

**IMPACT OF DROUGHT ON SOCIO ECONOMIC CONDITIONS OF FARMERS IN ANANTAPURAM
DISTRICT OF ANDHR PRADEH- *An analysis***

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Abstract

India is an agricultural country. Andhra Pradesh is one of the states of the Indian union, which has an agriculture based economy. It contributes to 19% of the state's economy and provides employment resources to 65% of the state's population. The state's economy is agrarian in character and agriculture is the primary occupation and the main source of earning bread. Anantapuram is one of the states of Andhra Pradesh which suffers incessantly from drought and famines. As such the yield is low and people suffer from acute poverty and unemployment. This in turns paves the way for low socio economic status of the farmers. An estimated number of 40 lakh farmers suffer from financial crises prompted by drought and famines. The present study is directed to towards an assessment of the socio economic status of the farmers in the district of Anantapuram, of the state of Andhra Pradesh.

Key words: Drought, Farmers, Agriculture, Poverty, Unemployment, Socio-economic Status, Livestock Assets, Durable goods, MGNREGS, SHGs

Introduction

Drought is a normal, recurrent feature of climate and occurs in all climatic regimes and is usually characterized in terms of its special extension, intensity and duration. Conditions of drought appear when the rainfall is deficient in relation to the statistical multi-year average for a region, over an extended period of a season or year, or even more. Drought is a temporary aberration unlike aridity, which is a permanent feature of climate. Drought produces wide-ranging impacts that span across many sectors of the economy and are felt far beyond the area experiencing physical drought.

At the time of the First World War, agriculture contributed to two thirds of the nation's income. This was on account of practice, non- existence of industrial development and adequate infrastructure. However, after the ignitions of planning in India, the share of agriculture has persistently declined on account of the development of secondary and tertiary sectors of the country's economy. From 53.1 percent in 1950-51, the share of agriculture and allied activities in GDP at factor cost declined to 29.6 percent in 1990-91 and further to 13.9 percent in 2013-14 (at 2004-2005 prices). According to the new series (base year 2011-12) the share of agriculture and allied activities in GVA (Gross value added) at basic prices was 16.5 percent in 2014-15 and 15.4 percent in 2015-16.

The state of agriculture in national income is often taken as an indicator of economic development. Normally developed economies are less dependent on agriculture as compared to the underdeveloped countries. For example, only 2 percent of GDP is derived from agriculture in the USA and UK. Thus, it seems as the country progresses the expenditure on agriculture declines. The district of Anantapuram stands rather in peculiar situation in the state of Andhra Pradesh. The district accounts for the lowest rainfall of 550 mm, next only to Jaisalmar in Rajasthan. The name of the district has become a byword for droughts and famines. In the recent times drought occurred 12 times in a span of 15 years creating acute scarcity for food, fodder and fuel to more than 40 lakh population in the district of Anantapuramu.

As against this back drop, an attempt has been made in this article to draw a combative picture with regard to socio-economic status of farmer households both during the pre-drought and the drought periods in the district.

Objectives of the present study

1. To know the socio economic status of farmers in drought prone areas of Anantapuram district; and
2. To highlight the difference in socio economic status of farmers households both during the pre-drought and drought period in the district

Data and methodology

The present study is mainly based on primary source of data. Multistage sampling method

has been adopted for data collection. Literally Anantapuram district is divided into five revenue divisions namely Anantapuram, Dharmavaram, Penukonda, Kalyandurgam and Kadiri. From each revenue division one mandal is selected, from each mandal two villages have been selected for the study. The required information is collected through pre-tested interview schedule. Totally 200 samples have been selected, these samples are classified into OC, BC, SC and ST. The collected data has been tabulated in a convenient way and it is expressed in tables.

Tools used for the study

Simple quantitative techniques like percentage and averages have been used for the present study

Data analysis and Discussion

Table-1

community wise distribution of sampled farmers

s.no	Community	No. of respondents	percentages
1	OC	50	25
2	BC	50	25
3	SC	50	25
4	ST	50	25
	Total	200	100

Source: Field Survey Data

Table-1 shows community wise distribution of sampled farmers. 25 percent of respondents is selected from open category and the same 25 percent of sample size is selected from each community: BC, SC and ST. Thus, in all, 200 samples have been drawn for the study.

Table-2

Details of Land particulars of sampled farmers (in hectares)

s.no	Land particulars	No. of respondents	percentages
1	land less	15	8
2	up to 2.5	60	30
3	2.5 to 5.0	55	28
4	5 to 7.5	50	25
5	7.5 & above	20	10
	Total	200	100

Source: Field Survey Data

Table-2 shows the details of land particulars among sampled farmers. 8 percent of respondents are land less farmers. 30 percent of sampled farmers have less than 2.5 hectares. 28% of respondents have 2.5 to 5.0 hectares. The 25% of respondents fall under the category of 5 to 7.5 hectors and the reaming 10% have 7.5& above hectares of land respectively.

Table-3

Livestock assets of the sample household farmers

s.no	Livestock Assents	Pre-Drought			During drought		
		yes	No	Total	yes	No	Total
1	Having Milch Animals	140	60	200	86	114	200
		70.0	30.0	100	43.0	57.0	100
2	Having sheep & goat	95	105	200	72	128	200
		47.5	52.5	100	36.0	64.0	100
3	Bullocks	160	40	200	55	145	200
		80.0	20.0	100	27.5	72.5	100
4	Piggery	50	150	200	12	188	200
		25.0	75.0	100	6.0	94.0	100
5	Poultry	174	26	200	110	90	200
		87.0	13.0	100	55.0	45.0	100

Source: Field Survey Data

Note: Pre-Drought period; 2007-09 & During Drought period; 2009-2016

Table-3 shows livestock assets held by famers in their houses in Anantapuram district. 70% of respondents expressed their opinion that they had milch animals in their houses in pre-drought period and the milch animals declined to 43% during drought period. Nearly 43% of farmers had sheep& goat farms in their houses in pre drought where as it has declined to 36% during the drought. Coming to bullocks in their homes nearly 80%famers reported that they had bullocks in pre-drought period and the percentage has declined to 28% during drought period. Further it is noted that due to afraid of feeding farmers sold their bullocks in during the drought period. Nearly 25% of farmers reported that they had piggery farms in their houses in pre-drought period and it has declined to 6% during drought period. It has been observed that SC and ST agricultural families are maintaining piggery farms in their houses to enhance their revenue resources. In pre-drought period nearly 87% of the respondent families had poultry birds in their houses. During drought period it has declined to 55 percent.

It is noted that agriculture is the main occupation and it is income generating activity in Anantapuram district. Due to drought conditions casting for a longer time period, the livestock assets have been declining in Anantapuram district. Finally, it also noted that even though agriculture is the main occupation to farmer respondents in the district, they also maintain the livestock assets to supplement their income.

Table-4

Agricultural assets held by farmers in drought prone areas of Anantapuram district

s.no	Agricultural Assents	Pre-Drought			During drought		
		yes	No	Total	yes	No	Total
1	Having Agricultural land	190	10	200	175	25	200
		95.0	5.0	100	87.5	12.5	100
2	Bullock Cart	120	80	200	50	150	200
		60.0	40.0	100	25.0	75.0	100
3	Tractor	10	190	200	16	184	200
		5.0	95.0	100	8.0	92.0	100
4	Wells and Bore wells	55	145	200	35	165	200
		27.5	72.5	100	17.5	82.5	100
5	Electric motor/ oil engine	48	152	200	26	174	200
		24.0	76.0	100	13.0	87.0	100

Source: Field Survey Data

Table-4 shows agricultural assets held by farmer in drought prone areas of Anantapuram district. Nearly 95% of respondents have Agricultural land and remaining 5% of respondents don't have their own land and have remained seriously as tenants. Nearly 60% of farmer respondents had bullock carts in pre-drought where as it declined to 25% during drought. It is noted that at present 75% of respondents do not possess bullock carts. Nearly 5% of the respondents had tractors in their houses in pre-drought period and it is increased to 8% in during drought as cattle maintenance became a costly affair. It is significant to note that farmers are using new technology in agriculture and it is directed towards mechanisation and this likely to increase expenditure in agriculture. During drought animal energy was supplied by mechanical energy.

Nearly 28% of the respondents had wells including bore wells in pre-drought period and it fell to 18% during drought period. Due to lack of sufficient rain fall some wells dried up. It is also noted that agriculture is being carried out only under rain fed condition in Anantapuram district.. 24% of respondents have electric or oil motors during pre- drought and in during drought due to lack of water in wells, it was only 13% of the sample farm households could maintain electrical /oil motors. Finally it is noted that all agricultural assets declined in during drought period. Thus, the drought significantly impacted the socio-economic status of the sampled households in the district.

Table-5

Economic status of Agricultural farmer in drought prone area of Anantapuram district

s.no	Farmers Economic status	Pre-Drought			During drought		
		yes	No	Total	yes	No	Total
1	Income generating activities	185	15	200	90	110	200
		92.5	7.5	100	45.0	55.0	100
2	Employment through MGNREGS	75	125	200	110	90	200
		37.5	62.5	100	55.0	45.0	100
3	Loans from banks & other sources	62	158	220	185	15	200
		31.0	79.0	110	92.5	7.5	100
4	Repayment of loans	85	115	200	20	180	200
		42.5	57.5	100	10.0	90.0	100
5	Savings in banks & post offices	98	102	200	45	155	200
		49.0	51.0	100	22.5	77.5	100
6	Saving in SHGs	90	110	200	173	27	200
		45.0	55.0	100	86.5	13.5	100
7	Home development	80	120	200	56	144	200
		40.0	60.0	100	28.0	72.0	100

Source: Field Survey Data

Table-5 shows that Economic status of farm households in pre-drought and during drought periods in Anantapuram district. Nearly 92% of respondent's opinion is that they had income generating activities in pre-drought period and the during drought income generating activities have been decline to 45% the district. It is noted that agriculture is the main occupation and income generating activity in Anantapuram district. In the district Agriculture sector provides more employment opportunities to the sampled households. But due to a series of drought conditions for a longer period of time, employment opportunities and their income generating activates have declined. The MGNREGS programme alone has been providing some employment opportunities in the district.

Nearly 80% of respondents reported that they did not have any loans from banks and other sources of finance in pre- drought and it is noted that 93% of the farmers they have loans from banks and other sources of finance in during drought. It is significant to note that during drought farmers have utilised the finances from bank loan and other sources. It is reported that 42% of sampled households have used finances for repayment of loans during pre-drought period while only 10% of them did so during drought. And the remaining 90% of farmers did not repay the remaining loans because of lack of income generating activities during drought.

Around 49% of farmers reported that they had saving habits and saved money in banks

and post offices in pre-drought period. During drought around 78% of farmers did not have any savings. Nearly 45% farmers reported they were given to saving in SHGs and it had raise to 86% during drought. Nearly 40% of respondents reported that they have used finance for home development during pre-drought period and during drought 72% of respondents did not engage themselves in any development activity. So it may be inferred that their earnings were not sufficient enough to meet their minimum needs.

Table:6

Durable goods held by sampled farmers in Anantapuram district

s.no	Durables goods held	Pre-Drought			During drought		
		yes	No	Total	Yes	No	Total
1	Television	160	40	200	180	20	200
		80.0	20.0	100	90	10	100
2	Cell phone	56	144	200	178	22	200
		28.0	72.0	100	89.0	11.0	100
3	Motor cycle	50	150	200	48	162	210
		25.0	75.0	100	24.0	81.0	105
4	Bicycle	75	125	200	78	122	200
		37.5	62.5	100	39.0	61.0	100
5	Refrigerators	17	183	200	35	165	200
		8.5	91.5	100	17.5	82.5	100
6	washing machines	5	195	200	8	192	200
		2.5	97.5	100	4.0	96.0	100
7	Sewing machines	23	167	200	40	160	200
		11.5	83.5	100	20	80	100

Source: Field Survey Data

Table-6 shows that more than 80% of the respondents reported that they possessed televisions in their houses in pre-drought period. During the drought period 90% of respondents said that they have television sets in their houses. Nearly 28% of respondents have cell phones in pre-drought period and it is significant that 89% of respondents have mobile phones. It is very significant to note that the mobile is a comfortable goods and it has become a goods that facilitates connectivity of the households. 25% of farmers had motor cycles during pre-drought period and the same has declined to 19% during drought period. The decline is because of increase in petrol prices maintenance expenditure incurred on vehicles and fuel expenses

Nearly 37.5% of respondent families have bicycles in pre-drought period and during drought it has raised to around 39% and the change is because of substitution to motor cycles during drought. Nearly, 92% of the respondents reported that they did not have

refrigerators in their homes in pre-drought period and it fell to 83% during drought. Nearly 98% of respondents did not have washing machines in pre-drought period and during drought it declined to 96%. Nearly 12% of respondents reported that they had sewing machines in their houses during pre-drought period and during drought 20% of respondents reported to have possessed sewing machines to generate household income during drought period

It is very significant to note that in spite of drought, the demand for consumer durable goods is not the declining note. It is largely because of irresistible urge to possess and use such goods as televisions, cell phones, motor cycles, bicycles, refrigerators, washing machine and sewing machines which is also due to demonstration effect.

Conclusion

Drought, thus, has seriously exerted its impact on the farm households in the study area- Anantapuram district, which is chronologically drought-prone one. Drought created several problems, such as, scarcity for food, fodder and fuel besides creating conditions for shortage of water for drinking and irrigation, the live-stock has been put to a lot of stress. Bleak employment opportunities have brought about joint income generation activities for the farm households and force them to migrate to areas of employability in search of gainful employment and disbursement of cattle in large scale took place in the district. Based on our observation it may be stated that drought seriously affected on the socio-economic conditions of the entire population of the district.

Suggestions

1. Sufficient employment opportunities may be created to check large scale rural exodus;
2. 200 days employment opportunities may be provided under Mahatma Gandhi national rural employment guarantee scheme(MGNREGS) in the district;
3. Irrigation facilities to be provided through inter linking of rivers in the state. All tanks in the district may be converted into catchment area of rainwater during the rainy season.
4. Special grants may be provided to create drought proof measures in the district
5. Drip and sprinklers system may be provided free of cost to all eligible farmers in the district as it would help grow horticultural and vegetable crops ,which ensure quick returns
6. Periodic training and skill development camps may be arranged to train the farmers in drought management techniques.

References:

1. V.K.Puri and S.K.Misra (2014) Indian economy, Himalaya publishing house ,page no.215-217
2. K.papannanavar (2016), socio-economic status of agricultural women in drought hit area of Karnataka, southern economist vol:, jan,2016
3. Sharma, H.R and Sharma, R.K, "Farms size Productivity Relationship: Empirical Evidence from an Agriculturally Developed Region of Himachal Pradesh", Indian Journal of Agricultural Economics, vol.55, No.4, October-December **2000**, pp.605-615
4. Devendra Thakur and D.N. Thakur-"Tribal agriculture and animal husbandry", Deep and deep Publication, **1994**, New Delhi
5. Ayanwale, A.B and A.S. Bamire (**2000**), "Rural income, savings and investment behavior among farmers in Osum State in Nigeria", Indian Journal of Economic, Vol. 81 (320): 49.