

## CHAPTER V

### **Impact of Agricultural Credit on the Socio-Economic Condition of Agriculturists in Assam**

#### **5.1: Introduction**

Agricultural sector provides livelihood to majority of the rural people in Assam. It occupies an important place in the rural economy and plays an active role in the process of upliftment of rural economy for which it is regarded as the backbone of a backward economy. Development of agriculture sector is most essential for the development of industrial sector because agricultural sector is the principal source of supplying raw materials to industrial sector. Agriculture contributes a major share of national income of India and it also plays the dominant part in the foreign trade of India. Agricultural sector provides foodgrains to people. Thus, agriculture is the main root for the socio-economic development of rural masses. The living conditions of farmers are directly depending on production level of agricultural sector.<sup>1</sup>

In Assam, the economic conditions of farmers are very poor and they don't have sufficient funds for investment in agriculture sector for which quantity of production is very low. Hence, loan for agriculture is considered as one of the most important requirements for conducting agricultural activities. There is a positive relationship between agricultural credit and volume of production and productivity of agricultural sector. Thus, there is a positive impact of agricultural credit on the socio-economic condition of farmers.<sup>2</sup>

The Banking institutions such as commercial banks, co-operative bank and Regional Rural Banks (RRBs) are the main sources of agricultural credit in India. The expansion of banking network is important for the development of rural economy in India. The high growth rate of an economy is possible only by developing rural backward sectors and by improving agricultural sectors. Thus, the poor farmers need

financial assistance for operating agricultural activities which ultimately effect on the economic life of rural people.<sup>3</sup>

The agricultural credit impacts on economic factors in such way that the growth of agricultural sector increases the share of it to national income. According to Central Statistical Organisation (CSO), the share of agriculture into GDP of India was 56.5 percent during 1950-51 and 13.9 percent in 2013-14. Agriculture also contributes to the field of international trade of India. India exports agricultural products such as tea, sugar, tobacco, spices, oilseeds etc and earns 14.2 percent of total export during 2013-14.<sup>4</sup> The agricultural sector impacts on social factors with the association of Regional Rural Banks in such a way that rural handicrafts are based on agricultural product. Rural people also continue their agro-based cottage industries by taking loans from the financial institutions. Co-operative societies are rural organisations which are most important for women to get engagement. These societies are running with the help of financial institutions<sup>5</sup> In this chapter, we have made an attempt to analyse the various impact of agricultural credit on average monthly income, household assets position, various inputs of agricultural activities, residential house and other living condition of farmers during pre-loan period and post loan period in the study area.

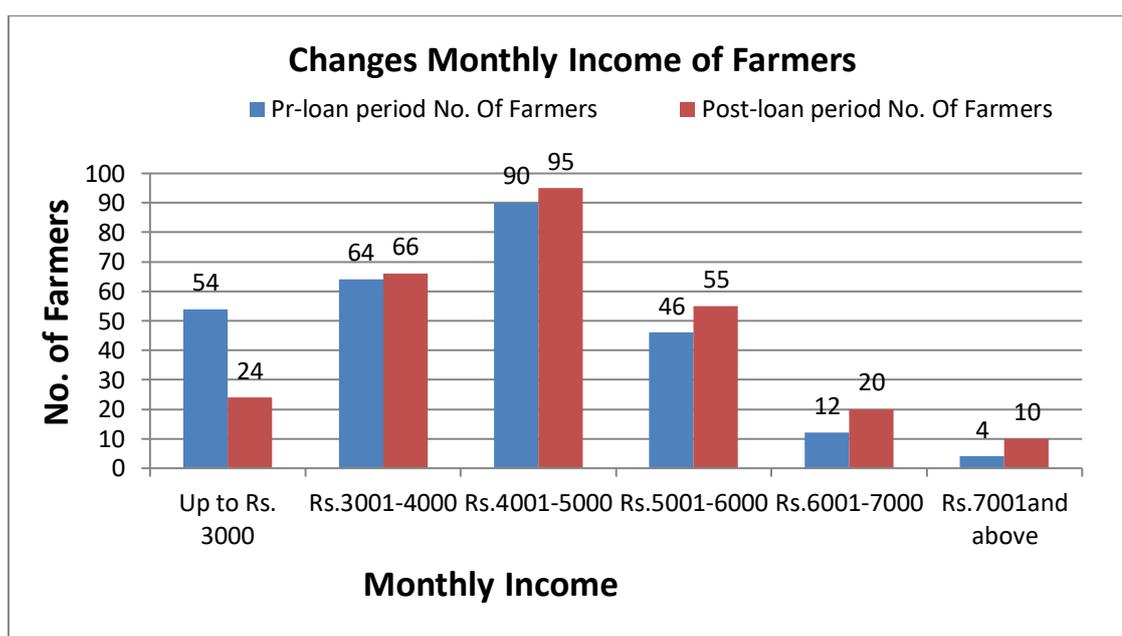
## **5.2: Changes in Monthly Income of Farmers**

In Assam, majorities of farmers are very poor and they are unable to invest sufficient amount required for production activities because most of the farmers' income is just a subsistence level. The adequacy and timely credit facilities play a significant role in improving agricultural sector and increasing productivity. For analysing the impact of credit on monthly income of farmers, the monthly income of farmers during pre-loan period has been compared with monthly income of the post-loan period. The table-5.1 shows the changes in monthly income of farmers during the post-loan period.

**Table-5.1: Changes in Monthly Income of Farmers**

Monthly Income	Pre-loan period		Post-loan period		Difference of percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Up to Rs. 3000	54	20.00	24	8.89	-11.11
Rs.3001-4000	64	23.70	66	24.44	.74
Rs.4001-5000	90	33.33	95	35.19	1.86
Rs.5001-6000	46	17.04	55	20.37	3.33
Rs.6001-7000	12	4.45	20	7.41	2.96
Rs.7001and above	04	1.48	10	3.70	2.22
Total	270	100	270	100	

Source: Field Survey, 2018

**Figure- 5.1: Changes in Monthly Income of Farmers**

The table-5.1 shows that number of farmers having monthly income level up to Rs. 3000 had decreased from 54 nos of agriculturists before loan to 24nos of agriculturists after loan. The percentage of farmers had reduced from 20 percent during pre-loan period to 8.87 percent during post-loan period. The percentage of farmers having monthly income in the range of Rs. 3001-4000 had increased slightly from 23.70 percent to 24.44 percent during post-loan period over pre-loan period. In the range of monthly income 4001-5000 and 5001-6000, the percentage of

agriculturists had increased from 33.33 percent to 35.19 percent and from 17.04 percent to 20.37 percent during post-loan period over pre-loan period respectively. In the monthly income level 6001-7000 and 7001 and above, the percentage of farmers had increased from 4.45 percent to 7.41 percent and 1.48 percent to 3.70 percent in the post-loan period.

ANNOVA were run to test the difference between pre-loan income and post-loan income of 270 households. The F ratio is found to be 15.172 which is significant at 0.01 level. Thus, the finding rejects the null hypothesis of no significant difference between pre-loan and post loan income of farmers and conclude that the income level of the households of farmers have increased substantially after availing loan. The detail result of ANNOVA is presented in the table 5.1.a and 5.1.b

**Table: 5.1.a :Test of Homogeneity of Variances**

income

Levene Statistic	df1	df2	Sig.
3.350	1	538	.068

**Table 5.1.b : ANOVA**

Table 5.1.b : ANOVA					
income					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.192E7	1	2.192E7	15.172	.000
Within Groups	7.773E8	538	1444877.874		
Total	7.993E8	539			

### 5.3: Changes in Monthly Consumption Expenditure

Consumption is an increasing function of income. Income and consumption changes in the same direction. When income raises consumption also increases and vice versa.

The table 5.2 shows the changes in expenditure on consumption as per variation of monthly income.

**Table-5.2: Changes in Monthly Consumption Expenditure of Farmers**

Monthly Expenditure on Consumption	Pre-loan period		Post-loan period		Difference in percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Up to Rs. 3000	54	20	50	18.52	-1.48
Rs.3001-4000	66	24.44	60	22.22	-2.22
Rs.4001-5000	104	38.53	114	42.23	3.70
Rs.5001-6000	34	12.59	34	12.59	0
Rs.6001-7000	8	2.96	8	2.96	0
Rs.7001and above	4	1.48	4	1.48	0
Total	270	100	270	100	

Source: Field Survey, 2018

**Figure- 5.2: Changes in Monthly Consumption Expenditure.**

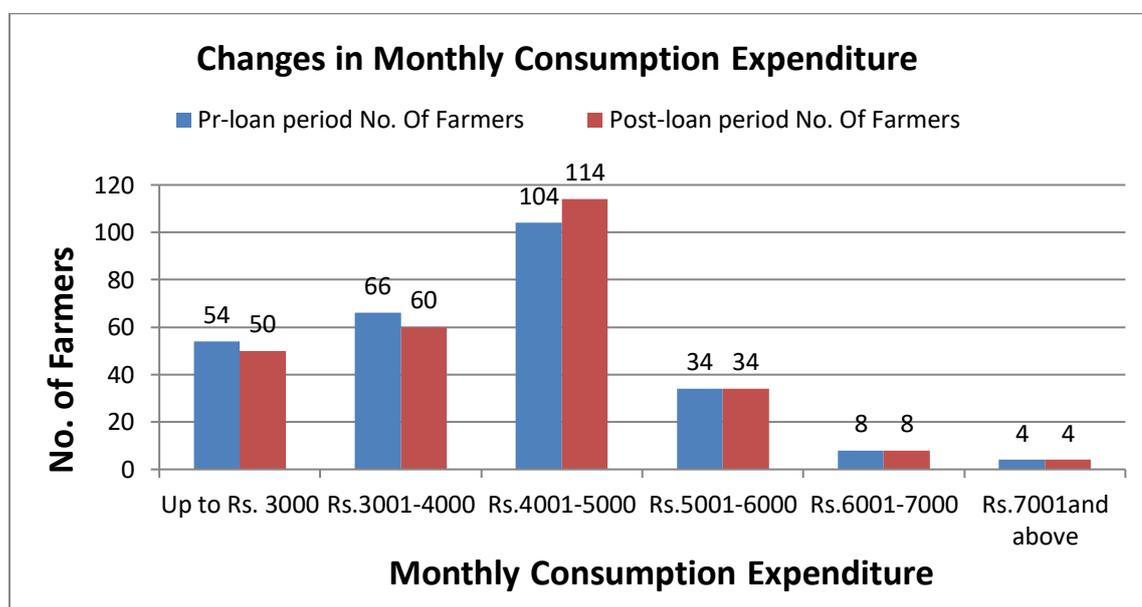


Table-5.2 shows that monthly expenditure on consumption of 20 percent farmers was up to Rs. 3 thousands in the pre-loan period and it was reduced to 18.52 percent of farmers during post-loan period. Monthly expenditure amount on

consumption between the ranges of Rs. 3001 to Rs.4000 was 24.44 percent of farmers in the period of before loan which was reduced to 22.22 percent during post-loan period. The percentage of farmers having monthly expenditure on consumption ranging between Rs. 4001-5000 had increased from 38.53 percent in the pre-loan period to 42.23 percent during post-loan period. The percentage of agriculturists occurring monthly expenditure on consumption purposes in the range of Rs.5001-6000, Rs. 6001-7000 and expenditure above 7 thousands was remained same, i.e. 12.59 percent, 2.96 percent and 1.48 percent respectively. It has been observed from the study that the percentage of farmers having lower monthly consumption expenditure had changed a little but the percentage of farmers occurring high level expenditure on consumption had remained same during pr-loan and post-loan period.

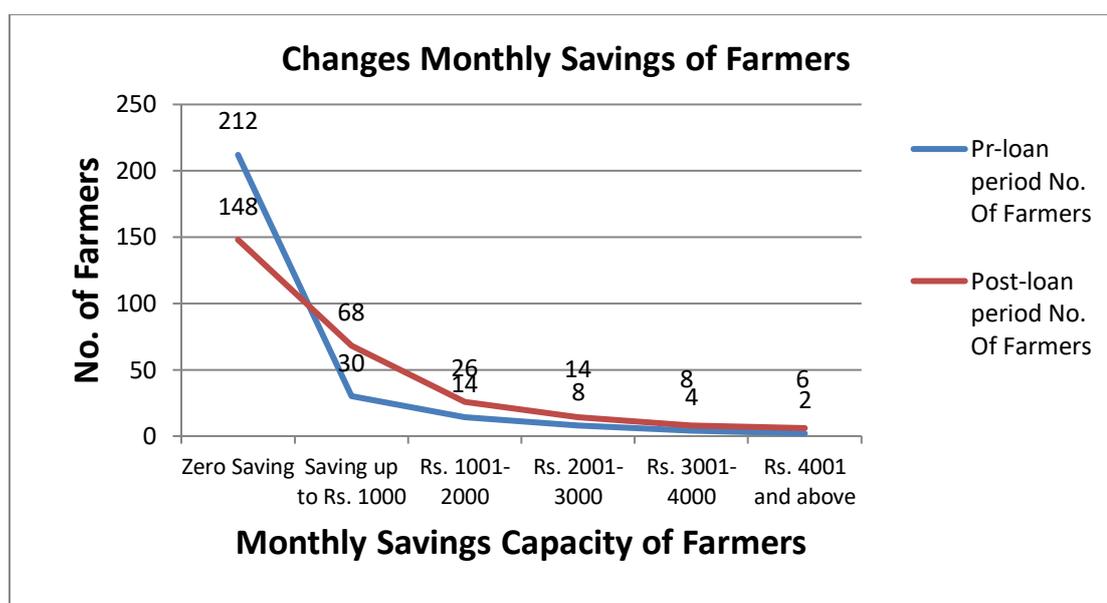
#### **5.4: Changes in Monthly Savings Capacity of Agriculturists**

People want to save money out of income for the safety from unforeseen contingencies in future. Saving always depends on income level and amount of expenditure. Agricultural credit facilities increase money income of farmers and establish a good relation between agriculturists and various financial institutions which induces poor farmers to make savings out of their monthly income. The changes in monthly savings position of farmers during post-loan period over the pre-loan period have been shown in table-5.3 below

**Table-5.3: Changes in Monthly Savings Capacity of Agriculturists**

Monthly Savings Capacity of Farmers	Pre-loan period		Post-loan period		Difference in percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Zero Saving	212	78.52	148	54.81	-23.71
Saving up to Rs. 1000	30	11.11	68	25.19	14.08
Rs. 1001-2000	14	5.19	26	9.63	4.44
Rs. 2001-3000	08	2.96	14	5.19	2.23
Rs. 3001-4000	04	1.48	08	2.96	1.51
Rs. 4001 and above	02	0.74	06	2.22	1.48
Total	270	100	270	100	

Source: Field Survey, 2018

**Figure- 5.3: Changes in Monthly Savings Capacity of Agriculturists**

The above table- 5.3 shows that the percentage of farmers having zero savings had diminished from 78.52 percent in the pre-loan period to 54.81 percent during post-loan period. The percentage of farmers having monthly saving capacity up to Rs. 1000 had increased from 11.11 percent in the pre-loan period to 25.19 percent during post-loan period. The percentage of farmers having monthly income in the range between Rs. 1001-2000, Rs 2001-3000, Rs.3001-4000 and Rs. 4001 and above had increased from 5.19 percent to 9.63 percent, from 2.96 percent to 5.19 percent, from 1.48 percent to 2.96 percent and from 0.74 percent to 2.22 percent respectively in the post-loan period over the pr-loan period. It has been found from the study area that though the percentage of farmers having zero savings had decreased in the post-loan period over the pr-loan period, yet, a substantial part of this backward class having zero savings. It has also been observed that the percentage of farmers having more saving capacity had increased a little. There is actually no drastically change of saving capacity of farmers for accessing agricultural credit.

### **5.5: Changes in Landholding Position of Farmers**

Land is the primary requirement of farmers for agricultural activities. The changing scenario of economic status of farmers depends on agricultural productivity which also depends on landholding position of farmers. The landholding positions of farmers have been shown in table-5.4.

**Table-5.4: Changes in Landholding Position (in bigha)**

Land holdings (in Bigha)	Pre-loan period		Post-loan period		Difference in percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
0--3	98	36.30	98	36.30	
3-6	100	37.04	100	37.04	0
6-9	26	9.63	26	9.63	0
9-12	22	8.15	22	8.15	0
12-15	12	4.44	12	4.44	0
15 and above	12	4.44	12	4.44	0
Total	270	100	270	100	

Source: Field Survey, 2018.

The table-5.4 reveals that landholding position of farmers had remained same during pre-loan and post-loan period of time. There is not any impact of credit falls on landholding position of farmers. The table has shown that in the study area maximum farmers are in the group of small and marginal farmers and only 4.44 percentages of farmers having landholding position 15 bigha and above. From the study, it has been found that poor farmers are not able to purchase land in the post-loan period because insufficient loan amount was sanctioned to them,

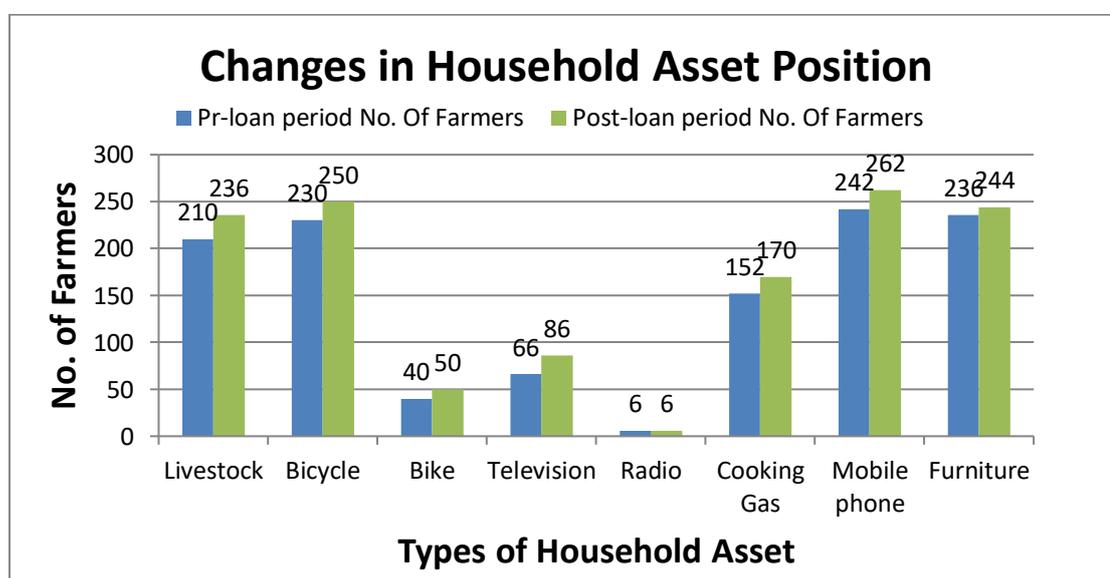
### **5.6: Changes in Household Asset Holding Position**

The most important productive assets for the source of income in rural household are livestock such as cow, bullock, buffalo, poultry, goat, sheep, piggery, horse, etc. The study reveals that in the study area, some farmers are able to purchase livestock which are the source of income of farmers' family. However, the farmers are also able to purchase consumer durable assets such as bicycle, television, bike, mobile phone, cooking gas, furniture etc. The table-5.5 shows the changes in household asset holding position of farmers' family after taking loan.

**Table- 5.5: Changes in Household Asset Holding Position**

Types of Asset	Pre-loan period		Post-loan period		Difference in percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Livestock	210	77.78	236	87.41	9.63
Bicycle	230	85.19	250	92.59	7.4
Bike	40	14.81	50	18.52	3.71
Television	66	24.44	86	31.85	7.41
Radio	06	2.22	06	2.22	0
Cooking Gas	152	56.30	170	62.96	6.66
Mobile phone	242	89.63	262	97.04	7.41
Furniture	236	87.41	244	90.37	2.96

Source: Field Survey, 2018

**Figure- 5.4: Changes in Household Asset Holding Position**

The table-5.5 shows that the percentage of farmers having livestock had increased from 77.78 percent to 87.41 percent during post-loan period over pre-loan period of time. The percentage of bicycle, bike and television holder farmers had increased from 85.19 percent, 14.81 percent and 24.44 percent to 92.59 percent, 18.52 percent and 31.85 percent respectively during post-loan period over pre-loan period. The

percentage of farmers having radio had not changed during post-loan period. The percentage of farmers holding cooking gas, mobile phone and furniture had increased from 56.30 percent, 89.63 percent and 87.41 percent to 62.96 percent, 97.04 and 90.37 percent respectively during post-loan period over pre-loan period. The percentage of farmers having cooking gas had increased excessively due to central Government scheme of free cooking gas connection for domestic uses to those people who are living below poverty line. From the study, it can be understood that the household asset holding position had increased a little which is actually not sufficient to improve the living standard of rural poor people.

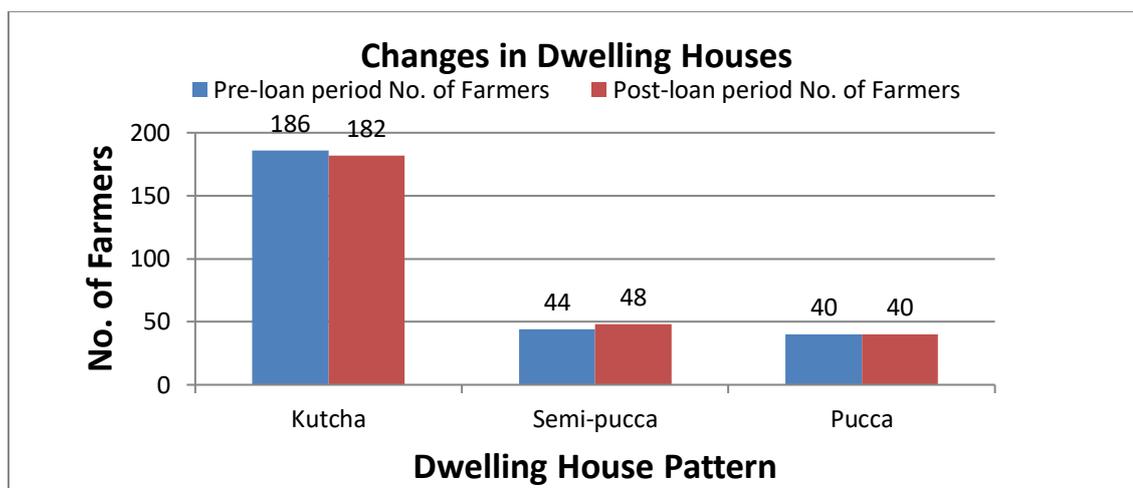
### 5.7: Changes in Dwelling Houses

A well facilitated house is one of the prime requirement assets for a family which provides shelter to family members. The structure of dwelling house is one of indicator of social status and economic conditions of a family. Generally, on the basis of income, people constructed their living houses in three types such as kutcha, semi-pucca and pucca. In rural areas, economically poor farmers are living in kutcha and semi-pucca houses. The changes of dwelling houses of farmers during the time between pre-loan and post-loan period in the study areas has been shown in the table-5.6.

**Table-5.6: Changes in Dwelling Houses**

Dwelling House Pattern	Pre-loan period		Post-loan period		Difference in percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Kutcha	186	68.89	182	67.41	-1.48
Semi-pucca	44	16.30	48	17.78	1.48
Pucca	40	14.81	40	14.81	0
Total	270	100	270	100	

Source : Field Survey, 2018

**Figure- 5.5: Changes in Dwelling House**

The table-5.6 reveals that the structure of dwelling houses of farmers had changed a little extent during post-loan period. The farmers having semi-pucca houses had increased a negligible percentage from 16.30 percent to 17.78 percent during post-loan period over pre-loan period and farmers having Kutcha houses had reduced a little from 68.89 percent to 67.41 percent during the same period of time. But the farmers having pucca houses had not changed during post-loan period. The study shows that in the study areas, maximum farmers are living in kutcha houses, i.e. 182 nos of farmers out of 270 nos of farmers and 48 nos of farmers in semi-pucca houses and only 40 nos. of farmers are living in pucca houses.

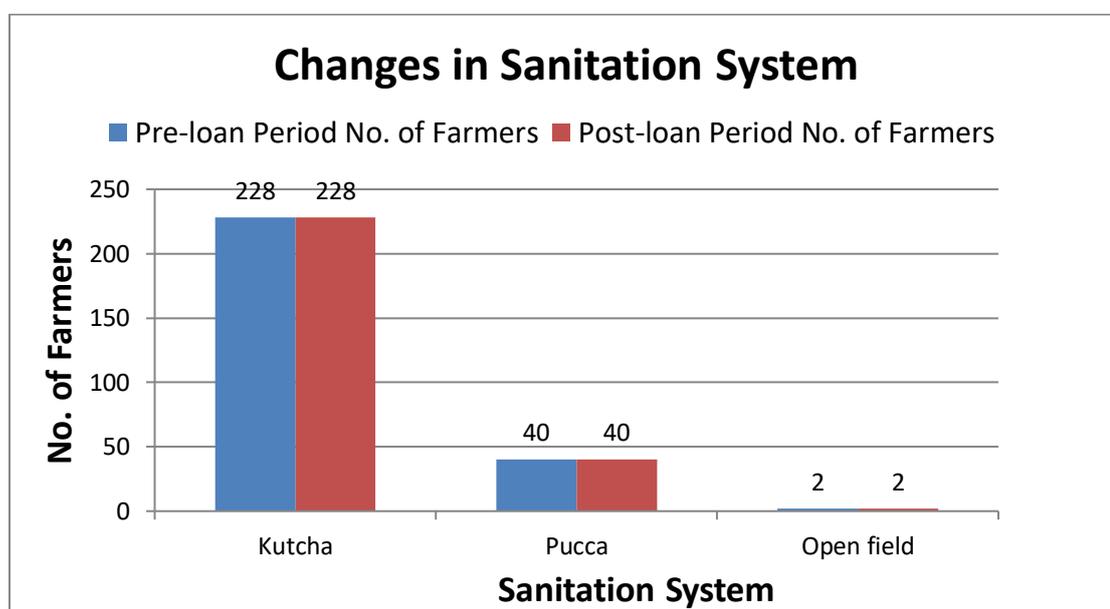
### 5.8: Changes in Sanitation System

A good modern type of sanitation facility is important for the protection of hygienic environment and to protect the society from diseases. In rural areas, due to insufficient income, most of the people use kutcha toilet and even use open field also. Small number of people use pucca toilet. In this regard, Govt. scheme plays an important role to provide sanitation facility to farmers. The sanitation facility of farmers in the study areas have been shown in the table-5.7.

**Table-5.7: Changes in Sanitation System**

Sanitation System	Pre-loan Period		Post-loan Period		Difference in Percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Kutcha	228	84.44	228	84.44	0
Pucca	40	14.82	40	14.82	0
Open field	02	0.74	02	0.74	0
Total	270	100	270	100	

Source : Field Survey, 2018

**Figure- 5.6: Changes in Sanitation System**

The table-5.7 reveals that there is not any fundamental impact of credit on sanitation facilities in rural areas. The farmers using kutcha toilet had remained same percentage before loan and after loan, i.e. 84.44 percent of farmers' family and 14.82 percent farmers using pucca toilet in pre-loan and post-loan period. The farmers using open field are 0.74 percent which is less than 1 percentage in the same period of time. The study shows that in the study areas, there is not any significant change in using sanitation facilities in rural areas.

## 5.9: Changes of Drinking Water Facilities

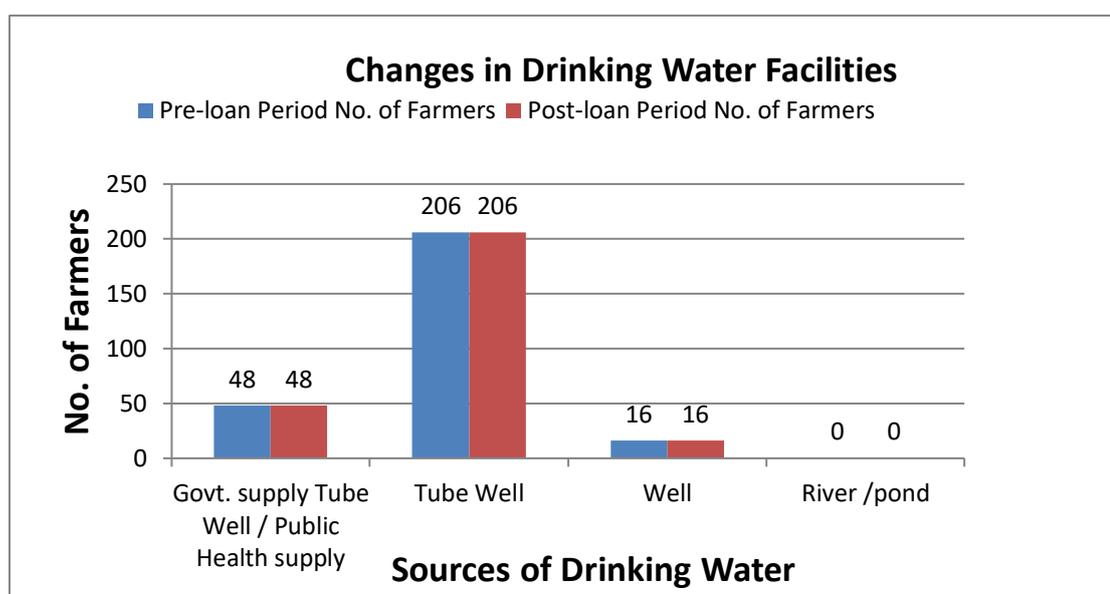
Pure drinking water is an important pre-requisite for human being. Large numbers of people are suffering from water born diseases in our country. The table-5.8 shows the changes in drinking water facilities in rural areas of Assam.

**Table-5.8: Changes of Drinking Water Facilities**

Drinking water facilities	Pre-loan Period		Post-loan Period		Difference in Percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Govt. supply Tube Well / Public Health Water supply	48	17.77	48	17.77	0
Own Tube Well	206	76.30	206	76.30	0
Well	16	5.93	16	5.93	0
River /pond	0	-	0	-	-
Total	270	100	270	100	

Source : Field Survey, 2018

**Figure- 5.7: Changes of Drinking Water Facilities**



The table-5.8 shows that there is not any significant impact falls on drinking water facilities in rural areas. The percentage of farmers depending on Govt. supply tube-

well or public health water supply is 17.77 percent in the time between ‘before’ and ‘after’ taking loan. The highest percentage of farmers using their own tube-well as a source of drinking water is 76.30 percent and only 5.93 percent farmers depend on well as a source of their drinking water in pre-loan and post-loan period of time. The study reveals that in the study area, no one has depended on open sources such as river or pond as a source of drinking water which was the main source of drinking water once upon a time.

### 5.10: Changes in Connection of Electricity Facility of Farmers

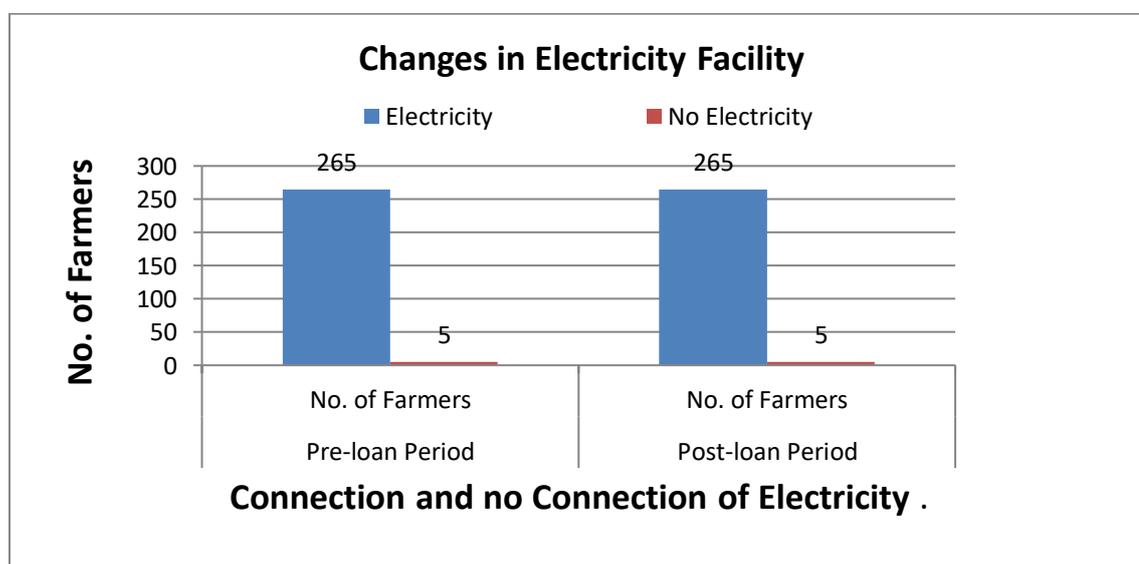
Electricity is the highest useable source of energy without which modern life is impossible. Electricity is essential in all spheres of life. The table-5.9 shows the changes in electricity facility of farmers.

**Table-5.9: Changes in Connection of Electricity.**

Electricity Facility	Pre-loan Period		Post-loan Period		Difference in Percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Electricity	265	98.15	265	98.15	0
No Electricity	5	1.85	5	1.85	0
Total	270	100	270	100	

Source: Field Survey, 2018

**Figure- 5.8: Changes in Electricity Facility**



The table-5.8 reveals that the farmers having connection of electricity is 98.15 percent in pre-loan and post-loan period and only 1.85 percent had remained without electricity connection. Indian Government provided free connection of electricity facility to all people who are living below poverty line. Thus, it shows that in the study area, agricultural credit has no any significant impact on accessing electricity facility.

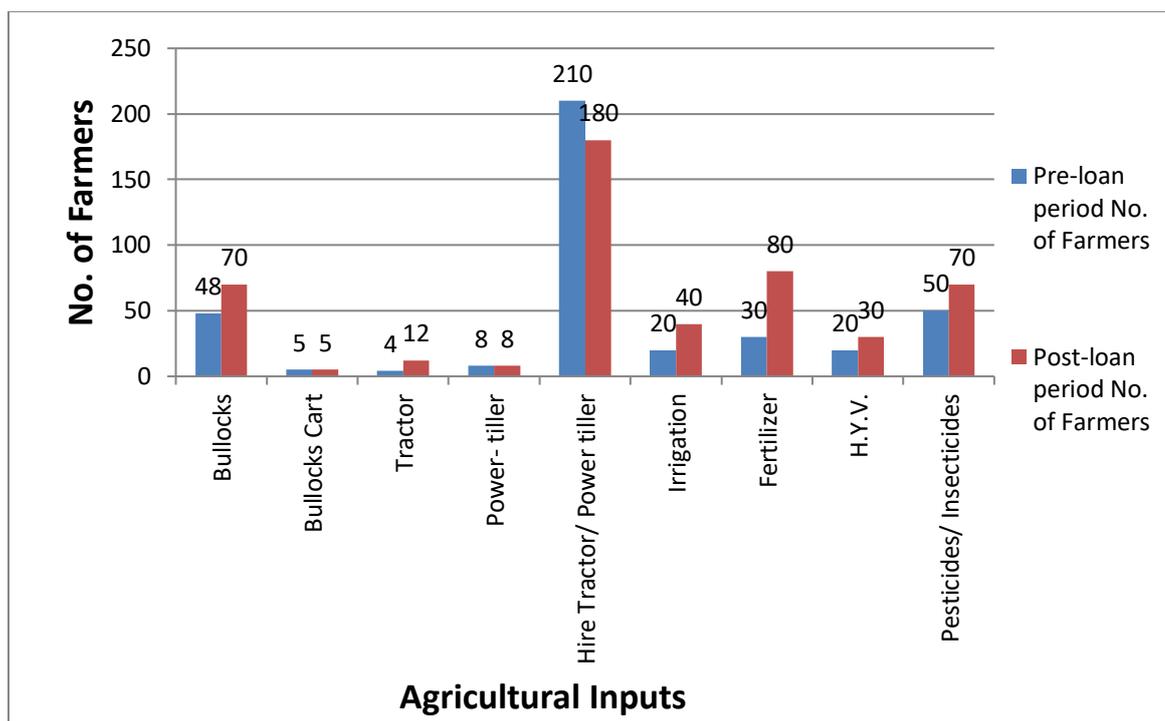
### 5.11: Changes in Agricultural Inputs

Agriculture is the main source of livelihood of rural people of Assam. But this sector is very backward and low productive. The Agriculturists always suffer from scarcity of agricultural implements. The table-5.10 shows the changes in agricultural inputs during post-loan period over pre-loan period of time.

**Table-5.10: Changes in Agricultural Inputs.**

Agricultural Inputs	Pre-loan period		Post-loan period		Difference in percentage
	No. of Farmers	Percentage of Farmers	No. of Farmers	Percentage of Farmers	
Bullocks	48	17.78	70	25.93	8.15
Bullocks Cart	05	1.85	05	1.85	0
Tractor	04	1.48	12	4.44	2.96
Power- tiller	08	2.96	08	2.96	0
Hire Tractor/ Power tiller	210	77.78	180	66.67	-11.11
Irrigation	20	7.40	40	14.81	7.41
Fertilizer	30	11.11	80	29.63	18.52
H.Y.V.	20	7.40	30	11.11	3.71
Pesticides/ Insecticides	50	18.51	70	25.93	7.42

Source : Field Survey, 2018

**Figure- 5.9: Changes in Agricultural Inputs**

The table-5.10 shows that the farmers having bullocks have increased from 17.78 percent to 25.93 percent during post-loan period over pre-loan period and 1.85 percent farmers have bullocks cart which agricultural implement is going to be outdated at present. The farmers having tractor have increased from 1.48 percent to 4.44 percent during post-loan period over pre-loan period and the owner of power tillers are 2.96 percent in the time period between pre-loan and post-loan period. The farmers use hire tractor or power tiller have reduced from 77.78 percent to 66.67 percent in the post-loan period over the pre-loan period. The farmers having irrigation facilities have increased from 7.40 percent to 14.80 percent during post-loan period over pre-loan period of time. The farmers use fertilizer, H.Y.V. seeds and pesticides or insecticides have increased from 11.11 percent to 29.63 percent, from 7.40 percent to 11.11 percent and from 18.51 percent to 25.93 percent respectively during post-loan period over pre-loan period of time. The study shows that in the study area, the impact of agricultural credit falls on a little segment of farmers regarding uses of agricultural implements because during post-loan period only 8.15 percent additional farmers purchased bullock and bullock cart remained same during the period. The most important implement of agriculture sector is tractor at present which is

purchased only 8 additional farmers during post-loan period. The additional user farmers of irrigation facilities, fertilizer, HYV seeds and pesticides or insecticides have increased only 7.41 percent, 18.52 percent, 3.71 percent and 7.42 percent during post-loan period which are actually not significant impact of agricultural credit on agricultural sector.

Agricultural sector is the main source of livelihood for the rural people in Assam. In Assam, agricultural sector is unproductive and neglected. Agriculturists are not able to produce sufficient amount due to their insufficient fund to invest in productive activities. In this regard, financial institutions play a significant role by providing fund to poor farmers. This shows that in the study area, a partial impact falls on socio-economic development of poor farmers. During the period of field survey, it is observed that maximum numbers of agriculturists are not able to maintain their standard of living due to low income. Their productivity is low. They use traditional and outdated technique of production in agricultural sector which is due to insufficient fund. The financial institution has provided credit to poor farmers which are actually not sufficient to improve their agricultural sector. Hence, sufficient agricultural credit is the main strength to rural poor for socio-economic development and for improving their living standard.

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