CHAPTER - V
DETERMINANTS OF INDEBTEDNESS

1. The Opening Remarks

In Chapter III, while constructing a composite index or measure of the degree of indebtedness we have found that $X_2$ (per capita loan observed by the household) is the best representative measure of indebtedness in so far as our sample data reveal. We have also found that $X_2$ has a high degree of association with $X_5$ (per capita loan as a ratio to the repaying capacity of the household) as the coefficient of correlation between $X_2$ and $X_5$ is as high as 0.76. Moreover, $X_2$ is highly correlated with $X_4$ (Amount of loan per capita cultivable area of land owned by the household) also.

In Chapter IV, we have noted that $X_5$, $X_4$ and $X_3$ are the variables that constitute the causal chain determining the productive performance of the household. We have seen how this causal chain helps indebtedness to be self-perpetuating. The process of self-perpetuation intensifies the degree of indebtedness which ultimately is reflected in an increase in the per capita amount of loan observed by the household.
In this chapter our main objective is to investigate into the possibilities of finding out the determinants of $X_2$, the extraneous variables that we have not yet included in our analysis.

2. **Determinants of Indebtedness**

At the outset we propose that the following three variables may be considered as the determinants of indebtedness.

i) Per capita income,

ii) Per capita credit-financed investment in farming or other productive activities, and

iii) Level of highest education (in years) obtained in the household.

We envisage that per capita income may be one of the candidate variables that determine indebtedness. But we do not want to assert whether it will be positively or negatively associated with indebtedness. Higher level of per capita income may induce the household to be spendthrift and it may enhance conspicuous consumption on ceremonial occasions. We may not meet with the Scotsman\(^1\) among the tribals of our study area. If it be so, indebtedness may be positively associated with per capita income.
Nevertheless, higher level of per capita income may be associated with lower degree of indebtedness. Hence we will not assert whether per capita income will be associated with the degree of indebtedness positively or negatively. We will simply assert that they are associated with each other.

Similarly, per capita credit-financed investment in farming (or other productive activities) may be positively or negatively associated with the degree of indebtedness. The direction of their associative movement depends on the fact whether the investment has been a profitable venture or not. Further, the level of highest education may be negatively associated with indebtedness so far as education leads to rational decision-making and induces frugality and prudence. Nevertheless, education may lead to snobbery, contempt for manual work, conspicuous consumption, and spend-thrift habits. In such a case it will lead to indebtedness. Hence we do not want to assert whether the level of education obtained by the household will be negatively or positively associated with indebtedness. We simply assert that it will be associated with indebtedness.

To statistically determine the association of indebtedness with the above three variables we have assumed the functional relationship as:
ERROR DISTRIBUTION OF P. CAPITA LOAN

![Graph of error distribution of P. capita loan](image-url)
and also that $e_i$ is normally distributed with mean zero and constant variance, $\sigma^2$.

The OLS estimate of the regression equation as specified above is given by:

$$\hat{X}_2 = 166.0605 - 0.0671X_8 + 0.428X_9 + 4.525X_{10} \ldots (5.2)$$

where,

$X_8 = \text{Per capita income measured (in Rs.) annually.}$

$X_9 = \text{Per capita credit-financed investment (Rs.) in farming or other productive activities.}$

$X_{10} = \text{Level of highest education (in years) obtained in the household.}$

In the above regression equation, $R^2$ is quite high. But a scrutiny of the residuals reveals that $\hat{e}_i$ is not homoskedastic. Naturally, the standard errors of the estimated parameters are biased and not worth reporting. The heteroskedastic nature of $\hat{e}_i$ is supported by the fact that the coefficient of correlation between $X_2$ and $\hat{e}$ is as high as 0.75. The diagram D 5.1 vividly indicates the heteroskedastic nature of the residuals.
3. Treatment of Heteroskedasticity

We have made an attempt to treat the problem of heteroskedasticity by weighted least squares method. We have assumed that the weights are proportional to the reciprocal of the square of the expected value of $X_2$, or

$$W_i = \frac{1}{\hat{X}_2^2} \quad \text{.......................... (5.3)}$$

which amount to the assumption:

$$\frac{\sigma_i^2}{\sigma_{i2}^2} = \frac{\sigma_{i2}^2}{\sigma_{12}^2} \quad \text{.......................... (5.4)}$$

The above assumption is based on our perusal of the scatter of $\hat{e}_i$ against $X_2$.

The estimated regression equation (by Weighted Least Squares Method) is given by:

$$\hat{X}_2^* = 55.548 + 0.1136X_8^* - 0.4533X_9^* - 23.446X_10^*;$$

$$(1.045) \quad (0.1727) \quad (0.6917)$$

$$R^2 = 0.6686 \quad \text{............. (5.4)}$$

The asterisk in the variables reminds us that they are weighted. The figures in the brackets are Student's t values.

It might be seen that in the equation above, while $R^2$ is quite high, none of the coefficients are significantly
different from zero. A scrutiny of the residuals obtained in estimating the above equation has, however, revealed that now they show a peculiar regularity. For those observations which record the magnitude of \( x_2 \) below the median value (Rs. 170), all the residuals are negatively signed, while for the rest of the observations all the residuals are positively signed. We obtain thus a very important information through scrutinising the residual vector and this information may effectively be utilised for improving estimation.

4. **Respecification of the Model**

To use the information obtained through residual analysis, we design a surrogate variable. This variable represents the factors not included among the explanatory variables, though they are affecting variations in \( x_2 \). We concede, therefore, that our model as specified in the preceding section is suffering from the problem of misspecification on account of exclusion of relevant variable. As a consequence, the estimators of the coefficients might be biased and inconsistent, and moreover, their variances as estimated above might be inflated.

We define \( S \), the surrogate variable, such that;

\[
S_i = \begin{cases} 
-1 & \text{if } x_2 \text{ less than Rs. 170} \\ 
1 & \text{otherwise, and}
\end{cases}
\]
respecify the model afresh as:

\[ X_2^* = a_0 + a_1 X_8^* + a_2 X_9^* + a_3 X_{10}^* + a_4 S + \varepsilon \quad \ldots \quad (5.6) \]

We estimate the model and obtain:

\[ \hat{X}_2^* = 48.9213 + 0.12609 X_8^* - 0.76143 X_9^* - 20.18946 X_{10}^* \]

\[ + 35.72819 S ; \quad R^2 = 0.9196 \quad \ldots \quad (5.7) \]

\[ (2.24) \quad (0.58) \quad (1.20) \quad (1.77). \]

We note that the value of \( R^2 \) above has increased substantially. The values of the coefficients associated with \( X_8^* \) and \( X_{10}^* \) remain remarkably stable, though there is a notable reduction in the standard errors of estimate, increasing the values of \( t \). However, the coefficient associated with \( X_9^* \) has been unstable and remained insignificantly different from zero. The explicit gain from the inclusion of the surrogate variable, \( S \), has been that 't' values associated with \( \hat{a}_1 \) and \( \hat{a}_3 \) have become larger. Thus, \( \hat{a}_1 \) and \( \hat{a}_3 \) are significantly different from zero at 2.5\% and 12\% levels of significance respectively. Moreover, \( \hat{a}_4 \) is significantly different from zero at 6\% level of significance.

The regression equation (5.7) may be split up into two separate regression equations: one for those households
whose per capita amount of loan is below median level (Rs. 170) and the other for those whose per capita amount of loan is not less than Rs. 170.

\[ X_2^* = 13.19311 + 0.12609X_8^* - 0.76143X_9^* - 20.18946X_{10}^* \]

for below median loanees, and

\[ X_2^* = 84.64949 + 0.12609X_8^* - 0.76143X_9^* - 20.18946X_{10}^* \]

for others.

Considered so, it is revealed that at the median \( X_2 \) a structural break in indebtedness takes place.

To understand and explain the structural break in indebtedness we must look into the basic characteristics of the sample data that we are analysing. A scrutiny of the same readily shows that indebtedness is correlated with per capita landholding of the households, although the nature of the relationship is quite peculiar. We observe that as we move away from the median value of per capita loan, the per capita landholding of the sample households increase. Mathematically, we may express the above stated relationship as:

\[ \text{ABS}(M - X_2) = f(X_3) \quad \ldots (5.8) \]
Where $\text{ABS}(M - X_2)$ denotes the absolute value of the per capita loan measured as a deviation from the median value, $M$. ($X_3$ is the per capita landholding size of the household).

Economic explanations of the above observation may be readily provided. An increase in per capita landholding ($X_3$) implies higher per capita income in general, and we may expect richer farmers to finance their consumption expenditure and farming from their own savings. While exorbitant rates of interest prevail in the non-institutional credit market in rural areas, farmers would seldom borrow, could they finance their expenditure on their own. In doing so they might prefer to continue with the traditional method of farming and have to be contented with the meagre production, just enough for subsistence. Under the conditions of rainfed farming, farmers are greatly exposed to uncertainties leading them to risk-aversive decisions. Thus they may refrain themselves from borrowing. Furthermore, social prestige that flows from owning larger areas of land is greatly eroded away by being acknowledged as a debtor. Hence, no farmer would like to borrow if he could go on without it.

Nevertheless, borrowing may just as well be positively correlated with the holding size of land. We have noted
that landholding might work as a security base for the lender. If the condition of mortgaging is the basis for advancing loans, farmers owning larger areas of land have a greater propensity to borrow. Further, with larger holdings, greater finance requirements are generated for cultivation and it may be credit-financed. Nevertheless, certain non-economic reasons also may be in vogue to correlate greater degree of indebtedness with larger holding size. It might be so that better off farmers are supposed to keep up their social status by spending larger amounts on conspicuous consumption. In the Indian society in general, and in the tribal society in particular, social values have a greater say in explaining the human behaviour. Economists may take this observation with a pinch of salt, but it has been an amicable proposition for a sociologist and an anthropologist.

We take up, therefore, to replace our surrogate variable, S, by a transformed variable representing per capita landholding. This transformation is carried out as:

\[ X_3' = X_3 - S \quad (5.9) \]

Where \( X_3' \) is the transformed variable. This transformation amounts to assigning negative sign to \( X_3 \) if \( X_2 \) is less than Rs. 170 and positive sign otherwise.
We have re-estimated the model in which $S$ is replaced by $X'_3$. The estimated regression equation is:

\[
\hat{X}_2 = 37.9437 + 0.1436X'_3 - 0.8213X'_9 - 23.1270X'_{10} + 18.9170X'_3; \quad R^2 = 0.9475 \quad \ldots \ldots \ldots (5.10)
\]

(3.176) (0.777) (1.713) (2.304)

We note that the estimated coefficients in the above equation are stable (confer 5.7) and the standard errors of estimate have been greatly lowered, enhancing the values of the 't' statistic. However, the coefficient associated with $X'_9$ continues to be insignificant.

5. Test of specification once again

A perpetual insignificance of the coefficient associated with $X'_9$ may suggest that it is an irrelevant variable and we may drop it from the model. Or, in other words, we may consider the model (5.6) mis-specified on account of inclusion of an irrelevant explanatory variable, $X'_9$. However, if it is so, the estimation after dropping $X'_9$ would improve the values of 't' as we know that mis-specification of the said type affects the efficiency, and not the unbiasedness of the estimator. Hence, we estimate the model after dropping $X'_9$. Thus estimated regression equation is given as:
\[ \hat{x}_2^* = 1.2857 + 0.1508x_8^* - 0.2516x_{10}^* + 19.0621x_3'; \]
\[ R^2 = 0.7932 \quad \ldots \ldots \quad (5.11) \]

We observe that dropping of \( x_9^* \) affects 't' values of the coefficients associated with \( x_8^*, x_{10}^* \) and \( x_3' \), though the estimated values of coefficients are stable. It amounts to say that by dropping \( x_9^* \), we have affected the efficiency of the estimator adversely. Hence we conclude that \( x_9^* \), forms a part of the correctly specified model, though we cannot put much reliability on this conclusion.

To sum up we observe that in an attempt to explain indebtedness by three variables, namely per capita income, credit-financed agricultural investment and educational status of the household by applying OLS for estimation of the regression coefficients we were faced with the problem of heteroskedastic residual vector that marred the reliability of the estimator. We treated heteroskedasticity by weighted least squares method. Residual analysis further suggested us to incorporate per capita landholding size also as an explanatory variable. By inclusion of this variable we successfully explain indebtedness. The final regression equation might be used for computing elasticities which, in turn, might be used for suggesting some policy guidelines to combat the problem of indebtedness.
The estimated elasticities of indebtedness (as measured by $X^*_2$) with respect to $X^*_8$, $X^*_9$, $X^*_10$ and $X'_3$ are 0.88, -0.11, -0.35 and 0.088 respectively. These measures of the elasticity for the original variables (provided that we hold that the coefficients reported in equation 5.11 are the closest approximation of the parameters in the population) are: 0.665, -0.324, -0.443, 0.043 respectively. The differences in the elasticities are due to the fact that while the first set of elasticities refer to the weighted variables, the second set of elasticities refer to the original variables. However, as we observe, in both the cases income elasticity of indebtedness is larger in comparison to the holding size elasticity of indebtedness. The education elasticity of indebtedness is quite stable. It may indicate that households with larger per capita income are more prone to indebtedness — may be due to their stronger propensities to conspicuous consumption. Education leads to reduce the incidence of indebtedness. As for the elasticity of indebtedness with respect to $X^*_9$, we would reserve our comment since the coefficient associated with $X^*_9$ has remained insignificantly different from zero.

It suggests that rural indebtedness can possibly be ameliorated by the spread of education among the tribal
people. One may also hope that the credit-financed conspicuous consumption expenditure might be reduced once the tribal population is educated and the hold of traditional non-productive expenditure habits gives way to more rational, frugal, and prudent habits. Much of the success in this direction calls for institutional planning that may promote the attitudes of the people favourable to prudence and in turn to economic development.

6. **Canonical Correlation Analysis**

In the preceding sections we have made an attempt to explain $X_2$, the per capita amount of loan observed by the household. This we did because we hold that $X_2$ is the best representative measure of indebtedness. However, if we draw our attention to the fact that $X_2$ has a representative power of 60% only (that is, it can explain 60% of the total variation in the complex of five measures of indebtedness as discussed in the third chapter), our analysis remains partial.

Now we propose to carry out canonical correlation analysis to look into the possibilities of explaining the complex of the measures of indebtedness by per capita income, highest level of education obtained by the household and holding size of the household. We add here that
dependency ratio also may explain the degree of indebtedness. So we include this variable also among the explanatory variables of indebtedness. Further, in the preceding section we have noted that \( X_9 \) is not a very potent variable in explaining indebtedness, though we do not have statistical reasons to deny its role as an explanatory variable. Nevertheless, we may suspect that it may be a variable that measures the incidence of indebtedness. Thus taken, it may be used as a constituent variable of the first set. In what follows, we have proceeded by taking \( X_9 \) as a constituent variable of the first set, that is, it is regarded as an index of indebtedness. We concede the inconsistency in our modelling, but since the nature of our investigation is exploratory, we may be excused of such inconsistencies. We do not have a well-founded theory to classify our variables among different well-conceptualised sets. Hence the inconsistencies creep into our analysis.

As we know, canonical correlation analysis tries to find out the degree of association between two sets of variables. The first set, in our case, is the set of the measures of indebtedness. The variables in this set are:

(1) Per capita payment of interest, \( X_0 \).
(ii) Per capita amount of loan observed by the household, X_2.

(iii) Amount of loan on per capita land owned by the household, X_4.

(iv) Amount of loan as a ratio to repaying capacity of the household, X_5.

(v) Amount of loan per rupee of the value of agricultural assets of the household, X_6.

(vi) Per capita credit-financed investment in farming or other productive activities, X_9.

The second set of variables, which may explain indebtedness, is constituted by the following variables:

(i) Per capita holding size, X_3.

(ii) Per capita income of the household, X_8.

(iii) Level of highest education attained by the household, X_{10}.

(iv) Dependency ratio, X_{11}.

The regression equations of the first set of variables on the second set of variables are given as follows:

\[ \hat{X}_6 = 0.2015X_3 + 0.5751X_8 - 0.0391X_{10} - 0.6629X_{11} \]

\[ R^2 = 0.4314 \quad \ldots \ldots \quad (5.12) \]
\( \hat{x}_2 = -0.0179x_3 + 0.2778x_8 + 0.3407x_{10} - 0.2290x_{11} \)

\( R^2 = 0.1852 \) \hspace{1cm} (5.13)

\( \hat{x}_4 = -0.7525x_3 + 0.1747x_8 + 0.4540x_{10} - 0.3119x_{11} \)

\( R^2 = 0.4727 \) \hspace{1cm} (5.14)

\( \hat{x}_5 = -0.2986x_3 + 0.2744x_8 - 0.1054x_{10} - 0.0176x_{11} \)

\( R^2 = 0.1131 \) \hspace{1cm} (5.15)

\( \hat{x}_6 = -0.3777x_3 - 0.1529x_8 + 0.1213x_{10} - 0.0631x_{11} \)

\( R^2 = 0.2156 \) \hspace{1cm} (5.16)

\( \hat{x}_9 = -0.5171x_3 - 0.0897x_8 + 0.2626x_{10} + 0.1657x_{11} \)

\( R^2 = 0.1027 \) \hspace{1cm} (5.17)

We denote the matrix of coefficients of these equations by \( \hat{A} \). Thus \( \hat{A} \) is a 6 x 4 Matrix.

The regression equations of the second set on the first set of variables are given as follows:

\( \hat{x}_3 = -0.1792x_0 + 1.0871x_2 - 1.0141x_4 + 0.0023x_5 \\
+ 0.1078x_6 - 0.3297x_9 ; R^2 = 0.8180 \) \hspace{1cm} (5.18)

\( \hat{x}_8 = 0.4657x_0 + 0.3739x_2 - 0.5118x_4 + 0.3158x_5 \\
- 0.3964x_6 - 0.0484x_9 ; R^2 = 0.6031 \) \hspace{1cm} (5.19)

\( \hat{x}_{10} = -0.6676x_0 + 1.1489x_2 - 0.2371x_4 - 0.0333x_5 \\
- 0.2183x_6 - 0.0754x_9 ; R^2 = 0.3948 \) \hspace{1cm} (5.20)

\( \hat{x}_{11} = -0.7746x_0 + 1.0852x_2 - 0.7430x_4 + 0.0495x_5 \\
- 0.0593x_6 - 0.0235x_9 ; R^2 = 0.5859 \) \hspace{1cm} (5.21)
We denote the matrix of coefficients of these equations by \( \hat{\mathbf{B}} \). Thus \( \hat{\mathbf{B}} \) is a \( 4 \times 6 \) matrix.

The Product Matrix of the two coefficient matrices are given below. We have \( \hat{\mathbf{B}}(4 \times 6) \) and \( \hat{\mathbf{A}}(6 \times 4) \). We get \( \hat{\mathbf{C}} = \hat{\mathbf{B}}\hat{\mathbf{A}} \). Thus \( \hat{\mathbf{C}} \) is a \( 4 \times 4 \) matrix. Construction of the Product Matrix in this scheme economises our computational efforts in computing the canonical correlation.

Table - 5.1: The Product of Coefficients Matrix
\[
\hat{\mathbf{C}} = \hat{\mathbf{B}}\hat{\mathbf{A}}
\]

\[
\begin{array}{cccc}
0.8368 & 0.5527 & 0.1548 & 0.4034 \\
-0.0356 & 0.4357 & -0.0751 & -0.2490 \\
-0.1568 & -0.2176 & 0.2672 & 0.0441 \\
0.1247 & -0.2231 & 0.2552 & 0.4957 \\
\end{array}
\]

We have computed the eigen vector associated with the largest eigen value of the product matrix \( \hat{\mathbf{C}} \). The largest eigen value of the matrix \( \hat{\mathbf{C}} \) is equal to 0.82764. Thus the coefficient of canonical correlation between the two sets of variables is equal to 0.909 approx. We conclude that these two sets are highly correlated with each other. The eigen vector of the matrix associated with this eigen value is \( [1.000, -0.5566, -0.0064, 0.7423] \). A perusal
of eigen vector readily indicates that $X_3$ (per capita holding size) is the leading variable followed by $X_{11}$ (dependency ratio) and per capita income of the household ($X_8$). These findings give us an impression that indebtedness emergences mainly due to poverty (higher load of family on productive assets of the household) which may induce consumption loans.

For a deeper insight into the problem we have computed the second largest eigen value of the matrix and the associated eigen vector. The second eigen value is equal to 0.577 and the vector associated with it is $[-0.3501, -0.7489, 0.8621, 1.0000]$. It reveals that $X_{11}$ (dependency ratio) is leading here, followed by $X_{10}$ (highest education attained) and $X_8$ (per capita income of the household).

It is possible to compute subsequent coefficients of canonical correlation (the third and the fourth eigen values of the product matrix). But we do not see any benefit in doing so. The first two canonical correlation coefficients have shown very well that the four variables ($X_3$, $X_8$, $X_{10}$ and $X_{11}$) can explain the measures of indebtedness quite efficiently.
We have also analysed the Product Matrix $\hat{A} \hat{B}$. The eigen vector associated with the first (largest) eigen value (0.827) is found to be:

$$[0.101, -0.895, 1.000, -0.030, -0.131, 0.292]$$

It immediately reveals that $X_4$ (the amount of loan per capita land owned by the household) and $X_2$ (per capita loan observed by the household) are very powerful variables that represent indebtedness and are very closely associated with $X_3$, $X_8$, $X_{10}$ and $X_{11}$.

The findings of canonical correlation analysis corroborates our findings on determinants of indebtedness obtained in the earlier sections of this chapter. We may assert now that indebtedness may be reliably explained by the variables identified by us. Our findings suggest us that for eradication of the problem of rural indebtedness we have to design policy measures to regulate education, dependency ratio and consumption expenditure of the loanee households.
REFERENCES


CHAPTER VI
CONCLUDING REMARKS

1. A Summary of the Study

Now, before we close our investigation, it would be worthwhile to summarise our findings. To reiterate, our objective was to investigate the nature and significance of rural indebtedness. In Chapter I, we presented the reasons why the problem of rural indebtedness has attracted scanty efforts of researchers in social sciences in general and economics in particular. We have highlighted the importance of a thorough study on this issue, since it is one of the most stubborn and grave impediments in the way of rural prosperity. Unless we are in a position to understand the causal links of indebtedness we cannot lay our hands on controlling, ameliorating or eradicating the problem of rural underdevelopment and widespread poverty.

With a view to enquire into the nature, incidence, causes and consequences — the backward and forward linkages — of rural indebtedness we made a proposal to collect primary data from some villages of Assam. On certain considerations we chose to select four tribal villages of the North Lakhimpur Subdivision of the Lakhimpur District, Assam.
In Chapter II, we presented an introductory note to the region under study, namely the North Lakhimpur Subdivision. We have observed that this subdivision is one of the backward regions of Assam where traditional farming is in vogue, transportation and communication linkages are poor, level of education is low and indebtedness is widespread and deep rooted. In this chapter, we presented the methodology adopted for selection of villages and sample households for generating data base for analysing the nature and significance of rural indebtedness.

In Chapter III, we carried out a descriptive statistical analysis of the sample data collected from the four villages of the study region. First we presented some characteristic features of the sample households. We found that incidence of indebtedness is widespread and about 80% of the households are under debt. Interest rate charged on debt is as high as 12% per month. A large portion of the total loan is accounted for consumption purposes. Mortgaging of land is very frequent.

Further, we tried to find out some statistical or mathematical regularity in the size classes of loanees. We have succeeded in our attempt, though the regularity found by us is peculiar, uncommon. They cannot ordinarily be
interpreted very well. Nevertheless, we interpreted our findings to the effect that the incidence of indebtedness is spread to about 70% of the households in the population.

In Chapter III, we made an effort to find out the best representative indicators of indebtedness and we could identify that per capita loan is the leading component of indebtedness. Further, we made an attempt to find the best discriminatory function that may be used to classify a household in loanee or non-loanee groups. We attempted to find out discriminatory functions to classify a household in different tribal groups also.

Chapter IV was devoted to assess the impacts of indebtedness on productive and distributive performances of the rural economy. We found that indebtedness affects productivity adversely and ensconces skewness in distribution of income and productive resources. It is obvious that these effects of indebtedness are detrimental to rural prosperity. We analysed the causal chain through which indebtedness affects productive and distributive performance of the economy, reinforces itself and becomes self-perpetuating.

Chapter V was devoted to analyse and identify the causes of indebtedness. This chapter reinforces and
corroborates our findings on causal chain of indebtedness that we established in Chapter IV. For a deeper insight we carried out canonical correlation analysis and found that loan per capita and loan per land area are two important variables correlated with dependency ratio, education level and consumption expenditure.

Our main findings are that indebtedness is due to low education level, high dependency ratio, high dependency on agriculture and primary sector occupations, non-functional consumption and poor facilities of institutional financing.

2. Some policy-guidelines for eradication of Rural Indebtedness

With all humility and awareness of the limitations of our investigation we propose that following suggestions emerging from our analysis may be considered for policy-making.

(i) Extension of education.
(ii) Development of transportation network.
(iii) Extension of village banks which may sometimes provide consumption loans also. These banks may advance loan on security of land (mortgaged - hypothecated to the bank).
(iv) Development of rural industries and cottage industries in the villages.
(v) Rural cooperatives for purchasing the product of
villages at just prices and to eliminate middlemen
may be set up.

(vi) Certain legal controls on usury and charging of
high exorbitant rate of interest on private loans.

(vii) Policy measures to discourage ceremonial expendi-
ture.

(viii) Measures for flood control.

(ix) Afforestation on the Waste Land.

We are of the opinion that banking institutions are
philosophically based on commercial principles. This phi-
osophy is not in tune with that of the long-range develop-
ment policies. Of course, banks have their branches which
prefer to be called development banks or lead banks. But
if we analyse their working in practice we will be imme-
diately convinced to note that they take up the issue of
financing agriculture, industries or other enterprises in
the spirit of commercial cost-benefit. The scope of commer-
cial cost-benefit analysis is very narrow and conservative.
It has been claimed by rural/development banks that to poor
farmers and other villagers they advance loans even without
any security. For rural industries also they claim to
advance loans upto some limited amount. But a perusal of
the total number of households to whom such loans have been
given reveals that indeed they cover a very low percentage. In our sample no household having less than 30 bighas of land has got such a loan, and those (three in number) who have got it are not poor. One may argue that poor farmers/households do not approach to the banks for loan. But one will not love to borrow on higher rates of interest from village money-lender if one can get loan from bank on lower rates. Then what might be the reason? Is it only due to the ignorance of the people that they do not go to banks for loans, or is it also due to the reason that either there are some difficulties in getting bank loans or banks do not encourage expanding their activities when chances of recovery are less? It appears that this policy does not cope with the wider and modern objectives of a welfare state. We suggest that some new banks should be established by the government whose objective should be to protect people from being ensnared in the cobweb of usury. The benefits that flow from such a protection are immense. On the basis of commercial cost benefit principle such activities may be lossful, but on the principles of wider social welfare and long term economic welfare also this programme may be appreciated.

None will deny that certain big public enterprises have been running in loss for decades together. But when
such enterprises suffer a loss, it is justified on the principles that may be deceitful. However, if the organisations set up for eradication of rural indebtedness run a loss, one would invoke narrow criteria of commercial cost-benefit. We should be consistent in our approach and applaud losses on the identical principles. Nevertheless, we hold that programmes for eradication of rural indebtedness will never suffer a real loss.

Public enterprises hesitate to enter into petty industries on the arguments that amount to say that such industries should be the sphere of private investment. We hold that such arguments are based on flimsy ground and weak philosophical base. We do not understand why by entering into the petty enterprises the government should not motivate economic development. Such enterprises may generate very great employment opportunities. For consumer goods industries the government may provide capital and organisation; and labour may be provided by the unemployed people. We hold that the purpose should be economic development, not a dogmatic sticking to certain outdated industrial policies that have lost their significance in the contemporary situations. If new industrial policies are designed with such a heretic approach, we are sure that industrialisation will be accelerated.
For educational development also, the government should think afresh on the educational policy. We propose that every village should have a school and all the students of the school should be boarders. There should not be any provision for day scholarship. We understand that many parents cannot afford the boarding expenses. Hence the government should meet the expenses incurred on boarding. The expenses may be financed by new taxes (say Educational tax) levied proportionally or progressively on property or landholding. We understand that such an attempt will face opposition from many, but it is not difficult to justify such an attempt. We hold that without such a policy, "education for all" will remain a slogan for decades to come.

The problem of rural poverty and indebtedness can be ameliorated only if the government policies are firm to take up new vistas under their purview. We hold that the traditional measures are empty and impotent. They have shown their ineffectiveness. Hence it is high time when we should approach to the problems in novel ways. Only then we may hope that something spectacular can be achieved in a foreseeable future.