

# **Rubber Cultivator's Borrowings and Repayment Pattern of Agriculture Credit with Special Reference to Kanyakumari District**

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## ***Abstract***

*Rubber is a prominent plantation crop of considerable significance to the Indian economy and India is the fourth largest producer of natural rubber. To assist the rubber growing farmers, Bank provides loan facilities under Plantation Development Scheme Farmers need loans for the purchase of seeds, fertilizers, manures, agricultural implements, livestock, digging and repair of wells and tube wells, payment of wage, effecting permanent improvements on land and marketing of agricultural produce Farmers often require loans for cultivating the natural rubber and marketing the raw rubber. Rubber is an agro industry based product on which about 10 lakh farmers are directly involved, and about 60 lakh farmers are indirectly depended upon. In this article, the authors aimed at examining the credit facilities availed by the farmers and the borrowings and repayment pattern of agriculture credit by the rubber farmers of Kanyakumari district. An intensive Interview Schedule has been prepared and was administered among 250 sample respondents who have directly involved in rubber cultivation.*

**Keywords:** *Natural Rubber, Borrowing Scheme, Repayment*

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## **1. INTRODUCTION**

Natural Rubber (NR) is one of the primary commodities of the South Indian state of Kerala, which is the leading producer of rubber among the states in India. The importance of rubber in the Indian economy can be substantiated by looking at the sizeable contribution of rubber production which makes India the largest producer and the third largest consumer of

natural rubber in the global economy. A total of 6-7 lakh tons is annually produced in India which amounts to approximately Rs. 3000 core, 90 % of this total rubber production is contributed by Kerala (Indian Mirror, 2017). There are many schemes available for getting agriculture credit with various repayment patterns and for varied reasons.

The Indian rubber plantation sector is dominated by small holdings, which account for almost 93 per cent of the total rubber production in the country. Small rubber growers suffer from problems like low productivity, poor quality of processing and weak marketing system, lack of finance, changing climatic condition, impact of price fluctuation and high labour cost of rubber tapping. The farmers of Kanyakumari district face so many challenges to repay the loan and credit facilities availed by them from different sources.

Rubber cultivation in the district is under the control of Rubber 256 Board having its office at Marthandam. The district covers 95 percent of the rubber plantation coming under the Board's office. As per the latest survey by the Rubber Board, 18592 ha of land is under cultivation in Kanyakumari District and around 6000 ha is under large estate sector, as per the latest Indian Rubber Statistics. Average rubber production is 22090 ton and the productivity is 1178 kg/ha. There is 28 Rubber Producers' Societies (RPS) registered with the Rubber Board. Among the nine blocks in the district, Melpuram and Thiruvattar are having richness of Rubber Plantations and are considered as the best places for the plantation and production of rubber in Kanyakumari District

## 2. REVIEW OF LITERATURE

Dr. S.P. Mathiraj & T.V. Bindu (2015) in their article titled "*Problems Faced by Natural Rubber Cultivators - A Study with Special Reference to Selected Districts of Kerala*", make an attempt to study the problems faced by rubber cultivators in the selected districts of Kerala. The Indian rubber plantation sector is dominated by small holdings, which in turn makes this sector vulnerable to exploitation by middlemen and price fluctuations. The large population and the large manufacturing base, particularly in the automobile industry and the availability of competitive labour, offer great opportunities for rubber product manufacture in India. But the recent trend in rubber cultivation has negative trend due to global fluctuations. This study grouped the problems faced by the rubber cultivators in the study area.

S.N. Yogish (2017) *Economic Analysis of Rubber Plantation – A Case Study of Shivamogga District*. Rubber is the minor plantation crop cultivated in Shimoga. The study highlights the inputs like land, labour, capital etc., are most conspicuous in Shimoga district. Rubber predominantly rain fed crops in Shimoga. Hence, there are affected by weather fluctuation, which may have an impact on yield and return correspondingly, their supply may also be affected leading to high variability in prices. The higher cost of cultivation of rubber was primarily due to higher variable costs. It might be due to higher variable costs and to higher average plant population per acre and better adoption of recommended package of practices in rubber. The study find out that the capital investment in rubber was substantial. Hence, its financial impact was long term in nature.

## 3. STATEMENT OF THE PROBLEM

The states Kerala, Maharashtra and Tamil Nadu especially Kanyakumari district are the pioneers of rubber consumption as the number of manufacturers and the consumption of all types of rubbers are more in these states. Nowadays the rubber cultivators of Kanyakumari district faces so many problems and challenges to continue the cultivation of natural rubber. The Natural Rubber cultivators face financial crisis and they are obtain credit facilities from relatives and friends, banks, cooperative societies and also from private money lenders. Farmers in the study area (Kanyakumarai district) are taking up rubber cultivation regularly and hence regular training/demonstration programmes are to be conducted on all aspects of rubber cultivation and processing. Rubber tapping is a skilled job. Its efficiency is influenced by a number of parameters/ factors and the skill has to be acquired through structured training. In the

context of shortage of skilled labour, skill development programmes have to be continued as new plantations are becoming ready for tapping. In this back ground, the scholar analysed the borrowings and repayment pattern of agriculture credit of the sample respondents which consist of the different Schemes of loan under which credit is availed, training acquired on agriculture, time lag in getting loan, awareness of different schemes, assistance from the government, and loan utilization.

#### 4. OBJECTIVES OF THE STUDY

1. To know the credit facilities and examine the awareness of different schemes availed by the respondents
2. To evaluate the repayment pattern of the borrowers and reasons for the default in repayment
3. To find out the reasons for the defaulter in repayment of loan by the sample respondents

#### 5. SCOPE OF THE STUDY

The study covers the area of Kanyakumari District rubber cultivators. The sample respondents have been taken from all over the district. Only the farmers who involved in Rubber cultivation have been interviewed for the purpose of the study

#### 6. METHODOLOGY OF THE STUDY

The study consists of both primary and secondary data. The secondary data have been collected from the records, magazines, journals and periodicals. The primary data have been collected from the respondents by way of Interview Technique. A specialized Interview Schedule has been prepared and was administered among 250 sample respondents who directly involved in rubber cultivation. The researcher used convenience sampling for the purpose of collecting primary data.

#### 7. TOOLS FOR ANALYSIS

##### 7.1 Garrett Ranking

The reasons for non-payment of the loan amount are analysed with the help of Garrett Score by the sample respondents

$$\text{Percent position} = \frac{100(R_{ij} - .5 / N_j)}{N_j}$$

Where  $R_{ij}$  = Rank given to jth for to jth individual and  
 $N_j$  = Number of factors ranked by jth individual

##### 7.2 Factor Analysis

In order to identify the correlation of reasons for the defaulter in repaymentis find out with the help of Factor Analysis.

##### 7.3 Correlation

In this study, correlation technique is used to study the relationship between inter related variables for the chosen variables.

$$r = \frac{\sum xy}{\sqrt{x^2 \times y^2}}$$

Further, to know the structural difference for the progress and performance of agriculture credit in the district, correlation significance analysis is used by the following formula.

$$t = \frac{r}{\sqrt{1-r^2}} \sqrt{n-2}$$

#### 7.4 't' Test

't' Test is used to identify the problems for non-payment and also examine the most affected problems for the non-payment of dues and the minor problems for non-payment by the sample respondents

### 8. RESULT AND ANALYSIS:

#### Borrowings and Repayment Pattern of Agriculture Credit

There are many schemes available for getting agriculture credit with various repayment patterns and for varied reasons. The following is the summary of the borrowings and repayment pattern of agriculture credit of the sample respondents which consist of the different Schemes of loan under which credit is availed, training got on agriculture, Time lag in getting loan, awareness of different schemes, assistance from the Government, and loan utilization.

**Table 1: Credit Facilities availed by the Respondents**

Variables	Frequency	Percent	Cumulative Percent
<b>Training received</b>			
Yes	225	90	90
No	25	10	100
<b>Total</b>	<b>250</b>		
<b>Time lag in getting loan</b>			
One week	18	7.2	7.2
15 days	48	19.2	26.4
One month	93	37.2	63.6
More than one month	91	36.4	100
<b>Total</b>	<b>250</b>		
<b>Scheme in which got loan</b>			
Crop loan	167	66.8	66.8
Subsiding loan for manure	52	20.8	87.6
Subsiding loan for cultivation	5	2	89.6
Loan for purchasing machine	14	5.6	95.2
Jewel loan for agriculture	12	4.8	100
<b>Total</b>	<b>250</b>	100	
<b>Assistance from the Govt.</b>			
Loan with subsidy	148	59.2	59.2
Current supply with subsidy	25	10	69.2
Fertilizers	62	24.8	94.0
Pesticides	-		
Pest control measures	-		
Seeds	-		
Seedlings	15	6	100
<b>Total</b>	<b>250</b>	100	
<b>Utilization of loan amount</b>			
Agriculture purpose only	225	90	90
Family expenditure	-	-	90
Rubber business	19	7.6	97.6
Buying equipments	6	2.4	100
<b>Total</b>	<b>250</b>		

**Source:** Primary Survey.

Among the study group, 64 percent were able to receive the credit facilities within a month, 37 percent within 19 days, 7 percent within a week and for 36 percent, it took More than one month. With regards to the scheme under which they availed the credit facilities, 67 percent have got under Crop loan, 21 percent under Subsiding loan for manure, 2 percent under Subsiding loan for

cultivation, 6 percent under Loan for purchasing machine and 5 percent under Jewel loan for agriculture. Hence, majority of the respondents have got credit facilities through Crop loan. At about 59 percent have got the Assistance from the Government in the form of Loan with subsidy, 10 percent Current supply with subsidy, 25 percent Fertilizers, and 6 percent Seedlings. Utilization of credit differs from person to person according to necessity and urgency. Among the sample respondents, 90 percent have utilized the loan for Agriculture purpose, 8 percent for Rubber business and 2 percent for buying equipment.

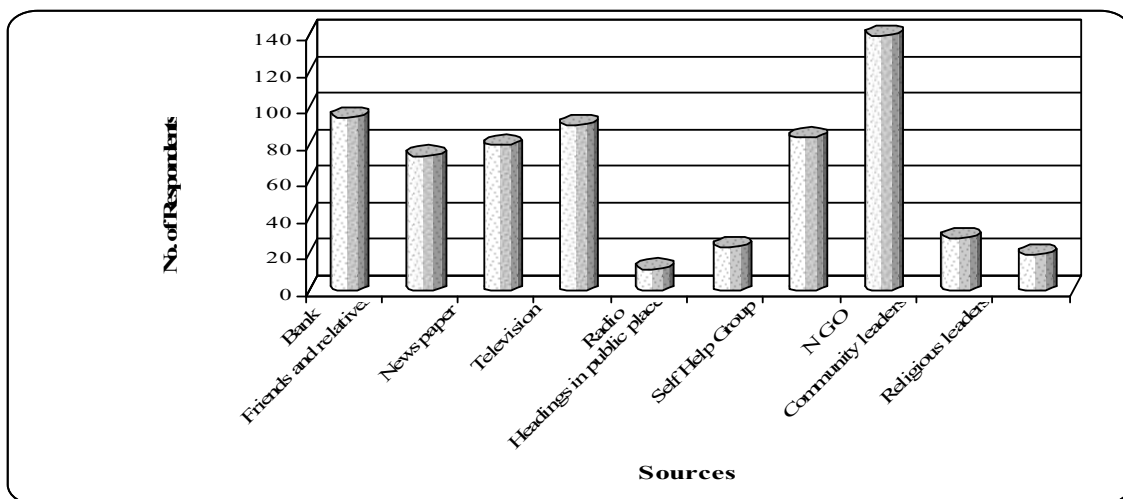
**Table 2: Awareness on Different Schemes**

Sources	No. of Respondents	% to total
Bank	95	38
Friends and relatives	74	30
News paper	80	32
Television	91	36
Radio	12	5
Headings in public places	24	10
Self Help Group	84	34
N G O	140	56
Community leaders	29	12
Religious leaders	20	8
<b>Average</b>	<b>65</b>	<b>26</b>

Source: Primary Survey.

Out of the total respondents, only 65 percent are aware of the different schemes available to the farmers. The respondents came to know about the schemes from various sources, 38 percent from Banks, 30 percent from Friends and relatives, 32 percent through News paper, 36 percent through Television, 5 percent through Radio, 10 percent through Hoardings in public places, 34 percent through Self Help Groups, 56 percent through N G Os, 12 percent through Community leaders and only 8 percent through Religious leaders.

**Figure 1: Awareness on Different Schemes**



**Table 3: Repayment Pattern of the Borrowers**

Particulars	Number	Percentage	Cumulative Percentage
On due date	137	54.8	54.8
Before due date	35	14	68.8
After due date	78	31.2	100
After getting notice from Bank	0	0	
<b>Total</b>	<b>250</b>	<b>100</b>	

**Source:** Primary Survey.

Regarding repayment of loan amount they have borrowed for the banks 55 percent of them repay it on due date, 14 percent people are not waiting for the due date. They repay the amount when ever money is available and the remaining 31 percent repay it after due date. The survey reveals that nobody has waited till getting notice from banks.

**Table 4: Reasons for the Default in Repayment**

Variables	Garrett Score	Rank
Poor yielding	54.19	I
Low income generation	52.54	II
Family problems	51.02	III
Low investment	50.54	IV
Willful default	50.47	V
Diversion of funds	47.76	VI
Personal problems	44.47	VII
<b>Average</b>	<b>50.14</b>	

**Source:** Primary Survey.

The reasons for nonpayment of the loan amount are analyzed with the help of Garrett Score and are arranged in order. They are poor yielding, low income generating capacity, Family problems, Low investment, Willful default, inadequate repayment and Personal problems. Among them, only two variables are noted as less important as they fall below the average score of 50.14.

**Table 5: T Test for Reasons for the Defaulter in Repayment**

Reasons	Std. Deviation	Std. Error Mean	t	Sig. (2-tailed)	95% Confidence Interval of the Difference	
					Lower	Upper
Willful default	14.72769	5.56654	6.416	.001	22.0934	49.3351
Low investment	7.27357	2.74915	12.991	.000	28.9874	42.4412
Low income generation	7.47695	2.82602	12.638	.000	28.7993	42.6293
Diversion of funds	7.86796	2.97381	12.010	.000	28.4376	42.9909
Family problems	4.42396	1.67210	21.359	.000	31.6228	39.8058
Personal problems	19.05881	7.20355	4.958	.003	18.0878	53.3407
Poor yielding	19.45691	7.35402	4.856	.003	17.7196	53.7089

**Source:** Primary Survey.

As per 't' test, it is noted that among the chosen variables, poor yielding (4.856), Personal problems (4.958) and Willful default (6.416) are known to be the most affected problems for the non-payment of dues. The other variables Diversion of funds (12.010), Low income generation (12.638), Low investment (12.991) and Family problems (21.359) are identified as the minor problems for non-payment.

**Table 6: Correlation for Reasons for the Defaulter in Repayment**

Reasons	Willful default	Low investment	Low income generating	Diversion of funds	Family problems	Personal problems	Poor yield
Willful default	1						
Significance							
Low investment	.251	1					
Significance	.587						
Low income generation	-.235	.357	1				
Significance	.611	.432					
Diversion of funds	.484	.316	-.650	1			
Significance	.271	.490	.114				
Family problems	.029	.272	.299	-.506	1		
Significance	.950	.556	.514	.247			
Personal problems	-.598	-.238	-.252	.133	-.454	1	
Significance	.156	.608	.585	.777	.306		
Poor yield	-.377	-.658	.102	-.654	.183	-.291	1
Significance	.405	.108	.827	.111	.695	.526	

Source: Primary Survey.

The variable willful default has negative relationship with Low income generation, Personal problems and Poor yield, Low investment has negative relationship with Personal problems and Poor yield, Low income generation has negative relationship with Diversion of funds and Personal problems, Diversion of funds has no association with Family problems and Poor yield, and Family problems has negative relationship with Personal problems. Hence, it can be concluded that the variables poor yield and personal problems are the major reasons for default among the sample respondents.

**Table 7: Factor Analysis on Reasons for the Defaulter in Repayment**

Variables	Factor 1 (Fund Diversion)	Factor 2 (Investment Constraints)	Factor 3 (Personal Constraints)
Willful default	.540	.560	-.541
Low investment	.368	.730*	.514*
Low income generation	-.564	.469	.513*
Diversion of funds	.965*	-.053	-.110
Family problems	-.487	.621*	-.017
Personal problems	.197	-.766	.556*
Poor yielding	-.802*	-.247	-.475
% of Variance	37.098	30.022	19.532
Cumulative variance	37.098	67.119	86.652
<b>Total %</b>	<b>42.81</b>	<b>34.65</b>	<b>22.54</b>

Source: Primary Survey.

**Fund Diversion:** This factor constitutes 37 percent of variance and 43 percent out of the total factors extracted. Here Diversion of funds (.965\*) holds first with the positive correlation whereas poor yield (-.802\*) has negative correlation and so it is concluded that the default is not due to poor yielding but it is due to the diversion of funds.

**Investment Constraints:** Though the farmers in the district have many avenues to get money, the investment of the same in agriculture is comparatively low (730\*). This is because of the family problems (621\*) that they encounter in the normal course of life. This factor has a variance of 30 percent and possesses 35 percent of the total.

**Personal Constraints:** The problems like low investment (514\*), low income generation (513\*) and personal problems (556\*) cause default in the repayment of loans from banks. This factor has a variance of 20 percent and possesses 23 percent of the total.

## 9. FINDINGS

Regarding repayment of loan amount, 55 percent of them repay it on due date, 14 percent before the due date, and the remaining 31 percent repay it after due date. The reasons for non-payment of the loan amount are analysed with the help of Garrett Score and are arranged in order. They are poor yielding (54.19), low income generating capacity (52.54), family problems (51.02), low investment (50.54), wilful default (50.47), Diversion of funds (47.76) and personal problems (44.47). As per t test, it is noted that among the chosen variables, poor yielding (4.856), personal problems (4.958), and wilful default (6.416) are known to be the most affected problems for the non-payment of dues. Through correlation analysis it is analysed that the variables poor yield (-.291) and personal problems (-.454) are the major reasons for default among the sample respondents. Further, the factors fund diversion, investment constraints and personal constraints also cause the default in repayment.

## 10. SUGGESTION

1. Natural rubber and tea will grow side by side and that will help the gardens retain their economic viability.
2. To assist the rubber growing farmers, Banks provides loan facilities under Plantation Development Scheme. Therefore conduct awareness programmes to rubber farmers and assists to avail these financial assistance to rubber growing farmers who replant / new plant rubber plants with guidance of Rubber Board.
3. Substantial monetary support should made available to the growers as crop loans and development loans through commercial banks or co-operative societies.

## 11. CONCLUSION

Rubber industry in India has passed through many vicissitudes and attained a fairly significant position in the global arena. Currently India has attained the position of the third largest producer in the world by sharing 9 percent of the global output. The study revealed that the poor yielding, low income generating capacity, family problems, low investment, wilful default, inadequate repayment and personal problems are the reasons for non-payment of the loan amount. The factors analysis shows that fund diversion, investment constraints and personal constraints also cause the default in repayment. Budget from the Central government in the rubber sector would have focus of special allocation for new plantation and replanting of rubber.

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