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Impact of MGNREGS in Income of Beneficiaries in Andhra Pradesh

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ABSTRACT

This study has evaluated the impact of MGNREGS on income of beneficiaries in the state of Andhra Pradesh. Days of employment in agriculture, days of employment in MGNREGS and number of migrant person days per household were statistically significant indicating that they were the important variables in determining the income of MGNREGS beneficiaries. The coefficient of employment days in agriculture implies that every one day will add Rs 162 in total household income. Similarly, for every one day employment in MGNREGS would add ₹92 in the total income. The other significant variable was number of migrant person days per household, which shows that for every day employment as a migrant will increases income by Rs243. The fit of the model was judged by R^2 (0.67) and the selected variables contributed 67 per cent variation in income. For non-beneficiaries the R^2 was 0.61 indicating that all the important variables explained 61 per cent of variation in dependent variable (total household income).

Key words : : MGNREGS, MGNREGS Beneficiaries, Multiple Linear Regression Model.

In the context of global economic crisis and economic slowdown providing livelihood security to the people is the major challenging task for the Government of India. At the beginning of the 21st century 260 million people in the country did not have income to meet their both ends. India is home to 25 per cent of the world's poor, of which 75 per cent were in the rural areas (http:// planningcommission.nic.in). Agriculture wage earners, small and marginal farmers and casual workers engaged in non-agriculture activities constitute the bulk of the rural poor.

In this scenario, the Government has proposed an innovative Mahatma Gandhi Rural Employment Guarantee Act on 7th, September 2005, which is altogether different from the earlier employment schemes in the context of demand driven approach rather than supply driven approach.

Based on the Act, the scheme of National Rural Employment Guarantee Scheme was ceremoniously launched by the Hon'ble Prime Minister Dr. Manmohan Singh on February 2nd, 2006. It is implemented by the Ministry of Rural Development, Government of India and is the world's biggest employment guarantee programme. The National Rural Employment Guarantee Act was renamed as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on 2nd October 2009 as a befitting tribute to the 'Father of the Nation' Mahatma Gandhi.

In Andhra Pradesh, this Scheme was first launched in Anantapur district on February 2nd, 2006 with the objective of providing every rural household a guarantee of at least 100 days of employment during a financial year by providing unskilled manual work in rural areas to those members of the rural household, who volunteer to do such work.

Despite several achievements, several weaknesses remain. The most important have to do with the quality of assets created. The Government has not paid adequate attention to strengthening the process of people's planning and implementation of works. The immense potential of MGNREGS for transforming rural livelihoods thus remains completely unrealized. It is known that, under the MGNREGS, the Union Government provides 90 per cent funds for the works and remaining 10 per cent is the State's matching share. However, various State Governments are finding it difficult or rather impossible to take optimum benefit

of the MGNREGS because of its limitations in meeting the State's share from the meager district plans.The present study mainly emphasis on impact of MGNREGS on household income of beneficiaries and non-beneficiaries in Andhra Pradesh.

MATERIAL AND METHODS

For this study, Andhra Pradesh was purposively selected. Andhra Pradesh was geographically classified into three regions i.e. Coastal Andhra, Telangana, and Rayalaseema. One district from each region namely Anantapuram, Mahabubnagar and Srikakulam, three mandals from each district and form each mandal two villages were selected based on highest expenditure incurred and total works completed under MGNREGS Programme. From three districts 180 beneficiaries and 180 non-beneficiaries were selected randomly. A multiple linear regression model was employed to estimate the determinants of total annual income (Y) of the respondents.

The empirical model for beneficiaries was:

$$Y= a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6 + U_i$$

Where,

Y = Total annual income in rupees.

X_1= Educational status of Head of the household

X_2= Farm size (Ha)

X_3= Livestock units (No.)

X_4= Employment in agriculture (man days)

X_5= No man days in MGNREGS (man days)

X_6= No of Migrant person days household (Man days)

a = Intercept and

U_i = error term

Non - beneficiaries:

$$Y= a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + U_i$$

Where,

Y = Total annual income in rupees

X_1= Educational status head of the household

X_2= Farm size (Ha)

X_3= Livestock units (No.)

X_4= Employment days in agriculture (Man days)

X_5= Employment days in non agriculture (Man days)

a = Intercept and

U_i = error term

RESULTS AND DISCUSSION

Household income determinants of beneficiaries and non-beneficiaries were presented in Table 1 and 2.

In general the total income is decomposed by sources of income through percentage analysis but it cannot take care of contribution of factors on total income. In this study to decompose the determinants of total income, regression based approach was used to circumvent the limitation of percentage analysis. The advantage of using the regression based decomposition is not only providing the economic value of each factor but also to identify the major determinants (factors) of total income.

The households of three districts were earning their income through different sources namely owned farm income, agricultural wage income, non-agricultural wage income and MGNREGS wage income. In this study an attempt was made to identify important income sources for beneficiaries and non-beneficiaries of MGNREGS. The earning capacity of a beneficiary varies from one to another due to his endowment and resources possessed.

The important factors responsible for MGNREGS beneficiary household income was educational status, farm size, livestock unit, days of employment in agriculture, days of employment in MGNREGS and number of migrant person days of the household. The variables like days of employment in agriculture, days of employment in MGNREGS and number of migrant person days per household were statistically significant at 5% level indicating that they were the important variables in determining the income of MGNREGS beneficiaries. The coefficient of employment days in agriculture was 16236, it implies that every one day will add ₹162 in total household income. Similarly, for every one day employment in MGNREGS would add 92 in the total income. The other significant variable was number of migrant person days per household, which shows that for every day employment as a migrant will increases income by 243. The fit of the model was judged

Table 1. Household income determinants of beneficiaries of MGNREGS.

S.No.	Variable	Coefficient	Standard Error	't' Stat	P-value
1	Educational status of head of household	90.83	197.30	0.46	0.65
2	Farm size (ha)	7039.89	6146.63	1.15	0.25
3	Livestock (Number of animals)	1206.67	1240.14	0.97	0.33
4	Employment in agriculture (Number of days)	162.36	67.99	2.39*	0.02
5	Employment in MGNREGS (Number of days)	92.10	19.48	4.73**	0.00
6	Number of migrant persons days/household	243.88	90.61	2.69**	0.01
	Intercept	347.79	693.85	-0.33	0.51
	R^2	0.67			

*Significant at 5% level **Significant at 1% level

Table 2. Household income determinants of non-beneficiaries of MGNREGS.

S.No.	Variable	Coefficient	Standard Error	't' Stat	P-value
1	Educational status of head of household	990.21	970.74	1.020	0.309
2	Farm size (ha)	12950.08	7122.17	1.818*	0.003
3	Livestock (Number of animals)	5891.17	846.16	6.962**	0.000
4	Employment in agriculture (Number of days)	33.19	45.10	0.736	0.463
5	Employment in MGNREGS (Number of days)	236.13	90.11	2.620**	0.010
	Intercept	570.88	962.46	0.593	0.554
	R^2	0.61			

*Significant at 5% level **Significant at 1% level

by R^2. The R^2 was 0.67 i.e., the selected variables contributed 67 per cent variation in income.

Non beneficiaries:

House hold income determinants of non - beneficiaries was presented in Table 2. The main determinants of income of non-beneficiaries of MGNREGS were farm size, number of livestock units, and employment in non agriculture. It is clearly seen from the table that the non-beneficiary who has one hector of farm land his total income would likely increase by Rs 12,950 and for every one unit of livestock, respondents would likely to earn Rs 5891. The average income derived from deferent types of livestock includes buffalos, goat, sheep, and poultry. For every one day in non-agricultural activity respondent earned around Rs 236 per day. The R^2 was 0.61 indicating that all the important variables explained 61 per cent of variation in dependent variable (total household income). (Sivashakti Devi et.al., 2011)

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