CHAPTER - V

SUMMARY OF FINDINGS AND SUGGESTIONS
Summary of Findings and Suggestions

Anantapur is a hot arid district and falls in rain shadow zone with an average annual rainfall of 520 mm which is the second lowest in the country after that of Jaisalmer in Rajasthan. As high as 85 percent of cropped area depends on monsoons. But the rainfall is scanty, uncertain and uneven in distribution. Droughts occur frequently and successively. Hence the scope for the development of the district has become gloomy. In order to mitigate the effects of droughts and save the district from desertification several programmes of Central Government, State Government and World Bank were implemented for the holistic development of people and natural resources. So far 438 Watersheds have been completed in different parts of the district. An amount of Rs. 30 lakh has been allocated for the development of each Watershed. So in order to know the usefulness of these programmes the present study has been undertaken.

In Anantapur district the live-stock population showed increasing trend as it rose from 21.54 lacks in 1993 to 37.24 lack in 2003. Of the total live-stock population, in 2003 sheep accounted for 51.81 percent, cattle 18.67 percent, goats 13.51 percent, buffaloes 11.03 percent and other animals for 5.61 percent. It is interesting to note that the poultry population has significantly increased from 942018 to 1853853. These statistics reveal that the growth in cattle population is less compared to that of poultry population. It is due to frequent droughts which resulted in scarcity of fodder for cattle. It also implies that the people are showing interest in maintaining the subsidiary activities like poultry farming.

Watershed development works in Anantapur district were started in 1995 under Drought-prone area programme (DPAP) and Desert Development Programme (DDP). Between 1995-96 and 2004-05 a total of 1204 watersheds were sanctioned under
different programmes. Of them 483 (36.33 percent) watershed projects are completed, 196 (16.28 percent) spill over and the rest 570 (47.34 percent) projects are under process.

Different watershed development works were taken up in Anantapur district. These works include contour trenches, water harvesting structures, Afforestation, Horticulture and other works.

Contour trenches measuring 1565847 cubic meters were built in 61 Mandals of the district. But these contour trenches are not equally distributed among the three revenue divisions of the district. As high as 52.28 percent of contour trenches were built in Penukonda division, 32.62 percent in Anantapur division and the rest 15.10 percent in Dharmavaram division. To construct all these trenches an amount of Rs. 430.83 lakhs was spent. on an average an amount of Rs. 28 was spent for constructing one cubic meter of contour trench. Mandal-wise distribution of trenches reveals that the length of contour Trenches is long in Peddavaduguru Mandal (10331 cmt.) and Gandlapenta Mandal (100098 cmt.). While in Agali Mandal the length of contour trench is only 976 cmt.

Water harvesting structures like ponds and percolation tanks were constructed to harvest rain water. Between 1995 and 2004 a total of 45276 water harvesting structures were constructed in the district. Of them 20461 (45.19 percent) water harvesting structures were constructed in Anantapur revenue division, 9248 (20.42 percent) in Dharmavaram division and 15567 (34.38 percent) in Penukonda division. As high as 72.94 percent of total Water harvesting structures are non-cemented, only 7.07 percent are cemented and 19.98 percent are others. For constructing all these water harvesting structures an amount of Rs. 7759.05 lakhs was spent. The average expenditure for constructing one non-cemented water harvesting structure, cemented water harvesting structure and other water harvesting structures it was estimated at Rs. 9951, RS. 74730 and Rs. 16348 respectively. Mandal wise statistics reveal that large numbers of water
harvesting structures (2365) were constructed in Guntakal mandal while the least number of water harvesting structures (170) were built in Roddam mandal. On the other hand comparatively huge amount (Rs. 219.18 lakhs) was spent in Narpal mandal and a small amount (Rs.38.71 lakhs) was incurred in Vidapanakal mandal for constructing water harvesting structures.

District water Management Agency organised exposer visits for improving the knowledge of the members of watershed committees, self-help groups and user groups. Between 1995 and 2004 a total of 2048 exposer visits were organised benefiting 18947 persons. Mandal wise data reveals that more exposer visits were organised in Kalyandurg mandal (530) and a few were organized in Pamidi mandal.(7).

To prevent soil erosion contour bunds were constructed in an area of 61335.65 hectares covering all 63 mandals of the district. For all these works an amount of Rs. 1296.18 lakhs was spent. On an average Rs. 2113 was spent for completing soil conservation works in one hectare of land. Of the total area covered 47.56 percent is in Penukonda division, 28.01 percent Anantapur division and the last 24.4 percent in Dharmavaram division. Large area was Covered in Gudibanda mandal (1815 ha.) while small area was covered in Beluguppa mandal (29 ha.).

Afforestation works were executed to increase vegetation and to get fuel, timber and other bi-products. Between 1995-2004 an amount of Rs. 1535.65 lakhs was spent for afforestation and covered an area of 11913 hectares of land in Anantapur district. The average expenditure per hectare was estimated at Rs. 12890. But this average expenditure per hectare varied from Rs. 5113 in Chilamattur mandal to Rs. 122797 in Peddvaduguru mandal.

During 1995-2004 an amount of Rs. 746.42 lakhs was spent for the development of horticulture in all Mandals of the district. Consequently an area of 32072 hectares of
land was brought under horticulture. The average area developed under horticulture varied from 126 hectares in Vidapanakal mandal to 1150 hectares in Singanamala mandal. Similarly the average expenditure per hectare ranged from Rs. 1297 in Bommanahal mandal to Rs. 4817 in Gudibanda mandal.

Revenue division wise expenditure on other items reveals that as high as 87.46 percent of the total expenditure was incurred in penukonda division, 7.56 percent in Anantapur division and the rest 4.98 percent in Dharmavaram division. It is also evident that of the total expenditure on other items 54.71 percent was incurred on works, 25.65 percent on administration, 18.21 percent on trainings and the rest on community mobilization and others.

The execution of watershed works brought an additional area of 79699.42 hectares under cultivation. The average area brought under cultivation in each mandal is estimated at 1265 hectares.

The watershed programmes implemented between 1995-2004 benefited as many as 126977 farmers of Anantapur district. Of them small farmers accounted 46.97 percent, marginal farmers 26.15 percent and others 26.86 per cent. Thus it is clear that the small farmers got maximum benefits from watershed programmes.

During the period of construction (1995-2004) the watershed programmes in Anantapur district generated 1,34,11,784 mandays of employment and an additional income of Rs. 23692.21 lakhs. It is estimated that on an average 3674 mandays of employment were generated every day.
Suggestions

The normal annual rainfall of Anantapur district is only 553 mm. Even this rainfall is not certain and uneven in distribution. Hence it is necessary to increase artificial irrigation facilities by diverting water from surplus areas. Efforts are also necessary to augment rainfall through cloud-seeding. The irrigated area must be increased beyond 15 percent of cropped area.

Groundwater is the main source of irrigation in Anantapur district as its share accounted for more than 70 percent of total irrigated area. To exploit groundwater bores are being drilled. But all bores drilled are not successful. Even successful bores dried after some time. As a result some of the farmers committed suicides due to mounting debts. Here a suitable technology is necessary to know the groundwater potential. If groundwater is not available farmers should not be allowed to drill bores. The efforts already made in this direction by government should also be implemented strictly.

The study finds that about 1204 watershed development projects were sanctioned to Anantapur district between 1995-96 and 2004-05 under different programmes. But all this projects were not completed. Only 483 (36.38 percent) projects were completed to mitigate the effects of droughts. So the efforts must be made to complete these projects timely.

It is observed that the area under forests is around 10 percent of the total geographical area of Anantapur district. For the last many years it remained more or less same. Hills denuded of trees. Hence there is dire need to protect the forests and increase the vegetative cover. Otherwise the ecological balance will be disturbed resulting in Problems.

All the selected farmers own 1444 acres of land. This land area was same before and after watershed development programme. Of the total land 94.67 percent was used for growing crops in kharif, 14.89 percent in Rabi and only 4.02 percent in the summer
season before implementation of watershed development programme. After watershed development programme (in 2005-06) the corresponding figures stood at 92.66 percent, 17.31 percent and 3.67 percent respectively. Even after the development of watersheds the farmers continued to grow paddy on large areas especially in rabi seasons. Hence there is need for changing cropping pattern from wet crops to irrigable dry crops so that the scarce resource (water) can be utilized effectively. As a result the cropped area can also be increased.

According to the study the activities like dairying, sheep rearing and small business are found more helpful to the respondents. So it is better to suggest the farmers to take up the subsidiary activities like dairying, sheep/goat rearing, petty business etc. in addition to the traditional occupation. These activities certainly supplement the income of the respondents.

As high as 80 percent of the selected farmers are following the traditional methods of irrigation. Hence the farmers must be enlightened and encouraged to practice the modern techniques of irrigation. At the same time modern equipment must be supplied at subsidized Prices.

Percolation tanks, check dams, farm ponds etc. were constructed to harvest water. Similarly contour bunds were formed to prevent soil erosion. But some of the percolation tanks and check dams breached and they need repairs. The selected farmers also opine that these structures are useful. Hence they must be repaired immediately. It is observed that there is a problem of managing the assets created through watershed development programme.

Quality seeds must be supplied timely and at reasonable prices. As expressed by the respondents/farmers electric power with suitable voltage is not supplied
continuously. It is, therefore, suggested that electric power must be supplied without breaks and with suitable voltage. Adequate and proper marketing facilities are also necessary for agricultural products. Otherwise the farmers will not get remunerative prices for their products. The problem of middlemen who exploit farmers, must be solved. Adequate institutional credit for different activities must be provided. The government schemes which provide employment for rural people must be continued. Watershed development works must be completed effectively. The selected farmers opine that the watersheds developed are useful only when there is good rainfall.