

## **An Analysis of the Scenario of Farmer's Indebtedness in India**

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**ABSTRACT:** *In India, there have been successive governments since independence that have taken various steps for the development of agriculture through institutional and technical changes and adopting various agricultural development policies. This paper highlights the scenario of farmer's indebtedness in India by retrieving the data from various rounds of the National Sample Survey. The study analyses the trends in incidence of indebtedness among major states, trends in the average size of holding according to farm categories, Average amount of debt and Debt-asset ratio among rural and cultivator households. The study found that Andhra Pradesh has the highest indebted agricultural households and the incidence of indebtedness increased and it was more in the case of cultivator households. The average size of holding declined from 1.33 hectares to 1.08 hectares from 2000-01 to 2015-16. The Debt-assets ratio has increased more in comparison to assets. The study suggests that the government initiate the programmes that may be focused to train the farm-related technologies to the farmers which enables them to take steps beyond farm income and help to do innovation. The government must also ensure that new skills are learned which strengthens the farmer's backbone and help them in additional income so that they're not dependent on their crops and have a backup. Furthermore, they can have crop insurance policies that cover the losses of these farmers to be saved from the debt. Proper monitoring of the utilization of loans should also be ensured.*

**KEYWORDS:** *Farmers, Indebtedness, Agriculture, Scenario, India*

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### **I. INTRODUCTION**

India is amongst the major producers of food grains, fruits, vegetables, and spices along with staples. The country is also ranked among the five largest producers of agricultural produce. Therefore, the development of the agricultural sector itself becomes indispensable for the development of the country. The significance of the sector can be seen from the fact that it not only keeps the human resource of the country healthy and nourished but the majority of the working population earn their livelihood through agricultural works. The raw material for the industrial sector further influences the national income of the country. While India was on the verge of its independence, the agriculture sector alone contributed around fifty per cent of the national income, and about 72 per cent population was depended on this sector (Tripathi and Prasad, 2009). These statistics additionally confirmed that when India achieved its independence, it was an agrarian economy and the majority of its population was dependent on agriculture for their livelihoods. Agriculture has also been the main part of our trade with other countries. However, in recent years, the conditions of farmers have worrisome even more as their purchasing power decreases, their debt is ever-increasing and farmer's suicide has become a common phenomenon now. Though the value of agricultural goods has increased with time; there's also an increment in the input cost of agricultural goods which does not benefit the farmers even minutely (Kannan, 2015). The major concern of the Indian economy was the increasing population at a rapid rate which led to the subdivision of operational land holding increasing the numbers of marginal and small farmers in India. The standard size of operational holdings has declined in a very short span and statistically, it was 2.28 hectares in 1970-71 whereas it was reduced to 1.16 hectares in 2010-11. Due to this decline in operational holdings, 85 per cent of the holdings are in the category of small and marginal farmers (NABARD, Rural Pulse, 2014).

### **II. OBJECTIVE AND DATA SOURCES**

The objective of the study is to analyse the scenario of indebtedness among farmers in India. The study is mainly based on secondary data which were obtained from various books, journals, government records, annual reports of NABARD, NSSO data, All India Rural Debt and Investment Survey, National Crime Record

Bureau, Census of India, Reserve Bank of India and Agricultural Census, etc. were studied for in-depth knowledge about the scenario of indebtedness among farmers.

### III. RURAL POPULATION AND AGRICULTURAL WORKERS

Before we go through the in-depth analysis of indebtedness among farmers, it's essential to go through the share of the population engaged in the sector as well. The table below provides information regarding the rural population and agricultural workers.

**Table 1: Proportion of Rural Population & Agricultural Labourer in India**

(In millions)

Year	Total Population	Rural Population	Total Labourers	Cultivators (1)	Agricultural Labourer (2)	Total (1+2)
1951	361	299 (82)	139.5	69.9(71.9)	27.3(28.1)	97.2(69.7)
1961	439.2	360.3(82.0)	188.7	99.6(76.0)	31.5(24.0)	131.1(69.5)
1971	548.2	439.0(80.1)	180.4	78.2(62.2)	47.5(37.8)	125.7(69.7)
1981	683.3	525.6(76.9)	244.6	92.5(62.5)	55.5(37.5)	148.0(60.5)
1991	846.4	630.6(74.5)	314.1	110.7(59.7)	74.6(40.3)	185.3(59.0)
2001	1028.7	742.6(72.2)	402.2	127.3(54.4)	106.8(45.6)	234.1(58.2)
2011	1210.8	833.7(68.9)	481.9	118.8(45.1)	144.3(54.9)	263.1(54.6)

Source: Agricultural Statistics at glance, 2017

Table 1 elucidates that the total population of the country has increased from 361.1 million to 1210.8 million after six decades. Due to the increase in population, the total number of the workforce has also increased. In the case of agricultural workers, the number of the working population was divided into two categories: cultivators and agricultural labourers. As can be seen, in 1951, the number of cultivators was 71.9 per cent whereas it declined to 45.1 per cent in 2011. However, in the case of agricultural labourers, the percentage was 28.1 and it was increased to 54.9 per cent. The above table concludes that the number of cultivators has decreased and the number of agricultural workers has increased.

### IV. TRENDS IN AVERAGE SIZE OF HOLDING IN INDIA

After analysing the proportion of the population engaged in the cultivation process, it's significant to analyse the average size of land that a farmer possesses on which the cultivation process can be done.

**Table 2: Trends in Average Size of Holding in India**

(In hectares)

Category of holdings	2000-01	2005-06	2010-11	2015-16
Marginal	0.40	0.38	0.39	0.38
Small	1.42	1.38	1.42	1.40
Semi medium	2.72	2.68	2.71	2.69
Medium	5.81	5.74	5.76	5.72
Large	17.12	17.08	17.38	17.07
All holdings	1.33	1.23	1.15	1.08

Source: Agricultural Census, 2015-16

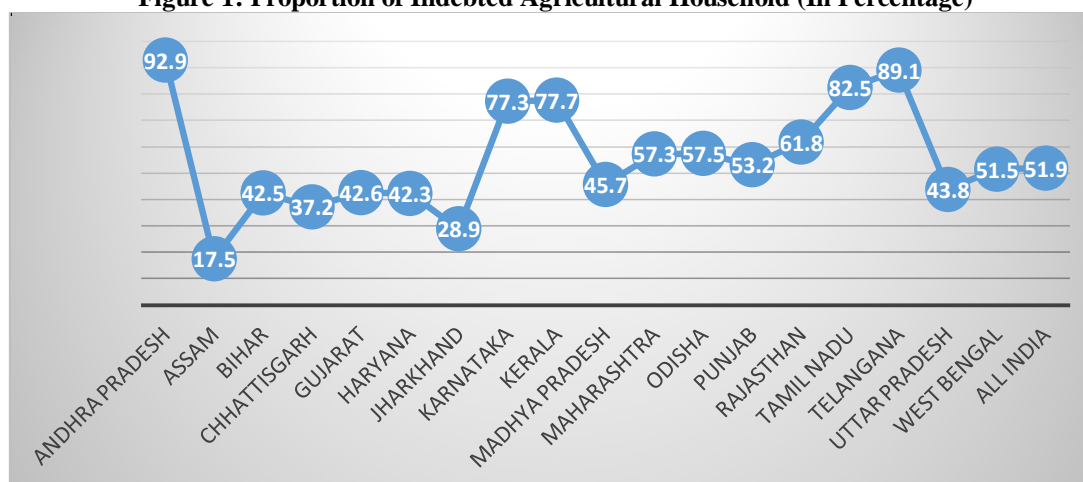
The above table depicts the trends in the average size of holding in India. The size of holding has been categorised in the form of "marginal, small, semi-medium, medium, and large". The standard size of the landholdings has shown declining trends over time. According to the agricultural census of 2000-01, a total of 1.33 hectares of average holding declined to 1.08 hectares by 2015-16. The declining trend in the average size of holding resulted in more fragmentation of land which raises the crisis for the agricultural sector. In his study, Sahu (2018) elaborated the trends in indebtedness among farm households using the data of the 70<sup>th</sup> round National Sample Survey Organization and found that mostly indebted farmers were small and marginal farmers. A total of 52 per cent of agriculture households were in debt and the level of indebtedness varied from region to region. A total of 56 per cent of marginal landowners do not have agriculture as the main source of income but

were dependent on salary and wage employment, whereas 23 per cent have livestock as the principal source of income.

### V. INCIDENCE OF INDEBTEDNESS

At all India level, the position of debt was assessed by NSSO's various rounds report<sup>1</sup> to get a clear picture of indebtedness. According to NSSO (2001), "Indebtedness is a measure of the amount of debt incurred against various loans regarding a period or point of time". The below figure illustrates the percentage share of indebted agricultural households of India's major states.

**Figure 1: Proportion of Indebted Agricultural Household (In Percentage)**



Source: NSS, 70<sup>th</sup> Round Report, 2013

Above is the graphical depiction of the proportion of indebted agricultural households in India; a clear vision of Andhra Pradesh being at the highest (92.2 per cent) and Assam (17.5) being at the lowest proportion of indebted agricultural households in India. Rajeev, Vani & Bhattacharjee (2011) analysed the extent and nature of farmer's indebtedness in India using the NSSO 59<sup>th</sup> round data and it was found that at all India level, the IOI was 48.6 per cent. It was highest in Andhra Pradesh at 83.5 per cent, and the lowest being in Uttaranchal at 7.2 per cent. Formal sources contributed 58 per cent of credit supplied to indebted households whereas informal sources contributed 42 per cent at all India level.

**Table 3: Incidence of Indebtedness based on Landholdings owned by Indebted Agricultural Households in the Major States.**

(In percentage)

State	Marginal	Small	Semi-Medium	Medium	Large
Uttar Pradesh	77.2	13.4	7.1	2.1	0.2
Maharashtra	35.6	29.3	22.8	11.6	0.7
Madhya Pradesh	42.3	27.4	21.4	7.5	1.3
Rajasthan	50.9	18.3	16.8	12.1	1.9
Karnataka	52.0	24.4	14.8	7.4	1.3
Andhra Pradesh	52.2	23.9	16.1	6.9	0.9
Telangana	51.0	23.6	19.6	5.0	0.9
Bihar	86.7	10.0	2.6	0.7	0.0
West Bengal	91.1	7.4	1.4	0.1	0.0
Punjab	46.2	15.9	17.9	17.6	2.4
Orissa	78.7	15.2	4.3	1.8	0.1

<sup>1</sup> All India Debt and Investment Survey Report

All India	63.6	18.4	12.0	5.4	0.6
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Source: NSSO, 70<sup>th</sup> Round Report, 2013

The above table shows the incidence of indebtedness among major states of India according to the landholding possessed by the farmers. Among these categories of farmers, only the marginal farmers have a higher percentage of incidences of indebtedness that are majorly from West Bengal, Bihar, Orissa, and Uttar Pradesh. The percentages of indebtedness among small farmers are relatively lower than the marginal farmers and can be seen mostly in Maharashtra, Madhya Pradesh, and Karnataka whereas as regard semi-medium farmers, the higher incidences of indebtedness were in Maharashtra, Madhya Pradesh, and Telangana. In the same period, the higher incidences of indebtedness were found in Punjab, Rajasthan, and Maharashtra for medium farmers, and the cases were extreme in Punjab, Rajasthan, and Karnataka for a large percentage of farmers.

It becomes imperative to analyse the trends in the Incidence of Indebtedness (IOI) in India so that the severity of the problems of indebtedness in Indian farmers could be known. To understand the figures of these trends in IOI, the data of the following years were taken into consideration; 1971, 1981, 1991, 2002, and 2013. The data from the following years have been accumulated because the NSS report declared in these years were at the forefront concerning the indebtedness of farmers in India. The trends are illustrated with the help of the following table:

**Table 4: Trends in the Incidence of Indebtedness in India**

(Percentage)

Year	India	
	Indebted Rural Households	Indebted Cultivator Households
1971	43	44.3
1981	20	21.69
1991	23	25.9
2003	26.5	29.7
2012	31.44	45.94

Source: NSS 26<sup>th</sup>, 37<sup>th</sup>, 48<sup>th</sup>, 58<sup>th</sup> and 70<sup>th</sup> rounds.

The above table depicts the trends in IOI in India among rural and cultivator households. There were fluctuating trends that prevailed in IOI. From 1981, the IOI was increased from 20 per cent to 31.44 per cent in 2012 among rural households where else in the case of cultivator households the IOI was increased from 21.69 per cent in 1981 to 45.94 per cent. So we can say IOI was increased more in the case of cultivator households as compared to rural households. It is significant to study the average amount of debt, "Average amount of debt refers to the cash amount dues per indebted households" (NSS, 70<sup>th</sup> Round). The following table shows the state-wise trends:

**Table 5: Average Amount of Debt per Rural household and per Cultivator household**

State	2002 (59th Round)	2013 (70th Round)	2002 (59th Round)	2013 (70th round)
	Rural household		Cultivator household	
Andhra Pradesh	10590	58263	16154	130599
Assam	643	5256	641	7856
Bihar*	2992	16405	3336	48674
Gujarat	11794	53717	12958	25536
Haryana	12359	99212	17340	46013
Himachal	5196	46818	5843	91682
Jammu & Kashmir	1114	12741	1198	17176
Karnataka	9193	51375	13422	83987
Kerala	19663	147402	27641	441589
Madhya Pradesh*	9031	21294	12246	48723

Maharashtra	10391	33893	14268	68532
Orissa	3609	13643	3976	25389
Punjab	16502	64548	25211	216524
Rajasthan	12031	47397	13261	72453
Tamil Nadu	9304	45803	14823	100266
Uttar Pradesh*	5059	22199	5363	69794
West Bengal	3194	11253	3820	10333
<b>All India</b>	<b>7539</b>	<b>32522</b>	<b>9261</b>	<b>70580</b>

Source: NSS 48<sup>th</sup>, 58<sup>th</sup>, and 70<sup>th</sup> rounds.

The above figures show the average amount of debt among rural households increasing from ₹7539 to ₹32522 from 2002 to 2013. In the case of cultivator households, the average amount of debt increased from ₹9261 to ₹70580 from 2002 to 2013. The highest average amount of debt was in Kerala among rural households followed by Haryana and Punjab in 2013, where else in the case of cultivator households the highest amount of debt was in Kerala, Punjab, Andhra Pradesh & Tamil Nadu.

## VI. TRENDS IN DEBT ASSET RATIO AMONG RURAL AND CULTIVATOR HOUSEHOLDS

The indebtedness scenario in India is also analysed with the help of the debt asset ratio. The debt asset ratio explains "the average amount of debt due on a particular date for a particular set of households". This ratio fundamentally defines the burden of debt due to a particular class of households. As the debt asset ratio increases the assets have been decreasing and as the debt assets ratio decreases the assets increases among rural and cultivator households.

**Table 6: Trends in Debt Asset Ratio Among Rural and Cultivator Households**

(Percentage)

Year	India
1971	4.42
1981	1.83
1992	1.78
2002	2.84
2012	3.23

Source: Source: NSS 26<sup>th</sup>, 37<sup>th</sup>, 48<sup>th</sup>, 58<sup>th</sup>, and 70<sup>th</sup> rounds.

To examine the indebtedness of the farm sector, a variety of measures can be used for this purpose. The most common tool to measure the same is the ratio of debt to assets. The above table describes the trends in debt asset ratio among rural households in India. In the beginning, the position of the debt asset ratio was 4.42 per cent among rural households which decreased to 1.83 per cent from 1971 to 1981, which depicts an increment in assets among rural households. However, since 1981 the debt asset ratio has augmented from 1.83 per cent to 3.23 per cent in 2012 which reflects debt has increased more in comparison to assets.

**Table 7: Trends in Debt Asset Ratio among Cultivator Households**

(Percentage)

Year	India
1971	4.13
1981	1.80
1992	1.61
2002	2.49
2012	2.46

Source: NSS 70<sup>th</sup> Round

The above table shows the trends in debt asset ratio among cultivator households. The debt asset ratio among cultivator households' outlines fluctuating trends from 1971 to 2012. The debt ratio dropped from 4.13 per cent to 2.46 per cent from 1971 to 1992 which depicts an increment in assets among cultivator households. But after that, the debt asset ratio increased from 1.61 per cent to 2.46 per cent from 1992 to 2012 which shows debt was increased more in comparison to assets.

## VII. CONCLUSION & POLICY IMPLICATIONS

From the above analysis, it is clear that Indian agriculture is confronting with a scenario of indebtedness. Declining average size of holding, increasing trends in incidence of indebtedness among rural and cultivator households, increase in the average amount of debt and an increase in debt-assets ratio etc. are some of the important data that shows the grim picture. Without resolving the issue of indebtedness among farmers, the overall development of the agricultural sector is not possible. Therefore, it is suggested that significant steps and policies should be formulated by the government and other related agencies for the permanent solution to the problem of indebtedness and for agricultural development to take place. The loan waiver scheme is only an immediate and temporary remedial measure to cope with the problem of indebtedness among farmers. The sector needs the long term measures along with a debt waiver scheme. There are several institutions regarding the agriculture sector which include ministries, agricultural institutions, and universities, etc. which work for the welfare of agricultural communities. These institutions must increase their research and development programs and suggest to the farmers that what kind of seeds would be appropriate for their land by surveying their fields, water conservation techniques on farms, use of fertilizers in a proper way, etc. Existing research and innovative development work in the agricultural sector should reach at the farm level including small and marginal farmers. Those activities which were done through traditional methods need to be changed and modern technology should be adopted so that farmers' income will be enhanced. Activities such as water harvesting, protection of crops, testing of soil quality before sowing, training should be provided for poultry farms, animal breeding, milk dairy, the making of compost manure, etc. and in the execution of these activities, the government should provide its support. The major issue farmers were facing was the rising cost of cultivation. The government provides subsidies only on a few inputs which were not enough for farmers. Though they should provide subsidies in such a way that the actual cost of cultivation is reduced, providing subsidies on manure and seeds are not sufficient. They could also initiate programmes that focus on teaching farm-related technologies to the farmers which enables them to take steps beyond income alone and helps in innovation. The government must also ensure that new skills are learned which strengthens the farmer's income through agriculture and some non-farm sector also. Proper designing and implementation of crop insurance policies must be ensured to cover the losses of these farmers and to save them from additional burden of debt. A comprehensive approach is required to address various interrelated issues so that the income level of farmers can be increased in a sustained manner.

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