CHAPTER - VI

MAJOR FINDINGS AND SUGGESTIONS

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The major findings of the study includes, the findings based on the review of literature, secondary data and primary data analysis. The findings of the study are as follows:

Findings Based on the Review of Literature:

6.1. The literature relating to the growth rate of PACSs in terms of performance reveals that there are many obstacles in the process of the development of PACSs. The important ones among them are, the growth rate of outstanding loans is high, the over dues are still high and moreover, poor recovery rate. In addition to these the access to credit by the various categories of farmers has come down due to nationalization of banks. Specially the CBs in the rural areas have been giving a tough fight to the cooperative banks in terms of lending. Various studies highlight that liberalization policy in the loan advancement and encouraging commercial crops will help to a greater extent for the performance of cooperative banks.

6.2. Various studies by different scholars on the performance of the cooperative banks/societies reveal that deposits to working capital and the ratio of over dues to outstanding loans were two crucial ratios to be considered. Few more studies mention that the percentage coverage of population and the working capital increased over the years. However, there is a limitation in this regard that per member loan amount has come down, which is a serious concern.
6.3. Few more studies give the reasons for the performance as the membership has gone up but the deposits by the members has come down. However, this differs from state to state and region to region. Another set of scholars opined that the success of cooperative credit societies depends not only on the extent of advances but also on the position of recoveries. These scholars considered share capital as an important indicator of growth.

6.4. One group of studies reveal that big farmers are mostly responsible for meeting over-dues of the cooperative banks/societies compare to the small farmers.

6.5. Lastly, the savings of the community are not effectively mobilized in the form of deposits. Repayment of loans is not satisfactory as over-dues accumulate and fresh loans are taken to repay the old ones.

6.6. Many scholars have pointed out that the management of the cooperative banks/societies has not been able to follow the balanced approach in the development of PACSs. Therefore, this was a major problem for the non-viability of the PACSs/Banks in the countryside.

6.7. In addition to these, various studies reveal that lack of progressive attitude, biasness towards big farmers resulting in granting loans to them abruptly and these are mostly responsible for mounting over-dues, the extent of defaulters in repayment, inefficient management, political interference are most important problems in the functioning of cooperatives. Hence, over a period of time though the cooperatives/banks gaining importance they are losing in terms of business.
6.8. Some field level studies reveal that the beneficiaries who have borrowed loans from the cooperative banks/societies have felt that they are benefited a lot. They are in terms of adequacy of loans, repayment schedule, etc. However, very low percentage of beneficiaries have highlighted few shortcomings of the societies/banks. They are non-availability of credit at the time of requirement, quality and quantity of inputs supplied and few are unhappy over timely schedule of payment. This apart, the members as such are quite satisfied over the performance and timely assistance.

6.9. On an analysis of the above literature pertaining to different facets of PACS functioning, it may be inferred that majority of studies focused more on organisational analysis confined to be a case study which obviously throw very limited light on the larger area of operations of PACS in the face of implementation of Business Development Plan across the country.

6.10. Some studies concentrated heavily on profitability analysis making the study a piecemeal approach, while others selected only those parameters from the viewpoint of academic interest but necessarily not based on practical orientation of field level experience gained over a period of time.

6.11. Many practicing cooperators time and again expressed the view that the primary level cooperative institution continues to be the beckon of hope for socio-economic transformation of the rural folk. As such any investigation aimed at studying the overall functioning must address such issues as members participation in different institutional environment, their attitude, perception about functioning, level of commitment etc.
Findings Based on the Secondary Data Analysis:

6.12. About 50 per cent of the workforce (Female population) is being neglected and they are not contributing to the growth and development of the economy. Most of the time, this group of population restricted to household activities and their contribution to the economy is not counted. In this direction the role of cooperatives is important as they have to finance the rural women in general and the educated women in particular to be financed to take up various income generating activities including the non-farm activities in the rural India.

6.13. The growth rate of the cultivators has been increasing in the state more than population growth rate. Again this cannot be considered as positive aspect for the economic development of the state. This is because as the population is growing in the villages there is sub-division and fragmentation of the land holdings as the joint families have been erased over a period of time. This again is a disadvantage for the usage of sophisticated modern technology in the agricultural sector. Because the small holdings are uneconomical to use the tractors, machineries or any other improved technology in the production process. In this direction, the cooperative societies have to play a major role to sanction the crop loans to these tiny and small holdings, so that the finance empowers the weaker sections to earn their livelihoods on their own.

6.14. The normal rainfall in the district started declining at the rate of 2.11 per cent whereas the actual rainfall has been declining at the rate of 1.25 per cent. Hence, one can conclude that the rainfall is very much uncertain in the district and it is declining over a period of time. Therefore, the role of financial institutions to
protect the farmers and their interest in the district is very much essential. Since the co-operative financial institutions are located in the rural areas they have to play a lead role to protect the farmers. Otherwise the intensity of the farmers suicide increases in the villages.

6.15. It is interesting to observe the growth rate of the area sown more than once, which is increasing at the rate of 1.53 per cent. This means the state has been trying its level best to provide irrigation facilities through canals, wells and bore-wells. This has been possible because of the banking development in the rural areas. These cooperative banks in the rural areas have been providing finance to dig bore-wells and they are successful to a greater extent.

6.16. The district scenario is much appreciable because in the district both the total area sown and the area sown more than once have been increasing. In the district the total area sown has been showing the growth rate of 0.72 per cent and the area sown more than once has been 2.38 per cent. This indicates the performance of the banking institutions in the district. The network of the cooperative banks, grameena banks and the regional rural banks are well established in the district and they are providing financial facilities for the development of the farming sector. Hence, we find the positive growth rate, especially the improvement in the cropping intensity.

6.17. The same table reveals the growth rate of land holdings for the study district. In the district all the categories of holdings, except large holdings are increasing and the large holdings have been declining over a period of time. The large holdings are declining at the rate of about two per cent per annum. Though in the district
the situation is better compared to the state, here also, the land fragmentation and sub-division is going on and it is not a healthy symptom. If this is the case, the financial institutions especially the cooperative banks find it difficult to finance for the tractors and other sophisticated machinery, which will help in increasing the productivity levels.

6.18. The total irrigated area in the district under all sources has been increasing at the rate of 3.67 per cent, which is much more than the state's growth rate, which constitutes only 1.24 per cent. This positive trend can be attributed to the performance of the cooperative banks in the district, where, the banks have been, regularly providing the finance to the farmers to go for more and more irrigation facilities.

6.19. Except the crop maize the performance of all the crops in the district is very poor. The area under crop maize has been increasing at the rate of 15.64 per cent, which is very high compared to any crop even at the state level. Bajra and the crop wheat, will not be found in the district after some period as the declining rate has been very high, constituting 22.27 and 15.64 per cent respectively. Even the crop jowar also will have the same status. One has to seriously think about why it is happening like this. The filed level observation reveals that in Tumkur district there is a drastic change in this direction because the farmers have been shifting over to horticultural crops like arecanut, coconut, vegetables and other related crops. And also the banks have been giving top priority for these as the farmers are getting more reward also. Therefore, the performance of the food grain crops is very much poor.
6.20. Unlike cereal crops, the pulse crops have positive signs. The state figures reveal that all the pulses like Gram, Tur and Total pulses have shown the positive growth rate amounting to 5.41 and 1.01 and 4.54 per cent respectively. This clearly reveals that there is a greater scope for the growth of pulses. The area is growing positively for all the pulse crops. Whereas, when we observe the growth rates of the area under the same pulse crops in the study district we find little variation. The pulse crop like gram has been declining at the rate of 4.46 per cent and the total pulses also started declining at the rate of 0.30 per cent. However, the area under the crop tur has been growing at the rate of 0.43 per cent. The poor performance of the pulse crops in the study district is mainly because in the district the farmers do not give any importance for the pulses. As it is said already the farmers are bothered much about the cultivation of vegetables since they are more remunerative. Whereas the pulse crops are grown mostly as inter-crops and therefore the area under pulses is not that significant in the district.

6.21. Coming down to the Tumkur district the performance of all the crops like groundnut, sugarcane, cotton and mulberry have been very poor. The area under all these commercial crops has been declining at the rate 5.21, 6.00, 0.35 and 13.29 per cent respectively. As it is said already farmers in the district have been switching over to the crops like arecanut, coconut, vegetables and other horticultural crops. Hence, the role of banking institutions in the district is very much significant to put the farmers in the right track otherwise there will be very much imbalance in the cultivation of the crops, which is not a good symptom for
the economic development of the region. As the financial requirement for these commercial crops is very high and the farmers do not get the assistance in time and that to sufficiently the farmers have been opting for easy crops where the element of risk is very much low.

6.22. Anyway, the consumption of total fertilizers is growing at the rate of 2.33 per cent, which is low compared to the growth rate at the state level. The consumption of fertilizers for the crops like sugarcane, groundnut, paddy, cotton and mulberry is very high, since the area under these crops is declining and the farmers are giving importance for the horticultural crops in the district the consumption of fertilizers may be low in the district. Therefore one has to analyse the primary data and conclude on this particular issue.

6.23. At the state level the performance of the commercial and grameena banks in terms of number, deposits mobilized and the total credit disbursed by these banks showing positive sign in terms of growth rate. This shows that the banking sector is performing well at the state level. The deposit mobilization is growing at the rate of 19.03 per cent and the credit disbursement is at the rate of 16.60 per cent. Though there is a difference between the deposit mobilization and the total credit disbursed, it is essential because about 30 per cent of the total deposits have to be put in the Reserve Bank of India as Cash Reserve Ratio. Therefore, both the commercial banks and the grameena banks in the state have been performing well.

6.24. Coming to the performance of the banks at the district level we find a kind of disturbing trend in terms of the number of grameena banks being expanded in the
district. The growth rate of the number of banks showing negative sign. This is mainly because the grameena banks are running under loss therefore, there are no serious efforts to strengthen them. However the mobilization of deposits and also the credit disbursement has been high, which are growing at the rate of 13.37 and 16.43 per cent respectively.

6.25. Though the deposit mobilization is low, the credit disbursement is very high. This may be the reason why the cropping activity is prospering in the district. However, the banks need to have healthy practice otherwise they become bad banks, which is not a good symptom of economic development.

6.26. Primary land development banks play an important role in asset creation of the farmers in the rural areas. These banks sanction long term loans for the development of the land and related activities. Like digging wells, bore-wells etc. In each and every taluka we have a branch of the PLD bank therefore, in the state we have 177 branches. These banks have been performing well at the state level as the growth rate of the loans disbursed showing 5.32 per cent.

6.27. In Tumkur district also, all the 10 talukas we have branches, where the loan disbursement is not growing positively as it is giving negative sign. This is not a healthy symptom. It is mainly because, to avail loan from the PLD banks, the farmers have to give surety and security to the bank authorities. The small and marginal farmers find it difficult to give surety as no one will come forward to give surety though they can give security in terms of land records. Hence, the credit disbursement by these banks is declining at the rate of 3.58 per cent. There has to be serious efforts in this direction to simplify the formalities by the
government and the banking authorities to facilitate the farmers to get better credit facilities to strengthen their land. The present State Government in the Karnataka state has formulated a new Agricultural Policy and it is hoped that these kind of problems are taken care through the government policy.

6.28. We have credit co-operative societies, which are serving both in the villages and also in the urban centres. The co-operative societies are serving the community efficiently as they are established in the villages itself and there is a greater access to the farmers.

6.29. The number of agricultural co-operative societies growing at the rate of 0.332 per cent, which is much low compared to the growth rate of the number of non-agricultural cooperative societies constituting 6.85 per cent. This clearly shows that in the urban areas the branches have been expanding very fast.

6.30. Both the agricultural and non-agricultural cooperative societies have been growing at the rate of 2.50 per cent. However, at the state level the total loans advanced by these cooperative banks is growing negatively constituting 7.64 per cent. The decline rate may be high in case of agricultural co-operative societies as these societies are running under loss due to mis-management by the elected representatives of various co-operative banks. The government has to strengthen these societies through various policies otherwise the entire credit co-operative system will be in doldrums.

6.31. The data reveals the performance of the cooperative societies at the district level, i.e., Tumkur district. The agricultural credit cooperative societies are not
expanding any more as the growth rate showing negative sign. Even the non-agricultural co-operative societies are also not growing in the district. As it is already mentioned these societies are running under loss therefore, there is no growth in terms of the expansion of the branches. However, it is interesting to observe that the total loans disbursed by these societies is very much high constituting 18.57 per cent, which is very much high compared to the state level figures. This has been helping the farmers to get crop loans etc., in the villages.

6.32. The cooperative banks play an important role in the development of rural area in general and the farmers in particular. Therefore, an effort is made to understand the performance of the cooperative banks both at the state and the district level. At the state level we find that the branches are well established all over and the expansion of the branches is successfully going on as the growth rate is 11.01 per cent. The total loans advanced by the cooperative banks also is a positive indication as it is growing at the rate of 25.75 per cent.

6.33. Even in the study district we find that the branches of various co-operative banks are expanding at the rate of 3.41 per cent. However, the credit disbursement by these cooperative banks is high compared to the growth rate at the state level constituting 26.06 per cent. This shows that the cooperative banking sector in the district doing well. Therefore, the study is being conducted by using the primary data to understand the impact of these on the performance of farming activities in the district.

Findings Based on the Primary Data Analysis:
6.34. The villages are well connected with well established roads. The taluk and district head quarters are just 15 kms. away from the village. The villagers are having very good access to urban infrastructure. There is a cooperative society, schools from 1st standard to high school, fair price shops, anganawadi centres, self help groups and other amenities are available within the villages. Primary health centre, veterinary hospital and dairy cooperative society are existing in most of the sample villages. The business establishments like WMPCs (Women Multi-purpose Cooperative Societies), consumer cooperative society, dairy cooperative society, hotels, shops, cycle shops, tailoring shops (individual tailoring shops are also available, which are started by women) are established in the villages. The villagers have exhibited democratic process by establishing cooperative societies, consumer cooperative society, dairy cooperative society, self-help groups etc. These societies are doing very well in the villages.

6.35. There is no scarcity of water for drinking but for irrigation purpose they are depending on bore-wells in the sample villages, which is the major source. However, recently the canal irrigation is provided through Hemavathi but the statistics relating to this is not available. The villages have bore-wells and wells for irrigation. The area under well irrigation has been deteriorated over a period of time and currently it is the only bore-well irrigation, which is predominant. In general the water table is normal in all the study villages. Even quite a good number of households taken water to their own houses through pipes in majority of the sample villages.

6.36. The villagers are very much entrepreneuristic in nature. They take up new
activities if they realize that the new activities pay them more. If we get back and see the changes over a period of 20 years, earlier the farmers were cultivating ragi, paddy, jowar and pulse crops. But now in addition to the above they have also taken up the cultivation of maize, coconut, fruit corps and also the vegetable crops. The change in cropping pattern is mainly due to change in irrigation facilities. The farmers' economic power was mainly responsible to take up the cultivation of horticultural crops more on scientific basis in the study villages. However among the crops, which they have been cultivating, ragi, paddy, jowar, groundnut, maize, mulberry/sericulture and horticultural crops are most important as most of the area is covered by these crops.

37. Most of the villagers are engaged in agriculture and sericulture activities. Dairying is also one of the most important and remunerative enterprises. Most of the agricultural labourers are from SC/ST households. Though they too have lands they are not that remunerative. Therefore, they are engaged in wage labour. Few households have taken up petty business activities like hotels, petty business shops, cycle shops and tailoring shops. One can conclude that the villages are prosperous and doing very well. A significant economic development has taken place from the last forty years due to the green revolution and in turn education and extension services by the government's various line departments.

6.38. All the categories of farmers have been utilising the land more than 90 per cent respectively and only the medium and large farmers have been under utilising the land resources constituting 92.44 and 88.26 per cent respectively. This is mainly because of the lack of human resources in this category (researchers own
observation). It is interesting to observe that the irrigated area has been more in the study area.

6.39. The marginal farmers give more importance to the food crops like paddy and ragi when compared to their larger counterparts. However, when we observe the crops cultivated by the various categories of farmers all the farm categories give top priority to the crops like Ragi and paddy. The availability of irrigation facilities has been the deciding factor for the existing pattern. However, the lands which are situated little upper areas are cultivated for the crops like ragi, sericulture and other crops like coconut, banana and vegetables.

6.40. The researcher’s own observation and discussion with the farmers reveal that there is a scarcity of water during the summer season. Therefore, the farmers try to cultivate the crops like ragi and sericulture in a portion of land to keep their agricultural activities alive even during this period. The introduction of vegetable crops has been basically because of the insufficiency of irrigation water throughout the year.

6.41. The assets and borrowing by the villagers play an important role in the development of farm categories in the villages. Assets like agricultural implements, bullock carts, live stock and the non-farm assets like residential building, tractors, trade and commercial buildings etc are most important in farming activities.

6.42. In general the assets owned by the marginal and small farmers has been low compared to their counterparts like medium and large farmers. However, the
assets owned by all the categories of the farmers is significantly high. The table clearly reveals that except the livestock the asset value of agriculture implements and the bullock carts is very high for the higher land holding categories. As the size class increases the asset value goes up that to significantly.

5.43. Incase of the livestock the difference is less between the size classes. We were told that the marginal and small farmers are also concentrating on diary activity on par with medium and large farmers. There are very good chances that the marginal and small farmers purchase more cows in near future. This is because of the labour power available in these HHs and also the patience they have to maintain them. The most important reason being the government has been giving cow and buffaloe loans under IRDP and also various other schemes.

6.44. All most all the HHs, whom we have interviewed, own the house. Even the present cost of these is very high. The cost of the residential buildings increases as the size class increases. Though the difference is too high even the marginal and small farmers are residing in comfortable houses of the village standards. The farmers strongly admit that the change is due to the technological advancement in the agriculture sector and the availability of finance for digging bore-wells and very recently they are provided with canal irrigation.

6.45. The marginal farmers possess only little value of the trade and commercial buildings whereas the small farmers and above have these assets as they have started business at the district head quarters. Few farmers have started fertiliser and pesticide sales shops and few others have some other business. Hence, the value of commercial property is high for these categories of farmers.
i.46. The marginal farmers are the lowest in terms of taking loan either from the government cooperative society or from the banks. The marginal and small farmers have borrowed only from the agriculture credit cooperative societies/banks. However, our indirect probing reveals that they borrow from the private money lenders. However, the farmers did not reveal the fact that they borrow from money lenders.

i.47. The medium and large farmers borrow from the agriculture credit cooperative societies and also from various banks. Though the interest rate is the same there is a difference between the cooperative society and the bank. Moreover, the limit is high in case of the banks compared to the cooperative societies. Therefore, the large farmers have taken loan from the banks also.

5.48. The fact remains that the marginal and small farmers who borrow from the money lenders pay higher interest rate ranging from 36 per cent to 60 per cent per annum. Therefore, the exploitation is too high incase of these farmers.

5.49. The purpose of the loan taken is agriculture and consumption loan in case of the marginal and small farmers and in case of the medium and large farmers it is agriculture and business.

6.50. The access to organized credit facility is very high in case of the medium and large farmers and it is less incase of their counterparts like marginal and small farmers. Therefore, the marginal and small farmers trying to get loans from the money lenders who have been exploiting them to a greater extent.

6.51. In the study area the major crops cultivated are Paddy, Ragi,
Sericulture/Mulberry, maize and coconut. We have tried our level best to compute various expenditures incurred by both the beneficiaries and non-beneficiaries. Among the beneficiaries we find that the medium and large farmers incurred more on all the crops. Therefore, we can conclude that there is a positive relationship between the farm size and the cost incurred on various crops. However, the expenditure on mulberry/sericulture is very high compared to all the other crops followed by coconut cultivation and maintenance.

6.52. The cost of sericulture activity ranges from Rs. 26,800 by marginal farmers to Rs. 31,106 by the large category of farmers. If this is the amount required one can imagine the plight of farmers to mobilize the resources. The lowest cost of cultivation seemed to be for the crop ragi, where it is required only Rs. 2,166 for the marginal farmers to Rs. 2,550 by the large farmers category.

6.53. Where as in case of non-beneficiaries who have not taken loan spend very much lower compared to the beneficiaries. Even in case of non-beneficiaries the cost incurred on sericulture/mulberry has been very much high constituting Rs. 16,255 in case of large farmers. The lowest seems to be for the crops ragi ranging from Rs. 1,264 to 1,955 between marginal farmers to large farmers.

6.54. There is a wide variation in terms of cost incurred by the beneficiaries. This means that the beneficiaries are empowered by the financial agencies specially the cooperative societies/banks

6.55. Each family requires about Rs 36,044 in case of the beneficiaries and it is only Rs 22,414 in case of the non-beneficiaries. The difference in the average
expenditure is about Rs 13,600 per family. This difference is taken care of by the cooperative banks/societies. This clearly reveals that the role played by the cooperative bank/societies in the study area is significant and without these financial institutions it would have been highly difficult for the farmers to manage the crop activities.

6.56. There is a positive relationship between the farm size and the gross output of various farm size classes. However from all crops and for the farmers the grass returns has been high for the beneficiaries when compared to the non-beneficiaries.

6.57. On an average the crop paddy gives Rs 11,769 per acre for the beneficiaries and it is only Rs 6,082 in case of the non-beneficiaries in the same study region.

6.58. The average returns for the NB from ragi is only Rs 2,794, which constitutes only around 50 per cent of the beneficiary category. This again because of the availability of credit or resources to use the proper inputs to the crop.

6.59. Among all the crops the gross returns from the mulberry/sericulture is very high. The returns range from Rs.48,002 for the marginal farmers of beneficiary category to Rs. 57,155 for the large farm category of the same beneficiary category. In case of non-beneficiaries it starts from Rs 31,482 to Rs 34,824 per acre for the marginal and large farmers respectively. However, the average gross returns for the beneficiary category seems to be Rs. 53,617 and it is only Rs 33,044 for the non-beneficiary category of the farmers. The difference is mainly because of the investment made by the respective farmers for the crop
mulberry/sericulture.

6.60. The data reveals that the returns from coconut has been high constituting Rs.
12,195 for the beneficiary category and in case of non-beneficiary category of farmers it is much low. The difference is high between the beneficiary category and non beneficiary category mainly because the yield of coconut trees depends on the inputs used by the cultivators. The optimum usage of fertilizers, organic manure and tanksilt gets returns about 250 to 300 coconuts and if the inputs are low then you will get only 150 to 175 nuts. Therefore, the big gap between the beneficiaries and non-beneficiaries in the study region.

6.61. In case of paddy the average gross returns for the beneficiaries has been Rs 25,623 for the beneficiary category and for the non-beneficiary it is only Rs 13,198. The difference seems to be quite high between the two categories of farmers. The similar trend can be noticed for all the crops in the study region. This clearly reveals that the beneficiaries, because they have got credit from the cooperative bank/societies the capital formation has been much high and further chain impact and vice-versa.

6.62. On an average the beneficiaries get Rs 75,284 and in the case of non-beneficiaries it is only Rs 41,071 constituting only 35.30 per cent of the total of both beneficiary category and non-beneficiary category.

6.63. Net profit seems to be quite attractive to the beneficiaries when compared to the non-beneficiaries in the study region.

6.64. One can question that if the net returns are high from sericulture why farmers
have not totally shifted to this crop. The main reason for the farmers behaviour is the crop mulberry / sericulture requires irrigation facility, silkworm rearing space, skills to rear silkworms, sufficient labour and sufficient other inputs. Moreover, in this activity, at times, the Sericulturists tend to lose the crop and therefore all the farmers strike a balance between the food crops and the commercial crops like sericulture.

6.65. The next major net returns have been realized from the crop coconut. The main reason is, once this crop started yielding, the maintenance cost of this crop is much less. Therefore the net profit is high from this activity. The lowest returns seems to be from the crop ragi. Even then farmers cultivate this crop as it is easy and mostly cultivated under rainfed conditions.

6.66. The net profit per HH on an average is Rs 13,310 from the crop paddy for the beneficiaries, which is the highest compared to any other crop. This is mainly because the farmers have allocated major area to cultivate this crop. This is followed by mulberry/sericulture activity constituting Rs. 10,869.

6.67. In case of non-beneficiaries the net HH income from various activities is much low when compared to the beneficiaries. It is interesting to observe that the marginal farmers in the non-beneficiary category have been losing by cultivating the crop ragi as it is giving negative returns. The average net income from various crops seems to be around 50 per cent of the beneficiaries. This clearly reveals that the farmers who have been getting credit have gained a lot. Towards this the cooperative banks/societies contribution has been very significant.
6.68. The various sources of non-farm activities are the other sources of income consisting of allied activities of agriculture. The returns from high paid activities are more for the beneficiary categories compared to the non-beneficiary category.

6.69. The income from hiring out labour for agriculture and other activities have been more for non-beneficiaries compared to the beneficiary category. This is mainly because the beneficiary categories have so many vocations.

6.70. The income from livestock/poultry, hiring out drought animals and agricultural labourer has negative relationship between the farm size and the returns in both the categories. In other words as the size class increases the returns from the above activities declines. This clearly reveals that the medium and large farm categories do not have surplus human and animal power to hire out. In the sense that they are concentrating in their own HH activities.

6.71. The returns from trade and other activities have been very high for medium and large farm categories and it is nil in case of the marginal and small farm categories. The trend is the same in case of both beneficiary and non-beneficiary categories. The average returns seems to be more for beneficiary category compared to non-beneficiary category.

6.72. The beneficiary category has been doing very well in terms of getting returns. The argument holds good for the agriculture sericulture, livestock / poultry, dairying trade and other activities. But in case of the income from hiring out drought animals and agricultural labour we find that non-beneficiary category
getting more returns. This is mainly because of the lack of resources to the non-beneficiary category. In case of the marginal and small farm categories, their earnings from the above sources is more as they have surplus human resources. This clearly reveals that the beneficiaries are able to employ their human resources in the HH activities and vice-versa in case of the non-beneficiary category.

6.73. All the farm-size categories of HHs in case of beneficiary category have been earning more compared to the non-beneficiary category of farmers. The difference in returns is too high. The average total returns from all the categories has been Rs. 49,223 in case of beneficiary category of farmers compared to only Rs. 25,563 of non-beneficiary categories. That means beneficiary category of farmers getting Rs. 23,660 more than the non-beneficiary category. This clearly reveals that beneficiary category of farmers enjoying the benefits of credit facilities from cooperative banks/societies. In case of the credit facilities extended to all the farmers in the villages these is a possibility to get more returns for all the farmers in the village.

6.74. Among all the categories of farmers the marginal and small farmers have been getting very much low returns. This is mainly because the resources are not sufficiently available for the marginal and small farmers. And moreover the farm size also matters to get more returns. Hence, the credit facility should not be based on the farm category, but it should be based on per acre and also the type of crop they are cultivating.

6.75. Apparently the table reveals that there is a positive relationship between the farm size and consumption expenditure of the beneficiary and non-beneficiary
categories of farmers except the consumption of cereals. The average consumption expenditure of the beneficiary category of farmers has been high compared to the non-beneficiary categories of farmers. This is mainly because of the average returns they get from various vocations.

6.76. The total average expenditure of all the farm-size classes has been Rs 23,528 in case of beneficiary category and Rs 20,023 in case of non-beneficiary category of farmers. There is a wide difference between the beneficiary category and non-beneficiary category of farmers. It means that the standard of living of the beneficiary category has been high compared to the non-beneficiary category of farmers.

6.77. We find the difference between the income and expenditure of both the beneficiary and non-beneficiary category of farmers. In case of beneficiary category the difference is positive in the sense that the income from various vocations has been high compared to the consumption expenditure. The surplus starts from Rs. 2,345 to Rs. 59,028 from the marginal and large farm categories respectively. The average surplus income has been Rs. 25,694.

6.78. Where as in case of the non-beneficiary category of farmers the scenario is totally different. In case of marginal farm category of farmers the difference between the income and consumption expenditure is negative i.e. the farmers have been incurring Rs 1,122 more than their returns. Incase of small farmers the difference is Rs. 212. In the sense both the farm categories have deficit budget. Though the difference is low, the problem is when there is no returns in an agricultural year, in case of drought or failure of crops, the farmers will not be able to withstand
the loss and they become bankrupt and they will be caught by the vicious circle of poverty. The beneficiaries to some extent can withstand the drought situation about a year or so—but not the non-beneficiary category. Therefore, to avoid or control the farmers ….. and their suicide attempt we need to facilitate the farmers of all the categories to get financial and other resources to strengthen them in all directions.

6.79. Majority of the farmers from medium and large farm categories have availed credit more than the marginal and small farmers. On an average 70 and 90 per cent of the sample HHs have taken loans from medium and large farm categories of farmers. Whereas it is 45.50 and 56.67 per cent in case of marginal and small farm categories of farmers.

6.80. There is a positive relationship between farm size and credit availed in the study area. As the size class increases the amount taken per HH also increases. The medium and large farmers have availed loan to buy tractors therefore, the amount taken by these is more.

6.81. In the study area medium and large farm groups have repaid the loan more than the marginal and small farm groups. Among the medium and large farm categories medium category has more due compared to the large farm category of farmers.

6.82. Majority of the farmers availed loan for agricultural activities and major portion of funds have been spent for the same. However, quite a good number of beneficiaries have spent a portion of the loan amount for non-farm activities. Of
these the medium and large farmers have spent about 18 and 22 per cent respectively. It is interesting to observe that the marginal and small farmers have used considerable resources on the purchase of livestock. This has been high compared to medium and large farm categories of farmers. This is mainly because of the white revolution in the district. Producing milk products, now a days, is one of the livelihood activities in the rural India.

6.83. Though the resources are sanctioned for only income generating activities, the beneficiaries belong to marginal and small farm categories have used for consumption purposes. This is mainly because they do not have stability in the livelihood. Therefore, 11.25 and 10.88 per cent of the total amount borrowed has been spent for the consumption purposes by the marginal and small farm categories of farmers respectively. This suggests that the development agencies while formulating programmes and policies the livelihood systems of these down trodden have to be kept in mind as it is a basic necessity.

6.84. The proportion of farmers reported borrowing were 45.50, 56.67, 70 and 90 per cent of the HHs belong to various categories of farmers respectively. The average amount borrowed per family was Rs. 12,000, 18,000, 34,000 and 41,000 by marginal, small, medium and large farm categories respectively. There is a positive relationship between the farm size and the amount borrowed by the farmers in the study area. This is mainly because the marginal and small farmers fail to give the security to the bank therefore, the intensity of borrowing by these category of farmers is much low.

6.85. Availability of credit was actual amount borrowed from the cooperative
banks/societies has an inverse relationship between farm-size and the credit gap. As the size-class increases the credit gap declines showing that the marginal and small farmers’ credit needs are not taken care by the development agencies due to various reasons, which are stated elsewhere (Bhende 1986).

6.86. The values of regression coefficients of different inputs and their standard errors obtained from the functional analysis of the study block reveals that the coefficient of labour including human and bullock labour turns out to be significant in the study area. These results clearly indicate that among the sample farmers the use of labour did influence the gross returns.

6.87. The coefficient of manures and fertilisers was significant at 5 per cent levels of significance. The coefficient $X_4$, farm expenses other than labour and fertilisers was turned out to be significant at 5 per cent levels of significance. The major form of expenses in this category reported is HYV seeds etc. Thus, this indicates that the HYV seeds play an important role in crop production in the study region.

6.88. The coefficient ($X_5$) —Credit used, which is the prime importance of the study turns out to be significant at 5 per cent levels significance. This clearly indicates that the use of credit among the farmers did appear to influence the gross returns.

6.89. The regression coefficient for each independent variable is less than one. This indicates the operation of diminishing returns by increasing only one input. This means that if other inputs are fixed at a certain level and if only one input is increased, gross output (income) will increase at a diminishing rate. However, one per cent increase in the value of farm expenses other than labour and fertiliser.
would have brought 56 per cent increase in the value of output, if other
input factors are held constant at the geometric mean level.

6.90. The sum of the production elasticities computed from the production function
gives the returns to scale which indicates the proportionate increase in the output
when all the inputs are increased by 1 per cent. The production is said to be
under increasing, constant and decreasing returns to scale as the elasticity of
production is greater than, equal to and less than one. The sum of the elasticities
in the study area is nearing one, so the constant returns to scale operates.

6.91. The marginal value product (MVP) of a particular resource indicates the
expected addition to the gross returns caused by an addition of one unit of that
resource, while other inputs are held constant at their geometric mean level. The
marginal value products of different resources have been computed by
multiplying the regression coefficient of that resource with the ratio of geometric
mean of the gross return to geometric mean of that resources.

6.92. The input factors significantly affecting the yield of the crop are \( X_4 \) (farm
expenses other than labour and fertiliser) and \( X_5 \) (credit used) and \( X_3 \) (fertiliser
applied for all crops) are the most affecting inputs of the crop yield. Since this
study is confined to the impact of credit, it is significant. One rupee credit used
by the small farmers as an input contributes Rs. 2.16 as output.

6.93. The coefficient of multiple correlation \((R)\) and coefficient of multiple
determination \((R^2)\) between the independent and the dependent variables on the
basis of function fitted. The value of \( R^2 \), the coefficient of multiple
determination was significant at 1 per cent level. The four variables included in the study explain 74 per cent of the variations in the gross output. The remaining amount of unexplained variations may be due to the variations in the techniques of production, variation in the management and such other factors not included in the analysis.

6.94. The coefficient of multiple correlation have been highly significant, which means that the input variables and the output has shown significant relationship through the function fitted.

Suggestions:

The analysis of the data and the researchers field observations reveal that there are some lacunae for the development of agriculture in particular and the rural development in general. Therefore, few suggestions have been made to promote agriculture and in turn the rural development.

1. The number of agricultural co-operative societies/banks has been coming down as these societies are running under loss due to mis-management by the elected representatives of various co-operative banks. The government has to strengthen these societies through various policies, otherwise the entire credit co-operative system will be in doldrums.

2. The formalities, to borrow from the banks, have to be simplified by the government and the banking authorities to facilitate the farmers to get better credit facilities to strengthen their land. Because, there is a positive relationship between the farm size and the amount borrowed by the farmers in the study area.
This is mainly because the marginal and small farmers fail to give the security to the bank therefore, the intensity of borrowing by these category of farmers is much low. Hence, the rule has to be modified. The present Government in the Karnataka state has formulated a new Agricultural Policy and it is hoped that these kinds of problems are taken care through the proposed new policy.

3. In case of the beneficiaries the capital formation has been much high and further chain impact and vice-versa. Therefore, it is suggested that the entire farming community has to be facilitated through one or the other banking agency so that capital formation in agricultural sector in general will be more.

4. It is found that when there is no returns in an agricultural year, in case of drought or failure of crops, the farmers will not be able to withstand the loss and they become bankrupt and they will be caught by the vicious circle of poverty. The beneficiaries to some extent can withstand the drought situation about a year or so—but not the non-beneficiary category. Therefore, to avoid or control the farmers ..... and their suicide attempt, we need to facilitate the farmers of all the categories to get financial and other resources to strengthen them in all directions.

5. The credit facility should not be based on the farm category, but it should be based on per acre and also the type of crop they are cultivating. Because in most of the times the marginal and small farmers are sanctioned the loan lower than their requirement.

6. Though the resources are sanctioned for only income generating activities, the
beneficiaries belong to marginal and small farm categories have used a portion of the loan for consumption purposes. This is mainly because they do not have stability in their livelihood. This suggests that the development agencies while formulating programmes and policies the livelihood systems of these down trodden have to be kept in mind as it is a basic necessity.