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Assessment of Agriculture Development in Kurnool District (A.P)

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Abstract:

Agriculture plays a vital role in the Indian economy. Over 70 per cent of the rural households depend on agriculture. Agriculture is an important sector of the Indian economy as it contributes about 17% to the total GDP and provides employment to over 60% of the population. Indian agriculture has registered impressive growth over last few decades. The food grain production has increased from 51 million tonnes (MT) in 1950-51 to 250MT during 2011 - 12 the highest ever since independence. Kurnool is primarily an agriculture district of Andhra Pradesh state. More or less 60 percent of the population of the district depends on agriculture for their livelihood. The contribution of agriculture in Kurnool district to state GDP was 3.55 percent in 2004-05. But it was 3.75percent in 2010-11. An interesting feature of agriculture in this district is that people of all castes and classes are represented in it. There are three well defined seasons of cultivation the first called "kharif" from June – July to September – October, second called "Rabi" lasting from October – November to January – February and third called "Javed" from January – February to April – May.

Keywords: Agriculture, Employment, Cultivation, Indian economy, Population.

1. Introduction

Agriculture is a very important role in the development of Kurnool district. The Kurnool district has an area of 17, 65,800 hectares. Abundant vegetation, extensive forests, numerous groves of food crops along with rice fields provides a refreshing greenness to prospect. It is a most densely inhabited tract. The districts divided into three revenue divisions, Kurnool, Adhoni and Nandyal. The Kurnool district is primarily an agricultural district of Andhra Pradesh State. More or less 60 percent of the population of the district depends on agriculture for their livelihood. An interesting feature of agriculture in this district is that people of all classes are represented in it. There are two well defined seasons of cultivation the first called kharif from June – July to September – October, second called "Rabi" lasting from October – November to January – February. Crops during the first seasons are raised under rain fed conditions while during the subsequent two seasons, they are raised under irrigation.

Paddy is the chief crop occupying the major portion of cultivated area. Rice jowar, maize red gram, groundnut, sunflower, onions, are the main important crops in Kurnool districts. Mangos, banana, Sapota, orange, and vegetables are commonly cultivated by many farmers. Horticulture crops act as an economic balancing factor for many farmers in the district. The area under horticulture crops has been gradually increasing in the district. Agriculture sector in Kurnool district has witnessed several changes. So it is essential to understand the trends in agriculture sectors of Kurnool district occurred in the last few years.

2. Objectives

- To assess the major trends of agriculture sector in Kurnool District.
- To examine the crop diversification in kurnoolo district.

3. Methodology

The present study is based on secondary data collected from District Statistical office in Kurnool district. Simple tables are used to analyze the data.

4. Changing Land Use Pattern

The basic factor in agriculture is land. Knowledge about the land use pattern is vital to understand whether the utilization of land is at full potential or far from its full potential.

Sl. No	Category	2008-09	2009-10	2010-11	2011-12
1	Total geographical area	1765800	1765800	1765800	1765800
2	Forest	340669	340669	340669	340669
3	Barren & uncultivable land	127315	127313	127313	127313
4	Cultivable waste land	48292	48074	47884	47452
5	Permanent pastures	3576	3576	3546	3546
6	Trees & grows	1741	1741	1741	1741
7	Fallow land	140528	156859	143690	143280
8	Area sown	889122	869823	889427	889427
9	More than once area sown	104564	136143	131583	134473
10	total cropped Area	993686	1005966	1021010	1022010

Table 1: Land Use pattern in Kurnool district.(in hectares)

Source: Andhra Pradesh Statistical abstract, 2013.

Table – 1 shows the change in land use pattern in Kurnool district. The total geographical area of Kurnool is 17, 65,800 hectares. There has been an increase in land not available for cultivation. Land not available for cultivation includes land used for non agricultural purpose and barren land in the district. The forest land was the 340669 hectors in 2008-09 to 2011-12. Area under barren land was 127315 hectares in 2008-09 it declined to 127313 hectares in 2011-12. Other uncultivated land includes cultivable waste land, permanent pastures, trees and groves. The area under the cultivable waste land was 48292hectares in 2008-09. Its fallen to 47452 hectares in 2011-12 hectares. The area occupied by trees and groves in the district by trees and groves in the district was 1741 in 2008-09to 2011-12it is a no change. Area categorized under fallow land has also been showing increasing 140528 to143280 hectares. The net sown area has risen by 889122 to 889427 in 2008-09 to 2011-12. The More than once area sown are increased 104564 to134473 in 2008-09to 2011-12. And the total cropped area was risen by 993686 to 1022010 hectares in 2008-09 to 2011-12. It can be inferred that the utilization of land for agriculture has been gradually declining in the district.

5. Rainfall

Year	Normal	Actual	% of Deviation
2008-09	670.5	582.4	-88.1
2009-10	670.5	755.1	+84.6
2010-11	670.5	809.8	139.3
2011-12	670.5	515.6-	154.9
2012-13	670.5	616.3	-54.2

Table 2: Normal and Actual Rainfall in the Kurnool District.

Source: Andhra Pradesh Statistical abstract, 2013.

Table-2 shows that the Kurnool district normal and actual rainfall for the years2008-09 to 2012-13 along with percentage of deviation. In the Kurnool district normal rain was 670.5 in all the years. The actual rainfall was 582.4 MM in 2008-09 and 2012-13 rainfall was increased to 616.3 but the actual rainfall there is no reached normal rainfall in all the years.

6. Irrigation

Water is another basic factor in agriculture next only to land.

	Sources of irrigation	2008-09	2009-10	2010-11	2011-12
1	Canals	112170	118552	121693	125564
2	Tanks	11920	14465	15000	16292
3	Tub Wells	81593	89259	99153	1120452
4	Dug wells	35248	31194	35792	35792
5	Lift Irrigation	11486	16968	14845	14420
6	Other sources	932	1196	2156	3245
	Net irrigated area	207788	209022	230900	250232

Table 3: Sources of irrigation and net irrigated area in Kurnool district.(in hectares)

Source: Andhra Pradesh Statistical abstract,2013.

Table – 3 presents the details of information on various sources of irrigation and net irrigated area in Kurnool district. Net irrigated area 207788 hectares in 2008-09 and it was increased to 250232 hectares in 2011-12. Lift irrigation. Tank irrigation, wells, Bore wells are the major sources of irrigation in the district. Area under net irrigation in all sources has shown an increasing trend. Farmers in Kurnool district is depending more on wells and Bore wells as source of irrigation. Tank irrigation gradually lost their role in agriculture.

7. Changing Agriculture Structure

Changing structure of agriculture of the district can be evaluated in terms of agricultural labour.

Year	Number of Agriculture Labour	Number of Cultivators	Total Agriculture workforce
2001	802585	386949	1189534
2011	869074	293947	1163021

Table 4: Terms of agricultural labour in Kurnool district

Source: Andhra Pradesh Statistical abstract, 2013.

Table -4 shows that the agriculture workforce is 1189534 registered as agricultural labourers are 802585 and 386949 are registered as cultivator in 2001. In 2011 agricultural total workforce are 1163021 registered, the agriculture labours are 869074, and cultivators are 293947.

8. Crop Diversification

Crop sector has shown a steady diversification in Kurnool district with the replacement of food grain crops with non-food grain crops. Several non food grain crops such as rice, Jower, maize, redgram, bengalgram, groundnut, sunflower, onions and other crops vegetables, etc. have substituted food crops to get a higher income. Meanwhile, area of the food grain crop is also declining. Several forces like urban migration of agricultural labour and urbanization have influenced the nature and pace of agricultural diversification from food crops to commercial.

Year	Rice	Jowar	Maize	Redgram	Bengalgram	Groundnut	Sunflower	Onions
2008-09	111449	66260	21318	30421	224086	246143	144534	18223
2009-10	126680	71706	15015	33960	239387	191356	140629	153221
2010-11	137077	55656	20139	70173	217475	178892	78213	19314
2011-12	157054	65752	29310	96451	223561	152016	90354	20648

Table 5: Area under principal crops of Kurnool (Area in hectares)

Source: Andhra Pradesh Statistical abstract, 2013.

Table – 5 reveals that the area under food crops has been gradually declining in this district. Area under paddy cultivation in 2008-09 was 111449 hectares to increasing 157054 hectares in 2011-12. Area under Jower cultivation in 66260 hectares 2008-09 and declining the 65752 hectares in 2011-12. The total Maize cultivation was 21318 hectares in 2008-09 and it is increasing 29310 hectares in 2011-12. Redgram cultivation was under the area tremendous increasing are the 30421 hectares in 2008-09 and 96451 hectares in the year of 2011-12. Area under Bengal gram cultivation in 224086 hectares 2008-09 and declining the 223561 hectares in 2011-12. Groundnut cultivation was under the area was the 246143 hectares in 2008-09 and decreasing 152016 hectares in the year of 2011-12. It shows the way of commercialization of agriculture in the district by substituting low value food crops for high value cash crops. Sunflower cultivation was under the area was the 144534 hectares in 2008-09 and it has come down 90354 hectares in the year of 2011-12. And onions under area was the 18223 hectares in 2008-09 but year of 2011-12 was the 20648 hectares of cultivated area.

9. Findings

1. The actual rainfall was 582.4 MM in 2008-09, in 2012-13 rainfall was increased to 616.3 but the actual rainfall there is no reached normal rainfall in all the years.
2. Kurnool district farmers are mostly depending on rainfall and wells & Bore wells as source of irrigation.
3. Kurnool district in the year 2011 agricultural total workforce are 1163021 registered, the agriculture labours are 869074, and cultivators are 293947.
4. The area under high value crop rice also shows an increasing trend during the period, although it's the total cropped area is negligible.
5. Paddy cultivation was the declining trend low profitability, shortage of manpower, use of land for non-agricultural purpose and migration of youths to urban centers.
6. Number of opportunities other than agriculture have increased over the period of time in Kurnool district.
7. Farmers are not ready to cultivate their land, moreover employment opportunities have increased in the industrial sector.
8. Young generation easily finds employment in sectors other than agriculture.
9. Rice cultivation in 2008-09 was 111449 hectares to increasing 157054 hectares in 2011-12.
10. Redgram cultivation was under the area tremendous increasing are the 30421 hectares in 2008-09 and 96451 hectares in the year of 2011-12.
11. Groundnut and onions are an important cash crop growing in the district. Kurnool and Adhoni revenue divisions are the leading in the production.
12. In Kurnool district the land allocation between different crops shows that the area under cash crops has been increasing at the expenses of food crops.

10. Suggestions

1. The most important problem for farmers is output price fluctuations. There is a big gap between producer prices and consumer prices.
2. Diversification of land into non-agricultural purposes and non-food crops may also threaten food security. However, if yields are increased on land growing food grains and food crops, some land can be safely diverted into non-food crops.
3. New and innovative solutions for water management and improving soil fertility.
4. Government Focus on areas likely to be affected by climate change.
5. Real Wages are indicating the purchasing power is agricultural wages. A healthy growth in real agricultural wages appears to be a sufficient condition for significant reduction in poverty in rural are
6. Local knowledge and local seeds can be used for biodiversity. Organic farming can also be encouraged to protect the environment and generate higher incomes for small farmers.
7. Group approach to realize economies of scale in buying inputs and marketing outputs. One important problem in India is marketing of agricultural production..
8. Using information technology for agricultural production and marketing.

11. Conclusion

In conclusion, the major changes in the agrarian structure of Kurnool district can be highlighted. They are decreasing number of agricultural labourers and cultivator, declining number of landholdings, area under food crop shifted to non-food crops, utilization of land for agriculture shows declining trend. It has occurred at the expense of area under food crops cultivation. This clearly indicates diversification of agriculture towards cash crops in the district. However, more concentration of cash crops in few mandals of the district creates high instability in the agrarian economy. With the above changes, agriculture is facing some constraints. Diverting paddy fields for construction purposes is a widely seen unfavorable practice. It will affect people who engaged in agriculture in the rural areas of the district. Thus, government should not permit diversion of fertile agricultural land to industrial and construction purpose.

12. References

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