

Realistic study of Rehabilitation and Resettlement of Project Affected Persons (PAP's) of Gosikhud Project in Maharashtra State

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Abstract— Gosikhurd Irrigation Project (GIP) is a major Irrigation Project and the only National project in Vidharbha area of Maharashtra state. 85 villages are fully affected and another 97 villages are partially affected due to this Project. The study is carried out in 49 Affected Villages (AV) of Nagpur district which are being shifted in 34 Rehabilitated Villages (RV) some yardsticks are formed to study the status of RV's as against the AV's. In this study comparison of RV against AV is carried out by considering various aspects as 1) Area and population density. 2) Status of civic amenities. 3) Distance between RV and AV with respect to taluka places. 4) Plot sizes. 5) Construction cost of houses. 6) Land ownership study. From this study it is found that the physical compensation given to PAP's is sufficient and RV's are well planned in order to start new habitat over there.

Keywords—Gosikhurd Irrigation Project, Project affected people, Rehabilitation, Resettlement, Affected village, Rehabilitated village, Compensation.

I. INTRODUCTION

Any infrastructural development project such as irrigation dams are the symbol of national progress, though they bring economic prosperity but at the same time they create an unpleasant and undesirable displacement of section of population from their ancestral habitat, uprooting them from their immovable properties, their live stock wealth, religious and educational institutions etc. This makes rehabilitation the most sensitive yet important aspect of that development project which should be properly handled, that's why many times success of a project depends on quality Rehabilitation and Resettlement (R&R) work. Displacement is a painful process and every effort should be taken to avoid or minimize hardships to disturbing people's lives to the extent possible.

In the light of these difficulties faced by the farming and non-farming households in the submerged villages, there is need to rehabilitate them with great sensitivity, compassion and justice because Project Affected People's (PAP's) have been sacrificed in the name of development project but whose benefits mostly reach to other classes.

Dr. Michael M. Cernia has identified various basic problems faced by PAP's due to their involuntary displacement such as land and homelessness, joblessness, marginalization Increased, morbidity, mortality, food insecurity, social disintegration and in addition to this psychological trauma due to disruption of established pattern of life systems. These problems have different impact on various categories of people differently. [1]

II. CASE STUDY – GOSIKHURD IRRIGATION PROJECT, MAHARASHTRA.

The Gosikhurd Irrigation Project (GIP) is located in Pauni taluka of Bhandara district. The dam is constructed on Wainganga river which is the biggest in Godavari basin near Gosikhurd village, 45 km away from Bhandara town. The storage capacity of dam is about 1146 Mm³. It is expected to bring an area of 190000 Ha under irrigation in the areas of Nagpur, Bhandara and Chandrapur districts.

The dam is constructed in rolled filled earthen dam having 11.36 km. length (including spillway and maximum height 22.55 m). The concrete spillway is central gated broad crested of length 773.90 m. The designed flood is 67373 m³/sec having 33 gates of size 18.30 m x 16.50 m. There are two main canals viz. Right Bank Canal (RBC) and Left Bank Canal (LBC) length of 103 km and 22.93 km respectively. The expected annual irrigation potential is 250800 Ha with estimated cost of the project is ` 7777.85 Corers with Benefit Cost ratio 1.69. The total submerged area at Full Reservoir Level (FRL) is 22258 Ha out of which private land is 14109 Ha, Government land is 6661 Ha and forest land is 1487 Ha. [Ref 2]

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Table 1
District wise Affected Village (AV) in Nos.

Sr. No	Type of land	Nagpur District	Bhandara District	Total
1	Fully affected	51	34	85
2	Partially affected (only land)	27	70	97
Total		78	104	182

The project envisages submergence of 85 villages spreading in the two district Nagpur (51 villages), Bhandara (34 villages), uprooted approx 15150 Households from their houses.

III. REHABILITATION AND RESETTLEMENT POLICY OF MAHARASHTRA STATE.

Maharashtra government was first state in the country to pass a law regarding Rehabilitation in 1976 which was further amended in 1986 and received the President's assent in 1989 is now known as Maharashtra Project Affected Persons Rehabilitation Act of 1986 (MPAPRA-1986).

This Act gives guidelines to execute the rehabilitation work in Maharashtra state, provides inter alia to rehabilitate affected persons from affected zone to the benefitted zone of irrigation projects or elsewhere. Later on in Maharashtra State Government revised policy and formed new rehabilitation Act MPAPRA-1999. The Government of Maharashtra also established Maharashtra state rehabilitation authority in the year 2006 in order to make 'proper and quality rehabilitation' of the PAP's of all irrigation projects.

Initially R & R work was executed as per MPAPRA 1986 and 13 civic amenities were provided. Afterwards MPAPRA-1999, 18 civic amenities provide in each Rehabilitated Village (RV) in GIP.

As per MPAPRA-1999 following civic amenities are provided.

a) Permanent provision for drinking water, in proportion to the population by open well, bore well, tube well, piped water supply scheme or by any other mode b) School with playground at appropriate level as prescribed by the Education Department of the state Government with toilets facilities. c) Construction of village panchayat office and chavdi or samaj mandir. d) Internal metal roads and asphalted approach road of appropriate standard. e) An access to the farm lands of the affected persons, if required.

f) Electric supply along with street light and three phase connections wherever required. g) Cremation ground with a shed, platform, electric supply, water supply and burial ground as may be required with an approach road. h) Open built-up gutter i) Financial assistance for individual latrines and public latrines, wherever necessary. j) Land for cattle stand with a water cistern. k) Land with pick up shed for Maharashtra state road Transport corporation bus services. l) Land for threshing floor, that is to say, khalwadi. m) Pasture land (if government land is available) n) developed land for market. o) Land for future expansion of AV. p) Land for a secondary school and dispensary or primary health center, bank, post office, garden for children etc. depending on the population of the new AV. q) Land for registered bodies for public purposes in the AV. r) Land for play ground.

Apart from these amenities each family received individual compensation in following manner

1) As per Land Acquisition Act 1894 and MPAPRA-1999

a) Compensation for land and houses. b) Plot (depending upon number of family members). C) Civic amenities (as discussed above) d) House building allowance of ` 10,000.

2) As per Government of Maharashtra(GOM) Government Resolution (GR) of Department of Forest and Revenue no RPA/1084/P C 3435/2-9 Mantralaya Mumbai-400032 dated 3/05/1988

a) Rehabilitation grant for houses and land.

3) As per sanction in of Regulatory Board of Vidarbha Irrigation Development Corporation (VIDC) Nagpur.

a) ` 50,000 in lieu of plot Surrender b) ` 5,000 for transporting the house material from AV to RV. c) House construction grant of ` 68500 PAP's Below Poverty Line (BPL) Households. d) Compensation for houses constructed after Section - 4 of the Land Acquisition case and before December 2005. e) Compensation for houses constructed beyond AV boundary on encroach area, roads and zudupi jungle.

4) As per GOM GR of Water Resources Department no Gosi 2009/1301/441/2009 GP 2, Mantralay Mumbai-400032 Dated 02/02/2010 (Chief Minister Package).

Considering the guanine demands of the PAP's state government has declared special package.

1) Interest on the compensation of affected land for the period from date of declaration of award to the actual date of payment (` 7229.00 Lacs).

2) Construction of shopping complex in RV (1 shop for 25 Households) (` 602.00 Lacs)

3) Allowance for technical training to PAP for generating employment (₹ 10,000 one member for a family) (₹ 1462.00 Lacs)

4) House construction grant for Above Poverty Line (APL) PAP's (₹ 68500 per family) (₹ 6018.00 Lacs)

In addition to all this compensation to the PAP's are also allowed to take away dismantle parts and material of demolished house in RV.

IV. METHODOLOGY

This study is carried out on 49 AV's of GIP of Nagpur district. PAP's from these 49 AV's are being shifted to 34 RV's. In this study firstly we compare area of habitant in RV's as against AV's and their population density, status of civic amenities and distance from taluka place. Secondly we compare the construction cost of houses in RV as compared to compensation received by PAP's for houses. Lastly we discuss on compensation received for land in AV.

1. Comparison of Area and population Density of RV as against AV

In this study AV's are grouped on the basis of population density in the ranges <100, 100-200, 200-300 and >300, and their variation with respect to area and population density of AV, RV is studied.

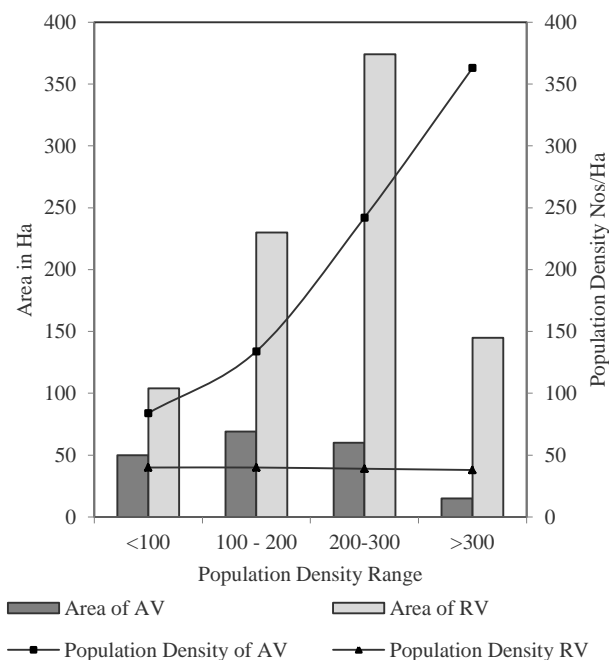


Figure 1 Variation Of Area And Population Density

Total population in 49 AV's is 33,567 who were living in area of 195 Ha where as area of RV is 852 Ha which is 4 times more and average population density of 39 Nos / Ha as against 173 Nos / Ha in AV.

Figure 1 shows that there are total 5 AV having population density of <100 whose area is 50 Ha which are being rehabilitated area of 104 Ha which would lead population density of 40 Nos/Ha in RV. Likewise 18,18,8 nos of AV's having area of 69,60,15 Ha whose population density 100-200, 200-300, >300 respectively, are being rehabilitated to RV with area 230, 374, 145 Ha.

It is also found that the area of RV is 2,3,6,9 times more than the area of AV for the corresponding population density of <100, 100-200, 200-300, >300 respectively. only 12.41 % of population contributing 5 AV were thinly dense i.e. density less than 100, where as in RV average population density is 40 Nos/Ha, which shows PAP get more place to start their habitat in RV.

2. Status of Civic Amenities of RV against AV

All the RV's are well planned layouts prepared by town planning department. In the RV civic amenities are provided as per amenities sanctioned by the Collector, Nagpur under clause 10/3 of rehabilitation Act. The civic amenities provided in the RV are much better as compared to the civic amenities in AV. The details are as follows.

A) *Water supply* :-In the AV only 14 water supply schemes (WSS) were in existence where as in RV 46 water supply schemes are being provided. In spite of the WSS open wells and bore wells are also provided 93 and 131 as compared to in AV 121 and 129 respectively.

i) *School building* :-The school buildings provided in RV are 64 as against 61 in AV with much more space and play ground as per the norms of the state government.

ii) *Community centres* :-The community centres provided in RV are 45 as against 22 in AV with two sizes depends on the No. of Households and in R.C.C. framed structure.

iii) *Gram Panchayat Bhavan* :- The Gram panchayat bhavan provided in RV are 38 as against 21 in AV in R.C.C. framed structure and inter partitions of aluminium frames.

iv) *Health centres* :- The health centres provided in RV are 22 as against 7 in AV in R.C.C. framed structure with sufficient open space.

v) *Shopping complex* :- There were no shopping complex in the AV. But considering the demands of PAP's the state government has sanctioned the (334 shops) shopping complex in each of the RV (considering 1 shop per 25 Households) and are being provided with framed structure.

vi) *Anganwadi*:- The Anganwadi buildings provided in RV are 49 as against 16 in AV with play ground as per the norms of the state government.

B) *Internal roads*:-In the AV the existing roads were small width and length as compared to the roads provided in RV. As per the layout prepared by town planning deptt. main road and internal roads are of size 15m, 12m, 9m, and 6m road width. Considering the road length in the new gaothans, average road length provided in the new gaothans is 186 m per ha. area of the new gaothan (RV).

C) *Open drains*:-There was no proper drainage arrangement in AV the drains constructed in cement concrete. But in the new gaothan RV. Proper drainage arrangement is provided on both the sides of the roads in cement concrete 1:3:6. Considering the drain length in the new gaothans, average drain length provided in the new gaothans is 340 m per ha. area of the RV.

D) *Electric supply*:- Well equipped electric facility is provided to all RV's with street lights covered through out layout.

3. Comparison of distance between taluka Place, AV and RV

All 49 AV's of GIP were located in two Talukas of Nagpur District viz. Kuhl and Bhivapur. Total 31 AV's belongs to Kuhl Taluka and 18 belongs to Bhivapur Taluka. 2 RV's are located on sides of National Highway, 16 RV's located on sides of state Highway and remaining 16 RV's located on Major district road. This study gives comparison of distance to be travelled by PAP's in RV to reach to Taluka place than that of AV to Taluka place.

In the figure 2 it is found that the line of distance between RV and AV is below than that of distance between AV and Taluka place and distance between RV and taluka place in all the cases except in 2 cases Kharada and Chichghat, where PAP's demanded their resettlement in Mauda Taluka. 21, 37, 44 AV's has Distance less than 10, 20, 30 kms respectively from RV.

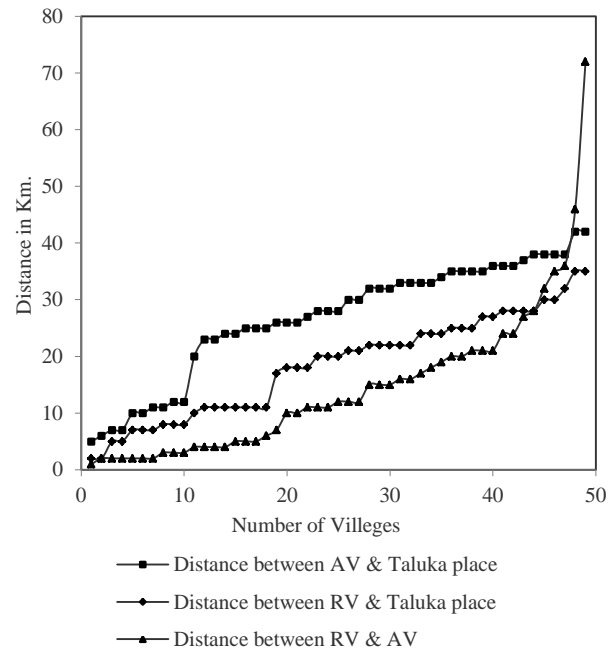


Figure 2 Comparison of distance between taluka place and RV from AV

The graph shows of distance variation between RV and taluka place is below the graph showing variation of distance between AV and taluka place. 6,5,16,20,2 AV's are farer by 10, 20, 30, 40, 42 Kms from taluka place as against 11,14,21,3 RV's are farer by 10,20,30,35 kms from taluka places. From this observation it is found that all RV's are nearer to taluka places than AV's.

In Bhivapur Taluka average distance between AV to Bhivapur was found to around 18 Km where as average distance between RV and Bhivapur is found 8 Km where as in Kuhl Taluka average distance between AV and Kuhl was found around 36 Km and than of RV to Kuhl is found to be just 24 Km. This clearly shows the RV's are at shorter distances as compared to AV's and also providing proper connectivity to Taluka places.

4. Comparison of Plot size RV as against AV.

Plots owned by PAP's in AV's were their ancestral property. AV's were hapazardly spreaded and not well planned. All the layout of RV are planned by Town planning experties, considering all future expansions and demands. Plot allocation in RV is done considering the no of family members. PAP's are being allotted individual plot for each family in RV. Plot sizes are 185, 277, 370 555 and 740 m².

Similarly 9.95, 4.11, 1.84, 0.72, 0.67 % households in AV's owned plots ranging between 185-277, 278-370, 371-555, 556-740 and above 740 m² respectively wheras 6.38, 50.8, 20, 8.72 % households in RV allotted plots of size 277, 370, 555, 740 m² respectively. From this it is found that maximum number of household get more plot size than they privously owned. From cumulative % graph it is found that 82.71 % of househole posses less than 185 m² plot in AV where as 79.52 % household got a plot size of 277 m² and above in RV.

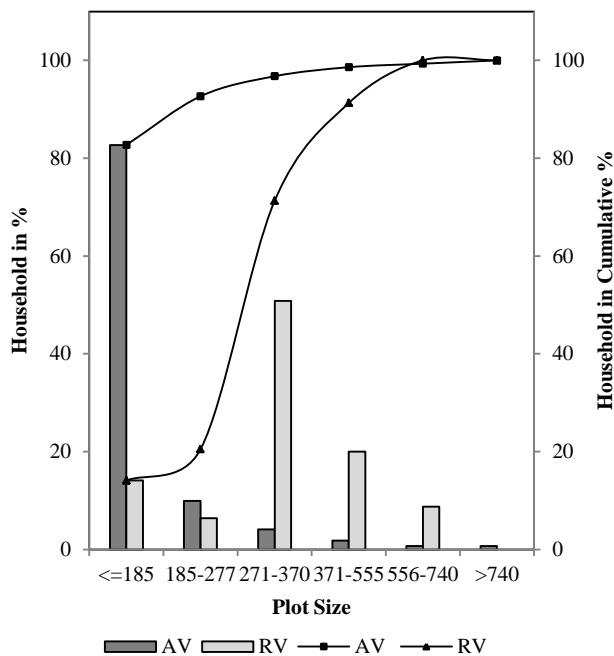


Figure 3 Distribution of plot size in RV and AV

From figure 3 it is found that 82.71 % of households in all AV's owned plot size less than 185 m² where as in RV only 14.1 % household are allotted plots of size 185 m².

5. Comparison of Construction Cost against compensation for houses.

According to MPAPRA-1999, a residential plot will be provided to PAP's in well established RV. In GIP plot size ranges from 185 to 740 m², apart from the compensation for house in AV, PAP's are being provided with financial assistance in order to encourage R&R in the form of construction Grant of ` 68500 and ` 10000 as special construction grant.

In our study we consider ` 3352 per m² as rate of construction. This rate is derived from Government sheme (GS) (Indira awas yojana) according to this scheme `68500 is given for the construction area of 20.44 m².

For this purpose we sorted out land aquisition cases for AV's and variation of compensation cost and rate of compensation is stuided. This curve shows gradual increase in rate of compensation as the year of award progress that means the rate of compensation is increasing with time and the average rate of Compensation is found as ` 5524/m² of built up area. The rate of construction is always less than that of rate of compensation received by PAP's.

When we consider construction is 1.5 times more, we found that before the year 2001 compensation received was almost equal to the expected expenditure for construction, after 2001 the compensation received was found to be more than sufficient to construct 1.5 times bigger house than previously owned.

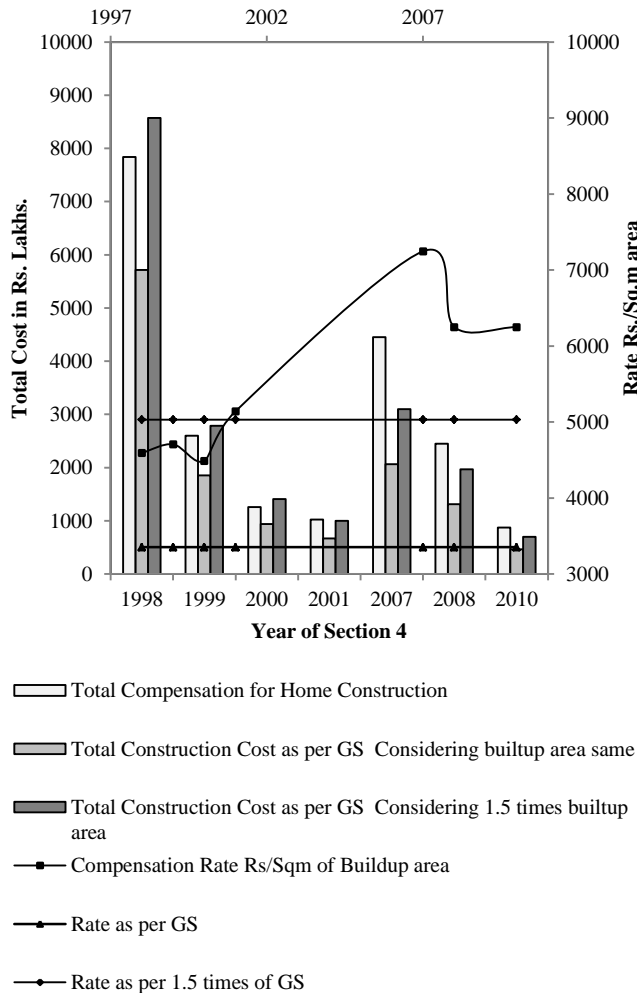


Figure 4 Comparison of Construction Cost against compensation for houses.

The study show that compensation given to PAP's is sufficient to build good house in RV having same built up area as they possessed/owned prviously in AV.

6. Land ownership study in AV

In this study we have divided the farm households in various groups such as landless, Marginal with holding farm size of <1 Ha, small farm holders with holding size of 1-2 Ha, semi medium farm holders with holding size of 2-4 Ha, medium size farm holders with 4-10 Ha each and large farm holders with more than 10 Ha above.

In the 49 AV out of 8072 households 2489 households are landless and 1454 households are marginal farm holders. That means 48.84 % of households are not only dependent on their farm land but also dependent on other works than farming. From this study it is found that out of 7072 households 5354 households from Kuhu Taluka and 2718 households are from Bhivapur Taluka. Out of 8072 households 2489, 1454, 1717, 1557, 759, 96 households are landless, marginal, small, medium and large farm holders respectively. 30.83, 18.01, 21.27, 19.29, 9.4 and 1.19 % of households are landless, marginal, small, medium and large farm holders respectively.

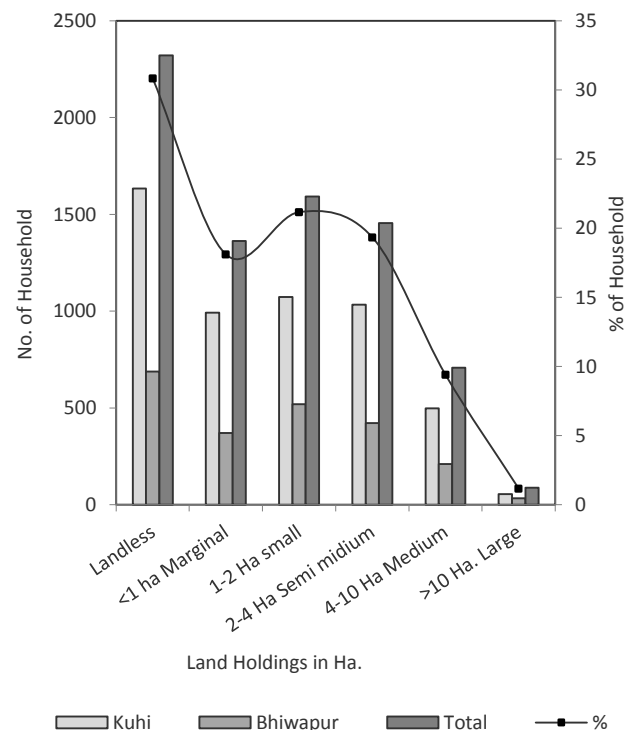


Figure 5 Possession of land in AV

Further the compensation given for land is also studied; acquisition process for the land of 76 villages is completed. Total area acquired is 11527 Ha for which ` 33114 Lacs is paid in the form of compensation including rehabilitation grant which gives average rate of compensation as ` 2.87 Lacs/ Ha. From figure 6 we found that the maximum no of awards were declared till year 2006 with rate ranging between ` 3.2 to 2.0 Lacs/ Ha.

After the year 2006 pattern shows variation and rate of compensation increases average rate of compensation found as ` 5.7 Lacs/Ha. The graph showing rate of compensation shows gradual change as per the area variation sudden pattern increase is found in the year 2010-11 the avg rate of compensation paid was found as ` 6.19 lacs/Ha. From this it is found that 51.16% household effected on compensation of land. Besides this interest amount of ` 4217 Lacs were distributed to PAP's. Considering interest of CM package average rate of compensation is ` 3.24 lacs/ Ha.

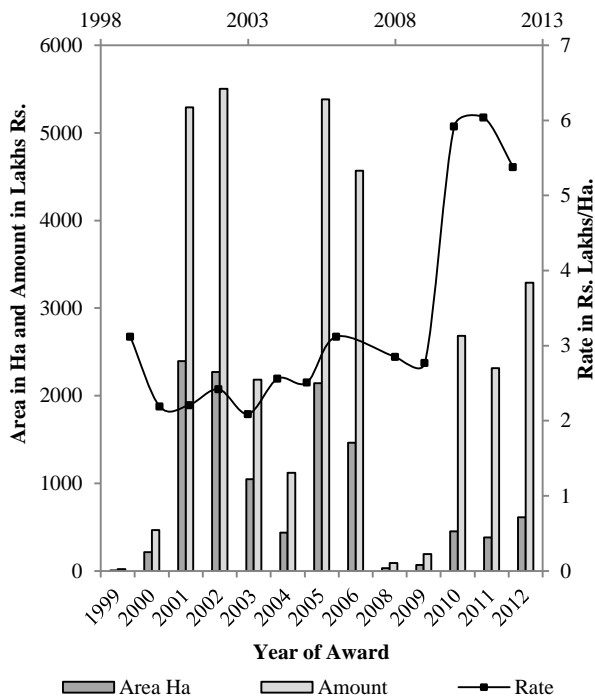


Figure 6 Compensation of land in AV

V. CONCLUSION

Findings of our study are summarized as follows

1. The area of RV is 4 times that of AV; while population density at RV is found out to be 39 persons/ Ha as compared to 175 persons/ Ha in case of AV. This clearly shows that PAP's are being provided more space for their new habitat.
2. All the civic amenities provided are well built RCC framed structures. Individual water supply scheme is provided to 34 RV's where as only 14 AV's were having water supply schemes.
3. All RV's are connected to National Highway, State Highway and Major District Roads. All 34 RV's are at shorter distances as compared to AV's. Average distance to be travelled to reach to Taluka place is reduced to 16 Km from 25 Km as in the case of AV.
4. In AV 82.71 % of PAP's owned plots of size less than 185 m²; whereas in RV, 79.52 % PAP's got a plot size of 277 m² and above.
5. Average rate of construction is ` 3352 per m² as per GS and average rate of PAP's compensation is ` 5524 per m². After 2001 PAP's get compensation more than 1.5 times construction rate as per GS.
6. It is inferred that the compensation given to PAP's is sufficient to build good house in RV having same built up area as they owned previously in AV. Proper planning would help in making well built houses in RV.
7. 48.42 % of PAP's are landless or marginal farmers, it means that 51.16% of households posses farms of more than 1 Ha.
8. Average rate of land compensation including CM package interest and rehabilitation grant is 3.24 Lacs/Ha.
9. From this it is evident that PAP's of GIP get more spacious RV, more spacious plots in RV with good amenities and satisfactory compensation of houses in AV.

REFERENCES

1. "Socio-Economic Survey of Gosikhurd Irrigation Project", by Water and Power Consultancy Services (WAPCOS) India.
2. Revised Estimate of Gosikhurd Irrigation Project.