CHAPTER VII

CONCLUSIONS AND SUGGESTIONS
Resume
Agriculture

Agriculture which is a dominant segment of the rural sector has a key role in Indian economy in terms of contribution to national income, employment to the work force, earning a sizeable share of foreign exchange to the country, provider of fodder to a bulk cattle population and supplier of raw material to many agro-industries. To develop the pace progress of agriculture, the Government, from time to time, has implemented many economic programmes under the Plans with sizeable budgetary allocations. These programmes aimed at the effective utilization of resources and creating the conducive conditions for the growth of farm economy in particular and over all economy of the country in general. The future of farmer families depends upon the precision agriculture, involving use of the right inputs at the right time and in the right way. It implies the Integrated Farm Resources Development.

Approach

Managerially, an integrated approach with collaborative, coordinative and cooperative efforts is utmost essential in deriving defined economic gains from agriculture by effective utilization of farm resources. Therefore, utmost focus has been laid on the farm resources and their effective use. To utilize effectively the available
natural resources as well as created resources is 'core' for the
development of agriculture and quality of life of farm brethren.

Farm Resources

The progress of agricultural sector entirely depends upon the
fortunes of key input factors viz., credit, land, water and manpower on
availability of nature's gifts namely air, light and climate. The ever­
green revolution triggered the country to be self-sufficient in
production. Population explosion, environmental degradation, climate
change, etc., are posing threats and adding to the persistence of
poverty and future food insecurity. Therefore, there is an urgent call to
sustain and strengthen the position of agriculture which is the basis to
Indian economy. Towards this direction, an activity in effective
utilization of farm resources has become a crucial measure which is
the management concern. Hence, effective and sound farm resources
development need the approach of Integrated Farm Resources
Development. Inefficient use of any one of the farm resources concerns
itself a constraint and causes illness to the economy.

Credit plays an important role in effective utilization of farm
resources in an integrated approach. It is not only the paramount
input factor but other factors are being utilized properly on the
availability of it. Credit is, therefore, considered as economic elevator
by means of fuller utilization of farm resources as many academicians and scientists also appended their view.

The scenario of land use is both intensive and extensive through means of availability of water resources in the form of irrigation and other infrastructure facilities. Assured water augments farm production, generates employment, increases farm income and enhances capital formation. Availability of cultivable land and water resources are not abundant, so inevitably depend on effective utilization of these inputs for achieving the intended object of higher production and productivity; and thereon better economic life. Utilisation of farm resources to the fullest is the need of the day in farm resources development.

Man constitutes the most integrated factor in management of farm resources. It is the man who could manage and operate the input factors towards the desired direction. In the district, more than two-thirds of workforce or more than one-third of total population are dependent on agriculture. No concerted efforts have taken in providing farm training to the farmers in improving the skills, acquiring knowledge on ensuring adoptability of farm technology. The facilities of storing and preserving are also very much lacking. Only one-fourth of geographical area is under cultivation and about one-fourth is under cultivable land.
Review of Literature

The review of a good number of research studies on farm resources development undertaken by the individuals and institutions discloses that they contained analyses with more focus on the scale to return. No study is focused on mechanization of farm resources. So, the present investigation on farm resources development.

Methodology:

The piece progress of farm economy in the present context can be attained through increasing and effective use of farm resources. Collaboration of technology, cooperation of financial institutions and coordination of supply services are hardly seen in an integrated approach in the study area. Erratic rainfall, conventional approach in crop husbandry and animal husbandry, unawareness of gains due to effective use are also some hindrances in mechanization of farm for optimum benefits. This has been examined through the objectives of the study.

How effective in using the farm resources is highlighted through the set objectives with reference to the district of Cuddapah in Rayalaseema region of Andhra Pradesh. The compiled data from Annual Reports and the collected data from sample household being selected by random sampling were used in presentation of the report.
Findings

The profitable farming depends upon the good climate which is not so favourable in the study area. Both hot waves and cold waves prevail in the district are injurious to the crops. The received annual rainfall is accounted about 60.00 cms from both the South-West and North-West monsoons with scanty or erratic nature. Regarding water, though the district has the benefits of both surface and underground sources, they are not adequate in terms of quantity to grow the crops as per the prevailed cropping pattern. The reasons for this state of affairs are due to no perennial sources of water except the K.C. Canal in the district under surface water source; and failure of some wells or not failure of wells but failure of electricity under the groundwater source. Apart from the above reasons, nearly half of water has become waste during the course of reaching the fields in the form of seepage, due to no maintenance of canals, distributors, minor and outlets properly. Because of these reasons, the cropping intensity is very minimal.

Though tractor population is sizeable in number, tractorisation of farm is very low. Only 36 per cent or 3.63 lakh hectares of land possessed by 80.00 per cent of land holding farming community. It means, the size of holding and the number of farmers is inverse relation.
In view of launching of intensive development programmes through means of irrigation facility as well as rainfed farming development on modern technology besides the peculiarities of farmers economic position, the need for credit to the farmers in the study area or elsewhere in the country is a must. This is much more relevant to the weaker sections of the farming community. Hence, credit is a prerequisite input factor.

The rural credit institutions – commercial bank, grameena bank and co-operatives with adequate size of branch network extended banking services both in mobilizing surplus savings as deposits from the haves for furtherance of credit to the needy. Though the working of banking institution in the study area is reflected a brisk progress but not so much if measured in relative terms to the different sectors of the economy. Further, variations are also noticed with reference to deposit mobilization and credit deployment among and between the existed three types of rural credit institutions. The performance of grameena bank in the study area is far better compared to the commercial banks and co-operative bank. Syndicate Bank which is the lead bank in the district has not taken much efforts in shedding the ills of economy and shading the economic life of farming community through its innovated thought and splendid efforts.

Deployment of credit to farmers is not adequate. Because of this, farmers were resorted to borrow from the local money lenders at
higher rate of interest. About two-fifths of farmers have become a ‘prey’ in ‘debt-trap’. It is found that the money lenders even after more than three decades of bank nationalization could not free the farmers from the clutches of money lenders.

The banking institution is one among the multifacets dimension of farm sector on which accelerates the economic progress of any field. The other is administrative support with supply (or distribution) services including marketing by the Department of the Government is a core aspect. The Irrigation Department in exploiting both the surface and underground water with minimizing wastage, the Department of Geology in ensuring the location of wells to be dug, the Department of Horticulture in advising with variety of breeds suitable to grow under different types of soils and different climatic conditions for growing fruits and vegetables, the Department of Animal Husbandry in focusing on suitable high yielding milch animals with variety of grass enriching milk quantity and the Department of Electricity in continuous supply without breaks and fluctuations are not much helpful and also not available that much of services at the required time.

‘Adopt watersheds and keep away drought’ of DPAP is a sound economic oriented programme. But, the development of watersheds are less in number which again partisan attitude being followed due to political scenario. The main motto of subsidy is to motivate the
farmers to avail credit facility on assurance of the Government who otherwise could not get it from the banking institution and thereon could utilize effectively the other available resources say land or irrigation source or manpower.

The Government of Andhra Pradesh has extended subsidy component to the tune of Rs.3.33 crores during 1999-00. Of which, minor irrigation, horticulture and animal husbandry scored good amount of subsidy input. About 50 per cent of respondents have spent more than fifty per cent of subsidy on non-monetary transaction cost and satisfying the concerned ones.

A better deal of transactions are effected in the direction of supply and distribution services of fertilizers, pesticides, seeds to the farmers. This distributed quantum in addition to the practice of adulteration is not only inadequate in commensuration of land use for growing the crops; and also in many number of instances the quality is not good in raising the expected quantum of output. The practice is same in the supply of pesticides and fertilizers.

Due to availability own manpower, the small farmers group kept fallow land at low (9.39 per cent) compared to that of other farmers (13.33 per cent) group. Because of less irrigated area, the cropping intensity is low. Otherwise cropping intensity may be around 70.00 per cent. It is found that hiring labour is more gains than tilling
the land is the opinion of the small farmers group. The small farmers group is also not in a position to grow commercial crops whereas the same grown at larger share by other farmers group. The inter and intra cropping system is negligible.

The small farmers group entirely depends on irrigation source on hiring water and canals whereas more than 50.00 per cent of total land irrigated by own wells in the case of other farmers group. It is also observed that it is the irrigation but not the size of holding has a positive impact on the cropping pattern and cropping intensity.

The use of equipment and machinery is low in carrying out the farm operations particularly in rainfed farming. In such conditions, the use of labour is more. In the study, it is observed that more than 80.00 per cent of small farmers group are working on their farms while it is only 63.00 per cent in the case of other farmers groups. This implies the former is work-conscious in using their manpower in economic activities in order to get livelihood and income generating avenues for themselves. Relatively more employment potential existed in crop production and animal husbandry.

About 50.00 per cent of labourers towards livestock, exchange and hire-out of labour in small farmers group which is far more than they employed on their own farms. Reverse is the case with reference to the other farmers group. It is also noticed that the subsidiary
occupations like dairy, goat/sheep rearing, piggery are more suitable to the families of small farmers group compared to that of other farmers group. Dairy could make farmers to withstand from the constraints of agriculture, provided the conducive climatic conditions exist. About one-fourth of total capital owned by other farmers group is comprised of improved capital in the form of farm mechanization implements including pump sets and tractors while this share is negligible in the case of small farmers group. The cultivation of coconut is also very negligible in the study area.

A perceptible trend is noticed with reference to livestock in the case of small farmers group compared to the other farmers group. The net worth analysis clearly indicates the soundness of farmers, and is no problem in financing them. However, this is subject to the credit-worthiness of farmers which in turn depend upon ethics and human values; such are deteriorating in the society from time to time.

The application of principles of accounting to farm business operations which generally studied in business enterprises discloses more amount spent (Rs.588) on per acre of cropping compared to the other farmers group (Rs.513). This is due to some extent operations being carried out by farm machineries. Towards manures, the amount spent by the farmers is more by four-times to that of fertilizers in the case of small farmers group while it is vice-versa in the case of other farmers group. The land of the other farmers group fetched more
rental value and more price in comparison to that of small farmers land. This is because of their position socially and economically in the society.

The overview of comparative cost in the case of small farmers group is no less to that of other farmers group, the reason being the (less) size of farm. Though the gross income and net income on per acre of cropped land in the case of other farmers group is more but the rate of return is less. To get more income by the other farmers group is due to knowledge and awareness in cropping pattern, crops growing and methods of production raising by means of adopting low cost operations, graded technology and their position in the society.

On the basis of opinion survey, it is noticed that though majority of the sample farmers of small and other farmers groups expressed their opinion about the availability of inputs such as seed, fertilizers, manures and pesticides. However, no concerted efforts have taken by the concern Department of Government when adulterated inputs distributed or made available, and also in distributing in time so as to coincide the farm operations. In improving soil fertility, farmers accepted both fertilizers and manures. However, few farmers which stand numerically less number opined that application of manures improves soil fertility and yields better production. Further use of manures remains fertile even after harvesting. The supply services in many instance are available timely but inadequate. Almost
all farmers with chorus expressed their dissatisfaction about the supply of electricity for short duration only (say 9 hours in a day) with instances of low voltage, and charge of electricity bill.

It is found that the dairy operations are more helpful economically particularly to the weaker section. The scenario of credit to the small farmers in more number of cases is inadequate and as an alternative they resorted to borrow from money lenders, resulting in lower rate or no economic gains. This in turn make them default in repayment of loans but unwilfully. The village trader has been dominating role in purchasing of farm produce. This atmosphere is not favourable to the farmers.

Suggestions

To augment irrigation which is most needed resource for agriculture in the study area or elsewhere in the country, construction of percolation tanks, development of watershed programme, harvesting of rains by making more water to be sunk in the farm field by means of digging pits on the boundaries of farm field should enhance more moisture. Construction of bunds, check dams, terraces may also be taken up for conservation and management of soil moisture. When the moisture is more, the impact of manures and fertilizers in improving soil fertility should also be more.
A concerted effort should be made to bring the fallow land, culturable waste lands and lands under pastures under plough. If this land is not suitable for raising crop production but would certainly help in sheep/goat rearing and other livestock production activity.

Land reforms should be enforced, so that the farm size of small farmers which is unviable and too small to produce output would became viable and a sizeable reasonably which in turn would provide handful economic gains by providing employment opportunities. By bringing cultivable land under plough, land can also be added. If necessary through Legislation, care should be taken to void further division of small holdings.

The supply of inputs should be routed through the recognized dealer with quality as well as quantity prescription. The Government should make that the dealer is accountable to the quality and quantity for a price prescribed. Pesticides should also be routed through this system. The supply of high quality seed is of paramount importance which should be provided through State Seeds Development Corporation (SSDC).

Bullock power had considerable impact on the income of farmers particularly in the case of small farmers. Therefore, the use of bullock power should be stepped up on the farms. This is also important from the point of developing livestock. Under the warranted conditions, the
cattle development at least could provide means of living if the existed climatic conditions are favourable. So, steps for development of animal husbandry and crop husbandry should be taken.

The cropping pattern should be oriented high value crops like pulses and oil seeds for increasing the income and employment for the farmers by substituting the low value cereal crops. As the cropping pattern in the study area is not fully mechanized, so human labour resource has its place. Hence, human labour resource should be developed by means of imparting techniques as well as skills in the preparation of land, sowing seed, growing crops, watering plants and harvesting.

A substantial amount of initiation and implementation has taken in the provision of credit to the farmers. This is inadequate. Efforts should be made by the Government in getting credit from the rural credit institutions. The measures like Agri-card, revolving credit scheme should be provided to the farmers; for which the State Government support should be far more essential.

Diversification and intensification of crop production, its integration with livestock production and dairy will have a potential, and creation of gainful employment so that human resource placed on a fully utilized condition even during the lean period. The surplus manpower, if any, should be siphoned out to the non-agricultural
sector in the agro-based industries locally. Further, encouragement should be given for utilization of bullocks as much possible as in the place of tractorisation so that better use of human and bullock resources on one hand and minimization of oil consumption by not using as much possible as towards tractor power. This can be inscribed thus: use labour (human and bullock) energy and save oil for the prosperity of farm-brethren in particular and economy of India in general.

Coconut which is termed a food crop, a plantation crop, a horticultural crop and an oil seed is assumed a considerable significance in the economy in view of the scope for rural employment and income-generation. Further, the 'mineral water boom' in the country is a clear sign of the scope for tender coconut as a 'natural soft drink'. This crop is more suitable to all farmers particularly to the small and marginal farmers, and can accommodate a variety of crops in the inter-spaces without affecting the main crop. The coconut and its products as well as by-products can find market domestically. Therefore, coconut crop should be grown. For this whatever service and assistance required to the farmers should be provided by the Department of Horticulture.

To sum up, crop and cattle are interrelated which aim at promoting the socio-economic status of farmers. Many farm problems are solved if followed the diversified cropping, inter-cropping and
intra-cropping. Quality seed, adoption of timely farm operations with due and little attention, enhances better farm production and thereon better income. Crop husbandry and animal husbandry are complementary and supplementary. The cardinal relationship between these two would make the effective use of farm resources, and thereon better production and income if one recognizes and operates with knowledge of cultivation.

In the present context, the utmost focus and intervention would need on (a) improving availability of seed, (b) developing and promoting use of hybrids, specially for rainfed cropping, (c) expansion of areas under different crops through diversification of agriculture, (d) improving productivity of crops, existing plantations and livestocks, (e) developing infrastructure for post-harvest management, marketing and agri-business and (f) small farm mechanization. Therefore farm development would depend on the integration of farm resources use optimally.