

# Impact of Socio-Economic Variables on Disbursement of Agricultural Loan

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## ABSTRACT

Agriculture is also an enterprise like others and success in it also depends on socio-economic development of the locality. Higher development of area in terms of infrastructure as availability of markets, electricity, roads, literacy also increase the profitability in agriculture and thus necessitates the credit requirement in agriculture. The study is based on time series data of Bihar for a period of 25 years that is from 1980-81 to 2005-06. It is found that association between agricultural credit flow and different socio-economic and infrastructure variables when it was analysed for different categories of districts classified on the basis of per hectare agricultural loan. The proportion of electrified villages, road length per 1000 kms of geographical area, literacy per cent, number of dairy co-operatives per 1000 villages, population per bank branch and per capita electricity consumption were comparatively high in districts of category D than the category of districts A, indicating the association of these socio economic and infrastructural variables with agricultural credit flow in different districts of Bihar.

**Keywords:** Agricultural loan, socio-economic variables, districts, Bihar

Banking system plays a very prominent role in growth of different sectors. In relation to other sectors, agricultural sector is quite deficient in financial support as it has higher risk and relatively lesser profit. In the govt. eyes, agriculture has got a preferred status for financing through institutional sources. In the context of our socio-economic structure, it is an urgent need to increase agricultural production for improving food security and quality of life of rural population. Indian farmers are born in debt, live in debt, die in debt and bequeath debt. Their main source of borrowing had been the private money lenders, who were known for usurious

dealings. But the money lenders performed a useful role when institutional source did not even think to extend financial assistance to agricultural sector.

More than 96 per cent of farming households are cultivating area of less than 2 ha, who have meager amount of saving to plough back in the process of improved agricultural production.

The situation is more pronounced in the state of Bihar, because agriculture is still contributing nearly one third to the state domestic product and providing employment to about 78 per cent of the working force.

Agriculture in Bihar has undergone a rapid technological revolution and the scope of improvement in farm business organization is increasing fast with the adoption of modern production technology. Socio-economic factors as size of ownership holdings; caste; years of schooling; size of the family; ratio of earning to non-earning members; size of the credit; crops receiving credit; and size of the credit are responsible credit requirement in an area. The socioeconomic parameters have also bearing on the intensity of default, (Bera and Santra, 2001).

## MATERIALS AND METHODS

The study is based on secondary data which were collected from State level Banker's Committee, Patna National Bank for Agricultural and Rural Development, Patna, Department of Institutional Finance and Programme Implementation, Patna, Reserve Bank of India, Patna, Bihar. Data related to agro-economic and social variables were collected from Directorate of Agriculture, Directorate of Statistics and Evaluation, Bihar State Electricity Board, Census Office, Patna, Bihar and Publications like Economic Survey of Bihar, Bihar at a Glance, State credit plan, Bihar. The study is based on time series data of Bihar for a period of 25 years that is from 1980-81 to 2005-06. Analysis is based on secondary information obtained from NSS reports and development departments of the state. An attempt has also been made to draw relevant conclusions through tabular analysis.

## RESULTS AND DISCUSSION

There are 38 districts in four zones of Bihar and while analysing spatial variation among different zones it has been observed that the districts with comparatively high per hectare loan were not concentrated in any of the zone, but some districts of comparatively high quantum of agricultural loan are placed in zones which have comparatively lower quantum of per hectare loan and vice-versa. Hence, an analysis has been tried to discuss the distribution of loan by grouping districts on the basis of per hectare loan disbursement. All the thirty eight district were categorised on the following basis i.e. category A (below ₹ 2500), category B (between ₹ 2500-3500), category C (₹ 3500-5000) and category D (₹ 5000

and above). Number of districts on the basis of per hectare agricultural loan granted were computed for each of the specified categories, mentioned above and presented in Table 1.

**Table 1:** Districts under different categories of agricultural credit disbursement

Category of Districts	Loan disbursement per ha of net area sown (₹)	Number of Districts
A	Below 2500	6
B	Between 2500-3500	5
C	Between 3500-5000	7
D	Above 5000	20

It may be observed from the table that more than 50 per cent of districts were under the category D, indicating that the majority of the districts could avail the quantum of per hectare agricultural loans of above ₹ 5000. There were only 6 districts in category 'A', which could avail per hectare loan facility of below ₹ 2500. These districts were either districts of Kosi region, or agriculturally less developed districts. These two factors might have affected adversely the smooth flow of agricultural credit in these districts. It may further be observed from the table that there were 7 districts which could obtained agricultural credit between ₹ 3500-5000 per hectare. Then data were collected on various parameters as number of village electrified, Road length per 1000 km of geographical area, Literacy rate, Number of dairy co-operative per 1000 villages, Population per bank branch and Per capita electricity consumption (KWH). Then relation of these parameters were examined in different categories of district and summarised below.

### Number of village electrified and disbursement of agricultural loan

The relation between number of village electrified and disbursement of agricultural loan is presented in Table 2. Under 'A' category districts, rural electrification (58% villages electrified) and agricultural loan disbursement per hectare were low (below ₹ 2500 per ha). In 'D' category districts, the rural electrification (69% villages electrified) and agricultural loan disbursement per hectare, were

higher. The requirement for agricultural inputs is higher in developed areas. It can be concluded that lesser the disbursement of agricultural loan, lesser the electrification in the villages. It also shows higher electrification leads to higher expectation of profitability from agriculture and thus, farmer needs higher loan from per unit area of agriculture land.

**Table 2:** Number of village electrified and disbursement of agricultural loan

Category and number of districts on the basis of agricultural loan/ha	Agricultural loan per ha of net area sown (₹)	Village electrified (%)
A (6 districts)	Below ₹ 2500	58
B (5 districts)	₹ 2500-3500	48
C (7 districts)	₹ 3500-5000	61
D (20 districts)	Above ₹ 5000	69

### Road length and disbursement of agricultural loan

The relation between Road length per 1000 km of geographical area and disbursement of agricultural loan is presented in Table 3.

**Table 3:** Road length and disbursement of agricultural loan

Category and number of districts on the basis of agricultural loan/ha	Agricultural loan per ha of net area sown (₹)	Road length per 1000 km of geographical area
A (6 districts)	Below ₹ 2500	81
B (5 districts)	₹ 2500-3500	115
C (7 districts)	₹ 3500-5000	133
D (20 districts)	Above ₹ 5000	175

It has been found that under 'A' category districts, agricultural loan disbursement per hectare (below ₹ 2500 per ha) and road length per 1000 km of geographical area (81km) were on lower side. In 'D' category districts, the Road length per 1000 km of geographical area (175km) and agricultural loan disbursement per hectare, were higher. Higher

connectivity leads to progress of area and also leads to diversification of crops and thus leads to higher loan requirement. This shows that Road length per 1000 km of geographical area and disbursement of agricultural loan are positively related.

### Literacy rate and disbursement of agricultural loan

The relation between Literacy rate and disbursement of agricultural loan is presented in Table 4. It was found that under category A districts, the agricultural loan per hectare (below ₹ 2500 per ha) and literacy rate (38%) were low. In the category D districts, the literacy rate (42%) and agricultural loan disbursement per hectare per hectare were high. The requirement for agricultural inputs is higher when the people of the area are more literate. The lesser the knowledge of the people, lesser will be their risk bearing capacity and thus they demand less loan and do not enter in new ventures. It can be concluded that lesser the literacy rate, lesser is the disbursement of agricultural loan. This shows that literacy rate of people and disbursement of agricultural loan are positively correlated.

**Table 4:** Literacy rate and disbursement of agricultural loan

Category and number of districts on the basis of agricultural loan/ha	Agricultural loan per ha of net area sown (₹)	Literacy (per cent)
A (6 districts)	Below ₹ 2500	38
B (5 districts)	₹ 2500-3500	32
C (7 districts)	₹ 3500-5000	35
D (20 districts)	Above ₹ 5000	42

### Number of dairy co-operatives and disbursement of agricultural loan

Cooperatives plays the major role in development of an area (Singh and Tyagi, 1995). The relation between Number of dairy co-operative per 1000 villages and disbursement of agricultural loan is presented in Table 5. It has been found that under A&B category of districts, the number of dairy co-operative per 1000 villages (about 4 dairy co-operative) and agricultural loan disbursement per hectare were on

lower side. In the 'D' category districts, the number of dairy co-operative per 1000 villages (502 dairy co-operative) and agricultural loan disbursement per hectare were on higher side. The dairy gives additional venue for income generation and it is a profitable enterprise so the farmers need additional loan. It can be concluded that lesser the disbursement of agricultural loan, lesser are the number of dairy co-operative per 1000 villages (Gerg *et al.* 1978). The requirement for agricultural inputs is higher when the people have more enterprises and businesses. It also shows higher development leads to higher demand for agricultural loan

**Table 5:** Number of dairy co-operative and disbursement of agricultural loan

Category and number of districts on the basis of agricultural loan/ha	Agricultural loan per ha of net area sown (₹)	Number of dairy co-operative per 1000 villages
A (6 districts)	Below ₹ 2500	—
B (5 districts)	₹ 2500-3500	4
C (7 districts)	₹ 3500-5000	22
D (20 districts)	Above ₹ 5000	502

### Population density per bank and disbursement of agricultural loan

The relation between population per bank branch and disbursement of agricultural loan is presented in Table 6.

**Table 6:** Population per bank branch and disbursement of agricultural loan

Category and number of districts on the basis of agricultural loan/ha	Agricultural loan per ha of net area sown (₹)	Population per bank branch
A (6 districts)	Below ₹ 2500	18220
B (5 districts)	₹ 2500-3500	17112
C (7 districts)	₹ 3500-5000	21617
D (20 districts)	Above ₹ 5000	15295

It was found that under category A districts, the agricultural loan disbursement per hectare (below ₹ 2500 per ha) and population per bank branch (18220 people) were lesser. In the category D districts, the population per bank branch (15295 people) and agricultural loan disbursement per hectare was high. It can be concluded that lesser the population per bank branch, lesser is the disbursement of agricultural loan. The requirement for agricultural inputs is higher when bank facilities are more in the area (Prasad, 1996). It also shows higher development leads to higher demand for agricultural loan.

### Per capita electricity consumption (KWH) and disbursement of agricultural loan

The relation between electricity consumption and disbursement of agricultural loan is presented in Table 7. It was found that under category A districts, the agricultural loan disbursement per hectare (below ₹ 2500 per ha) and per capita electricity consumption (132.57KWH), both were lesser. In the category D districts, per capita electricity consumption (152.26 KWH) and agricultural loan disbursement per hectare were higher. The requirement for agricultural inputs is higher when higher consumption of electricity is there in the area. It also shows higher development leads to higher demand for agricultural loan.

**Table 7:** Per capita electricity consumption (KWH) and disbursement of agricultural loan

Category and number of districts on the basis of agricultural loan/ha	Agricultural loan per ha of net area sown (₹)	Per capita electricity consumption (KWH)
A (6 districts)	Below ₹ 2500	132.57
B (5 districts)	₹ 2500-3500	139.86
C (7 districts)	₹ 3500-5000	146.83
D (20 districts)	Above ₹ 5000	152.26

### CONCLUSION

The socio-economic factors and infrastructure facilities like; literacy, health, family size, road connectivity, electricity supply, agricultural

extension and status of rural institutions are important determinants of agricultural credit flow in Bihar. In the study, the impact of some important parameters were analysed in relation to agricultural loan received by the farmers in Bihar. It has been found that the improvement in various socio-economic parameters such as number of village electrified, road length per 1000 km of geographical area, literacy rate, number of dairy co-operative per 1000 villages, population per bank branch and per capita electricity consumption (KWH) affects the agriculture loan requirement and disbursement to farmers. This shows that the development in the area enhances people requirement and also inculcate the nature of entrepreneurship among them and thus results in higher demand for agriculture loan per hectare of land.

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