

ADARSH GAON YOJANA - WAY TOWARDS GANDHI'S DREAM VILLAGE: SELF-SUFFICIENT, PROSPEROUS AND PEACEFUL

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ABSTRACT

Most of the rural development models considered natural resource management as the means for rural transformation. The present paper reveals the impact of one of such rural development models named "Adarsh Gaon Yojana" of Government of Maharashtra, which is based on natural resource management and watershed management. The study was carried out in the village Hiware Bazaar of Ahmadnagar district of Maharashtra to find out the impact of Adarsh Gram Yojana, (AGY). The model has distinctive features such as ban on cattle grazing, ban on tree felling, ban on liquor, donation of labour and family planning. A research design used for the present study was 'before-after' with control, personal interview was the research method and semi-structured schedule was used as research technique. A total of 117 respondents were selected randomly for the study, 54 from Hiware Bazaar (Village- X) and 54 from Control village (Village- Y) or control village in addition to the Government officials related to implementation of AGY. The main findings of the study are: Majority of the farmers were found from young age group belonging to higher caste having nuclear type small family size along with agriculture as major occupation in both villages. Most of the farmers in village X were literate whereas the percentage of literates in village Y was less. It was found that, due to development of various watershed structures under the AGY, water availability became a major asset in village X, which resulted into changing cropping pattern, crop production and productivity.

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Farmer turned towards commercial crops which resulted in 11.60 fold increase in income from agriculture sector. Subsequently input availability, utilisation of agriculture and livestock related services improved substantially in village X. Similarly, due to availability of fodder, commercial dairy farming emerged as major subsidiary occupation in village X, resulted in ten-fold increase in milk production which added much more income to the farmers. Though the changes were also observed in above mentioned sectors in village Y but it was very marginal as compared to village X. Thus AGY model has great success in the overall village transformation of Hiware Bazaar. It can be very well replicated in similar situation.

Introduction

“I would say that, if the village perishes, India would perish too. It will be no more India” -Mahatma Gandhi

Since time immemorial, India has been, still continues to be, and will remain in the foreseeable future, a land of village communities. As a matter of fact the village was the basic unit of administration during the Vedic age; there is reference of gramini (village leader) in the Rigveda. The predominantly rural character of India's national economy is reflected in the very high proportion of its population living in rural areas: it was 72.20 per cent in 2005 and contributing about 21 per cent of its GDP, therefore, no strategy of socio-economic development for India that neglects rural people and rural areas can be successful. The revival of village life is possible only when it is no more exploited. Overall transformation of rural sector is therefore, an absolute and urgent necessity in India now and will continue to be so in future (Katar Singh, 2004).

In recent years the notion of sustainable development has emerged as a reaction to the highly technological and centralised processes that have governed thinking on development, the green revolution being a classic example. The process of sustainable development envisages that people should not merely participate, but be in charge of their own development. Some

initiatives in India have grappled successfully with this complex process, and different models of people-driven development have emerged.

Village economy and its development are based on its natural resource and their management for production. Natural resource management, therefore, has to be the key pin for an effective strategy for rural development. Most of the rural development models have therefore, considered natural resource management as the means for rural transformation.

Ralegaon Siddhi

It is a unique example of participatory natural resource management and all round development in Ralegaon Siddhi village of Parner (taluka) in Ahmadnagar district of Maharashtra. By 1975, prior to intervention by Mr. Anna Hazare, the village had become quite notorious with all sorts of social evils, moral downfall and with badly shattered economic conditions. In general, the village presented the profile of a poverty-stricken and debt-ridden society. Scarcity of water was the key to distress, which limited the prospects of agriculture. It was Anna Hazare, who brought the villagers under his leadership some thirty years ago and decided the way for village development to solve basic necessities, which later on became the first 'Ideal village' of Maharashtra.

Achievements at Ralegaon Siddhi

Successful implementation of voluntary code of conduct such as, voluntary labour, family planning, ban on grazing, tree cutting and liquor, regeneration of watershed resources through people's participation paved the way for agricultural development in the village. Today year-round water availability for irrigation is the biggest asset in the village and out of the 1700 odd acres of arable land about 1200 acres are under irrigation. The number of milch cattle has also been growing. This had resulted in growth of milk yields from 100 litres (before 1975) to around 2500 litres per day. Today, Ralegaon Siddhi earns nearly Rs.1 crore per annum on dairy. These changes brought economic prosperity in the village.

Successful implementation of government schemes through community participation strengthened the infrastructure of village such as safe drinking water, sanitary facilities, biogas, postal, baking, roads, schools, and health centres etc.

Today appreciable changes could be seen in the attitude of the people with high degree of moral standards and ethics. Successful abolition of social evils like alcoholism, dowry, corruption and the caste system from the village created positive social image of village. Today there is no single liquor shop in the village and even no shop selling cigarettes, tobacco or *bidi*. For the last 17 years the village has been marrying its boys and girls in community marriages. The quality of life of people belonging to backward classes, particularly that of women, has improved appreciably because of special attention and focus.

The reputation of this integrated rural development approach has been recognised far beyond the villages, especially by the Maharashtra government and under Anna Hazare's guidance it has begun a programme to replicate this through "ADARSH GAON YOJANA".

Adarsh Gaon Yojana (AGY)

During the period in which the State of Maharashtra was celebrating the Golden Jubilee of its existence, the State government announced the 'AGY' which is based on well-known rural transformation model of "Ralegaon Siddhi" under the leadership of Anna Hazare. Perhaps this model is the most notable, which is envisaging people's participation in natural resource management. The 'Adarsh Gaon Yojana' was undertaken to provide safe drinking water, employment, green fodder, education and health so that a village may achieve self-sustenance. The programme was undertaken in 300 villages across 300 blocks in Maharashtra. The implementation of the programme was based on the following "Panchasutra" (The five principles)

- Donation of Labour (*Shramdan*)
- Ban on Grazing (*Kurhad Bandi*)
- Ban on Tree Cutting (*Charai Bandi*)
- Ban on Liquor (*Nasha Bandi*)
- Family Planning (*Kutumb Niyojan*)

The village that is to be selected under this *Yojana* should be located in a drought-prone area and should have shortage of drinking water as their major problem. The villagers should have to take an oath to follow the above five

principles. The 'AGY' aims at encouraging the villages to become self-sufficient and self-reliant by following the five principles and involving them in the watershed development programme with the assistance of NGO and government departments. Different important activities related to government departments are to be carried out which include horticulture and tree plantation, alternate energy sources, dairy development, educational activities, hygiene and sanitation, village cleanliness, health and nutrition etc.

'AGY' has now been declared as a state level programme from the year 1996-97 and budget for sanctioned projects is routed through the department of soil conservation and watershed development. The administrative structure for the implementation of 'AGY' consists of four committees appointed at various administrative levels such as the state, district, taluka and village levels.

District Level Committee functioning under the chairmanship of chief executive officer of Zilla Parishad, scrutinises the project plans prepared by NGO or government departments and makes recommendations regarding the budget requirements. The committee monitors and evaluates the work being done in 'Adarsh Gaon'.

The Taluka Level Committee functions under the chairmanship of block development officer. The member-secretary is the deputy divisional soil conservation officer. The committee looks after the functioning of 'AGY' within its jurisdiction.

The Village Level Committee consists of *Sarpanch* of the village as its member-secretary. This committee is responsible for monitoring, evaluating and guiding the programme at village level. The technical coordinators, the village development field volunteer and the women volunteer are appointed at the village level for carrying out different functions for smooth working of 'AGY'.

Research Methodology

The present study was carried out at Hiware Bazaar village of Ahmednagar district of Maharashtra to find out the impact of AGY where, Government of Maharashtra implemented 'AGY' since 15 August 1994 and under the scheme this village has been awarded 'Ideal village' (*Adarsh Gaon*) status in 1998. A research design used for the study was 'before-after' with control and data

were collected through personal interview and secondary sources. A total of 117 respondents were selected randomly for the study, 54 from Hiware Bazaar (Village- X) and 54 from Jamgaon (Village- Y) or control village, which consists of 51 landholder and 3 landless respondents in each village. In addition, data were collected from 7 government officials such as Block Development Officer, Village Development Officer, Livestock Development Officer, Medical Officer, Water & Soil Conservation Officer related to the concerned villages.

Data from secondary sources were collected from *Grampanchayat* office and NGO ('*Yashwant Krishi Gram* and Watershed Development Trust') involved in the implementation of AGY regarding people's participation in creating various community assets in the village, various activities for natural resource management, watershed development and soil conservation measures.

Before- After concept

The present paper was referred as 'Before-After' concept for the convenience of data collection, presentation and also for a research writing which is explained as follows:

The year 1994-95 of the experimental village (Hiware Bazaar/Village-X) was taken as the position to explain 'Before AGY' as the AGY was implemented on 15 August 1994 in that village. The year 2004-05 was taken as the position to explain 'After AGY' as the study was undertaken in this particular year. *i.e.* about 10 years of implementation of period. Henceforth in order to find out the socio-economic impact of AGY, 10-year's period has been considered. A control village (Jamgaon / Village-Y) where AGY has not been implemented, 10-year period was considered as 'Before-After' to present research findings.

Table 1 : Salient Features of the Village Hiware Bazaar

Total geographical area	976.84 ha.
Cultivable land	795.23 ha.
Forest land	70.03 ha.
Pasture land (Public)	6.75 ha.
Pasture land (Private)	62.00 ha
<i>Gaothan</i>	4.46 ha.

Table 1 : (Contd...)

Irrigated land	795.23 ha.
No. of functioning wells	318
Social situation (2002)	
Total population	1245
No. of males	620
No. of females	625
No. of farm families	205
No. of landless families	11
No. of milch animals	560
No. of farm use animals	120

Results and Discussion

GENERAL PROFILE OF RESPONDENTS

The selected respondents in the present study ranged between 20 to 70 years of age in both villages and most of them belonged to general caste. Majority (94.44 per cent) of the respondents had agriculture as their main occupation in both villages with average size of landholding in village X is 3.90 hectares and that of the village Y is 5.00 hectares, while there is considerable difference between the villages in subsidiary occupation *i.e.* dairy farming. Also there was considerable difference found in the education status of the respondents in the two villages. Literacy percentage in village X was 89.67 while in village Y it was only 53.2.

Natural Resource Management

WATERSHED MANAGEMENT

Being a major component of AGY today, villagers created various water percolations and storage structures on private and common village land through people's participation and availing of various government schemes. Data were collected through secondary sources on before and after basis regarding the

number of such structures created, area covered under such structures along with the area covered under the tree plantation (in hectares) in the entire village. In the present study the structures included were: Continuous contour trenching (CCT), earthen bunds, cement bunds, storage tank, percolation tank, *Van tale*, loose boulders, *Nalla* bunds etc. Table 2 depicts clearly that as watershed management is the part of AGY implemented in village X, there were more such structures as compared to its 'before' situation and also to that of the village Y.

**Table 2 : Achievements in Watershed Management under
Adarsh Gaon Yojana (AGY)**

Items	Village X (Experimental)		Village Y (Control)	
	Before AGY	After AGY	Before AGY	After AGY
Total village area (ha.)	976.84	976.84	2970	2970
Cultivable land (ha.)	795.23	795.23	2373	2373
Contour bund on land (ha.)	414	0	0	0
Continuous Contour Trench on Panchayat land (ha.)	0	10	0	24
Continuous Contour Trench on private land (ha.)	0	70	0	18
Tree plantation on land (ha.)	70	206	0	42
Tree plantation along roadside	0	6 Km.	0	0
Loose boulder (No.)	0	120	0	28
Earthen structure (No.)	0	2	4	6
Nalla bund (No.)	29	3	91	145
<i>Van tale</i> (No.)	0	2	1	2
Percolation tank (No.)	2	0	2	4
Storage bandhara (No.)	0	7	0	1
Cement nalla bunding (No.)	0	4	0	2
Repair nalla bunds (No.)	0	11	0	0
Wells (No.)	97	318	136	213
Trees (No.)	30,000	9 lakhs	90,000	1.6 Lakhs

Major decisions taken for natural resource management

It was observed that in village X they had taken certain decisions by the consensus of villagers in the *Gram Sabha* in respect of natural resource management, but no such decision was taken in the village Y. The decisions taken in village X were as follows:

- (i) Ban on cattle grazing and tree felling
- (ii) Water intensive crops like sugarcane and banana have been prohibited in the village
- (iii) Use the micro-irrigation methods (drip and sprinkle) for horticultural crops
- (iv) Ban on bore-wells for the irrigation purpose
- (v) Ban on selling of village land to any non- citizen of the village

Agriculture

IRRIGATION STATUS

Data from farm respondents (102) in both the villages in Table 3 reveal the impact of watershed management and community decision on natural resource management, there is considerable improvement in the irrigation status in the village X as compared to village Y. The percentage of irrigated land increased by 208 in village X, while in village Y the percentage irrigation change was only about 53.66. In fact, today water availability throughout the year for irrigation is the biggest asset in the village X, created through community efforts.

CROPPING PATTERN

It consists of major crops grown by the farm respondent throughout the year. Data regarding coverage of land (in hectare) under each crop were collected on before–after basis. Table 4 shows that in village X there is marginal increase in area under *Jowar* (by 7.92 per cent), but there is sizeable percentage change in area under wheat (474.65 per cent), oilseeds (316.57 per cent) pulses (193.34 per cent), vegetables (411.36 per cent) and the fodder (844.97 per cent), which is indicative of shifting towards commercial farming from mere

Table 3 : Irrigated Area Before and After Adarsh Gaon Yojana (AGY) (in hectares)

Items	Village X (Experimental) (N=51) *				Village Y (Control) (N=51) *					
	Before AGY	After AGY	% Increase in area		Before AGY	After AGY	% Increase in area			
	Area (ha.)	%	Area (ha.)	%	Area (ha.)	%	Area (ha.)	%		
Irrigated	62.5	31.41	192.5	96.73	208	41	16.08	63	24.71	53.66
Unirrigated	136.5	68.59	6.5	3.27	-95.24	214	83.92	192	75.29	-10.28
Total	199	100	199	100	-	255	100	255	100	-

Table 4 : Area under Different Crops Before and After Adarsh Gaon Yojana (AGY) (in hectares)

Crops	Village X (Experimental) (N=51)*				Village Y (Control) (N=51) *			
	Before AGY		After AGY		Before AGY		After AGY	
	Area (ha.)	%	Area (ha.)	%	Area (ha.)	%	Area (ha.)	%
Jowar	51.44	25.85	55.52	27.9	95	37.25	97	38.04
Bajra	43.78	22	2.46	1.24	61	23.92	58	22.75
Wheat	4.30	2.16	24.71	12.42	9	3.53	23	9.02
Oilseed	5.37	2.70	22.37	11.24	14	5.49	20	7.84
Pulses	7.96	4.00	23.35	11.73	27	10.59	22	8.63
Vegetables	5.37	2.70	27.46	13.8	15	5.88	21	8.24
Fruit & Flowers	0	0	9.3	4.67	0	0	1	0.39
Fodder	3.58	1.8	33.83	17	7	2.75	13	5.1
Fallow Land	77.2	38.79	0	0	27	10.59	0	0
Total	199	100	199	100	255	100	255	100

* N=51: As out of total 54 respondents, 3 landless respondents were taken in each village.

subsistence one. Crop production increased mainly due to availability of water for irrigation purpose throughout year and other inputs availability such as credit facilities, cooperative efforts, use of improved seeds, fertilisers and pesticides, etc. Though the village Y shows change in cropping pattern over a period of time, the pace of change is much slow than that of the village X. Also the fruit-flower crops were the new introduction in both the villages, but percentage coverage is more in village X (4.67) as compared to the village Y (0.39). It is important to note that before AGY, the land in village Y was better than village X and only 10.51 per cent of land was under fallow in village Y, while in village X it was as much as 39 per cent. Now entire land in both the villages is cultivable.

Animal Husbandry

MILK PRODUCTION

Table 5 indicates the total milk production (in liter/ year) in the household of respondents from all livestock such as indigenous cow, crossbreds and buffaloes for a total lactation length. The total milk production before implementation of AGY in the respondents' families in village X was about 28,979.20 litre/ year (536.7 litre/ household/ year) which was raised to 3,03,680 litre per year (5823.7 litre/ household/ year) and in the village Y it was 20,038.50 litre/ year (371.1 litre/ household/ year) which reached up to 61,502.5 litre per year (1138.9 litre/ household/ year) *i.e.* about 179.87 per cent and 136.03 per cent change in total milk production in village X and Y, respectively.

Economic Development

PER CAPITA INCOME

Data regarding the various sources of income and their contribution in the total income of each respondent were collected for the year 2003-2004 including household consumption. The major sources considered for the study were: agriculture, (cereals, pulses, oilseeds, vegetables, crop residue, fodder, flower and fruit crops), livestock (milk, manure and the livestock sold in a year) and farm labour in case of landless respondents. The value of each crop was considered according to the current market price at the time of study for 'after' situation and for 'before' it is calculated by considering the change in "Wholesale Price Index" in 10 years. It is observed that "Wholesale Price Index" has been changed by 194 per cent during this period.

Table 5 : Milk Production by the Dairy Animals of Respondents Before and After Adarsh Gaon Yojana (litre / year)

Type of dairy animal	Village X (Experimental) (N=54)			Village Y (Control) (N=54)						
	Before AGY	After AGY	% Change	Before AGY	After AGY	% Change				
	Produ- ction	Produ- ction	%	Produ- ction	Produ- ction	%				
Indigenous Cow	1,440.00	4.97	13,870.00	4.57	863.19	2,463.75	12.3	3,832.50	6.23	55.56
Crossbred	0	0	2,48,200.00	81.73	-	0	0	35,040.00	56.97	-
Buffalo	12,775.00	44.08	30,660.00	10.10	140	3,431.00	17.12	9,125.00	14.84	165.96
Goat	14,764.20	50.95	10,950.00	3.61	-25.83	14,143.75	70.58	13,505.00	21.96	-4.52
Total	28,979.20	100	3,03,680.00	100	947.92	20,038.50	100	61,502.50	100	206.92

Table 6 shows status of per capita income of the respondents of both the villages 'before' and 'after' AGY. It is interesting to note that before implementation of AGY in village X per capita income was only Rs.1,004.17 which rose to Rs.16701, that means about 16.63 times, due to the impact of AGY, while in village Y it was Rs.1, 466.49, which reached to Rs. 8,431.60. *i.e.* almost 5.75 times only.

Table 6 : Per Capita Income Before and After Adarsh Gaon Yojana (AGY)

Particulars	(In Rupees)			
	Village X (Experimental) (N=54)		Village Y (Control) (N=54)	
	Before AGY	After AGY	Before AGY	After AGY
Total income	312297	5194011	554333	3187146
Total members	311.00	311.00	378.00	378.00
Per capita income	1004.17	16701.00	1466.49	8431.60
Times increased	16.63		5.75	

Infrastructure Development

Data on infrastructure development were collected through the secondary sources regarding the creation of various community assets in the village through community participation as well as by the cooperation of different government agencies on 'before and after' basis. Table 7 shows the development of various community assets in both the villages over a period of 10 years.

Social Development

On social front too, village X achieved various milestones, the social evils such as untouchability and dowry were completely abolished from the village. They are sharing common drinking water facilities; participating actively in the festivals and ceremonies of each other. Community marriages are organised together of all castes of people in the village. Though the village has only two families of Muslim community, villagers decided to construct a

Table 7 : Infrastructure Development in the Villages X and Y Before and After Adarsh Gaon Yojana AGY

Infrastructure / Community Assets	Village X (Experimental)		Village Y (Control)	
	Before AGY	After AGY	Before AGY	After AGY
School	Yes - Up to Primary	Yes - Up to Secondary	Up to Secondary	Up to Secondary
Community hall	No	Yes	No	No
Guest house	No	Yes	No	No
Training centre	No	Yes	No	No
Smriti Udyan	No	Yes	No	No
Health Club	Yes	Yes- Improved	Yes	Yes
Library	No	Yes	No	Yes
Marriage hall	No	Yes	No	Yes
Solar electricity	No	Yes	No	No
Gram Panchayat building	Yes	Yes- Improved	Yes	Yes
Veterinary clinic	No	Yes	Yes	Yes
Internal road	Yes	Yes- Improved	Yes	Yes
Drainage system and toilet	No	Yes	No	Yes
Temple	Yes	Yes- Improved	Yes	Yes

mosque for them as it was demolished for the school building construction earlier. A village having 11 landless families and farm labouring is the only way of their subsistence. Hence these families also took part in the village development process; therefore, *panchayat* offered them free access to fodder throughout the year on the hillsides as a social commitment. As a result most of them started commercial dairy farming. Since 1989 to till date selection of leaders of all institutions in the village including *Gram Panchayat* and Cooperative Dairy Societies are held through the consensus of villagers and without any election. No such social development was observed in village Y except sharing common drinking water facilities and to some extent untouchability.

Migration Pattern

As an impact of all over development of village X during last 10 years it was notably found (Table 8) that, earlier in village X, 14 families migrated to the nearby cities in search of job 'before' implementation of AGY, today out of that 10 families came back to settle in the village X. While in village Y migration trend to outside still persists.

**Table 8 : Migration Pattern of Villagers Before and After
Adarsh Gaon Yojana (AGY)**

Type of migration	Village X (Experimental) (N=54)			Village Y (Control) (N=54)		
	Before AGY	After AGY	% Change	Before AGY	After AGY	% Change
	No. Family	No. Family		No. Family	No. Family	
Migration to outside	14	4	-71.43	5	15	200.00
Immigration	2	10	400.00	1	2	100.00

Clean Village : Healthy Village

A village X once with full of dirt and diseases, today prides itself on its cleanliness and beauty in Maharashtra. It was rewarded with the title of "Clean and Beautiful Village" with Rs.5 lakh under the '*Saint Tukadoji Maharaj* village sanitation programme' of Maharashtra Government in 2000 – 2001. Indeed the village is spotlessly clean, even on a normal day. Money from a government

scheme was used to implement a major sanitation project in which over 170 toilets were constructed at the cost of Rs.3500 each. Private toilets were built for all families that paid for them. For those that could not afford these, community facilities were provided with three families sharing one toilet. At the same time, an elaborate network of *Nallas* maximised the utility of all waste water. All runoff from community taps, and waste water used for cooking and washing are channelled into community gardens, where the village is growing common trees, vegetables and plants.

Despite an improved living environment, the village hosts health camps twice a year. At these camps every person is checked for common ailments and treated free of charge. They are using smoke-free *Chullha* and about 53 biogas plants are working in the village. Safe and clean drinking water is supplied through 14 community hand-pumps. Though farmers still use some amount of chemical fertilisers and pesticides, they are being encouraged to using *Gobar* as fertiliser because of its abundance in the village and its eco-friendly property. Internal roads and surroundings of houses are kept clean by the villagers themselves. Trees, flower bushes and plantation alongside the road and surrounding of houses are adding to the beauty of village with healthy, cool and smoke-free air. Villagers organise the “Village Cleaning Mission” with the help of school children on the occasion of various local and national festivals. Recently a *Sarpanch* of ‘Hiware Bazaar’ Mr. Popatrao Pawar triumphantly announced, ‘Find me a mosquito in village and get an award of Rs.100’, which is an indication of the sanitation condition in the village.

‘Hiware Bazaar’ has put forth the role model to the others. Today HIV testing is compulsory in ‘Hiware Bazaar’ before the marriage of the bride and groom. This decision of village was not only hailed by Indian Newspapers and TV channels but also appreciated by the “Washington Post” a renowned American Newspaper.

Impact of Panchsutra of Adarsh Gaon Yojana (AGY)

- a) Ban on cattle grazing resulted in increase of fodder production from 200 tonnes (1994-95) to 5000-6000 tonnes (2003-04).
- b) Ban on tree felling increased a bio-mass merely from 30,000 trees in 1994-95 to 9 lakh trees (2003-04).

- c) Ban on liquor increased efficiency of manpower, peace, cooperation in the village along with positive social image of village. Today there is not a single liquor shop in the village and not even pan and tobacco shop. Not a single person of any age in the village drinks liquor.
- d) Voluntary labour resulted into promotion of work culture, sense of cooperation and creation of community assets in the village.
- e) One family one child norm of villagers brought down the birth rate to 11 per thousand.

Conclusion

Today, 'Hiware Bazaar', a hamlet is like an oasis in the drought-ridden region of western Maharashtra. It proved what could be done through AGY and mass cooperation within the *Panchayat Raj* System. The single largest factor in the transformation of 'Hiware Bazaar' has been the reassertion of democratic responsive governance principles at the village level. By consistently calling upon every member of the society to consult with and participate in the process of their development, the *Panchayat* has succeeded in creating a sense of ownership and pride in 'Hiware Bazaar's' remarkable achievements. Though initially they faced some problems, slowly things changed positively. Today this village represents itself as "Mahatma Gandhi's Dream Village" and stood firmly as an independent, ready to accept challenges of 21st century.

One of the biggest environmental challenges that developing countries face in the coming decades is to balance their increasing demand with the diminishing availability of water. Drought and poverty will not subside by giving temporary help to the villagers, but the local community initiatives within the purview of '*Panchyat Raj* System' is the most promising approach. Large government projects like interlinking of the river will remain a 'dream' in the foreseeable future and though could complete, have their own advantages and disadvantages. Thus, watershed management at village level is the only answer. There is no village in India which cannot meet its drinking water needs through rainwater harvesting. Even in an arid area with an annual rainfall

level of only 100 mm, one hectare of land can theoretically capture as much as one million litres of water. Henceforth, there is a need to replicate *Adarsh Gram Yojana* pattern in every drought-prone village which is possible within the framework of *Panchayat Raj* System.

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Abbreviations:

AGY: Adarsh Gaon Yojana

Village X: Hiware Bazaar (Experimental Village),

Village Y: Jamgaon (Control Village)

Before: Year 1994,

After: Year 2004