CHAPTER - VI
SUMMARY OF THE FINDINGS AND CONCLUSIONS

The need for credit in agriculture is increasing day by day due to advanced agricultural technology in our country as it is predominantly an agricultural country where agriculture contributes nearly 40 percent of its National Income. This need of timely credit for the development of agriculture will go a long way in India. The present study entitled "Institutional Finance and the Role of State Bank of India in Financing Agriculture in District Mirzapur" undertaken during the year 1989-90; aimed to achieve following OBJECTIVES

(1) To analyse the existing pattern of income and employment of the sample households.

(2) To examine and compare the farm structure of beneficiary and non-beneficiary sample households.

(3) To compare the resource utilization of beneficiary and non-beneficiary sample households.

(4) To find out the additional income and employment potential on beneficiary households as compared to non-beneficiary households at the same point of time.

Under the HYPOTHESES.

(1) The beneficiary households have higher income as compared to non-beneficiary; in case of agriculture and during enterprises, respectively.
(2) The beneficiaries have higher human labour employment as compared to non-beneficiaries; in case of agriculture and dairy enterprises, respectively.

(3) In the dairy sector beneficiaries have animal of higher values as compared to non-beneficiaries.

The data, for present study, referred to a RANDOM sample of 100 farmers; comprising 80 beneficiary and 20 non-beneficiary households; spread over 10 selected village in District Mirzapur. The sample households being further categories into three size groups of holdings viz. upto 2 hectares; above 2 upto 4 hectares and above 4 hectares, respectively; were subject to personal interview by the research worker through suitable questionnaires and schedules. The various findings and subsequent discussion along with conclusions and recommendations thereof, as on the basis of analysis of the data collected under present study; are presented in coming paragraphs.

FINDINGS AND DISCUSSIONS

(i) Among beneficiaries the majority i.e. more than 66 percent of the total sample farmers are the marginal and small farmers; while among the non-beneficiaries it is just reverse where the numbers of marginal and small farmers are minimum i.e. about one fourth of the total sample farmers.

This obviously shows that in the area under study,
comparatively poor farmers have been benefitted more by the financial institutions (particularly State Bank of India).

(ii) The extent of irrigation as well as cropping intensity are higher among large farmers in comparison to marginal and small and medium farmers for both; the beneficiaries as well as non-beneficiaries. It is also found that the extent of net irrigated area of beneficiaries is slightly higher (78.64 percent) as against 75.97 percent in case of non-beneficiaries, on an overall average basis.

Thus, it is easily seen that beneficiaries have higher percentage of irrigated area in comparison to non-beneficiaries. It is also clear that there is a direct relationship between cropping intensity and size of farm.

(iii) the average number of family members per farm among the beneficiaries is slightly lower i.e. 5.96 in comparison of 6.75 among the non-beneficiaries. The breakup of members into males, females and children on the other hand indicates that the number of females and children are more among the non-beneficiaries but the number of males per farm is comparatively higher among the beneficiaries.

This clearly reflects that the number of family members on an overall average is comparatively higher on the farms of non-beneficiaries. The occupational
distribution of family members per farm also indicates that the majority of family members in both, beneficiary and non-beneficiary depend on agriculture for their livelihood. It is also found that among the beneficiaries about 31 percent of the total are earners while among the non-beneficiaries only about 26 percent are earners. Also, the number of earners in both the categories is decreasing with the increase in the size of farms resulting in an increase in the percentage of dependents with the size of farms.

(iv) Regarding source-wise irrigated area it is found that canal and pumpsets are the main sources of irrigation on the farms of both the categories. The area irrigated by canal is found to be higher i.e. 97.27 percent for non-beneficiaries as compared to 79.77 percent for beneficiaries. While the percentage of irrigated area by pumpsets and wells are found to be comparatively higher on the farms of beneficiaries.

Thus, it is clearly seen that on an average, the total area under the Kharif as well as Rabi crops on the farms of non-beneficiaries is found to be higher than beneficiaries. It is also observed that Rabi crops are grown more intensively on the farms of non-beneficiaries in comparison to beneficiaries.

(v) The analysis of the values of fixed assets per farm, in both the categories of farmers indicates that in case of beneficiaries the value of fixed assets are
directly related with the size of farm but in case of non-beneficiaries there is no direct relation between the size of farm and the fixed assets.

The value of major farm machineries and implements is found higher on the farms of beneficiary households against those of non-beneficiary households; while the values of the minor farm machineries and implements is higher on the farms of non-beneficiaries against that of beneficiaries. This clearly indicates that the beneficiaries invest more on major farm machineries and implements.

(vi) The value of livestock on per farm basis indicates that the maximum investment has been done on the bullocks followed by buffaloes, cows and others on the farms of all size groups and under both the categories. It is also observed that the investment on livestock has a direct relationship with the size of farm. Thus the higher values of livestock on the farm of beneficiaries reveals that generally they invest more on all types of livestock.

(vii) The analysis of inputs per farm on cultivation of different crops reveals that human labour as well as manures and fertilizers are the important inputs in cultivation followed by irrigation charges, under both the categories. The analysis also indicates that among the crops grown Kharif cereals as well as Rabi cereals account for the highest cost of cultivation
on the farm of both the categories i.e. beneficiary and non-beneficiary.

Thus, it is quite obvious that effects of gross cropped area and plant protection charges are less on production in comparison to human labour, seeds, irrigation and manures and fertilizers.

(viii) The average yield of different crops on the farms of beneficiaries are higher as compared farms of non-beneficiaries.

On the basis of above it is clear that the Rabi as well as Kharif cereals have been benefitted more though the loaning.

(ix) As regards the disposal of the farm produce in respect of crop enterprises the analysis indicates that the average marketed surplus per farm is found higher in case of beneficiaries on the farms of all size groups. It is also found that the marketed surplus is increasing with increase in the size of farms in case of both the categories. In case of Rabi cereals the trend of marketed surplus is increasing with the increase in the size of farms in the categories of beneficiaries; while in the category of non-beneficiaries it is found slightly higher on the farms of medium size groups.

Thus, it is concluded that there is no set pattern of marketed surplus of both, the categories of farmers i.e. beneficiary and non-beneficiary.
(x) The analysis on cost and returns from dairy animals indicates that the beneficiaries have higher per farm expenses on the upkeep of dairy animals as compared to non-beneficiaries. Also with regard to return as well, the average gross income per farm per day is Rs. 34.35 in case of beneficiaries against Rs. 15.80 per farm per day in case of non-beneficiaries. This clearly indicates that the farms of beneficiaries receive comparatively more returns than the farms of non-beneficiaries, from the dairy animals.

Thus it is concluded that beneficiaries have better quality of animals in comparison of non-beneficiaries, thereby resulting to higher incomes from dairy animals to beneficiaries in comparison to non-beneficiaries.

(xi) The analysis from farm financing indicates that the amount to be repaid per farm of beneficiaries is highest among the medium farms and lowest among the marginal and small farmers.

Thus the beneficiaries under the category of medium farmers are found weaker in repayment of recovery of loans in comparison of beneficiaries of the large as well as marginal and small size groups where more than 60 percent of the principal amount of loan sanctioned as well as the amount of interest have been repaid.

(xii) The multiple regression (production function) analysis for crop enterprises in case of beneficiaries show that
(a) The coefficient of multiple correlation works out statistically significant at 1 percent level of significance.

(b) The coefficient of multiple determination shows that above 99 percent of the variation in the output is explained by the selected independent input variables.

(c) The elasticity of production is found to be close to unity, showing thereby constant returns to scale on the sample cultivator farms.

(d) The input coefficients for human labour, seeds and irrigation are all significant at 1 percent level; while coefficient for manures and fertilizers is significant only at 5 percent level.

The coefficients for gross cropped area and plan protection charges are not at all significant even at 5 percent level of significance. This shows relatively less influence of these factors on output in comparison to the above significant factors.

(e) Regarding returns from input investments on human labour, seeds, irrigation and plant protection measures the calculated values show that an investment of a rupee results to double or even triple of that in returns. However, for investments on cropped area, manures and fertilizers, the results are not at all satisfactory since return is much below as compared to corresponding investments; particularly for land investments under the crop.
(xiii) In case of non-beneficiaries; the multiple regression (production function) analysis for crop enterprises show that

(a) The coefficient of multiple correlation works out to be statistically significant at 1 percent level.

(b) The coefficient for multiple determination shows that 99.34 percent of the variation in the output is controlled by selected independent input variable.

(c) The elasticity of production shows a constant returns to scale on the sample cultivator farms.

(d) The coefficient for gross cropped area is significant at 1 percent level of significance while coefficient for plant protection measures is significant only at 5 percent level. The coefficients for human labour, seed, manures and fertilizers and irrigation charges are not at all significant even at 5 percent level.

Thus, this results shows relatively less influence of these factors on output in comparison to the significant input factor. Among various input factors, human labour shows a negative regression coefficient, though statistically it is insignificant.

(e) In case of land an investment of unit hectare of land under crop(s) returns to Rs. 2040.00 which is higher than the corresponding rental value (Rs. 1000.00 on an average basis); while an investment of a rupee on plant protection results 18 times of that in return.
However, in case of investment on seed, manures and fertilizers and irrigation charges, the results are not satisfactory since return(s) are much below as compared to corresponding investment(s). In case of human labour the return is even negative.

(xiv) The multiple regression (production function) analysis for dairy enterprises in case of beneficiaries shows that

(a) The coefficient of multiple correlation works out statistically significant at 1 percent level of significance.

(b) The coefficient of multiple determination shows that 94 percent of the variation in the output is explained by the selected independent input variables.

(c) The elasticity of production refers to constant returns to scale on the sample cultivator farms.

(d) The coefficient for animal value and human labour are significant only at 5 percent level of significance. While coefficient for dry matter is significant at 5 percent and also at 1 percent level of significance. The coefficient corresponding to green fodder and concentrates values are not at all significant.

Thus it is showing a relatively less influence of these factors on output in comparison to the significant input factors.
(e) Regarding return from input investments: an investment of a rupee results in additional 34 paisa in case of dry matter and 30 paisa in case of concentrates, respectively; in return. However, in case of animal value, green fodder and concentrates; the return is much below as compared to corresponding investment of a rupee on these items, respectively.

(xv) The multiple regression (production function) analysis for dairy enterprises in case of non-beneficiaries indicates that

(a) The coefficient of multiple correlation works out statistically significant at 1 percent level of significance.

(b) The coefficient of multiple determination shows that 99 percent of the variation in the output is explained by the selected independent input variables.

(c) The elasticity of production refers to constant returns to scale on the sample cultivator farms.

(d) The coefficient for dry matter is significant at 1 percent level of significance. The coefficients corresponding to animal value, green fodder, concentrates and human labour values are not significant even at 5 percent level.

Thus, results show a relatively less influence of these factors on output in comparison to the significant input factors.

(c) The analysis results to higher returns
corresponding to input investments on dry matter and human labour; as in each of these factors an investment of a rupee results to almost double of that in return. In case of investments on animal value and concentrates as also green fodder; further investments are not at all advisable in view of very low or even negative marginal value productivities.

(xvi) The correlation analysis for agriculture and dairy enterprises results to

(a) The correlation analysis for crop enterprises in case of both the categories i.e. beneficiary and non-beneficiary shows positive correlation between dependent and each of the respective independent variables within themselves taken two at a time. Further, all correlation coefficients have been found to be statistically significant at 1 percent level of significance.

(b) The correlation analysis for dairy enterprises as well, in case of both the categories shows positive correlation between dependent and each of the respective independent variables as also between various independent variables within themselves. All these coefficients are found to be statistically significant at 1 percent or 5 percent level of significance.

(xvii) The paired t-test analysis for crop enterprises in case of both, the beneficiary and non-beneficiary groups shows that
(a) The difference between mean incomes of beneficiary and non-beneficiary is significant at 1 percent level of significance; to conclude that the loaning has increased farm income, significantly. This results to the acceptance of the framed hypothesis that beneficiary households have higher income as compared to the non-beneficiaries, in agriculture.

(b) The t-test shows that the difference between mean cropped area of beneficiaries and non-beneficiaries, though positive, is not significant; to show that, no doubt as a result of loaning the cropping intensity has increased, but statistically it is not significant at 5 percent level of significance.

(c) Further, the difference between mean investments on human labour as by beneficiaries and non-beneficiaries is significant at 1 percent level of significance; to result that the loaning has increased significantly the investment capacity of farmers on human labour. This again leads to the acceptance of the framed hypothesis that in agriculture; beneficiaries have higher human labour employment as compared to non-beneficiaries.

(xviii) The paired t-test analysis for dairy enterprises in case of both the categories i.e. beneficiary and non-beneficiary shows that

(a) The difference between mean incomes of beneficiaries and non-beneficiaries, being positive;
is also significant, though only at 5 percent level.

Thus, it results to the acceptance of the framed hypothesis that beneficiary households have higher income as compared to non-beneficiaries; in dairy

(b) The difference between mean investments on dairy animal by beneficiaries and non-beneficiaries, being positive is also significant at 5 percent level.

Thus we can conclude that the beneficiaries as due to loaning facilities are able to have better quality animals as compared to non-beneficiaries.

(c) The difference between mean investments on human labour for upkeep of animals by beneficiaries and non-beneficiaries, is positive and significant at 1 percent level of significance.

Thus, we can conclude that the loaning has increased the investment capacity of farmers on human labour for better upkeep and maintenance of dairy animals on the farm. This again leads to the acceptance of framed hypothesis that in dairy, beneficiaries have higher human labour employment as compared to non-beneficiaries.

CONCLUSIONS AND RECOMMENDATIONS

The various conclusions derived upon, as on the basis of analytical findings and subsequent recommendations thereon; with regard to "Institutional Finance and the Role of State Bank of India in Financing
Agriculture in District Mirzapur; for the period 1989-90; are presented as under

(i) Among beneficiaries the majority of the total sample farmers are the marginal and small farmers showing that in the area under small farmer showing that in the area under study, comparatively poor farmers have been benefitted more by the financial institutions particular the State Bank of India; as compared to affluent farmers.

(ii) beneficiaries have higher percentage of irrigated area in comparison to non-beneficiaries; resulting to that institutional finance has worked positively in increasing area under irrigation.

(iii) The occupational distribution of family members per farm indicates that the majority of family members in both, beneficiary and non-beneficiary depend on agriculture for their livelihood. This recomends to that apart envisaging various financing schemes towards small scale/cottage industries in the area of study; the importance of agriculture should not be less viewed in any sense i.e. it should be agriculture linked to make fullest utilization of the resources.
(iv) The beneficiaries invest more on major farm machineries and implements as compared to non-beneficiaries. This again recommends institutional finance to the farming community to increase the extent of mechanization, in increasing overall agricultural production.

(v) The average yields of different crops on the farms of beneficiaries are higher as compared to that on the farms of non-beneficiaries; to show that financing has contributed positively in increasing the productivity of crops and hence the aggregate production as well.

(vi) The average marketed surplus per farm is found higher in case of beneficiaries as compared to non-beneficiaries on the farms of all size groups; showing that where institutional financing is available farmers are able to increase marketed surplus resulting to higher income generation through re-investments in agriculture and allied activities.

(vii) beneficiaries have better quality of animals in comparison of non-beneficiaries; thereby resulting to higher incomes from dairy animals to beneficiaries in comparison to non-beneficiaries.

(viii) The amount to be repaid per farm of beneficiaries is highest among the medium farmers and lowest among the marginal and small farmers showing that marginal and small farmers are better repayers than
their counter part medium farmers.

(ix) The loaning has increased farm incomes, significantly, leading to the acceptance of the framed hypothesis that in agriculture beneficiary households have higher income as compared to non-beneficiaries.

(x) As a result of loaning, the cropping intensity has increased, but statistically it is not significant at 5 percent level of significance. This recommends that loaning system needs a checkout for further intensification of cropping.

(xi) The loaning has increased significantly the investment capacity of farmers on human labour. This again leads to the acceptance of the framed hypothesis that in agriculture, beneficiaries have higher human labour employment as compared to non-beneficiaries.

(xii) In case of dairy enterprise as well various results lead to the acceptance of the formulated hypothesis at 5 percent or 1 percent level of significance; that beneficiary households are better off as compared to non-beneficiary households; with regard to income, quality of animals owned by them and human labour employment; respectively.

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