16528.26, respectively. This indicates that there was positive relationship between farm size and per farm credit need. However, in case of per hectare credit need, the relationship was negative. The overall, per farm and per hectare short term credit need of the borrower farmers of Sriganganagar district was Rs. 80165.48 and Rs. 19008.73, respectively. In terms of percentage, the overall production credit need of the borrower farmers was about 40 per cent of the cash required. This shows that farmers of Sriganganagar district made 60 per cent expenditure on crop production from their own funds. The short term credit requirement was about 37 per cent on large farm and 47 per cent on small farms (Pandey, 1983).

The details of short term credit need of the borrower farmers of Hanumangarh district are presented in table 2. The table shows that the per farm short term credit need of the farmers of Hanumangarh district was Rs. 35372.93, Rs. 61046.59 and Rs. 139599.91 on small, medium and large farm, respectively. The per hectare short term credit need of these farms was Rs. 22530.53, Rs. 18222.86 and Rs. 15323.81. The short term credit for small, medium and large group of farmers increased with the size of land holding on per farm basis. However, on the other hand on per hectare basis this trend was having inverse relationship. The overall per farm short term credit need was estimated Rs. 78673.14 and per ha it was Rs. 18692.40. Thus, short-term credit need of the farmers of Hanumangarh district was about 48 to 39 per cent of the total recommended cost of the inputs on small to large farms. Overall about 42 per cent short term credit was needed by the farmers of Hanumangarh district but of total expenses on the crop production (Prasad and Singh, 1981).

The short-term credit need of the farmers of Bikaner district is presented in Table 3. The per farm short term credit need on small, medium and large farms was

Table 1 : Short term credit need of farmers of Sriganganagar district (2011-12)

Size group	Value of recommended cash inputs (per farm)	Short-term credit need		
		Value of used cash inputs by borrower farmers (per farm)	Short-term credit needs	
			Per farm	Per hac.
Small	105803.23 (100)	56173.43 (53.09)	49629.80 (46.91)	23410.28
Medium	159173.88 (100)	89789.98 (56.09)	69383.90 (43.54)	17087.64
Large	329800.01 (100)	208317.28 (63.16)	121482.73 (36.84)	16528.26
Overall	198259 (100)	118093.6 (59.56)	80165.48 (40.44)	19008.73

Figures in parentheses indicate the percentage of the total amount required

estimated Rs. 102589.72, Rs. 144050.07 and Rs. 221399.62, respectively. The per hectare short term credit need on these farms was Rs. 26997.29, Rs. 22402.81 and Rs. 19856.46. This shows that there was increase in trend for short term credit need on per farm with increasing the size of land holding. However, on per hectare basis the short term credit need was having inverse relationship with the size of farm holding. The overall per farm and per hectare short term credit need was Rs. 156013.10 and Rs. 23085.52, respectively. The short-term credit need of the farmers of Bikaner district in term of percentage was about 69 per cent at overall basis. It was about 65 per cent on large farms followed by 70 and 77 per cent on medium and small farms, respectively. On an average the per farm and per ha short term credit requirement of the farmers was Rs. 156013.10 and Rs. 23085.52, respectively.

The short term credit need of the farmers of Churu district was estimated and presented in Table 4. The per farm, at overall level, short term credit need was Rs.

197637.60 and credit requirement on per hectare was Rs. 16877.26. The analysis shows that the per farm short term credit need to small, medium and large farmers was Rs. 76958.06, Rs. 178088.97 and Rs. 337865.83, respectively. However, the per hectare short term credit need of these farmers was Rs. 18279.82, Rs. 16489.72 and Rs. 15862.24, respectively. Further it can be seen from the table that the per hectare additional cash needed for crop production was negatively associated with the increase in the size of land holding. In term of percentage about 74 per cent additional amount was required as credit to meet the production expenditure as per recommended quantity of the inputs needed at overall basis. The credit requirement varied from 86 to 68 per cent on small to large borrower farmers of Churu district, respectively (Singh, 1981).

Thus, from the above discussion, it was revealed that the short term credit need of the borrower farmers of Sriganaganagar and Hanumangarh district of Bikaner region was nearly the same. At overall level it was about

Table 2 : Short term credit need of the farmers of Hanumangarh district (2011-12)

Size group	Short-term credit need			
	Value of recommended cash inputs (per farm)	Value of used cash inputs by borrowers farmers (per farm)	Short-term credit needs	
			Per farm	Per hac.
Small	73114.77 (100)	37741.84 (51.02)	35372.93 (48.38)	22530.53
Medium	132374.89 (100)	71328.30 (53.88)	61046.59 (46.12)	18222.86
Large	355281.18 (100)	215681.27 (60.71)	139599.91 (39.29)	15323.81
Overall	186923.60	108250.50 (57.91)	78673.14 (42.09)	18692.40

Figures in parentheses indicate the percentage of the total amount required

Table 3 : Short term credit need of farmers of Bikaner district (2011-12)

Size group	Short-term credit need			
	Value of recommended cash inputs (per farm)	Value of used cash inputs by borrower farmers (per farm)	Short-term credit need	
			Per farm	Per hac.
Small	135159.07 (100)	32569.35 (24.10)	102589.72 (76.90)	26997.29
Medium	205325.87 (100)	61255.80 (29.83)	144050.07 (70.17)	22402.81
Large	340647.37 (100)	119247.75 (35.01)	221399.62 (64.99)	19856.46
Overall	227044.10 (100)	71024.30 (31.28)	156013.10 (68.72)	23085.52

Figures in parentheses indicate the percentage of the total amount required

Table 4 : Short term credit need of the farmers of Churu district (2011-12)

Size group	Short-term credit need			
	Value of recommended cash inputs (per farm)	Value of used cash inputs by borrower farmers (per farm)	Short-term credit needs	
			Per farm	Per hac.
Small	89499.31 (100)	12541.25 (14.01)	76958.06 (85.98)	18279.82
Medium	221073.42 (100)	42984.45 (19.44)	178088.97 (80.56)	16489.72
Large	494896.50 (100)	157030.67 (31.78)	337865.83 (68.27)	15862.24
Overall	268489.74 (100)	70852.12 (26.38)	197637.60 (73.62)	16877.26

Figures parentheses indicate the percentage of the total amount required

41 and 42 per cent of the total cash required, respectively. This shows that about 60 per cent amount of the total requirement of the expenses on crop production were met by the farmers from their owned available funds. However, in case of the borrower farmers of Bikaner and Churu districts, a huge amount (about 68 to 74 %) was required in form of credit to meet their expenditure on crop production as per the amount required for recommended dose of inputs. At overall level, the average per farm short term credit need to the borrower farmers of Sriganganagar district was Rs. 80165.48 and per hectare was Rs. 19008.73. The short term credit need of the farmers of Hanumangarh district was Rs. 108250.50 per farm and Rs. 78673.14 per hectare. On an average, the per farm and per hectare short term credit requirements of the farmers of Churu district was Rs. 197637.60 and Rs. 16877.30, respectively.

Term credit need (Medium and long term credit):

In order to estimate the need of term credit, total required amount by the farmers for various purposes was subtracted from the farmer's savings. For estimation of saving of the each size group of the borrower farmers, the gross income, total farm expenses, expenditure on family consumption, expenditure on livestock maintenance and repayment of due amount of old debts were worked out. The details are discussed below:

Gross income :

The gross income of borrower farmers of selected districts for the agricultural year 2011-12 is given in Tables 5 to 8. It was estimated by summing up all the income

received from crop production and non-farm income.

Table 5 reveals that the per farm gross income on the selected farms of Sriganganagar district ranged from Rs. 274649.01 on small farms to Rs. 1229814.43 on large farms. Similarly, the per hectare gross income on these farms varied from Rs. 129551.41 to Rs. 167321.69. The overall average per farm and per hectare gross income was Rs. 698347.35 and Rs. 147323.70, respectively. In the total gross income the share from crop production was about 96 per cent.

The gross income of the borrower farmers of Hanumangarh district (Table 6) estimated, at overall level, to Rs. 916079.30 on per farm and Rs. 144178.00 per hectare. A increasing trend was seen in gross income with increase in the farm size. The gross income ranged from Rs. 227034.93 to Rs. 1369925.40 on small to large farms. The share of income received from crop production in the gross income was about 96 per cent.

In case of the borrower farmers of Bikaner district, on overall basis, the gross income was Rs. 647855 per farm and Rs. 88379 per hectare. The per hectare gross income was highest on large farms (Rs. 97404.07) followed by small (Rs. 84042.15) and medium farms (Rs. 83693.55). The contribution of income received from crop production was about 96 per cent in the total gross income (Table 7).

The income received from crop production, non-farm income and gross income by the borrower farmers of Churu district are presented in Table 8. The per farm income received from crop production was Rs. 241016.63, Rs. 708951.69 and Rs. 1485842.80 on small, medium and large farms, respectively. The per hectare

Table 5 : Gross income of the borrower farmers of Sriganganagar district (2011-12)

Size group	Receipt from crop production		Non-farm income		Gross income	
	Per farm	Per hectare	Per farm	Per hectare	Per farm	Per hectare
Small	262528.44	123834.16	12120.57	5717.25	274649.01	129551.41
Medium	564436.33	138682.14	26142.30	6423.16	590578.63	145105.31
Large	1186551.23	161435.54	43263.20	5886.15	1229814.43	167321.69
Overall	671172.00	141317.30	27175.35	6008.85	698347.35	147323.70

Table 6 : Gross income of the borrower farmers of Hanumangarh district (2011-12)

Size group	Receipt from crop production		Non-farm income		Gross income	
	Per farm	Per hectare	Per farm	Per hectare	Per farm	Per hectare
Small	207607.15	132233.85	19427.78	12374.38	227034.93	144608.23
Medium	440498.75	131492.16	21734.35	6487.86	462233.10	137980.02
Large	1331051.17	146108.80	38874.23	4267.20	1369925.40	150376.00
Overall	885775.00	138800.50	30304.29	5377.53	916079.30	144178.00

receipts from crop production on these farms was Rs. 57248.80, Rs. 65643.67 and Rs. 69757.87, respectively. A positive relationship was seen in receipt of crop production and farm size. But in case of non-farm income, the per hectare receipt was having inverse relationship with farm size. The per farm gross income on small, medium and large farms was Rs. 252395.18, Rs. 725398.14 and Rs. 1514510.37, respectively. The per hectare gross income on these farms was Rs. 59951.34, Rs. 67166.49 and Rs. 71103.77, respectively. At overall level, per farm income received from crop production, non-farm income and gross income was Rs. 811937, Rs. 18830.86 and Rs. 830767.90, respectively. The per hectare gross income, at overall level, was worked out to Rs. 66073.87 on the selected farmers of Churu district. The contribution of income received from crop production in gross income was about 98 per cent.

From the above discussion it is revealed that the per hectare gross income of borrower farmers of Sriganganagar and Hanumangarh district was nearly

equal. Similarly, the contribution of income received from crop production in total gross income was also same *i.e.* 96 per cent in these two districts. On the other hand, the scenario of the borrower farmers of Bikaner and Churu districts was quite different in respect of gross income from the borrower farmers of Sriganganagar and Hanumangarh districts. At overall level, the per ha. gross income of the borrower farmers of Bikaner and Churu district was Rs. 88379.92 and Rs. 66073.87. This shows that in respect of gross income farmers of Sriganganagar and Hanumangarh district were more sound in comparison to the farmers of Bikaner and Churu.

Total expenditure :

Total expenditure was estimated by adding all the amount spent on the various components such as expenses incurred on crop production, home consumption, expenses on livestock, amount of old debts due for payment during the years by the farmers. The details of the total cash expenses on various items are

Table 7 : Gross income of the borrower farmers of Bikaner district (2011-12)

Size group	Receipt from crop production		Non-farm income		Gross income	
	Per farm	Per hectare	Per farm	Per hectare	Per farm	Per hectare
Small	300790.12	79155.29	18570.05	4886.85	319360.17	84042.15
Medium	516083.01	80261.74	22066.54	3431.81	538149.55	83693.55
Large	1047201.23	93919.39	38854.18	3484.67	1086055.41	97404.07
Overall	621358.10	84445.47	26496.92	3934.44	647855.00	88379.92

Table 8 : Gross income of the borrower farmers of Churu district (2011-12)

Size group	Receipt from crop production		Non-farm income		Gross income	
	Per farm	Per hectare	Per farm	Per hectare	Per farm	Per hectare
Small	241016.63	57248.60	11378.55	2702.74	252395.18	59951.34
Medium	708951.69	65643.67	16446.45	1522.81	725398.14	67166.49
Large	1485842.80	69757.87	28667.57	1345.89	1514510.37	71103.77
Overall	811937	64216.71	18830.86	1857.14	830767.90	66073.87

Table 9 : Expenditure of the borrower farmers of Sriganganagar district (2011-12)

Size group	Expenditure on crop production		Expenditure on home consumption		Expenditure on old debts		Expenditure on livestock		Total Expenditure	
	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha
Small	56173.43 (23.04)	26496.90	134449.50 (55.15)	63419.57	3642.70 (1.49)	1718.25	49481.13 (20.30)	23340.15	243746.76 (100)	114974.89
Medium	89789.98 (22.54)	22061.42	216349.16 (54.32)	53157.04	13342.52 (3.35)	3278.26	78758.62 (19.77)	19351.01	398240.28 (100)	97847.74
Large	208317.28 (22.66)	28342.48	470742.62 (58.00)	64046.61	36275.25 (4.46)	4935.44	96207.13 (11.85)	13089.40	811542.28 (100)	110413.91
Overall	118093.56 (24.37)	25633.60	273847.09 (56.52)	60207.74	17753.49 (3.66)	3310.65	74815.62 (15.44)	18593.52	484509.77 (100)	107745.51

Figures in parentheses indicate the percentage of the total expenditure

given in Tables 9 to 12.

The per farm and per hectare total expenditure on various items of the borrower farmers of Sriganganagar district is presented in Table 9. At overall basis, the per farm expenditure was estimated Rs. 484509.77 and the per hectare expenditure Rs. 107745.51. The per farm total expenditure was Rs. 811542.28 on large farms, Rs. 398240.20 on medium farms and Rs. 243746.76 on small farms. Of the total expenditure, the highest (56.52 %) expenditure was on home consumption. The expenditure on crop production was 24.37 per cent and expenditure on livestock was 15.44 per cent. The per farm share of expenditure on old debts was only 3.68 per cent of the total expenditure. No major difference was seen in the expenditure made on crop production among small, medium and large farms. Per farm expenditure on crop production was found is increased with increase in size of holding. On small farm, it was Rs. 243746.76, on medium farms Rs. 398240.28 and on large farms Rs. 811542.28. Similarly, the same condition was observed on the expenditure made on home consumption (55.15 to 58 %). But in case of livestock expenditure, the per farm variation was 11.85 per cent on large farms to 20.30 per cent on small farms. Thus, the inverse relationship

was observed in livestock expenditure of the total expenditure in term of percentage. In term of monetary value the per farm difference in total expenditure between small and large farms was Rs. 567795.52. But on per hectare total expenditure was nearly the same.

The expenditure made on various items by the farmers of Hanumangarh district was worked out and presented in Table 10. The analysis indicated that on an average per farm total expenditure was Rs. 499794.90. Of the total expenditure, little less than 60 per cent *i.e.* Rs. 290710.95 was on home consumption. The expenditure on crop production was Rs. 108515.30 (21.71 %) and expenditure on livestock was Rs. 68032.77 (13.61 %). Payment of old debts amounted only 6.56 per cent of the total expenditure. The per hectare total expenditure was Rs. 111954.28. The per hectare average expenditure on crop production was Rs. 23002.20. No major difference was found in per hectare expenditure among small, medium and large farms. The per hectare expenditure was highest (Rs. 24039.38) on small farms and lowest (Rs. 21292.02) on medium farms. A positive relationship was seen in payment of old debts and in farm size.

The analysis of the expenditure on various

Table 10 : Expenditure of the borrower farmers of Hanumangarh district (2011-12)

Size group	Expenditure on crop production		Expenditure on home consumption		Expenditure on old debts		Expenditure on livestock		Total expenditure	
	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha
Small	37741.84 (18.95)	24039.38	118762.59 (59.65)	75644.96	2158.84 (1.08)	1375.05	40416.24 (20.30)	25742.83	199079.51 (100)	126802.23
Medium	71328.30 (20.29)	21292.02	202832.78 (57.71)	60547.09	13683.42 (3.89)	4084.60	63578.12 (18.09)	18978.54	351422.62 (100)	104902.27
Large	215681.20 (22.73)	23675.21	550537.50 (58.01)	60432.21	82559.35 (8.70)	9062.49	100103.95 (10.54)	10988.36	948882.59 (100)	104158.35
Overall	108515.30 (21.71)	23002.20	290710.95 (58.16)	65541.42	32800.54 (6.56)	4840.71	68032.77 (13.61)	18569.91	499794.90 (100)	111954.28

Figures in parentheses indicate the percentage of the total expenditure

Table 11 : Expenditure of the borrower farmers of Bikaner district

Size group	Expenditure on crop production		Expenditure on home consumption		Expenditure on old debts		Expenditure on livestock		Total expenditure	
	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha
Small	32569.35 (12.99)	8570.88	160541.62 (64.06)	42247.79	8225.35 (3.28)	2164.56	49254.07 (19.65)	12961.60	250590.39 (100)	65944.84
Medium	61255.80 (16.00)	9527.56	246169.97 (64.30)	38284.60	13186.28 (3.44)	2050.74	62177.14 (16.24)	9669.85	382789.19 (100)	59531.75
Large	119247.75 (18.24)	10694.86	408493.18 (62.50)	36636.15	21573.18 (3.30)	1934.81	104233.76 (15.94)	9348.32	653547.87 (100)	58614.15
Overall	71024.30 (16.55)	9597.76	271734.92 (63.34)	39056.18	14328.27 (3.34)	2050.03	71888.32 (16.75)	10659.92	428975.81 (100)	61363.58

Figures in parentheses indicate the percentage of the total expenditure

components on the farms of Bikaner district reveals (Table 11) that of the total expenditure made by the farmers in a year, more than 60 per cent (63.34 %) was spent on home consumption. The expenditure on crop production and livestock was nearly the same (16.66 to 16.75 %). About 3.34 per cent amount of the total expenditure was paid by the farmers for payment of old debts. In respect to the farm size, no major difference was seen in the expenditure made for home consumption. Small and medium farmers spent more share (about 64 %) for home consumption of the total expenditure in comparison to large farmers (62.50 %). But in case of expenditure made on crop production (both on per farm and per hectare) was higher on large farms than small and medium farms.

About 12.99, 16.00 and 18.55 per cent amount of the total expenditure was made by small, medium and large farmers on crop production, respectively. The expenditure share of live stock on small farms was higher (19.65 %) in comparison to medium and large farms (16.24 and 15.94 %, respectively). It was due to higher share in crop production of the total expenditure on large and medium farms. The expenditure share on old debt was nearly the same (3.28 to 3.44 %) on all sizes of farms.

The total expenditure made by the borrower farmers of Churu district on various items was estimated and is presented in Table 12. Because of the large difference in size of land holdings among small, medium and large farms, the difference in the expenditure in covered on crop production was also large. The per farm expenditure was as high as on large farms (Rs. 985926.79), followed by (Rs. 431472.82) on medium farms. On small farms it was only Rs. 192808.30. The per hectare expenditure was also recorded higher on large farm. However, no

major difference in per hectare total expenditure was seen among the farms of different size groups. Of the total expenditure, the highest amount Rs. 356071.10 (66.34 %) was spent on home consumption by the farmers of Churu district.

The per farm expenditure on crop production and live stock was Rs. 70852.12 and Rs. 79079.92, respectively on overall basis. Of the total expenditure, farmers paid for old debts Rs. 30732.82 (5.72 %). The per hectare expenditure on crop production was Rs. 4777.09 at overall level and the positive relationship was found with increase in farm size. It was Rs. 7372.33 on large farms and Rs. 3980.04 and Rs. 2978.81 on medium and small farms, respectively. Similarly, the per hectare expenditure on live stock was Rs. 7414.25 on large farms and Rs. 5432.61 and Rs. 5226.38 on small and medium farms, respectively.

Thus, from the above discussion it is concluded that per hectare total expenditure was quite on the borrower farmers of Sriganganagar and Hanumangarh district in comparison to the Bikaner and Churu districts. Borrower farmers of Sriganganagar and Hanumangarh districts spent Rs. 18093.56 (24.37%) and Rs. 108515.39 (21.17%) on crop production against only Rs. 71024.30 (16.55%) and Rs. 70852.12 (13.20%) by the farmers Bikaner and Churu districts, respectively. In case of home consumption surprisingly, the borrower farmers of Churu district spent as high as Rs. 356071.10 per year whereas, farmers of other districts comparatively lesser amount. No major difference was observed in case of expenditure on livestock raising among the borrower farmers of all selected district in Bikaner region. All borrower farmers paid Rs. 14328.27 to Rs. 30732.82 as debt of their total expenditure. It revealed that borrower farmers of Sriganganagar and Hanumangarh district spent more

Table 12 : Expenditure of the borrower farmers of Churu district (2011-12)

Size group	Expenditure on crop production		Expenditure on home consumption		Expenditure on old debts		Expenditure on livestock		Total expenditure	
	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha	Per farm	Per ha
Small	12541.25 (6.50)	2978.91	147817.29 (76.66)	35110.99	9578.45 (4.96)	2275.16	22871.31 (11.86)	5432.61	192808.30 (100)	45797.69
Medium	42984.45 (9.96)	3980.04	314674.79 (72.93)	29136.55	17368.65 (4.02)	1608.20	56444.93 (13.08)	5226.38	431472.82 (100)	39951.18
Large	157030.67 (15.92)	7372.33	605721.24 (61.43)	28437.61	65251.35 (6.61)	3063.44	157923.53 (16.01)	7414.25	985926.79 (100)	46287.64
Overall	70852.12 (13.20)	4777.09	356071.10 (66.34)	30895.05	30732.82 (5.72)	2315.60	79079.92 (14.73)	6024.41	536735.97 (100)	44012.17

Figures in parentheses indicate the percentage of the total expenditure

amount for productive purposes, whereas, the borrower farmers of Bikaner and Churu districts spent more amount on home consumption.

Household saving :

For estimating the saving of borrower farmers the total expenditure was subtracted from the gross income. The per farm and per hectare savings of all categories of farmers of the study area was worked out and presented in Tables 13 to 14. On an average, the per farm saving of borrower farmers of Sriganganagar district was Rs. 213837.58 and per hectare saving was Rs. 39580.62. The per farm saving on small, medium and large farms were of the order of Rs. 30902.25, Rs. 192338.35 and Rs. 418272.15, respectively (Table 13). The per hectare saving on these farms was Rs. 14576.53, Rs. 47257.58 and Rs. 56907.77, respectively. The percentage of total saving to the gross income was found to increase with the increase in the size of holding. On an average, about 31 per cent amount of the total gross income was saved by the borrower farmers of Sriganganagar district after making the expenditure on various items.

The average per farm saving of the borrower farmers of Hanumangarh district was estimated Rs. 186602.90 and the per hectare saving was Rs. 32367.17. The positive relationship was seen among the small, medium and large size of the in respect of saving with increase in farm size. Of the total gross income, small farmers saved about 12 per cent and the saving percentage on medium and large farms was 23.97 and

30.73 per cent, respectively. At overall level, the per farm and per ha average gross income after meeting the all expenses by the borrower farmers of Hanumangarh district was Rs. 186602.90 and Rs. 32367.13, respectively.

In case of the borrower farmers of Bikaner district, the per farm on an average, saving was Rs. 218879.22 and per hectare saving was Rs. 27016.33 (Table 14). Increasing trend was seen of the saving with increase in the farm size on both per farm and per hectare basis. The per hectare saving on small, medium and large farms was Rs. 18097.91, Rs. 24161.79 and Rs. 38789.91, respectively. The per farm saving varied from Rs. 68769.78 on small farms to Rs. 432507.54 on large farms. The per farm saving on medium farm was Rs. 155360.36. In term of percentage, about 21 per cent of the gross income was saved by the small farmers followed by 28.87 and 39.82 per cent by medium and large farmers, respectively. At overall level, the borrower farmers of the Bikaner district saved about 34 per cent amount of the gross income.

The per farm and per hectare saving of borrower farmers of Churu district is presented in Table 14. The table reveals that the per farm saving on small, medium and large farms was Rs. 59586.88, Rs. 293925.32 and Rs. 528583.58, respectively. Similarly, the per hectare saving on these farms was Rs. 14153.65, Rs. 27215.30 and Rs. 24816.13. On an average, per farm and per hectare saving of borrower farmers was Rs. 294031.92 and Rs. 22061.69, respectively. The highest amount of saving was on large farms followed by medium and small.

Table 13 : Saving of the borrower farmers of Sriganganagar and Hanumangarh districts (2011-12)

Size group	Sriganganagar		Hanumangarh	
	Per farm	Per ha.	Per farm	Per ha.
Small	30902.25 (11.25)	14576.53	27955.42 (12.31)	17806.00
Medium	192338.35 (32.57)	47257.58	110810.48 (23.97)	33077.75
Large	418272.15 (34.01)	56907.77	421042.81 (30.73)	46217.65
Overall	213837.58 (30.62)	39580.62	186602.90 (20.37)	32367.13

Figures in parentheses indicate the percentage of the total amount required

Table 14 : Saving of the borrower farmers of Bikaner and Churu districts (2011-12)

Size group	Bikaner		Churu	
	Per farm	Per ha	Per farm	Per ha
Small	68769.78 (21.53)	18097.31	59586.88 (23.61)	14153.65
Medium	155360.36 (28.87)	24161.79	293925.32 (40.52)	27215.30
Large	432507.54 (39.82)	38789.91	528583.58 (34.90)	24816.13
Overall	218879.22 (33.78)	27016.33	294031.92 (35.39)	22061.69

Figures parentheses indicate the percentage of the total amount required

Thus, from the above discussion it can be concluded that the per hectare saving of the farmers of Sriganganagar and Hanumangarh district was higher than that of the borrower farmers of Bikaner and Churu districts. However, the saving percentage of the gross income was higher on borrower farmers of Bikaner and Churu district. At overall level, the lowest (20.37 %) saving percentage of gross income was seen on the borrower farmers of Hanumangarh district and highest (35.39 %) on the borrower farmers of Churu district of Bikaner region. Similar work related to the present investigation was also carried out by Balishter and Singh (1985) and Singh and Singh (1988).

Conclusion :

We observed that various data show the different credit need in Bikaner region of Rajasthan such as short term credit need, Medium and long-term (term credit) credit need and total credit need. In short, the total credit need of the farmers of Bikaner and Churu districts was higher in comparison to the farmers of Sriganganagar and Hanumangarh district.

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