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## 9. Social Development Pre and Post Watershed Development of Model Watershed Village Hivrebazar in Nagar Tahesil

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### Abstract

Water is basic natural resource on the earth for all living organisms including mankind and for development and survival of plant community. People generally say "no water no life". Water is necessary for every-day life. Availability of water motivates development and absence of water leads to destruction. Recently man has exploited this resource very fast through various activities which had led to quantitative and qualitative deterioration of water resource. As a result, the world has become a hot spot of water crisis.

This quantity of water resource is very high on the earth but only small quantity is useful for mankind. As global population is increasing rapidly, accordingly demand of water for various purposes is increased. This situation is further aggravated by climate change. The changes made by human community demanding water and the uneven distributions of water in nature have made the problem of water resource worst. In the world many more rain fed areas are the hotspot of food insecurity, soil degradation, water scarcity, poverty, out migration, malnutrition and poor social economical and demographical development.

Demography is a science of population which reflects the various characteristics of population in an area. Watershed development leads demographic changes. Watershed development is not only soil and water conservation but also change in overall development of the rural area. Watershed management is not so much about managing natural resources but about managing human activity as it affect these resources. In this way to access the impact of watershed development on demographic characteristics is important.

**Keyword-** organism, destruction, deterioration, aggravated, malnutrition, human community, demography.

### 1. Introduction

Grampanchyat Hivrebazar is located in Ahmednagar district of Maharashtra. Before 1989. Hivrebazar was a village known for all the wrong things. It was known with problems,

crime was high. Infighting frequently and murder were too. Illicit liquor was plenty and most people migrated from the village in search of better earning opportunities. A village famous for the wrestlers has turned to be village gangsters. All the activities in the village were famous around liquor dens.

Educational attainment was very less, whosever wishes to study high was require for 16 Km. The women literacy is too less (5%). The income of the villagers was very less. Near about 95% peoples had to go nearby villages in search of work to earn their daily bread. Health care scenario too was at its worst. All the problems were silently giving rise to the crime rate.

The Beginning of the Success Story in the 1980s, the youth of Hivarebazar began to think about remedying the detectable scenario confronting them. The elections to local Panchayats in 1989 provided the right occasion. In search of a candidate who would be acceptable to all factions, the village youth zeroed in on Pawar, who won unopposed. From here began the village's trust with destiny. Inspired by social activist Anna Hazare, Pawar took up water conservation works year after year. Anna Hazare is a Gandhian who scripted the success story for his village RalegaonSiddi, 40 km from Hivarebazar, in much the same way as Hivarebazar. He too inspired his people to come together and treat the land so as to harness rainwater and put social rules in place to manage the natural resources. His model of development using water as the core and the consequent success of Ralegaonsiddi has been an inspiration, not only to Hivarebazar but also to a large number of other villages across the country. Even government programmes have been inspired by the success to reemphasize watershed development as a way of holistic natural resource management. The district was brought under the Joint Forest Management (JFM) Programme in 1992. The JFM programme itself was born in 1988 after a law was passed by the central government to include communities in the conservation of forest resources, mainly village forests. By the year 1993, the district's Social Forestry Department reached Hiwarebazar and brought Pawar on board to regenerate the completely degraded 70 ha of village forest and the catchments of the village wells. With local labour donations, the Panchayat built 40,000 contour trenches around the hills to conserve rainwater and recharge groundwater. Residents took up massive plantation and forest regeneration activities. Immediately after the monsoon, many wells in the village collected enough water to increase the irrigation area from 20 ha to 70 ha in 1993. "The village was just beginning to get a bit of life back in its veins," remembers Pawar. Hiwarebazar's achievement under the JFM programme is special as it counts among the few successful JFM cases in India. JFM as a programme failed to capture the imagination of the people mainly due to unclear property rights and weak

institutional capacities. For any programme to be successful therefore one needs a clear property rights regime, whether defining communal or individual rights, strong institutional support as well as a strong and visionary leadership. In 1994, the residents, along with the Gram Sabha (village council), approached 12 different agencies to implement watershed works under the state's EGS. The village prepared its own five year plan for 1995-2000 that emphasized local ecological regeneration. Implementation of the five year plan then became the objective of the EGS, which was otherwise a wage employment programme. This was to ensure that all departments implementing projects in the village would have a common and integrated work plan. Work began in 1995 building contour trenches across the village hillocks and planting trees to arrest runoff. Simultaneously, in 1994 the Maharashtra government brought Hivare Bazar under the Adarsh Gaon Yojana (AGY), a scheme to replicate the success story of Ralegan Siddhi. The AGY programme was based on five principles: a ban on cutting trees, free grazing, and liquor; family planning; and contributing village labour for development works. The first work it took up was to plant trees on forestland and people were persuaded to stop grazing in these lands. Grazing forms the second most important part of rural-pastoral life with every household owning cattle. Traditionally, common land in the village also doubles as grazing ground. For watershed development to be effective this activity had to be stopped to allow the pasture to regenerate. In Hivarebazar, prior to the implementation of the AGY rules, many people owned more goats than cows. Goats eat plants by pulling them out causing the soil to loosen and leave less scope for the plants/grasses to grow back. Keeping this in mind, the village slowly sold off all its goats in favor of cows.

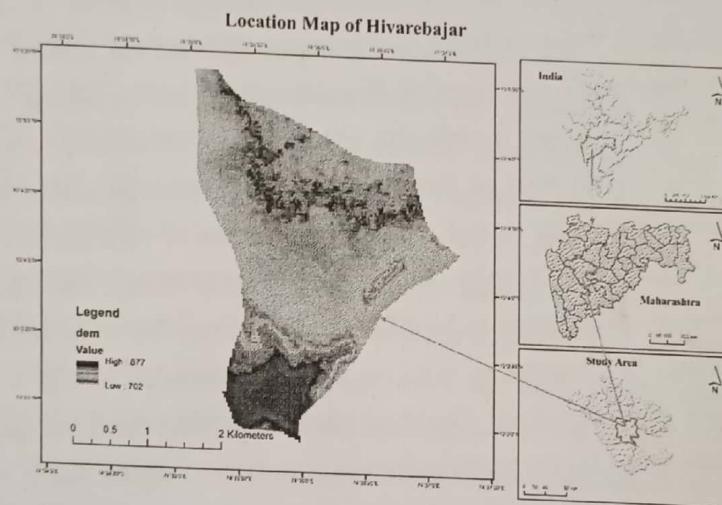
The village invested all its development money of the five-year plan on water conservation recharging groundwater as well as creating surface storage systems. It laid a tight trap to catch rainwater. The 70 ha of forest helped in treating the catchments for most of the wells, 414 ha of contour bunding stopped run-off and saved farms from silting, and around 660 water harvesting structures of various types captured rainwater. A total of Rs 42 Lakhs<sup>5</sup> was spent through the State government on EGS in the village. Treating 1000 ha of land, the per ha cost of treatment of land was Rs 4000. But the cost benefits in term of raised incomes of village residents were phenomenal (Supriya Singh, 2007).

#### **Objectives of Study**

1. To assess the economic import-whether the watershed Development Programme had caused any change in the socio development of the community at large.

### Study Area

Gram Panchayat Hivarebazar is in Nagar 'tahsil' of Ahmednagar district in western Maharashtra, and is situated at a distance of 28 kms from Ahmednagar city, the district headquarters. The latitudinal extent of Hivarebazar is  $19^{\circ} 02' 18''$  to  $19^{\circ} 05' 21''$  North and longitude extent is  $74^{\circ} 34' 36''$  to  $74^{\circ} 36' 58''$  East. Hivarebazar is situated in a low rainfall drought-prone area of Maharashtra State – 'quoted average rainfall' of about 579 mm, with high variability. Its physiographic setting is the hilly part of the Deccan Traps country at the foot of an escarpment and head of a local watershed with elevation mainly in the range 710-740 m ASL. The population of Hivarebazar in 2011 was 1,233 among it 636 males and 597 females.



## 2. Data Source and Research Methods

Materials of the present study are collected through numerous sources.

### 2.1 Primary Data

Primary data is collected from the sample beneficiaries through personal interviews. For this purpose, questionnaire was prepared. For collection of data field work was done.

### 2.2 Secondary Data

The secondary data information is collected from record of Grampanchayat, Taluka Krushi Offices, Panchayat Samitti and Self Help Groups (SHG). Some data is collected from several published research papers and Ph.D. Theses as well as minor research project. For collection of data, topic related books and journals are referred. For the data related to various physical, socio-economic and demographic characteristics District Census Handbooks is referred (1981-2011). Toposheets are also used as a secondary data for study purpose. In addition the researcher discussed with state government departments like Soil Conservation offices, District

Groundwater Department and officials of different NGOs, Social workers and Sarpanchs of villages. Various geographical quantitative methods are used

**Result and Discussion**

**3. Household Social Conditions**

**3.1 Types of Family**

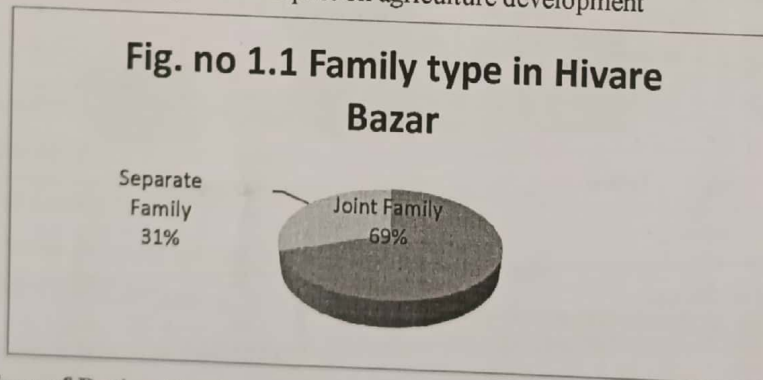
Table No. 1.1 Types of family in model watershed villages Hivare Bazar (Percentage).

Sr. No.	Name of village	Joint Family	Separate Family
1	Hivare Bazar	69.2	30.8

Source: Computed by researcher (Sample survey 2015).

The above table no. 1.1 shows the percentage distribution of type of family in all model villages. It is one of the important social components of human resource management. If village have high percentage of joint family system it is a symbol of community based work. Due to joint family system agriculture land is not divided into small parts so that people are able to use different modern agriculture techniques such as tractor, fogging machine, sprinkler, drip irrigation etc. and producing cash crops instead of traditional crops. These all reasons have direct and indirect effect on watershed development. Above table shows except Hivare Bazar village has 69.2 percentage of joint family system and 30.8 percentages has separate family.

In general the average percentage of joint family system is high in the model watershed village Hivare Bazar. It has positive impact on agriculture development



**3.2 Type of Ration Card**

Table No. 1.2 Type of ration card in model watershed village Hivare Bazar. (%)

Sr. No.	Name of Model Villages	Yellow	Kesari	White
1	Hivare Bazar	21.2	63.6	15.2

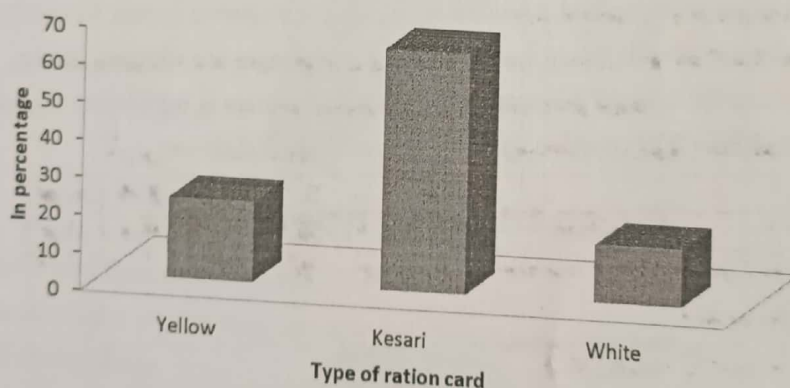
Source: Computed by researcher (Sample survey 2015).

Government of Maharashtra classified tricolor ration card with the help of annual income and standard of living. Household having annual income below Rs.15000/- (Yellow Ration

Card), more than Rs. 15000/- and less than Rs. 100000/- (Kesari Ration Card) and Rs. 100000 /- or above (White Ration Card (Mahafood.gov.in).

Watershed development has socio economic impact on watershed area before and after watershed development. Table no. 1.2 indicates percentage distribution of types of ration cards in model watershed village. The table shows model village Hivare Bazar has highest proportion of Kesari ration cards i. e. 63.6 per cent. It means high proportion of households have annual income in-between Rs. 15000 to 1 lakh Rupees. In Hivare Bazar 15.2 percent has White ration card. It indicates that very less percentage householders have high annual income and high standard of living. Though these are ideal and model watershed village, nearly about 21.2 percent households are BPL (Below Poverty Lines) with annual income is less than Rs. 15000/- and low standard of living.

**Fig.no. 1.2 Type of Ration Card in Hivare Bazar**



### 3.3 Type of House

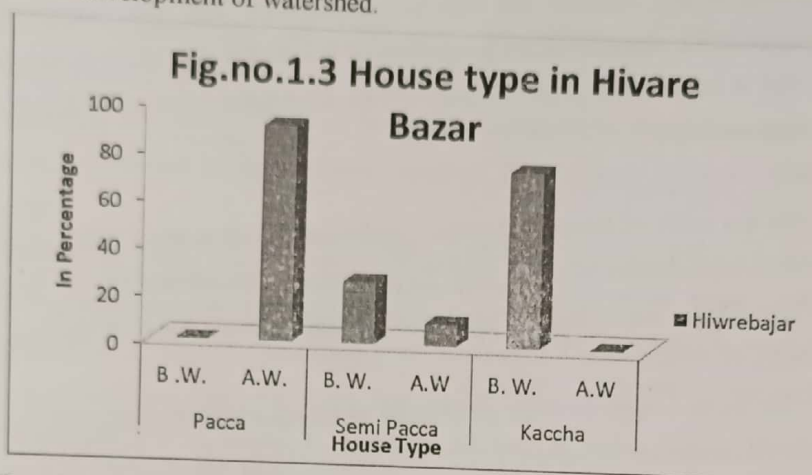
Table No. 1.3 Type of house before and after watershed development in model watershed village Hivare Bazar. (Percentage).

Sr.No.	Name of Model Villages	Pacca		Semi Pacca		Kaccha	
		B. W.	A. W.	B. W.	A. W.	B. W.	A. W.
1	Hivare Bazar	0	90.9	25.8	9.1	74.2	0

Source: Computed by researcher (Sample survey 2015).

The table no. 1.3 represents the percentage of distribution of house type before and after watershed development. The dwelling characteristics also indicate diverse trends of development in the village. The highest percentage of kaccha houses are found before watershed development

after this semi pacca in model watershed village Hivare Bazar 74.2 and 25.8 respectively. In this village before watershed development pacca house type was not found. After watershed development the construction of pacca houses (90.9) are increases steadily in model village after this semi pacca (9.1) and kaccha (0.0). It shows trend of households towards construction of pacca house types after development of watershed.



### 3.4 Standard of Living Index

Table No.1.4 Standard of living index before and after watershed development in model watershed village Hivare Bazar. (Percentage).

Sr.No	Name of Village	Low		Medium		High	
		B. W	A.W	B. W	A.W	B.W	A.W
1	Hivare Bazar	18.2	13.6	55.1	54.5	25.8	31.8

Source: Computed by researcher (Sample survey 2015).

#### Criteria of SLI

##### \*\* Standard of Living Index (SLI)-

- 1) **Low** - Gas stove, Pressure cooker, Electric fan, Bicycle, Radio
- 2) **Medium**- Sofa set, Refrigerator, T.V., Motorcycle, Spry pump and including all low category items
- 3) **High**-All household items

Reference -National Family Health Survey 1991

The table no 1.4 shows the circumstances of the model village before and after the Watershed Development. The second part of the table reveals the changes after (or due to) Watershed Development and the first part articulates the earlier one. The table is based on some basic characteristics, like Standard of Living Index (SLI) and Type of House. The SLI consists of



three sub categories, Low, Medium and High, It has favored the Watershed Development, by showing increase in High SLI and decrease in Low and somewhere Middle SLI for village Hivare Bazar. In this sample survey difference in standard of living index is found before and after watershed development. Before watershed development 18.2, 56.1 and 25.2 percent households were in low, medium and high SLI respectively. But after watershed development due to socio economic transformation proportion of low SLI is decreased in low (13.6) medium (54.5) and SLI is increased in high category (31.8). In general trend of SLI is found from low SLI to medium and high.

#### Finding

1. From the study of household social conditions data it is clear that joint family (69%) system is dominant in study area. In general it is found that the in model watershed village Hivare Bazar highest proportion of population consist of general category and only.
2. Hivare Bazar village average percentage of Kesari ration card householders are higher (63.6) as compare to yellow (21.2) and white (15.2) ration cards. It indicates highest percentage of households has medium income and still near about  $\frac{1}{4}$  households are in below poverty line and less percentage households has very high annual income. Generally it is found that improvement in income level of the villagers after watershed development.
3. Dealing with type of houses, it is the favor of watershed development. Before watershed development 74.2 percent households have kaccha type of houses, but after watershed developments the value are showing positive result with the highest concentration towards pacca houses i.e.90.9 percent.
4. The Standard of Living Index (SLI) shows available facilities of the household in-between before and after watershed development. The SLI consists of three categories i.e. low, medium and high. It has favored of watershed development, by showing increases percentage of high SLI of average 6 percentages, medium SLI by 1.6 percent after watershed development. And decreased average percentage of low SLI 4.6 percentage. Generally in Hivare Bazar shows improvement in low SLI to medium and high.

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