Impact of Rural Housing Programs on Infrastructural Development of Rural Poor – A Case Study of Kalahandi District of Odisha

Sanjit Kumar Swain*

Department of Panchayati Raj and Drinking Water, Govt. of Odisha, Kalahandi, India

Abstract: Housing is one of the basic necessities for human survival. For a normal citizen owning a house provides significant economic and social security and status in society. For a shelter less person, a house brings about a profound social change in his existence, endowing him with an identity, thus integrating him with his immediate social surroundings. In this paper an attempt to assess the impact of rural housing program on infrastructural development of rural poor of Kalahandi district of Odisha. The study includes a socio-economic analysis of the level of housing, drinking water and sanitation based on primary data collected from nearly 282 households of four blocks. The study reveals that 47.2 per cent of the households have been more benefited from the rural housing programs as they increased their annual income. Only 6.0 per cent of the households have pipe water facility and also 44 per cent of the households have toilet facility. The study specified that the rural housing programs have a positive impact on the beneficiaries. This program is helps to improve the living conditions of the rural poor.

Keywords: Rural housing, Infrastructural development, Housing status, Drinking water, Sanitation facilities, Economic status.

1. Introduction

Housing is one of the basic necessities for human survival. For a normal citizen owning a house provides significant economic and social security and status in society. For a shelter less person, a house brings about a profound social change in his existence, endowing him with an identity, thus integrating him with his immediate social surroundings. As per 2001 census, the housing shortages in India were 2.47 crores out of which 1.41 crores was in rural areas. The Central and State governments are relentlessly engaged in providing low cost permanent shelter under various housing schemes. IAY is one of such flagship programs under the Ministry of Rural Development which has its origin in National Rural Employment Program of 1980 when housing was a major activity. Initially, IAY was exclusively targeted for SC, ST, and bonded laborers. Its scope was expanded to cover non-SC, ST and poor people since 1993-94. By the end of tenth plan, a total number of 2.25 crores houses have been constructed under this scheme. The rural housing program is sponsored by the Central Government with 75:25 Central and State share. In the earlier

2. Objectives

The objectives of the study are,

- 1. Study the coverage of Rural Housing Program in Kalahandi District and to find out Socio- economic development of the beneficiaries.
- 2. To assess changes in the Infrastructure and Habitat Development in terms of the following aspects.
 - a) Enhances livelihood opportunities and economic worth of the rural areas.
 - b) It includes provision of the core facilities of drinking water, sanitation, disposal of waste Materials, power supply, roads, health care, education etc.
- 3. To assess the participation of rural families in planning and implementation of housing Programs.

3. Methodol ogy

A three stage sampling design is adopted with first stage as the Gram Panchayat, the second stage as the village and the

phase of IAY, greater emphasis was given for construction of cluster houses. These cluster settlements were normally located away from the main habitation and depended upon the availability of land. The cases are abound where provisions were also made to create the common socio-cultural facilities, road linkage for access to create the common socio-cultural facilities, road linkage for access to market and place of work. But these infrastructure facilities were not adequate and in a new settlement, people were faced with several day-to-day inconveniences like having to walk longer distances to go to school, far of places for primary health care and most particularly the access to drinking water and sanitation, electricity, connectivity and employment. For these difficulties, the beneficiaries were encouraged to construct individual house in the main habitation, on their existing house-sites. This has obviously increased the accessibility of beneficiaries to various basic services like drinking water, sanitation, electricity, market, school, drainage, road and hospital leading to improvements in quality of life and standard of living.

^{*}Corresponding author: sanjit.etc@gmail.com

third stage as the beneficiary household. Four Blocks were selected out of 13 blocks of Kalahandi district of Odisha adopting purposive sampling method. The selected blocks are (1) Narla, (2) Bhawanipatna, (3) Junagarh & (4) Dharmagarh. These are well connected to the district headquarters. The list of beneficiary households who were assisted under IAY over the period under study (2013-2016) with their year of receiving the assistance and caste group-wise break-up was obtained for each village within each G.P in the block of Narla, Bhawanipatna, Junagarh and Dharmagarh. A list is prepared on the basis of the register (year-wise/village-wise) that are with block, Narla, Bhawanipatna, Junagarh and Dharmagarh. The village and G.P "sizes" are obtained from this updated list. The distribution of the number of beneficiaries assisted under IAY in all GPs of 4 blocks and in selected 4 G.Ps out of 26 G.Ps in Narla, 4 G.Ps out of 36 G.Ps in Bhawanipatna, 3 G.Ps out of 34 G.Ps in Junagarh and 4 G.Ps out of 24 G.Ps in Dharmagarh block were selected during 2013-2016 and the details of Blocks & G.Ps of the present study are also shown in Table 1.

Table 1 Distribution of Number of Sample Beneficiaries Covered

	Under IA F during the Fear 2015-2010 in Karanandi District								
S.No.	Name of	No. of	No. of	No of Sample					
	Block	sample	Sample	Beneficiaries					
		G.Ps	Villages						
		selected	selected						
1	Narla	4	20	100					
2	Bhawaniptna	4	16	72					
3	Junagarh	3	07	29					
4	Dharmagarh	4	12	81					
	Total	15	55	282					

At the second and third stage, the selected sample beneficiaries are randomly drawn from villages of selected G.Ps of 4 Blocks of Kalahandi district, i.e. 100 sample beneficiaries from 20 villages of 4 G.Ps of Narla, 72 sample beneficiaries from 16 villages of 4 G.Ps of Bhawaniptna, 29 sample beneficiaries from 7 villages of 3 G.Ps of Junagarh and 81 sample beneficiaries from 12 villages of 4 G.Ps of Dharmagarh Block are shown in Table 1. Thus, 4 blocks, 15 G.Ps, 55 villages and 282 sample beneficiaries will be contacted under the study.

As it is a comprehensive evaluation, two types of data are collected (i.e. Primary and Secondary) at three levels viz., District, Block and household. The primary data are collected from the field by one schedule for one respondent beneficiary.

Altogether 282 respondents are interviewed through these structural schedules. While secondary data regarding target achievements, release of funds etc. are collected from official records of the block/DRDA office, other important data like operational problems are collected by help of intensive discussions with PRI Members, field officers and staff. Specific case studies were undertaken in order to ascertain the concreteness and depth of some of the typical quantitative problems affecting the beneficiaries at the micro level during implementation of IAY at the field level. Therefore, to have a closer look at how the program operates at the ground level, indepth interviews were conducted by an experienced investigator. These studies were carried out with a view to seeking clarifications and to enforce the quantitative data collected through well planned schedules. All the three techniques viz. survey method, personal in-depth interviews and case studies were followed in order to capture the type of information needed in keeping with scope of this evaluation of different aspects of study.

4. Socio-Economic Status of the Beneficiaries

Some important socio-economic characteristics, viz. age, sex, caste, educational status & occupational status etc., of sample beneficiaries are shown in Tables 2 and 3.

5. Results and Discussion

A. Housing Status

Table 4 Distribution of Housing Status of the Beneficiaries								
Name of Block Pucca Kutcha Total								
Narla	96(96.0)	04(4.0)	100					
Bhawanipatna	67(93.1)	05(6.9)	72					
Junagarh	26(89.7)	03(10.3)	29					
Dharmagarh	70(86.4)	11(13.6)	81					
Total	259(91.8)	23(8.2)	282					

The housing status of the beneficiaries to allotment of IA Y house was enquired. It is observed from Table 4 that 91.8 per cent of the respondents of the sample population of the study were reported to have possessed the pucca house while 8.2 per cent of the respondents have possessed the kutcha house. The highest number of respondents reported to have pucca house was in Narla (96.0) followed by Bhawanipatna 93.1 per cent,

Name of Block	Age Group			Sex Caste			Educational Status			
	18-39	40-59	60 & above	Μ	F	SC	ST	OC	Literate	Illiterate
Narla	22	57	21	31	69	16	48	36	40	60
Bhawanipatna	09	42	21	60	12	16	42	14	46	26
Junagarh	03	21	05	24	05	07	07	15	18	11
Dharmagarh	12)	56	13	71	10	16	26	39	34	47
Total	46	176	60	186	96	55	123	104	138	144

T able 2 Distribution of Sample Beneficiaries as per Age, Sex, Caste & Educational Status

Table 3 Distribution of Sample Beneficiaries as per Occupational Status

Name of Block	Agri. Labour	Non-agri labour	Farmer	Trader	Artisan	Unemployed	O thers	Total
Narla	21	23	29	03	03	11	10	100
Bhawanipatna	11	15	27	-	04	06	09	72
Junagarh	03	17	06	01	-	-	02	29
Dharmagarh	10	14	53	01	-	-	03	81
Total	45	69	115	05	07	17	24	282

T able 5 Distribution of additional amount spent by the beneficiaries for house construction

Name of Block	<15000	15000-20000	>20000	Total
Narla	27(28.1)	27(28.1)	42(43.8)	96
Bhawanipatna	26(38.8)	4(6.0)	37(55.2)	67
Junagarh	12(46.2)	2(7.6)	12(46.2)	26
Dharmagarh	33(47.1)	6(8.6)	31(44.3)	70
Total	98(34.8)	39(13.8)	122(43.3)	259

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Distribution of Households Income (Before Assistance of IAY)

Name of Block	<12000	12000-17999	18000-23999	>24000	Total
Narla	22	40	38	-	100
Bhawanipatna	23	24	25	-	72
Junagarh	08	14	07	-	29
Dharmagarh	31	36	14	-	81
Total	84 (29.8)	114 (40.4)	84 (29.8)	-	282

Distribution of Households Income (After Assistance of IAY)

Name of Block	<12000	12000-17999	18000-23999	>24000	Total
Narla	05	23	28	44	100
Bhawanipatna	12	16	04	40	72
Junagarh	04	10	02	13	29
Dharmagarh	09	29	07	36	81
Total	30 (10.6)	78 (27.7)	41 (14.5)	133 (47.2)	282

Table 8								
Comparison of Household Income of Respondents Before and After the Assistance of IAY								
Household Income	<12000	12000-17999	18000-23999	>24000	Total			
Before the assistance of IAY	84 (29.8)	114 (40.4)	84 (29.8)	-	282			
After the assistance of IAY	30 (10.6)	78 (27.7)	41 (14.5)	133 (47.2)	282			

Junagarh 89.7 per cent & Dharmagarh 86.4 per cent. Also Kutcha house was maximum in case of Bhawanipatna, 80.6 per cent, followed by Junagarh 72.4 per cent, Narla 55,0 per cent and Dharmagarh 29.6 percent shown in Table 4.

B. Additional Amount Spent

Construction of a house is considered as one-time investment to provide social security and status to the house owner. This encourages the beneficiaries to make additional amount spent on their part for making small modifications and even to construct extra space to meet their social and economic space requirement. It is observed that the additional amount investment of less than Rs. 15,000 has been reported by majority beneficiaries in Dharmagarh, i.e. 47.1 per cent, followed by Junagarh 46.2 per cent, Bhawanipatna 38.8 per cent & Narla 28.1 per cent. An additional expenditure between Rs. 15,000 to Rs. 20,000 was reported 28.1 per cent in Narla and 8.6 per cent in Dharmagarh. Higher investment of more than Rs. 20,000 was reported in case of Bhawanipatna, 55.2 per cent, Junagarh 46.2 per cent, Dharmagarh 44.3 per cent & Narla 43.8 as in all these four blocks, there was report of house construction covering more built-up area as well as use of cement concrete RCC type roofing and flooring shown in Table 5.

C. Household Annual Income (Before Assistance of IAY)

Table 6 presents the distribution of beneficiaries in the blocks with regard to annual family income. They have been grouped into 4 categories depending on the reported annual family income viz. less than Rs. 12,000, Rs.12000-17999, 18000-23999 and above Rs. 24,000. As could be seen from the Table,

over 29.8 per cent of the sample beneficiaries were having income less than Rs.12000 representing the very poor households. The number of very poor beneficiaries has been highest in Dharmagarh i.e. 38.3% followed by 32.0 per cent in Bhawanipatna and 27 per cent Junagarh. Also 40.4 per cent & 29.8 per cent of the sample beneficiaries were having income Rs.12000-17999 & 18000-23999 respectively representing the poor households. The majority i.e. 48.3 per cent of poor beneficiaries in Junagarh was from the annual income category of Rs.12000-17999. Narla had the largest i.e. 38.0 per cent of poor beneficiaries in Rs. 18000-23999.

D. Household Annual Income (After Assistance of IAY)

Table 7 presents the distribution of beneficiaries in the blocks with regard to annual family income (after assistance of IAY). They have been grouped into 4 categories depending on the reported annual family income viz. less than Rs.12,000, Rs.12000-17999, 18000-23999 and above Rs. 24,000. Out of 282 assisted families of 4 Blocks of Kalahandi District under IAY during 2013-2014 to 2015-2016, 133(47.2%) households were found on the above the poverty line, i.e. Rs. 24000/- and above the annual income category. The number of households has been highest in Bhawanipatna (55.6 per cent) followed by 44.8 percent in Junagarh, 44.4 percent in Dharmagarh and 44.4 per cent in Narla from the annual income category of Rs. 24000/- and above. The data indicates that the poor households within the BPL category have been more benefitted from the housing scheme. The majority i.e. 28 per cent of beneficiaries in Narla were from the annual income category of Rs.18000-23999. Dharmagarh and Bhawanipatna had the largest I.e. 35.8 & 16.7 per cent of beneficiaries in Rs.12000-17999 & less than

Rs.12000 annual income category. The study specified that the housing program has a positive impact on the beneficiaries and also helps to improve the household income.

E. Comparison of Household Annual Income

In order to assess income generation through the scheme provided to the beneficiaries the position of the sample beneficiaries in different income level (income range) before assistance of IAY scheme and after assistance of IAY scheme is analyzed in Table 10. The study reveals that 133 (47.2 %) of the beneficiaries have been benefited from IAY scheme as they have increased their income level and their annual income is more than Rs. 24,000/- per family. Again, 119 (42.2%) of the beneficiaries are however marginally benefited from the scheme. Their income level is slow. The annual income of these beneficiaries are Rs.12000/- to Rs.23999/-. Also, 30 (10.6%) of the beneficiaries are slightly benefited from the scheme.

F. Drinking Water Facility

As we know water is one of the basic necessities of life. It is also the key to health, economy and development of the country. As could be seen from the Table 8 that 92.6 per cent of the respondents of the sample population of the study were reported to use drinking water from tube well whereas 6.0 per cent from pipe water and 1.4 per cent from well. The majority i.e. 100 per cent of beneficiaries in Dharmagarh and Junagarh were use drinking water from tube well and in Narla & Bhawanipatna, 94.0 & 79.2 per cent respectively shown in Table 9.

Table 9
Distribution of drinking water facility of the beneficiaries

Name of Block	Tube well	Well	Pipe Water	Total
Narla	94(94.0)	02(2.0)	04(4.0)	100
Bhawanipatna	57(79.2)	02(2.8)	13(18.0)	72
Junagarh	29(100.0)	-	-	29
Dharmagarh	81(100.0)	-	-	81
Total	261(92.6)	04(1.4)	17(6.0)	282

G. Toilet Facility

For all IAY houses, construction of toilets under Swachh Bharat Mission is mandatory. The State Governments should put in place a system which facilitates this, covering fund flows, accounting, reporting, etc. It should be ensured that the beneficiary has to approach only one agency for the IAY components. As could be seen from the Table, despite clear instructions for constructing the toilets, a large proportion of 56 per cent of beneficiaries have not constructed the mandatory toilets. Their number was highest in Bhawanipatna where 80.6 per cent of beneficiaries have not constructed the toilets followed by Junagarh with 72.4 per cent, Narla 55 per cent and Dharmagarh 29.6 per cent. Particularly, these blocks are socioeconomically backward which could be the cause for lack of appreciation for toilets. The highest percentages of

Table 10Distribution of toilet facility of the beneficiariese of BlockYesNoTotal45(45,0)55(55,0)100100

Name of Block	Yes	No	Total	Total
Narla	45(45.0)	55(55.0)	100	100
Bhawanipatna	14(19.4)	58(80.6)	72	72
Junagarh	08(27.6)	21(72.4)	29	29
Dharmagarh	57(70.4)	24(29.6)	81	81
Total	124(44.0)	158 (56.0)	282	282

beneficiaries who reported construction of toilets belong to Dharmagarh with 70.4 per cent toilets followed by Narla 45.0 per cent, Junagarh 27.6 per cent & Bhawanipatna 19.4 per cent. The study observes that the lack of people's awareness about the construction of toilets in own houses. This may be taken up seriously to create greater awareness and appreciation through intensive educational program shown in Table 10.

H. Assistance from Different Schemes

It is necessary for the Government to initiate development of rural areas through various types of interventions to suite different types of regions, different social and economic classes of people with varying economic base as well as those without any economic assets. So the Govt. of India introduced a number of rural development & social welfare programs as part of its planned strategy to develop rural India and alleviate poverty. Table 11 presents the distribution of beneficiaries in the blocks with regard to assistance from different schemes. 55.0 per cent of the respondents of the sample population of the study were reported to get assistance from MGNREGS, 15.2 per cent of the respondent beneficiaries to get assistance from social security program and majority i.e. 99.3 percentage of the respondent beneficiaries from food security programs. The highest number of respondents reported i.e. 65 per cent to get assistance from MGNREGS in Narla whereas 62.1 per cent in Junagarh, 51.4 per cent in Bhawanipatna and 43.2 per cent in Dharmagarh. Also the respondents reported i.e. 28 per cent was the highest in Narla to get assistance from social security program where as lowest i.e. 6.9 per cent in Junagarh. Again, 100 per cent respondents in Narla were reported to get assistance from food security program. On overall basis the data indicated that relatively better-off among the poor households within the BPL category have been benefited from different schemes.

6. Observations and Findings

The major observations and findings of the study are as follows:

1. In the selection of beneficiaries, among SC/STs the STs have got weightage over the SC population. As against 60 % for both SCs and STs stipulated together in the guidelines, they comprise 63.1 % of the total beneficiaries. This may be due to the reason that extra care has been taken particularly in targeting the scheme to members of SC and ST population.

Table 11

Distribution of assistance from different schemes									
	MGNREGS		Social Security		Food Security				
Name of Block	Yes	No	Yes	No	Yes	No			
Narla	65(65.0)	35(35.0)	28(28.0)	72(72.0)	100(100.0)	00(0.0)			
Bhawanipatna	37(51.4)	35(48.6)	07(9.7)	65(90.3)	72(100.0)	00(0.0)			
Junagarh	18(62.1)	11(37.9)	02(6.9)	27(93.1)	29(100.0)	00(0.0)			
Dharmagarh	35(43.2)	46(56.8)	06(7.4)	75(92.6)	79(97.5)	02(2.5)			
Total	155(55.0)	127(45.0)	43(15.2)	235(84.8)	280(99.3)	02(0.7)			

- 2. The average family size of the IAY beneficiaries of the district is 3.3 %. The size of the house is 200 sft which is inadequate.
- 3. The second largest number of beneficiaries for IAY house were found to be agriculture & non-agriculture labour who together comprise 40.5 per cent of the total allotment.
- 4. As per guide line, IAY houses should be allotted in the name of female member, only 34.0 per cent of houses were reported to be allotted in the name of female member.
- 5. The study reveals that 47.2 per cent of the IAY households have been more benefited from the rural housing programs as they have increased their income level and their annual income is more than Rs. 24000/- per household.
- Again, 42.2% of the beneficiaries are however marginally benefited from the scheme. Their income level is slow. The annual income of these beneficiaries are Rs.12000/- to Rs.23999/-. Also, 10.6% of the beneficiaries are slightly benefited from the scheme.
- As per allotment of IAY house, 91.8 per cent of the respondents of the sample population of the study were reported to have possessed the pucca house while 8.2 per cent of the respondents have possessed the kutcha house.
- 8. Majority of the IAY beneficiaries deviated from the norm of 200 sft. built-up area. The primary reason given for exceeding the norm of 200 sft house was the inadequacy of accommodation for socio-economic pursuit of the beneficiaries.
- 9. 57.1 per cent of beneficiaries reported having spent additional amount of over Rs. 15,000 for the IAY house. The beneficiaries mobilized additional investment from various sources like own savings, sale of their resources or loan from others.
- 10. Majority 92.6 per cent of IAY beneficiaries were reported to use drinking water from tube well whereas 6.0 per cent from pipe water.
- 11. For all IAY houses, construction of toilets is mandatory. Only 44 per cent were constructed and majority was not constructed.
- 12. The IAY beneficiaries were get assistance from different schemes like MGNREGS, Social security schemes and Food security schemes. 55.0 per cent respondent beneficiaries were get assistance from MGNREGS, 15.2 per cent from social security schemes and 99.3 per cent from food security schemes.

So the study specified that the Rural Housing Program has a positive impact on the beneficiaries. It is observed that standard of consumption of food and nutrition, housing, clothing, education, health and entertainment etc. have improved. During the course of survey, it has been found that about of the beneficiary household have improved with regard to food and nutrition, housing, clothing, education, health and entertainment etc. in Kalahandi district. On different angle the Rural Housing Programs is helps to improve the living conditions of the rural poor.

7. Conclusion

On the basis of the findings of the study to improve the performance of the Rural Housing Program:

- 1. The allocation of beneficiaries, the SC/STs may be separated and clear separate allocation may be made to the SC/STs individually against the present joint allocation.
- 2. The present recommended house space of 200 sft. was observed inadequate for a normal family size of 4 and above in rural India since the poor households is engaged in some type of secondary livelihood activities.
- 3. Most of the beneficiaries constructed extra katcha accommodation. The minimum space requirement was observed as 350 sft. The present norm of 200 sft built-up area may need suitable modification.
- 4. Orientation on cost-effective building designs and construction before the start of construction will help the beneficiaries to select cost-effective models of houses.
- 5. The villagers should actively participate in the Gramsabha and take part in the process of selection of beneficiaries.
- 6. The officials have to take initiatives to ensure transparency in beneficiary selection
- 7. More emphasis should be given to allot the IAY houses in the names of women beneficiaries or in joint name.
- 8. The unit cost of IAY house has to be increased.
- 9. Linking of the beneficiaries with financial institutions for availing of loan assistance may be emphasized and explored.
- 10. The beneficiaries should be discouraged to make frequent visit to the block by losing their wages. Therefore, strategy should be made to deliver the benefit of the doorstep.
- 11. Training and awareness programs and follow-up is required in the use and maintenance of sanitary latrines and smokeless Chula.
- 12. The agricultural and horticulture departments concerned may take some initiative to provide few kitchen garden plants (vegetables, small fruit plants, flowers etc.) to make use of homestead area for the benefit of the household.
- 13. IAY households should be linked to various employment oriented schemes so as to ensure full employment.
- 14. All IAY beneficiaries should be extended with all other rural development schemes as they are poor and houseless.
- 15. Line departments should come forward to provide basic facilities like electricity, drinking water, road, drainage, etc. for making the scheme healthier.
- 16. If possible, annual maintenance grant can be given to

the beneficiaries after few years.

17. Allocation of number of units to be increased subject to the increasing demand.

State, District, Block & G.P level functionaries play a central role in the housing and habitat development in rural areas. The Panchayati Raj Institutions have to make a lead in village level micro-planning and prioritizing housing and habitat development needs. The potential of Self Help Groups in rural housing needs to be recognized and NGOs need to be involved in rural housing schemes for better implementation. The critical role played by the targeted beneficiaries has to be recognized. The role of private sector and manufacturing units will have to be harnessed suitably. Effective delivery will require capacity building of all the stakeholders involved in housing and habitat development. High level monitoring committees at the Central Government level will be set up to periodically review the implementation of the Policy and suggest modifications to

Policy as deemed necessary.

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