UNDERSTANDING THE DYNAMICS OF AGRARIAN ECONOMY: INSIGHTS OF THE FARMERS IN KARIMNAGAR DISTRICT OF TELANGANA

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ABSTRACT

Agrarian transformations within and across countries have been significantly and dynamically altered during the past few decades compared to previous eras, provoking a variety of reactions from rural poor communities. The changed and changing agrarian situations have also influenced recent rethinking in critical inquiry into the nature, scope, pace and direction of agrarian transformations and development. This can be seen in terms of theorizing, linking with development policy and politics, and thinking about methodologies. Understanding insights of the agrarian economy assumes significant importance in this regard. This paper studies the dynamics of agriculture in Telangana, especially from the point of view of agricultural growth and various government schemes like Rythubandhu. There has been growth in agriculture in Telangana, during the past decade. Farmer's perception is that the region suffers from low MSP, non-availability of government schemes on time are still possibly valid. Most of this growth however has come from expansion of well irrigation, which has adverse implications for groundwater levels and is also contributing to the current condition of small and marginal peasants.

KEYWORDS: Agrarian transformation, Loan waiver, Crop wise source of irrigation, Subsidy on quality seed, Cropping pattern, changes in crop yield & Crop insurance

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INTRODUCTION

Agrarian transformations within and across countries have been significantly and dynamically altered during the past few decades compared to previous eras, provoking a variety of reactions from rural poor communities worldwide (Saturnino M. 2009). Even though fewer people are currently living and working in the rural world compared to four decades ago, it still matters a great deal for everyone what happens there. The dynamics of social change in developing countries during the past four decades have some distinct features from those that marked the first three quarters of the twentieth century. A brief overview of changes in the global economy and politics in general, and in the agrarian world in particular, during the past four decades partly illustrates this (Henry Bernstein 2008). Inclusive agricultural development is important for a country like India where majority of the farm households are small and marginal. The economy has undergone structural transformation since 1990's from an agriculture-based to a knowledge-based, services and industrial economy. Still, the agriculture sector is the mainstay, as about half of India's population is wholly or significantly dependent on agriculture and allied activities for their livelihood (GoI, 2011). The agriculture sector in India has undergone significant structural changes in the form of decrease in share of GDP from 51.90% in 1950- 51 to 17.00% in 2014-15 indicating a shift from the

traditional agrarian economy towards a service dominated one (Figure 1). This decrease in agriculture's contribution to GDP has not been accompanied by a matching reduction in the share of agriculture in employment (**Rahul and Dr. Anil P 2016**). The agrarian sector has been plagued by issues like decline in productivity of crops, increase in cost of production and farmers not getting right price for their products. While the farmers' problems could be addressed through political will, proactive bureaucracy and people's action, no amount of scientific inputs, administrative preparedness and infrastructural support could address climate change related problems totally, except mitigating them to some extent. The State of Telangana was formed on 2nd June, 2014 as 29th State of the Indian Union by carving out ten districts from the erstwhile State of Andhra Pradesh. Agriculture in Telangana has attracted considerable attention during the last decade, mostly because of the suicides of the farmers. Farmers' suicides have become an important socio-economic concern in India that has profound implication on the quality of life of farmers and their families. Growth in different sources of irrigation in the State of Telangana in three different time periods i.e., 1971-85, 1985 -2001 and 2001 to 2013 reflects the fact that an increase in irrigation growth was observed during the last period i.e., 2001 to 2013 compared to the previous time periods and institutional lending for digging the wells/borewells and pumpsets has come down during the last five years. Since the last five years, drastic decline in agricultural lending was observed during 2014-15 compared to the previous year i.e., 2013-14, with the expectation of announcement of debt waiver scheme (**NIRD Research report series-106**). There has been lot of stories making grounds on farmers conditions and policies being implemented to enhance farmer income. Indeed, there is no clear evidence on the above said issues. Government says that lot has been done to improve farmer condition whereas farmers are not that satisfied with the present situations. In this context, it is necessary to understand the actual farming conditions to know whether it is true or mere exaggeration. In this view, the present study on understanding the dynamics of Agrarian Economy: Insights from the selected villages in Telangana has been carried out in erstwhile Karimnagar district of Telangana state.

Methodology

A detailed survey on understanding the dynamics of Agrarian Economy has been carried out in erstwhile Karimnagar district of Telangana state. Considering diversity in agriculture across the district, five mandals were selected. From all mandals, total ten villages were randomly selected for the present study. Then in each village, a focused group discussion was conducted with 10-15 key informants which include marginal, small, medium, large and progressive farmers to obtain data related to present study. The present study was done based on most relevant parameters to Agrarian economy that includes socio economic characteristics, basic feature of the farmers, changes in cropping pattern, various government schemes, irrigation, adoption of HYVS, improvement in yield and Farmers' perception of farming over the past 10 years.

RESULTS AND DISCUSSIONS

Table 1: Basic Demographic Profile of the sample villages of Karimnagr District (2009 and 2019)

Sl. No.	Feature	2009	2019	% change
1.	Population	3356	3655	8.90
	Male	1725	1833	6.26
	Female	1631	1822	11.71
2.	Total Households	856	990	15.65
	% farmer HHs	79.84	79.46	-0.38
	% female headed farm HHs	2.02	2.38	0.36
3.	Actual cultivators	744	846	13.70

	% talent farmers	4.08	4.55	0.47
4.	Average age of farmers	47	38	-19.14(9 yrs)
5.	Agriculture labourers	168	217	29.16
6.	Self-hold Groups (Nos.)	15	39	160.00

As can be observed, the female population growth has been higher with 11.71 percent than male population which is 6.26 percent in the last ten years. Total households has also increased from 856 to 990 on an average (15.65 %). Among the total households, farmer households has declined at -0.38 percent. Whereas female headed households has shown growth of 0.36 percent. Considerable decline has been observed in an average age of the farmer (9 years difference) because most of the villages surveyed are seed producing villages. Agricultural labor has grown at 29.16 percent. SHGs have increased at 160 per cent on an average.

Table 2: Distribution of farmers by size of land holding in the sample villages of Karimnagar district (2009 and 2019)

Sl. No.	Type of Farmers	2009	2019	% change
1.	Marginal	368	419	13.85
2.	Small	180	219	21.66
3.	Medium	115	119	3.47
4.	Large	15	14	-6.66

In all size of land holdings, increasing pattern has been observed except in large farmers (-6.66 %). From among marginal, small and medium farmers, higher growth is observed in small farmers (21.66%) followed by marginal farmers (13.85 %). The reason behind is fragmentation of land to the successive generations.

Table 3: Basic feature of the farmers in sample villages of Karimnagar District (2009 and 2019)

Sl. No.	% of Farmers	2009	2019	% change
1.	Owning mobile phone	13.50	92	78.5
2.	Owning Two wheeler vehicles	15.50	77	61.50
3.	% Agriculture Labour owning Two wheelers	8.85	42.50	33.65
4.	% Farmers insured their crops	0	87.90	87.90
5.	% Farmers received claim in the event of crop-damages	0	19.66	19.66
6.	% Farmers received loans from institutional sources	68.99	73.91	4.92
7.	Farmers received quality seeds of crops	8.50	32.25	23.75
8.	Improved farm machinery owned by farmers	7	29	314.28
9.	Number of cattle	915	235	-74.31
10.	Number of Milch-cows	148	479	223.64
11.	Number of Milch-buffaloes	721	625	-13.31
12.	Goat & Sheep	1240	1350	8.87

Farmers owning mobile phones and Two wheelers has shown considerable increase (78.5 and 61.5 % respectively). Though the percentage of the farmers insured their crops increased by 87.9 percent, the claim received was only 19.66 percent. It is due to that mandal is considered as a unit to calculate loss rather than the village. Credit accessibility through institutional source has shown a slight increase of 7.92 per cent. Only 23.75 percent increase is witnessed as far as farmers receiving quality seeds are concerned. Machinery owned by the farmers has shown an increase of 314.28 percent on an average. Number of cattle's were reduced drastically (-74.31 %) whereas milch-cows has shown considerable increase (223.64 %) in the last ten years. This is due to the reason that Mulkanoor Cooperative Society has given two cows to the each household.

Table 4: Farmers received Financial Support under Farmer Investment support (Rythu Bandhu)

scheme (RBS) in the sample villages of Karimnagar district (2018-19 NS 2019-20)

S.No.	Season	% of total Farmers
1.	2018-19 - Kharif	93.00
2.	2018-19 - Rabi	85.80
3.	2019-20 - Kharif	58.00

Results of farmers received financial support under Rythu Bandhu scheme (RBS) in the sample villages of Karimnagar district is given in Table 4. During 2018-19 kharif, 93 per cent of total farmers received benefits of the RBS scheme. Thereafter in Rabi, 85.8 per cent farmers received financial support. In 2019-20 kharif season, only 58 per cent farmers received benefits. During the previous seasons, few farmers did not receive the benefits because of land documents and other ownership related issues.

Table 5: Number of Beneficiary Farmers of Loan waiver scheme in the sample villages of Karimnagar district (2014-18)

Sl. No.	Extent Waived Net	% of Farmers Benefited
1.	Total waived out	58.50
2.	Half waived out	30.00
3.	One fourth waived out	13.33
4.	Not waived out	16.25

Results of loan waiver scheme beneficiary farmers in the sample villages are given in Table 5. 58.5 per cent of the farmers got their total loans waived out whereas 16.25 per cent of the farmers did not receive any benefits out of the scheme. Percentage of half and one fourth of the loans got waived out was 30 and 13.33 per cent respectively.

Table 6: Changes in Cropping Pattern in the sample villages of Karimnagar District (area in acres)

S.No.	Particulars	2009	2019	% change
1.	Total cropped area (Kharif + Rabi)	1299	1348.6	3.81
2.	% Total cropped area under	57.60	62.80	5.20
a.	Paddy	65.00	68.40	3.40
b.	Maize	14.50	12.30	-2.20
c.	Cotton	20.00	17.80	2.20
d.	Orchards	0.5.00	1.00	0.50

Total cropped area has shown a slight increase of 3.81 percent on an average. Area showed more than once has grown 5.2 percent on an average in the last ten years. Area under maize has reduced (-2.2 %) and cotton area has increased (2.2 %). Orchards are also showed a slight increase of 0.5 per cent.

Table 7: Sources of irrigation in the sample villages of Karimnagar District (2009 and 2019)

S.No.	Source	2009	2019	% change
1.	% Gross irrigated area under	53	65.40	12.4
a.	Bore well	44.5	53	8.5
b.	Tanks	26	24	-2
c.	Canal	17.5	14	-3.5

Percentage gross irrigated area has increased from 53 percent to 65.4 percent in the last ten years. Bore wells has shown positive growth (8.5 %) whereas tank and canal irrigation have shown negative growth of - 2 and -3.5 per cent respectively. It could be seen from the above table that bore wells are the major source of irrigation in the selected villages of Karimnagar district.

Table 8: Changes in crop-wise irrigated area in the sample villages of Karimnagar District (2009 and 2019)
(% of Net irrigated area under)

S.No.	Crops wise irrigated area	2009	2019	% change
1.	Paddy	67.00	69.00	2.00
2.	Maize	23.50	22.30	-1.20
3.	Cotton	14.00	11.40	-2.60

Percentage of net irrigated area under paddy has increased only by 2 per cent whereas maize and cotton area under irrigation has decreased by -1.2 and -2.6 percent respectively. It is evident from the above table that there is no significant change in the area under irrigation of various crops.

Figure 1: Farmers received quality seeds of Major Crops from Government on Subsidy
(values in % of total Farmers).

The percentage of farmers received quality seeds of major crops from government on subsidy have increased from 8.5 percent in 2009 to 32.25 in 2019.

Table 9: Popular HYVS used in the sample villages of Karimnagar District (2009 and 2019)

Sl. No.	2009	2019
1.	MTU-1001 & 1010	MTU-1001 & 1010
2.	BPT-5204	BPT-5204
3.	IR-64, SUREKHA	BATHUKAMMA, KUNARAM SANNALU
4.	ERRAMALLELU, JGL	RNR-15048

MTU-1001 & 1010 and BPT-5204 are the most popular varieties in both 2009 and 2019 followed by surekha, IR-64, RNR -15048 etc. According to the Focused group discussion, more than 80 per cent of paddy area is under MTU-1001 & 1010 and BPT – 5204.

Table 10: Changes in the Average Yield of Major Crops in (Kharif and Rabi) the villages of Karimnagar District (2009 and 2019)

Sl. No.	Crop yield	2009	2019	% change (quintals / acre)
1.	Paddy	24.00	27.90	16.25
2.	Maize	24.77	30.22	22.00
3.	Cotton	8.00	8.60	7.50

Changes in the average yield of major crops in (Kharif and Rabi), the villages of Karimnagar district is given in Table 10. Paddy and maize has shown 16.25 and 22 percent increase in the yields respectively. Cotton yields recorded less

increase (7.5 %) compared to two other major crops. Paddy yield on an average increased from 24 quintals per acre in 2009 to 27.9 quintal per acre in 2019.

Table 11: Change in the Farm Gate Price received by the farmers for Major Crops in the sample villages of Karimnagar district (2009 and 2019) (Rs. / Quintal)

S.No.	Crop	2009	2019	% change
1.	Paddy	868	1693	95.04
2.	Maize	3025	3675	21.48
3.	Cotton	1003.33	1805.55	80.01

Details of the farm gate price received by the farmers for major crops in the sample villages of Karimnagar district (2009 and 2019) is presented in Table 11. It is clear from the above table that the prices of paddy and cotton have showed sharp increase in prices (95.04 and 80.01% respectively). There is no significant variation in the prices of maize from 2009 to 2019.

Table 12: Changes in the Labour wages in the sample villages of Karimnagar District (2009 and 2019)

S.No.	Type of Labour	2009	2019	% change
1.	Male	235	480	104.25
2.	Female	125	240	92.00

Changes in the labour wages in the sample villages are given in Table 12. Male labor wages has increased from 235 in 2009 to 480 in 2019 on an average. Female labor wages was 125 in 2009 which has gone up to 240 in 2019. Percentage change was observed to be more in male wages (104 %) compared to female wages (92 %).

Table 13: Farmers' perception of farming over the past 10 years (2009 – 2019) in the Sample Villages of Karimnagar District

S.No.	Farming indicator	Average perception	
		Increase (%)	Decrease (%)
1.	Farmers' income	77.00	
2.	Crop yield	24.50	
3.	Production cost	91.00	
4.	Labour wage	115.00	
5.	Market price	89.00	
6.	Non-farm employment	20.00	
7.	Jobs for educated youth	10.00	42.00
8.	Medical expenses	101.00	
9.	Schooling expenses for children	200.00	
10.	Social expenditure	185.00	
11.	Liquor expenses	150.00	
12.	Road facilities	53.00	
13.	Transportation facilities	65.00	
14.	Irrigation facilities	86.00	
15.	Ground water depth	50.00	114.00
16.	Village tank water	50.00	
17.	Drinking water	43.00	
18.	Housing	80.00	
19.	Bank credit	31.00	
20.	Private loans	43.75	
21.	Any other		

As per the above table, farmer's income has increased 77 percent but which is lesser than the rise in production cost (91 percent). The expenditure on childrens education has increased by 200 percent and liquor consumption expenses

also increased by 150 percent over 2009. Ground water depth decreased by 114 percent from 2009 to 2019 in the study area.

Table 14: Farmers' perception of Key Rural Problems in the order of severity in the sample villages of Karimnagar district(% of the Farmers Expressed)

Sl. No.	Problems	Most serious	Serious	Macerate	Not a problem
1.	Irrigation water	30.00	50.00	-	20.00
2.	Seed availability	-	-	-	100.00
3.	Fertilizer availability	-	-	-	100.00
4.	Bank credit availability	-	-	70.00	30.00
5.	Insurance claims	70.00	30.00	-	-
6.	Market facilities	-	10.00	60.00	30.00
7.	Low MSP	100.00	-	-	-
8.	No non-farm employment to rural youth	60.00	40.00	-	--
9.	Health facilities	-	20.00	50.00	30.00
10.	Education facilities	-	30.00	50.00	20.00
11.	Transportation	-	-	20.00	80.00
12.	Rural roads	-	10.00	-	90.00
13.	Power / electricity	-	-	-	100.00
14.	Housing v	-	20.00	40.00	40.00
15.	Non-availability of government schemes on time	70.00	10.00	20.00	-
16.	Drinking water	20.00	-	30.00	50.00
17.	Indebtedness	40.00	60.00	-	-
18.	Lack of Technical Support	50.00	50.00	-	-
19.	Shrinking of livestock production	40.00	60.00	-	-
20.	Any other	-	-	-	100

Low MSP is the major problem being faced by the farmers of sample village followed by insurance claims and non-availability of government schemes on time. Lack of technical support, shrinking of livestock production and no non – farm employment to the rural youth is the various other problems faced by the farmers.

CONCLUSIONS

There is not much considerable change seen in percent of total farm households to the total households from 2009 to 2019. SHG have increased by 160 percent over 2009. There is a large decline and an increase in small farm holdings in the study area due to fragmentation of agricultural land from parents to their descendants as a result of increasing trend in small farmers. Hence, the government policies should be framed according to the small farmers' welfare. Initially, 93 percent of farmers received the benefits of farmer Investment support (rythubandhu) and today the percent of beneficiaries has decreased to 58 percent during 2019 rabhi. This is mainly due to improper land ownership documents. Percent of gross irrigated area increased by 12.4 as a result of an increase in total cropped area by 3.81 percent. This is due to improved irrigation policies being adopted by state government and sufficient rainfall in the study area. The paddy varieties that are mostly adopted in the study area are (nearly 80% among all paddy varieties) MTU-1001, MTU-1010 and BPT-5204 which are performing better over varieties available in the study area. Wages for both Male and Female increased nearly by 100 percent between 2009 and 2019. Yields of Paddy and Maize increased by 16.25 and 22 percent between 2009 and 2019. The increment in maize yield is mainly due to the fact that quality seed are delivered by private sector companies. The prices of paddy and maize increased by 95.04 and 80.01 percent. According to the farmers perception, even though the prices are increasing, the rate of price rise is less than the rise in cost of production from 2009 to 2019. As a result, Farmers income increased, but only in real terms. Finally, low MSP is the major problem being faced by the farmers of sample

village followed by insurance claims and non-availability of government schemes on time. Hence, the government needs to look into these problems.

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