

Chapter-VI

SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

Summary, Conclusions and Policy Implications

1. The objectives of the study are:
 - a. To ascertain the resource endowments of the selected small farmers.
 - b. To identify the factors influencing cropping pattern and to study the cropping pattern adopted by selected farmers.
 - c. To analyse the economy of small farmers.
 - d. To study the adoption of technology, pattern of input use and constraints.
 - e. To review small farmers' development as well as Rural Development programmes and.
 - f. To suggest policy implications for integrated development of small farmers

2. Kurnool district in Andhra Pradesh is selected for the present study. In the district three mandals Adoni, Papully and Banaganapalli are selected based on the probability proportion of the small farmers. Similarly, two villages from each mandal are covered under the study. From each village 50 farmers are selected by adopting multi stage random sampling technique. Thus, the sample frame for the study is one district, three mandals, six villages and 300 farmers. Both primary and secondary information and data are used in the study. Primary data are collected through interview method. Focused Group Discussions (FGD) are also conducted in the villages. Officials of various departments are also contacted for information on the subject. The collected data and information are processed, tabulated and analysed by making use of suitable statistical tools and techniques such as, averages, percentages, ratios, production functions etc.

3. The average size of family is four members per family at the overall level. Males constitute 53 per cent and females 47 per cent of the total population of the selected households.
4. Working population consisting of people in the age groups of 22-30, 30-40 and 40-50, constitute about 56 per cent of the total population of the selected households.
5. Forty eight per cent of the populations are illiterates.
6. Small farmers in the study area have a low level of formal education which limits public dissemination of knowledge and farmers' awareness as well, and this would consequently affect agricultural production.
7. Joint families in all the mandals are broken up and nuclear families have come up.
8. The income of the selected households is of very low order at the overall level. This indicates that acute poverty is prevailing among the people in these three mandals.
9. Because of the poor economic status, the housing conditions of small farmers are deplorable.
10. The average landholding per household at overall level is 3.09 acres.
11. The land lease market in the selected villages is almost non-operative

12. On the whole, 24 per cent of the selected farmers in the three mandals have sold their land. The respondents reported that the major reason for selling the land is to clear off debts.
13. Twenty nine per cent of the farmers, who sold part of their land, is to meet the agricultural expenses. At the overall level, 72 out of 300 selected small farmers, constituting 24 per cent of the sample, sold part of their land over a period of two years.
14. In addition to quality of land, the size of holding is one of the most serious problems of small farmers.
15. About 45 per cent of respondents at the overall level reported that they do not have access to irrigated land. Every farmer in the selected mandals reported that there is no continuous power supply for nine hours for agriculture. As the power supply is inadequate and interrupted, crop failures are quite common. Nearly half of the farmers complained that they lost the crop due to this reason. Most of the farmers depend on uncertain sources of irrigation, such as wells, which again depend on uncertain and scarce rainfall. Tank irrigation again is more undependable.
16. More than half of the selected farmers do not possess bullocks. Farmers numbering 135, at the overall level, are possessing bullocks at the rate of two bullocks per farmer. Undoubtedly, shortage of bullock power impedes or hinders agricultural operations. Only one-third of the selected farmers possess

cows. Small farmers in this area face the problem of lack of adequate livestock population for supporting their livelihoods.

17. One of the greatest handicaps or hardships faced by small farmers is the shortage of implements and machinery. Lack of agricultural implements and machinery appears to be a hurdle in the development of small farmers.
18. Farmers cultivated some of the important crops in their fields. These are paddy, cotton, sunflower, groundnut and bengalgram. Some other crops namely maize, chillies, onions, and vegetables are also cultivated by some small farmers.
19. At the overall level, cost of cultivation per acre of paddy crop works out to ₹. 17897. In paddy cultivation material cost is very high with about ₹. 6,567. This is followed by human labour and bullock labour respectively. The yield per acre of paddy, on an average, at the overall level is 26.80 quintals. The gross returns per acre are ₹. 25,670 and the average returns are ₹. 7,733.
20. The total cost of cultivation of groundnut is ₹. 12,152 per acre. The net return obtained by farmers is as low as ₹. 561 per acre.
21. The total cost of cultivation of sunflower at the overall level works out to ₹. 11,011 per acre. The average yield per acre at the overall level is 5.48 q. per acre, which gives about ₹. 2,004 per acre.
22. The total cost of cultivation of bengalgram works out to ₹. 10,650. The net returns are ₹. 1,382 per acre.

23. The total cost of cultivation of the cotton crops works out to ₹. 11,300 per acre. On an average a cotton small farmer gets net returns of ₹. 1,794 per acre.
24. One striking feature in the cultivation of the crops is the increased cost of the materials namely seeds, fertilizers and pesticides. The wage rates of human labour have also increased. With this the total cost of cultivation of all the crops is raising steadily. However, the yield levels of all the crops cultivated, except paddy, are low. Not only that the prices are fluctuating but also low. Hence the net returns obtained by the selected farmers in all the three mandals happen to be low. Cultivation of crops is considered to be no longer remunerative. Hence farmers are trying to diversify their economic activities including milk production.
25. The results of Cobb-Douglas production function for all the selected five major crops indicate that human labour is excessively used in general in all the crops. For some crops manure is also applied excessively. However, the increase in the use of seed, fertilizer and plant protection chemicals many enhance the returns. Increasing returns to sale in some crops and mandals are obtained. This suggests reorganization of farm business by enhancing the resource use efficiency through the use of the recommended quantity of resources.
26. The net return from sale of milk from one milch animal on an average ranges from ₹. 5321 to ₹. 8716, with an average of ₹. 6485. Farmers have benefited monetarily from milk production. It is a supplementary income to them.

27. The employment outside the farm and for each small farm family on an average ranges from 156 – 170 days.
28. Farmers are using fertilizer for all the crops grown. They felt that they cannot improve crop yields without the use of fertilizers.
29. The most important problem faced by small farmers is lack of capital or finance for purchasing plant protection chemicals. Lack of sprayers and dusters is also reported by 19 per cent of the farmers for not using pesticides.
30. Neighbouring farmers, relatives and friends are said to be the major sources of information about the technology to the farmers. Other sources of information are print and electronic media including radio/T.V.
31. Sixty two per cent of the farmers have introduced new crops in their farms. This is mainly due to higher production and higher profitability associated with new crops.
32. Half of the selected small farmers have diversified by taking up dairying, poultry, sheep and goats and such other activities.
33. On an average, small farmers borrow about ₹. 24,225 per household from institutional sources. An amount of ₹. 26,100 is borrowed by the selected households from non-institutional sources. The rate of interest charged by institutional agencies ranges from 9 to 15 per cent, while the same being 36 per cent in the case of non-institutional agencies.

34. It is found that every selected farmer is trapped into debt. Indebtedness is the most serious problem being faced by the selected small farmers.
35. Major reasons identified for mounting indebtedness of the farmers are: private loans, high rate of interest, compound interest rate charged, small quantity of produce and loss of crops.
36. Small farmers numbering 196 out of 300 expressed that they have been facing several difficulties in getting loans.
37. Only 29 per cent of the small farmers felt that the loan taken is adequate, while 71 per cent of the loanees replied in the negative.
38. Forty five per cent of the farmers borrowed loans from private sources for meeting agricultural expenditure.
39. A huge number of 270 farmers are left-out in financing for land development. Land needs urgent development measures. But financing land development is grossly inadequate.
40. On the whole, financing to the minor irrigation for the small farmers is totally neglected.
41. About 20 per cent of the loanees amongst the selected 300 respondents are reported to have been covered under the loan waiver scheme.

43. Crop insurance is not popular among farmers, especially small farmers.
44. The producer's share in consumer's price is very low. They are forced to sell their produce to private traders immediately after harvest for want of money to meet their family and farm expenditure.
45. Seventy six per cent of the respondents have resorted to distress sale.
46. The greatest problem faced by the small farmers is small size of the marketable surplus.
47. Illiteracy, ignorance, poor economic status, helplessness and lack of borrowing capacity of the small farmers as against the tricky and unethical traders are responsible for the widely prevailing malpractices in the agricultural marketing system.
48. Ninety two per cent of the selected farmers keep the produce in their houses.
49. A great majority of farmers, that is, 92 per cent of the farmers do not get their produce processed at their villages. Small farmers are influenced by market behaviour. Usually the prices they receive are very low because of their economic vulnerability and weak bargaining capacity. The entire crop of the small holders comes to the market at one time. The small cultivator, who is often heavily indebted, has poor bargaining strength to get a favourable deal from the more resourceful traders. The price risks have increased in the liberalised scenario. Small farmers do not have means to cope with such risks.

50. The Government of India stated that about ₹. 2.5 lakh farmers have committed suicides in the country. The major factor causing suicides is the mounting indebtedness. Failure of crops and low quality seeds also led some farmers to commit suicides. Six out of eight families, in which suicides are reported, received relief from the government.

Conclusions

1. There is a surplus labour in the selected small farm households.
2. The resource endowment of the small farmer is very poor. The size of landholding is extremely low. The land quality is also of low order.
3. More than half of the farmers do not have assured irrigation facilities, even partially. Canal irrigation is low. Wells and tank irrigation is mostly undependable. The selected villages are in scarce rainfall zone, failure of crops is common. Due to lack of assured irrigation, crop yields are not only low but also unstable.
4. The livestock position in this area is very unsatisfactory. Only less than half of the selected farmers have bullocks. Lack of bullock power hinders the timely agricultural operations and hence affects the production adversely. Only a few of the small farmers have milch animals.
5. Substantial employment and income are obtained by the selected farm families from hiring out labour.
6. Several factors influence cropping pattern. A number of commercial crops are grown by the farmers in addition to paddy.
7. The cost of cultivation of the crops is very high and is rising steadily over the years. Cost of inputs occupies a major portion of the total cost of cultivation. It is found that the returns from the crops do not meet even the material costs in most of the cases. The cost of human labour is also increasing. Similarly the

cost of bullock labour. The hiring charges of tractors, plant protection equipment etc. are also expensive. The low yields and low prices are responsible for low income of the farmers.

8. Farmers also face the problems of shortage of feeds and fodders, veterinary medicines, technical advisory services etc. Non-farm sector is not developed to enhance employment and income of the people in this area.
9. The dependency on market forces has increased for seeds, fertilisers and plant protection chemicals. The supplies of inputs are highly unsatisfactory. The government share in the input market is very small. Not only the scarcity, but also the quality of these inputs appeared to be bad. The inputs are found to be adulterated and spurious.
10. The technology for small farmers is found to be not suitable for small and marginal farmers and also for drought-prone areas. Even the available technology has not reached the small and marginal farmers.
11. Majority of small farmers are excluded from institutional finance. The amount of loan sanctioned is grossly inadequate, as it is not given according to scale of finance. Timely credit is not provided. There are innumerable difficulties in acquiring the credit. For various reasons small farmer have to depend heavily on private sources. The rate of interest charged is quite high and compound rate of interest is also charged. Low levels of production, frequent crop failures, high cost of production, and low prices, ancestral debts etc. are responsible for debt accumulation or indebtedness.

12. Very few farmers have benefited from agricultural insurance, as it is not popular amongst the farmers.
13. The producer's share in the consumer price is very low, because a sizable portion of it is knocked away by middlemen, millers, processors and corporate Multi National Companies (MNCs) also loot the agricultural produce through futures trading. Several defects are observed in market yard. Infrastructure facilities such as godowns and agro-processing are lacking in the area. State procurement of agricultural commodities is very low. In view of this, small farmer is exploited and looted by market forces.
14. It is observed that planning for small farmer development is not comprehensive. Moreover, the implementation of these programmes is tardy and slow. The rural development programmes implemented are found to be unscientific and defective.
15. The above development programmes have not achieved the desired goals to develop the small farmers on account of the following reasons:
 - a) The science and technology component is low in these programmes
 - b) The delivery mechanism is poor.
 - c) The management in the implementation of the programmes is very poor.
 - d) The people responsible for implementation of the programmes are not well motivated, sincere, and efficient.

Policy Implications

Based on the results of the study and conclusions drawn, certain policy implications are suggested, keeping in view three important goals for the development of small farmers. These goals are:

- a. Livelihood security for the small farmers
 - b. Food and nutrition security to the small farmer households and
 - c. Self-reliance of the small farmers.
1. Natural resource management: watershed development and management plays an important role in the management of natural resources especially in dryland areas. The watershed management comprises the following four components:
- a. Soil and moisture conservation
 - b. Crop husbandry – improved agricultural practices
 - c. Livestock development
 - d. Silvi – pastoral system

Development of land through soil conservation works, physical improvement of land, soil amendments, land leveling and shaping is important for enhancing the soil productivity. Irrigation equity is essential for providing stability to farm production. Farm ponds, tanks, kuntas (small tanks and small water bodies), wells etc. may be used to provide protective and crop life saving irrigation for crops. Continuous and uninterrupted power may be supplied for lifting water.

2. Crops suitable for the agro-ecological conditions may be included in the cropping pattern. Suitable new crop and varieties may also be introduced in the area. Farm diversification through integrated farming system approach may be adopted. For carrying out timely agricultural operations the draught animals, implements and machinery may also be provided.
3. For integrated development of small farmers, livestock is very important. Milch animals together with supply of feeds and fodder, veterinary medicines, credit, extension advisory services may be provided. The rearing of sheep and goats shall add to the income of the small farmers. Tree plantation and cultivation of grasses and fodders both in the individual farmer's fields and in common village grazing areas may be taken up to meet the food, fruit, fuel and fodder requirements of small farmer households.
4. High cost of production of crops may be reduced through adoption of organic farming practices. The farmer may be encouraged to produce their own seeds, organic manures and non-pesticide products for plant protection. The government should ensure the supply of quality seed and other inputs through enforcing strict regulation. Incentives and subsidies are essential for the agricultural inputs. Dependence must be reduced for the supply of inputs on corporate companies or market forces. To avoid excessive use of fertilisers for the crops correct doses may be suggested basing on the results of soil testing. Soil health clinics may be established at different places in the country to undertake soil testing etc.

5. Technology generation and transfer. It is recommended that the State Agricultural Universities and Institutes of Indian Council of Agricultural Research (ICAR) should generate technologies suitable for small farmers in drought prone areas. The technology can be transferred through strengthening extension services in public sector.
6. Debt relief to the small farmers may be provided both in public and private sources of lending. Necessary legislation may be enacted for this purpose. Loan waiver scheme has not helped the small farmers as they have taken loans especially from private sources.
7. Institutional finance should be extended to cover all small farmers. Kisan Credit Cards should give the right to farmer for acquiring loans. The small farmers should be provided credit inadequate quantity according to scale of finance fixed for different crops at low rate of interest. There should not be any ceiling on the amount of loan to be sanctioned to small farmers. Timely supply of finance is essential in agriculture, as it is highly seasonal. Harsh methods of recovery such as auctions of property and insulting farmers should be totally banned.
8. Enhancing producer's share in consumer price through direct sales and purchases between producers and consumers shall save the farmer from the exploitation of middlemen. Removal of all malpractices in marketing in agricultural marketing both in private markets and market yards is necessary. Strengthening market yards with all amenities, auction platforms, automatic weighing machines etc., shall help the farmers. The system of commission

agents in the markets may also be removed. The Multi National Companies (MNCs) and large domestic corporate companies should not be allowed to enter into agricultural marketing system. The agricultural markets should not be developed in accordance with the latest amendment to the Agricultural Producer's Market Committee Act (APMCA Act) and handover them to private corporate companies including MNCs. Market finance through *Rythu Bandu Pathakam* (RBP) may be provided to discourage farmers from distress sale.

9. The small farmers' problems with regard to transportation, grading and marketing of farm produce have to be solved.
10. Infrastructure development: Storage and agro-processing facilities may be provided at a cluster of villages.
11. Agricultural Insurance: Every farmer and every crop should be brought under agriculture insurance scheme. Wide publicity should be given to agricultural insurance amongst the small farmers. The government should pay the premium on behalf of the farmers. The process of payment of compensation to the farmers should be completed within two months.
12. Non-farm sector: Economic activities in non-farm sector should be promoted in the interest of small farmers and others.
13. Allied agricultural industries may be established in the villages. Raw materials, power, credit, marketing and other facilities should be provided.

14. Income guarantee scheme may be formulated and implemented for the small farmers.
15. Changes in the farming practices may be made to suit to the climate change. This will have to be done based on the research.
16. Agriculture, especially in the scarce rainfall zone, requires eco-friendly promotion measures.
17. Farmers, especially small farmers should be protected from the competition of the international market forces.
18. The government should formulate policies for the small farmers with the goal of saving them from the corporate, capitalist and imperialist globalisation forces.
19. Umpteen number of programmes for the development of small farmers are under implementation. Similar, is the case with rural development programmes. A convergence of all these programmes is recommended for proper planning and implementation at the grass root level. Coordination amongst the different departments is crucial in this regard. Democratic decentralisation of political power and economy as envisaged in the 73rd and 74th amendments to the Constitution of India should be implemented in letter and spirit. Local governments should be entrusted with the necessary funds, powers and functions for taking up programmes for development of small farmers.

20. Social security or social safety net is essential to provide an access to education and health both at primary and secondary levels in public sector, in addition to Public Distribution System (PDS), pensions proposed, cash transfer schemes to the poor and other welfare measures.
21. Institutional arrangements: The small size of holdings and poor resources endowments result in high cost in purchase of inputs; low level of produce, high transaction cost; lack of access to technology; investment; land and water resource development etc. Further, failure of delivery of state support services is due to lack of articulation of farmers. Bureaucratic agencies are responsible for poor delivery of services. These problems can be solved only through group or collective organisation of small farmers. It is therefore suggested that Self-Help Groups, Rythu Mitra Groups, service cooperatives, producers' associations etc. may be promoted.
22. Organisational set-up: To implement all the programmes under single window for the development of small farmers, Small Farmer's Development Organisation (SFDO) may be set-up.

Small farmers' development is possible only with government support. Larger investments are required in technology generation and transfer (agriculture research and extension), infrastructure, irrigation, power, social safety measures etc. Provision of good quality inputs and timely and adequate institutional credit at low rate of interest is essential. Income for small farmers may be guaranteed through remunerative prices. Incentives and subsidies should be extended through all

possible means to small farmers. The welfare of small farmers is essential for the steady growth of agriculture and economy. Institutional and organisational structure shall contribute to small farmers' development in this area, and may be in the country as whole. Small farmers' fervent hope is to lead a peaceful and happy life along with all other sections of the people in the country.

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