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Debt's DoubleEdged Scythe: Assessing Farmer's Indebtedness on Sustainability

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Abstract.
Farmers' debt is a major issue in India's current agricultural environment. It is widely considered as one of the main obstacles to rural development. A decrease in agricultural output and a worsening of socio-economic opportunity disparities are the results. In the 77th cycle of the NSS, from January to December 2019, the situational assessment of agricultural households and land and holdings of households in rural India-2019 performed. In each of these surveys, information on household debt was gathered. Approximately 35% of rural families (45.1% of agricultural households and 21.5% of non-agricultural households) reported spending money on fixed capital. In metropolitan areas, 15% of families reported spending money on fixed capital formation (25.3% self-employed households, 11% other households), the debt percentage of cultivators is higher than that of non-cultivators in rural India. This demonstrates the farmer's descent into debt. Government should initiate the over-come indebtedness not only urban area but also rural area of state. Government programs have a significant impact on farmers' decisions therefore the study may offer advice to policymakers on effective ways to raise knowledge about debt reduction among farmers and rural residents. Financial incentives, such as a 0% interest rate, might go a long way toward enlightening rural farmers.

Keywords: NSS survey, 77^{th} round, farmers debt, green technologies.

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1. Introduction

Farmers' debt is a major issue in India's current agricultural environment. It is widely considered as one of the main obstacles to rural development. A decrease in agricultural output and a worsening of socio-economic opportunity disparities are the results. According to the most recent "Situation Assessment of Agricultural Families and Land Holdings of Households in Rural India, 2019" published September 10, 2021, more than half of India's agricultural households were in debt, with an average outstanding of Rs. 74,121. Nevertheless, the proportion of families with debt decreased marginally from 51.9% as recorded in the earlier poll in 2013 to 50.2 in 2019. Andhra Pradesh has the highest average outstanding debt of all 28 states in the 2019 study, at Rs 2.45 lakh.

Additionally, the state has the largest percentage of agricultural households with debt (93.2%), followed by Telangana (91.7%) and Kerala (69.9%). [1]

Along with these four states, Haryana, Punjab, Karnataka, Rajasthan, and Tamil Nadu, loans above Rs 1 lakh per family were recorded on average. The sum was higher than the national average of Rs 74,121 in at least 11 states.

1.1. Farmers Indebtedness in 77th Round

The All-India Debt & Investment Survey (AIDIS) and the Land and Livestock Holding of Households and Situation Assessment of Cultivated Households were conducted currently from January to December 2019 as part of the 77th cycle of the NSS. Data on household debt was gathered for these two surveys. In contrast to the second survey, which included information on household debt from all kinds of families in both countryside and metropolitan India, the first study concentrated on agricultural households in rural areas.

1.2. Regional Coverage

Geographic coverage: All rural regions of the Indian Union were surveyed, except for the remote settlements in the Andaman and Nicobar Islands.

1.3. Sample Design

A rural hamlet was theoretically divided throughout the frame's development into a number of sub-units (SU) with about equal inhabitants. Census 2011 population predictions for villages were created using acceptable rate of growths and the SUs produced in each village was given priority. SU's were created in the villages with a population greater than or equal to 1000, according to the 2011 Census. In the abandoned communities, no Subunit was founded.

1.4. Sample Size of 77th Round of NSS

For a rural stratum, sample size was split into three groups based on population. 5,950 FSUs were allocated to rural regions throughout all of India for the central sample., all FSUs taken for sample have been allocated based on population of the States and UTs as per Census 2011, considering to a minimum sample allocated to each State/UT. In

NSS Report No. 587: “Situation Assessment of Agricultural Households and Land and Livestock Holdings of Households in Rural India, 2019”, multiples of 2 were used to change stratum level allocation. A minimum sample size of 2 was needed. In total, 10 homes from each FSU were expected to be polled for this study in visit 1, and those same homes were expected to be polled once more in visit 2. [1]

1.5. Fixed Capital Expenditure Between Rural & Urban India in 77th round of NSS

Using the Integrated Schedule of Assessment of Land and Livestock and Agricultural Business Status of Agricultural Households (January 2019-December 2019) survey of 77th round of NSS to collect comprehensive data including land ownership and livestock as well as operational holdings of rural households was done to. Agricultural households, with allusion to the July 2018-June 2019 agricultural time. In Table 1.1, about 35% of countryside households reported spending money to create stable capital (45.1% agricultural households, 21.5% non-agricultural households). In metropolitan areas, 15% of households reported spending money on fixed capital formation (25.3% self-employed households, 11% other households) [2].

Table 1: Rural & Urban India fixed capital expenditure in 77th Round of NSS.

Rural India	FCE%-India	FCE%-Rajasthan	Urban India	FCE%-India	FCE%-Rajasthan
Cultivator	45.10%	56.20%	Self Employed	25.30%	34.30%
Non-Cultivator	21.50%	24.30%	Other Households	11.00%	18.10%
Total	35%	47.80%	Total	15.00%	23.10%

NSS Report no. 588: All India Debt and Investment Survey - 2019

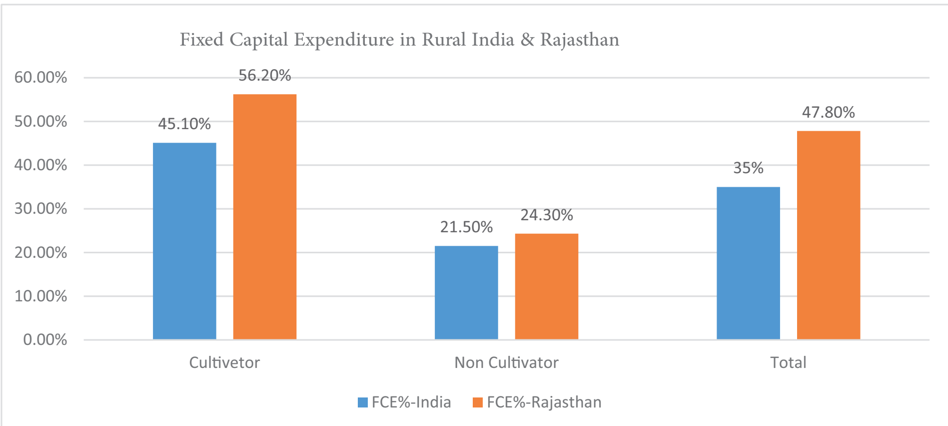

Figure 1: Fixed Capital Expenditure in Rural India.

Figure 7.1 shows that the fixed capital expenditure percentage of cultivators is higher than that of non-cultivators in rural India.

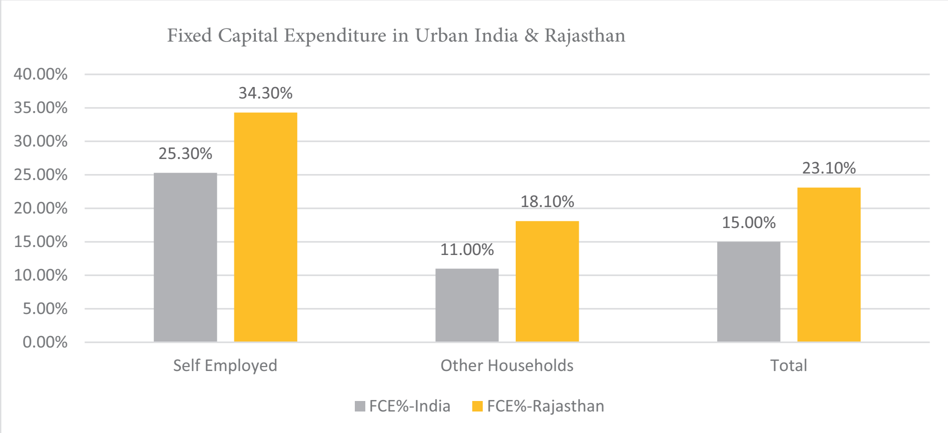

Figure 2: Fixed Capital Expenditure in Urban India.

Figure 7.2 shows that the fixed capital expenditure percentage of self-employed & other households in urban India & Rajasthan.

1.6. Household Indebtedness Between Rural & Urban India in 77^{th} round of NSS

As per report number 588 of NSSO-round 77 Using the Integrated Schedule of Assessment of All India Debt & Investment Survey (January 2019-December 2019) to collect comprehensive data including incidence of indebtedness among different household of rural & urban India was done. In Table 1.2, about 35% of countryside households reported in debt (40.3% agricultural households, 28.2% non-agricultural households). In metropolitan areas, 22.4% of households reported in debt (27.5% self-employed households, 20.6% other households).

TABLE 2: Rural & Urban India IOI-Percentage in 77^{th} Round of NSS.

Rural India	IOI-Percentage-India	IOI-Percentage-Rajasthan	Urban India	IOI-Percentage-India	IOI-Percentage-Rajasthan
Cultivator	40.30%	48.60%	Self Employed	27.50%	26.70%
Non-Cultivator	28.20%	25.30%	Other Households	20.60%	19.90%
Total	35.00%	42.50%	Total	22.40%	22.00%

NSS Report no. 588: All India Debt and Investment Survey - 2019

Figure 7.3 shows that the IOI-Percentage of cultivators is higher than that of non-cultivators in rural India & Rajasthan.

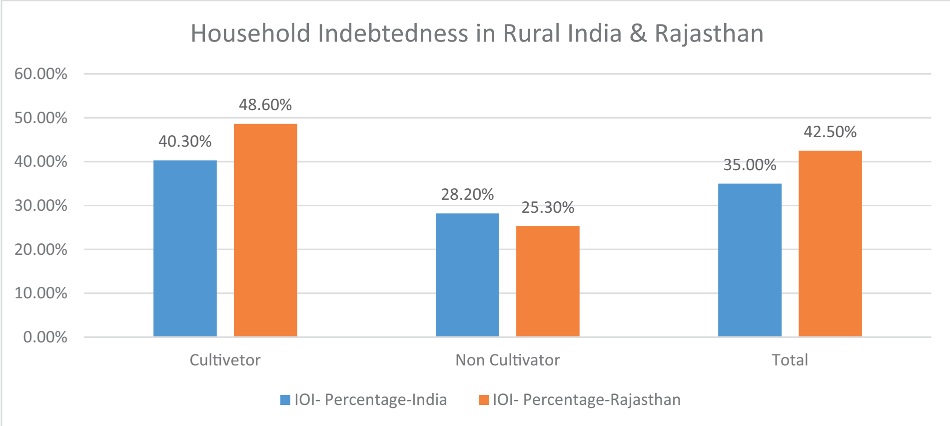

Figure 3: Household Indebtedness in Rural India.

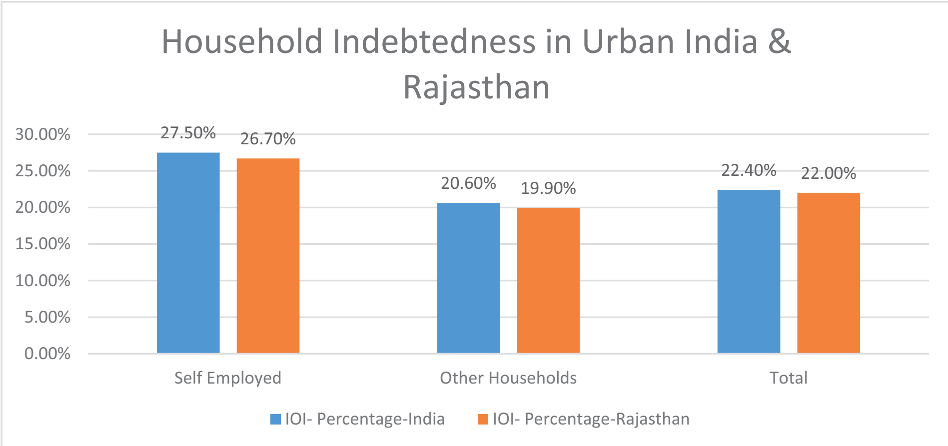

Figure 4: Household Indebtedness in Urban India.

Figure 7.4 shows that the IOI-Percentage of self-Employed group is higher than that of other Households in urban India.

Table 1.2 shows that There is a significant gap between convenience and ignorance in rural India, as shown by the fact that the rate of agricultural indebtedness there is far greater than in metropolitan areas.

1.7. Sources of loan for Rural Households in India & Rajasthan in 77^{th} round of NSS

As per report number 587 of NSSO-round 77 Using the Integrated Schedule of Situation Assessment of agricultural households and Land & Live-stock holdings of household in rural India & Rajasthan (January 2019-December 2019). Approximately 70% of India households have accessibility to Institutional sources as lenders, while it is approximately 65 % in Rajasthan. Role of professional money lenders is significantly high in Rajasthan as compared to overall India.

TABLE 3: Sources of loan for Rural Households in India & Rajasthan.

Sources Type	Lenders	India%	Rajasthan%
Institutional Loan	Scheduled Commercial Bank	44.5	50.7
	Regional Rural Bank	8.1	7.6
	Co-operative Societies	6.7	1.6
	Co-operative Bank	3.9	1.5
	SHG	3.2	0.9
	Other Institutional Agencies	3.2	2.9
Non-Institutional Loan	Agricultural Money Lender	6.5	1.9
	Professional Money Lender	14	24.5
	Relatives & Friends	5.7	2.3
	Other- Non-institutional Agencies	4.5	6.2

NSS Report No. 587: Situation Assessment of Agricultural Households and Land and Livestock Holdings of Households in Rural India, 2019

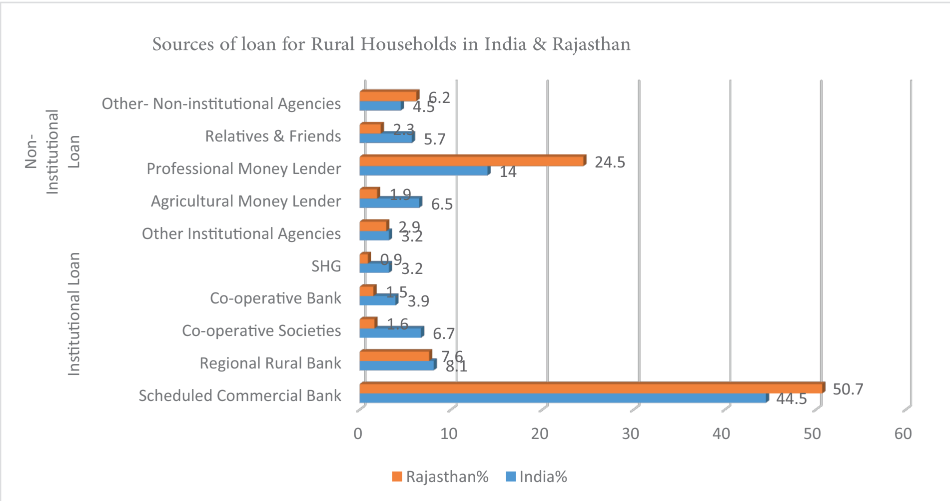

Figure 5: Sources of loan for Rural Households in India & Rajasthan.

1.8. Purpose of loan for Rural Households in India & Rajasthan in 77th round of NSS

As reported NSSO-round-77, 587th report of "Situation Assessment of agricultural households and Land & Live-stock holdings of household" in rural India & Rajasthan-2019.

Capital expenditure is main purpose of loan in Rajasthan while it is Revenue Expenditure all over India.

TABLE 4: Purpose of loan for Rural Households in India & Rajasthan.

Purpose of Loan	India %	Rajasthan %
Capital Expenditure in Farm Business	25.9	28.4
Revenue Expenditure in Farm Business	31.6	21.7
Non-Farm Business	3.9	4.1
For Housing	11.2	12.1
Marriages & Ceremonies	6.4	9.1
Education & Medical	5.4	4.1
Other Consumption Expenditure	9.4	14.9
Others	6.2	5.4

NSS Report No. 587: Situation Assessment of Agricultural Households and Land and Livestock Holdings of Households in Rural India, 2019

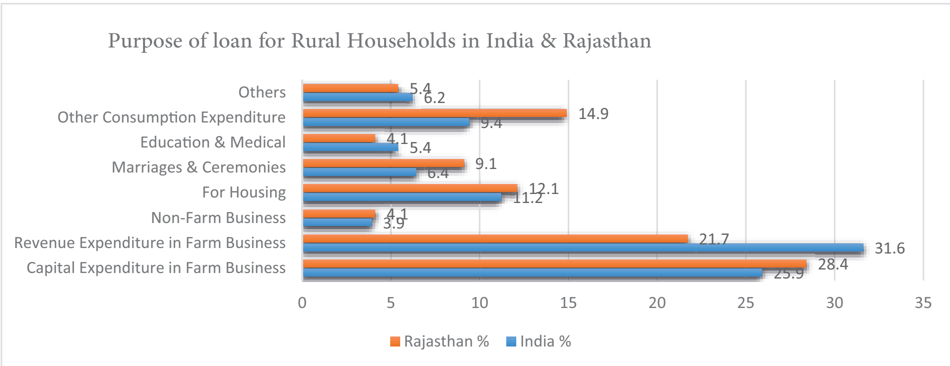

Figure 6: Purpose of loan for Rural Households in India & Rajasthan.

2. Literature Review

In India, small and marginal agricultural households, who constitute 80% of all households—[redacted] rely on loans to cover their essential costs. There are several actors in the country's rural credit market, including both organized and non-institutional loan sources such public banks, profitable banks, moneylenders, landlords, dealers, acquaintances, and relatives. [3] To look into the prevalence of debt, we discovered that smallholders in Indian rain-fed areas are vulnerable because of debt. When comparing the prevalence of debt among agricultural households in India according to land size classes, it can be shown that those with larger plots of land have a heavier debt load than those in the smaller size classes [4] . Recent farmer suicides have also been on the rise; between 2013 and 2016, 48,104 people who depended on agriculture committed suicide [5]. Since defining a threshold is challenging, the terms "indebtedness" and “over-indebtedness” are often used interchangeably. When does the condition of being in debt become being over-indebted? What is too much for one family may not be for another. Rural households may experience “durable inequality” as a result of debt derived from exploitative sources, which forces them to make choices that are not in their best interests [6]. Because the primary reasons of their debt include tiny land holdings (i.e., solely for marginal and small farmers), unproductive credits, high rates of interest levied by non-institutional sources, poor prices for cultivated products, and high input expenses [7]. Numerous studies have emphasized the difficulties the poor have when trying to get loans from the official economy. Although the State made efforts to solve these issues by establishing guidelines for mandatory lending to the agricultural sector, the institutional lending organizations have failed to effectively reach the underprivileged [8]. Commercialization and rising production costs have made agriculture expensive and vulnerable to crop failure. Poor crop returns and a lack of non-farm employment possibilities are causing income to decline, which is a sign of a bigger socio-economic problem in rural India. The numerous risks farmers face—including production, pricing, input, technology, and credit additionally highlight this [9].

While going through all earlier studies it is seen, majority of research are done on central level or particularly focused on Punjab, Haryana, Telangana and Karnataka. None of the earlier studies focused on state like Rajasthan where agricultural household are more diversified and furthermore has potential to be a leading player in agriculture. Since new data in form of 77^{th} round of NSSO is released, which may add more values for further studies on such burning issue related to indebtedness and socio-economics conditions of agriculture households of Rajasthan?

3. Contributors of indebtedness

The main reasons for debt in India’s rural communities are as follows.

1. **Speculative Monsoon**

   To India’s agricultural industry, the monsoon is crucial. 65% of the cultivated actions are engaged in rain fed cultivation. Because rain is so unpredictable during the monsoon, agricultural operations have turned into a risk. A failing monsoon can result in the total loss of a crop in India, where more than 60% of agricultural land is irrigated using rainwater and the average farm size is only 3.5 acres. Food prices and India’s overall economic development might be significantly impacted by the monsoon season’s failure. Analysts anticipate that India’s GDP growth rate would decrease by a full percentage point as a result of this year's weak monsoon, which, for instance, has led to price rises in sugar and other commodities.

2. **Farmers' Lack of Literacy**

   In India, most farmers are illiterate. Farmers are vulnerable, and unscrupulous lenders use this susceptibility to trap them in a cycle of debt. Most farmers in India lacks formal education. They are caught in a debt cycle that lenders and merchants have set up for them. Due to their illiteracy, they have a restricted ability to make a living, and they are not aware of the institutional sources of concessional loans.

3. **Land Fragmentation**

   Land holdings in India are frequently fragmented, and it is believed that this may significantly contribute to the explanation of India's low agricultural production. Indian farmers are experiencing low income due to the rising prevalence of land subdivision and fragmentation. Due to their limited income, farmers are pushed to accumulate additional debt.

4. **Litigation**

   Farmers in India frequently find themselves embroiled in legal battles over matters of land, property, and other matters, which forces them to appear in court. The matter is usually significant to them since it affects the reputation and honor of the family. Such legal battles cost a lot of money and time. Farmers take out loans that they are unable to repay to satisfy these expectations, which keeps them in debt.

5. **Agriculture Structure in Poor Condition**

   A failing agricultural system has led to a worsening of the rural indebtedness situation. It involves problems like a problematic system of land tenure, the use of antiquated methods, growing land pressure, subpar marketing, and the absence of alternate sources of revenue, among others. Additionally, it has been noted that traditional agriculture does not satisfy the demands of the populace and is disliked by tribal and other orthodox people. On the other side, those that use contemporary farming practices are unable to sell their goods since there isn't a market for them.

6. **Ancestral Debt**

   Ancestral debt is the main contributor to modern rural indebtedness. Many farmers start their careers with a hefty load of ancestor debt, which they must continue to shoulder out of social and religious obligation. The burden on the inheritors grows with each subsequent transfer of the debt in this manner. The farmer "is born in debt, lives in debt, and dies in debt," as the Royal Commission on Agriculture put it bluntly. The bulk of rural loans, it has been found, are passed down from the past and increase in size over time.

7. **Unreliable a lender of money**

   As they urge Indian farmers to borrow, charge high interest rates, and manipulate their accounts, money lenders in India are a significant factor in the country's expanding agricultural indebtedness. It is well known that private lenders use several unethical tactics.

8. **Poverty**

   Debt and poverty go hand in hand. Because the impoverished must borrow money from moneylenders, they are connected and dependent on one another. On their debts, the impoverished must pay interest. Even now, the interest rate is too high. The impoverished are victimized and oppressed by moneylenders in a number of ways. The poorest individuals will only have access to a few services, including health and education. The most vulnerable people in society are afflicted by hunger, malnutrition, and illness. It is particularly challenging to overcome poverty since the most disadvantaged people of society are usually underrepresented in public and political discourse.

4. Impact of Indebtedness on farmers

Debt in rural agricultural areas is having a lot of negative effects. It obstructs societal advancement and change. The increase in poverty among the poor is the most obvious effect of debt. Their lifelong companion is poverty. They are unable to save money because of their debt, which makes them poorer.

1. **Deterioration of Agriculture**

   Since the majority of farmers were forced to work as servants on the property of their moneylenders, agriculture's condition also declined as a result of debt. Additionally, the farmers are unable to properly care for the fields they have farmed. Thus, it causes agriculture to decline.

2. **Loss of Social Prestige**

   Due to debt, the farmer perceives himself as being significantly less important than moneylenders or sahukars. His decline in social standing results as a result.

3. **Psychological Problem**

   The effects of debt cause the impoverished farmer to become frustrated, depressed, mentally unbalanced, and experience mental turmoil. The farmers are unable to repay the debt or improve their financial situation due to the enormous load of the loan. They are still in a pickle. Extreme frustration may lead them to take their own lives occasionally.

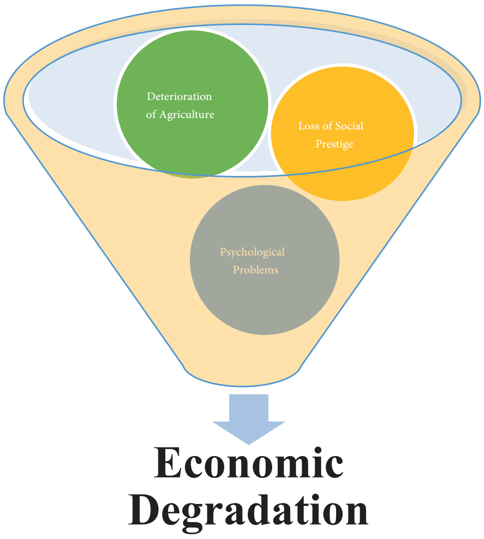

Figure 7: Impact of indebtedness on economic development.

4. **Economic Degradation**

   Farmers who are heavily in debt find it difficult to support their fundamental needs as well as those of their families. As a result, the fanner's economic situation significantly deteriorates. The farmer is readily taken advantage of by the moneylender due to his ignorance and illiteracy. The lender tries to take advantage of him in many ways. Indebtedness in rural areas contributes to an increase in landless labor. Once a farmer falls into a moneylender's trap, the amount with interest keeps rising over time. There comes a time when the struggling farmer has no choice but to sell his little plot of land to the moneylender and join the ranks of laborers who do not own any land. So, results are that economic degradation.

5. Conclusion

The main conclusion that emerges from the above study is that the debt level of farmers in rural India is high, which shows that the condition of farmers in rural India is very pathetic. Government should initiate some effective strategies to over-come indebtedness not only urban area but also rural area of state. Government program have a significant impact on farmers' decisions, therefore the study may offer advice to policymakers on effective ways to raise knowledge about debt reduction among farmers and rural residents. Financial incentives, such as a 0% interest rate, might go a long way toward enlightening rural farmers and motivating them to employ other business practices on the farm so they can profit from financial incentives, which would not only assist to lower debt but also boost our nation's GDP. As a consequence, the government and decision-makers might take appropriate actions by taking into account the variables and findings from the current study. The reduction of indebtedness no doubt would encourage and motivate farmers to adopt green and efficient technologies in farming sector which can together fight the battle against low agricultural productivity and climate change.

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