

## **Sustainable Development In Rural India ( A Case Study Of Varanasi District)**

<sup>1</sup>**Dr. Rajshree Chaturvedi**

<sup>1</sup>Associate Professor Political Science, VMLG College Ghaziabd, Uttar Pradesh

Received: 20 Nov 2020, Accepted: 30 Nov 2020, Published with Peer Review on line: 31 Jan 2021

### **Abstract**

This research paper is based upon an extensive study of rural area of Varanasi district Development to be meaningful should be sustainable. so, we have tried to find out ground reality of sustainable practices in the Varanasi. It appears that this district needs a big thrust in the sustainable practices in agricultural field, afforestation, agro based industries, literacy etc.

**Keywords-** Sustainable Development, Rural India, Varanasi District, agricultural field, literacy.

### **Introduction**

Sustainable development is a holistic approach to development. It stands for the multi pronged development of society in which all the sections of society derive out of development process without compromising the need of future generations.. It stands for a just social order. Nature is not a commodity but we ourselves including all creations are part of nature. Society is just not of human being as all lives are interdependent. As human beings we are endowed with creative mind, it is our primary duty to sublimate nature with the help of technology. In this study, I have made an extensive study of Varanasi districts in all the aspects in which human life and nature interact in rural India and I hope it's findings can be used in finding practices that are hampering sustainable development in rural India and will be helpful in finding. Their remedy.

### **SUSTAINABLE DEVELOPMENT IN THE DISTRICT OF VARANASI FORESTED LAND IN THE DISTRICT**

Forest area is essential for ecological balance. Varanasi district is basically an agrarian district. According to Government Report, total forestland in the district is 718 hectares out of total reported land area of 152674 hectares, which is 0.47 percent of total reported land area.<sup>1</sup>

### **GARDENING PRACTICE IN THE DISTRICT**

Area over which gardening is done is 3248 hectares, which is simply 2.12 percent of total reported land area.<sup>2</sup> u

It seems that total area under tree cover is just 2.50 percent of total reported land area.

### **AREA UNDER PASTURES**

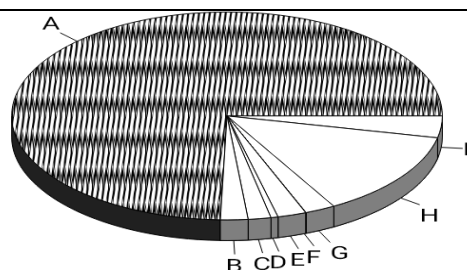
Land area under pasture in the district is just 0.028 percent of total land area.

### **AREA UNDER CULTIVATION**

Area under cultivation is 113858 hectares, which is 75.75 percent of total land area.<sup>29</sup> So, it appears that the need of man has encroached upon nature oblivious of its lasting impact.

### **LAND PATTERN IN THE DISTRICT**

The condition is very depressing (Figure 1) and if the condition gets worsened then it is a great cause of concern. We tried to assess by the response of people whether the number of trees is decreasing in their village, the response of the people is shown in Table 1:

FIGURE 1: LAND PATTERN IN THE DISTRICT (2001-02)<sup>30</sup>

## LEGEND:

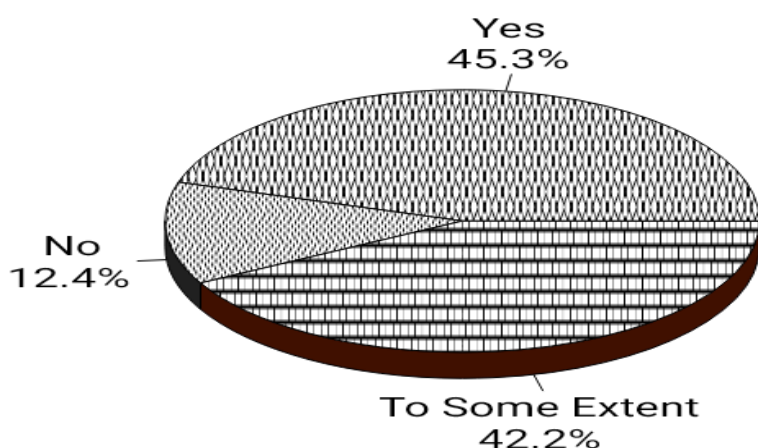
A	Net Cultivated Land
B	Present Fallow Land
C	Cultivable Wasteland
D	Forest
E	Garden
F	Pasture
G	Fallow Land
H	Other than Agriculture
I	Other Fallow Land

TABLE 1: VIEWS OF THE RESPONDENTS WHETHER THE NUMBER OF TREES IS DECREASING IN THEIR VILLAGE

Sl. No.	Name of Block	Number of Respondents					Total Number of Respondents
		(A) Yes	(B) No	(C) Extent	To	Some	
1.	Pindra	15	—	5			20
2.	Kashi Vidyapeeth	10	1	13			24
3.	Araziline	5	10	5			20
4.	Cholapur	6	2	12			20
5.	Baragaon	6	2	12			20
6.	Shivpur	15	—	5			20
7.	Chraigaon	4	—	16			20
8.	Harhua	12	5	—			17
TOTAL		73	20	68			161
PERCENT		45.34	12.42	42.23			100.00

Q. Are in your village number of trees decreasing?

FIGURE 2: VIEWS OF RESPONDENTS REGARDING DECREASING NUMBER OF TREES IN THEIR VILLAGE



The analysis of the response of the respondents shows that 45.34 percent of respondents feel that the number of trees is decreasing in their village. 42.23 percent of respondents said that it has decreased to some extent. So nearly 87.57 percent of respondents said that there is a gradual loss of trees in their village. Merely 12.42 percent of respondents responded in negation.

It appears that already thin forest cover is getting thinner gradually.

#### SUSTAINABLE AGRICULTURAL PRACTICES

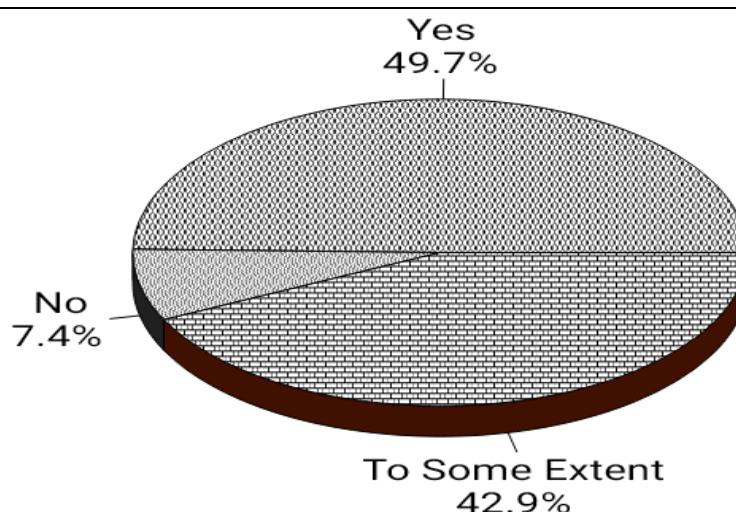
India has been an agricultural country and here agriculture was dependent upon manual labour and cattle stock. On the one hand, manual pattern of agriculture provided employment to a large number of people, on the other large number of cattle provide organic manure to the soil. But due to increased mechanisation of agriculture, agriculture is losing its potential to provide employment to large number of people, on the other, number of cattle stock is dwindling drastically. Due to decreased number of cattle stock, it is difficult to provide sufficient organic manure for agriculture.

We asked the people whether they use organic manure in their agriculture practices. Response of people is shown through the Table 2.

TABLE 2: RESPONSE OF THE RESPONDENTS WHETHER THEY USE ORGANIC MANURE IN THEIR AGRICULTURE PRACTICES

Sl. No.	Name of Block	Number of Respondents					Total Number of Respondents
		(A) Yes	(B) No	(C) To Some Extent	To	Some	
1.	Pindra	13	—	7			20
2.	Kashi	9	2	13			24
	Vidyapeeth						
3.	Araziline	12	2	6			20
4.	Cholapur	3	4	13			20
5.	Baragaon	13	—	7			20
6.	Shivpur	11	—	9			20
7.	Chraigaon	4	3	13			20
8.	Harhua	15	1	1			17
TOTAL		80	12	69			161
PERCENT		49.68	7.45	42.88			100.00

FIGURE 3: VIEWS OF RESPONDENTS REGARDING USE OF MANURE IN THEIR AGRICULTURE PRACTICES



About 49.68 percent of respondents said that they use organic manure in agriculture and 42.88 percent of respondents said that they use it to some extent. So nearly 92.56 percent of respondents said that they use organic manure in agriculture. Merely 7.45 percent of respondents said that they do not use it. From the analysis of responses and availability of cattle stock it appears that people use organic manure in agriculture even though its availability is limited.

### PRACTICE OF CROP ROTATION

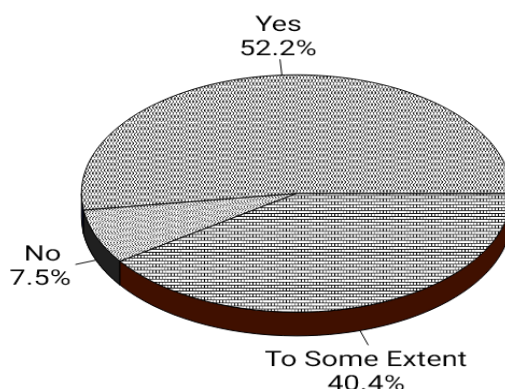
Practice of crop rotation has been a very effective method of retaining the natural fertility of soil. If the crop of land is changed after one harvest then land regains its earlier fertility.

To assess, to which extent this practice is used, we asked the people whether they practise crop rotation in agriculture. Their responses are shown through the following table.

TABLE 3: RESPONSE OF THE RESPONDENTS WHETHER THEY PRACTICE CROP ROTATION IN AGRICULTURE

Sl. No.	Name of Block	Number of Respondents				Total Number of Respondents
		(A) Yes	(B) No	(C) To Some Extent		
1.	Pindra	10	—	10		20
2.	Kashi Vidyapeeth	15	2	7		24
3.	Araziline	13	—	7		20
4.	Cholapur	—	8	12		20
5.	Baragaon	10	—	10		20
6.	Shivpur	17	—	3		20
7.	Chraigaon	3	2	15		20
8.	Harhua	16	—	1		17
TOTAL		84	12	65		161
PERCENT		52.17	7.45	40.37		100.00

FIGURE 4: RESPONSE OF RESPONDENTS REGARDING THEIR PRACTISE OF CROP ROTATION IN AGRICULTURE

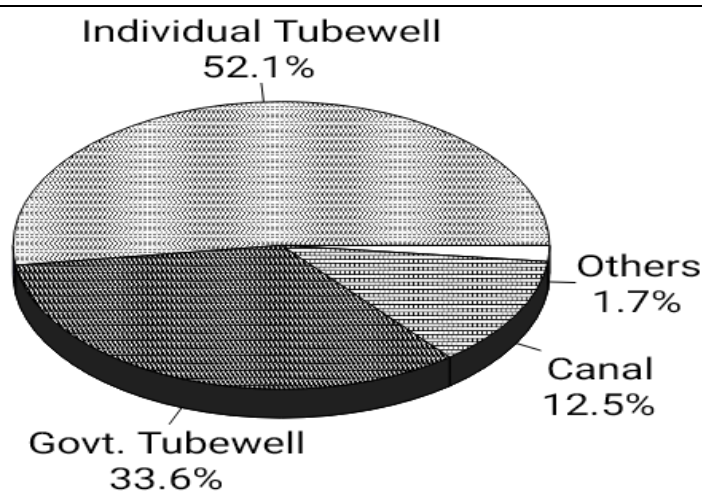


Around 52.17 percent of respondents said that they practise crop rotation in agriculture and 40.37 percent of respondents said that they practise it some extent. So nearly 92.54 percent of respondents agreed that they practise crop rotation either partly or fully. Merely, 7.45 percent of respondents said that they do not practise it. So it appears that overall people follow the practise of crop rotation in the district.

### IRRIGATION PATTERN IN THE DISTRICT

Now-a-days decreasing water level is a great cause of concern in the district. Traditionally, agriculture in the district was either rain-fed or it was dependent upon small tanks that were spread all over the district. These tanks were instrumental in proper drainage in the village and were helpful in storing rainwater, which the farmers use for agricultural purposes. But in survey, we came to find out that the old tanks in the villages were either occupied by some strongmen of village or it has got so much silted that it has become useless. These traditional tanks were a very good method of rainwater harvesting through which high ground water level was maintained. Besides it, manual or cattle-driven methods of drawing water from wells was used. But now irrigation pattern has got somehow changed. Here is a diagram showing irrigation pattern in the district.

FIGURE 5: IRRIGATION PATTERN IN VARANASI DISTRICT



It shows that 85.72 percent of land is irrigated by tube-well. Land area irrigated by canal is 12.53 percent of total irrigated land. Such a widespread irrigation by tube well is lowering water level in the district. In the catchment areas of canal, problem of salinity in soil is increasing due to water

logging. Traditional method of irrigation like ponds, wells, etc. irrigate just 1.73 percent of total irrigated area. Here in Table 4 we have represented land use pattern in Varanasi district:

TABLE 4: LAND USE PATTERN IN VARANASI DISTRICT

(in Hectares)<sup>31</sup>

Year	Total Reported Land	Forest	Cultivable Wasteland	Present Fallow Land	Other Fallow Land	Sandy Fallow Land	Usable Other Agriculture	Land than
1999-00	152656	712	2550	2668	5190	3321	20432	
2000-01	152662	718	2523	2601	5140	3219	20318	
2001-02	152674	718	2555	3025	5016	3513	20698	

Table above shows that area of infertile barren and infertile land is constantly increasing in the district.

### RAIN WATER HARVESTING: GOVERNMENT EFFORTS

The problem of decreasing water table and depletion of ground water in the district is being tackled through construction of ponds in the villages on a large scale. Under Swarnajayanti Gram Rojgar Yojana during 2004-05, 59 ponds are proposed to be constructed out of which 18 has been completed. Under rural drinking water scheme 25 percent of total fund has been earmarked for water recharging scheme by the State Government. About Rs.67.74 lakhs have been proposed for expenditure on water recharging projects during 2004-05.<sup>3</sup>

### GOVERNMENT EFFORTS TO CREATE AWARENESS AMONG PEOPLE ABOUT WATER CONSERVATION

In Gram Panchayat meetings, block Development Committee meetings and Zila Panchayat meetings the imperative need for water conservation is being emphasised. At all public forums and meetings of government officials, importance of water conservation and means to achieve it are being promoted by the government officials.

### GOVERNMENT EFFORT TO REGENERATE LAND: INTEGRATED WASTELAND DEVELOPMENT PROGRAMMES

According to the Government Report total area that fall under the category of wasteland is 16245 hectares and it is 10.77 percent of total land area.<sup>33</sup> In view of this fact, Integrated Wasteland Development Programmes Scheme was sanctioned in the district in 1999-2000. Details of this programme are given below:

TABLE 5: INTEGRATED WASTELAND DEVELOPMENT PROGRAMME SCHEME, VARANASI (in Rs. Laks)<sup>4</sup>

Sanction Year	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004



Date of Sanction	24.3.2000	25.3.2001	25.7.2001	–	23.6.2001
Sanction Amount (lakh)	74.70	49.80	99.60	–	99.60
Amount Received (lakh)	74.70	49.80	99.60	–	99.60
Date of Receipt	30.3.2000	30.3.2001	31.7.2001	–	1.11.2001
Expenditure	21.12	79.36	96.10	15.81	84.08
Physical Target	1868	1245	2490	3112	–
Physical Achiv.	529	2136	2495	104	1533
Date of Completion	On going	–	–	–	–
Maintenance	By Beneficiaries & WC	–	–	–	–

Due to implementation of this scheme, 7418 hectares of land has been developed so far.

## RURAL HOUSING

Housing is one of the basic requirements of human life. A man deprived of housing feels himself to be detached from his surrounding. Possession of a house connects him to his surrounding and provides dignity to his existence. So an environmentally suitable housing is a basic requirement of human life. Housing should be of the type in which a man may feel himself to be an integral part of his surrounding. According to 1991 census, around 30 lakh households are without shelter and another 100 lakh households reside in unserviceable kuchha houses in the country.<sup>35</sup>

## GOVERNMENT EFFORT TO PROVIDE HOUSING TO SHELTERLESS PEOPLE

For providing housing to the shelterless people under National Housing Policy, 1998, Centre had proposed to construct total 20 lakh houses (13 lakh houses in rural areas and 7 lakh houses in urban areas) annually for achieving the object of 'Housing For All'. According to a survey of State Government in rural areas of Varanasi district during the year 1999, 9436 families were found who have no shelter. From 2000-01 to 2003-04 total number of 5023 houses have been constructed. Constructions of 4412 houses remains left for which 919.375 lakh rupees is required. According to the availability of fund, the target to provide a house to each shelterless family living below poverty line is being achieved gradually.<sup>36</sup>

Physical target of the year from 2000-05 is given below:

TABLE 6: PHYSICAL TARGET FOR PROVIDING SHELTER FOR RURAL MASSES – 2000-05<sup>5</sup>

Year	Targets Houses			Completed Houses		
	New	Upgradation	Total	New	Upgradation	Total
2000-01	489	397	1186	813	409	1222
2001-02	804	402	1206	804	402	1206
2002-03	822	412	1234	822	412	1234
2003-04	927	470	1397	927	470	1397
2004-05	955	479	1434	70	14	84

**INDIRA AWAS YOJANA (IAY)**

Indira Awas Yojana was launched in 1985-86 for providing shelter free of cost to those households who live below the line of poverty in rural areas.

Constructed houses and expenditure during the year 2001-2002 to 2004-2005 is given below:

**TABLE 7: CONSTRUCTED HOUSES AND THEIR EXPENDITURE: INDIRA AWAS YOJANA – 2001-05 (in Rs. Lakhs)<sup>6</sup>**

Year	Fund Received	Expenditure	Targets Houses			Completed Houses		
			New	Upgradation	Total	New	Upgradation	Total
2000-01	223.023	219.42	813	409	1222	813	409	1222
2001-02	229.85	218	804	402	1206	804	402	1206
2002-03	257.044	233.24	822	412	1234	822	412	1234
2003-04	232.85	253.82	927	470	1397	927	470	1397
2004-05	149.33	134.41	955	479	1434	70	14	84
TOTAL	1092.097	1058.89	4321	2172	6493	3436	1707	5143

**INSUFFICIENT FUND**

Under this scheme fixed cost for new house is Rs.25000 and for up-gradation of new houses is Rs.12500. During survey, it was found that the cost of a durable house is not sufficient, the prices of construction material and labour changes have since gone up substantially making it difficult to construct the house within the above amount. It is proposed to revise per unit cost of house and Indira Awas Yojana to Rs.30000 and Rs.15000 respectively for the new house and up-gradation of house. In most of the villages, BPL (Below Poverty Line) families are residing in un-survivable Kachha house. Since the selection of beneficiaries is made in the meetings of the Gram Panchayats. BPL (Below Poverty Line) families get the amount for full new houses and some get the amount for up-gradation of house, although the status of both kinds of families are almost the same. Keeping this fact in view, the up-gradation of the housing scheme is proposed to be abolished.

**RELUCTANCE OF BENEFICIARIES TO CONSTRUCT SANITARY LAVATORY AND IMPROVED CHULLAH**

During survey it was found that beneficiaries show a great deal of reluctance to construct sanitary latrines and improved chullahs. Also they do not possess the required mindset to use either sanitary latrines or improved chullah. It underlines the need for providing them an orientation training in family health and hygiene.

**GOVERNMENT EFFORT TO PROVIDE SAFE DRINKING WATER TO ALL PEOPLE**



In the face of multifaceted environmental hazards, it is a great challenge to provide safe drinking water to all people. According to Government Report, all the 1262 villages of the district have been provided safe drinking water.

TABLE 8: DRINKING WATER FACILITY IN THE DISTRICT<sup>7</sup>

Year	Number of Villages with India Mark II Hand Pumps			Number of villages According to Sources in General Use		
	Fully Covered	Partially Covered	Benefited Population	Well	Hand Pump	Drinking Water Facility through India Mark II Hand Pump
2000-01	1262	–	1450138	143	276	843
2001-02	1262	–	1450138	91	217	954
2002-03	1262	–	1450138	69	185	1008

#### ACCELERATED RURAL WATER SUPPLY PROGRAMME (ARWSP/SWALJDDARA)

For providing safe drinking water to people this programme was initiated in the district Varanasi in the financial year 2001-02. It was the Central Government financed programme. The details of the receipts and utilisation of Central share under Accelerated Rural Water Supply Programme in Varanasi District has been given in Table 9 below:

TABLE 9: CENTRAL SHARE UNDER ACCELERATED RURAL WATER SUPPLY PROGRAMME IN VARANASI DISTRICT (in Rs. Lakhs)<sup>8</sup>

Year	Accelerated Rural Water Supply				
	Opening Balance as on April 1	Sanctioned the Year	During	Total Availability	Expenditure Incurred
2001-02	–	20.00		20.00	20.00
2002-03	–	101.66		101.66	88.75
2003-04	12.91	44.84		57.75	57.75
2004-05	–	76.20		76.20	67.93

Details of receipt and utilisation of State share has been given in Table 10 below:

TABLE 10: STATE'S SHARE UNDER ACCELERATED RURAL WATER SUPPLY PROGRAMME IN VARANASI DISTRICT (in Rs. Lakhs)<sup>9</sup>

Year	W/S for QPV (State Share)				
	Opening Balance as on April 1	Sanctioned the Year	During	Total Availability	Expenditure Incurred
2000-01	–	–		–	–

2001-02	—	—	—	—
2002-03	—	—	—	—
2003-04	—	12.54	12.54	12.54
2004-05	—	8.88	8.88	3.50

So, nearly 71.43 lakh rupees was spent on water supply in the financial year 2004-05.

Physical targets fixed under Accelerated Rural Water Supply Programme and achievement in different years in Varanasi district is shown in the following Table:

TABLE 11: PHYSICAL TARGETS FIXED UNDER ACCELERATED RURAL WATER SUPPLY PROGRAMME AND ACHIEVEMENT<sup>10</sup>

Year	Target			Achievements		
	ARWSP	Primary School (PM Ghosana)		ARWSP	Primary School (PM Ghosana)	
2001-02	100 HP	—		100 HP	—	
2002-03	100 HP + 3PWS	—		100 HP + 3PWS	—	
2003-04	322 HP	18		322 HP	18	
2004-05	298 HP	31		298 HP	31	

According to earlier survey, all habitations were covered under the programme and hence no target was fixed for the programme. In view of declining water level, the works for up-gradation of water supply level is being executed after 2001-02. During new survey, fresh habitations have been identified which need to be covered. Coverage of these habitations will start from December 2004.<sup>11</sup>

### SWAJAL DHARA (2002-2003)

Swajal Dhara is a government scheme in which hand pumps are established in villages for providing safe drinking water. Government of India has released Rs.38.032 lakh against 77 proposals in Varanasi District. The total sanctioned amount for these proposals is Rs.84.62 lakh.<sup>12</sup> The latest status of this scheme is as follows presented in Table 12 below:

TABLE 12: STATUS OF SWAJAL DHARA IN VARANASI DISTRICT

Actual Funds Received by Districts	Target Against Swajaldhara Funds Released in the year 2002-2003	Actual Achievement till October 31, 2004	Actual Expenditure till October 31, 2004
	New HB MPWS PWS	New HP Rebores	

30.39	201	–	–	–	In Prog- ress	–	30.39
-------	-----	---	---	---	------------------	---	-------

### SWAJAL DHARA (2003-2004)

For the year 2003-04, Government of India earmarked Rs.21.96 lakh to the district. Rs.10.96 lakh has been released by the Government of India to Varanasi District. District Water and Sanitation Committee were constituted and Swajal Dhara Bank Accounts were also opened and funds were transferred from Zila Panchayat to District Water and Sanitation Committee. The State Government has decided to implement only Piped Water Supply System using these funds.<sup>13</sup>

### SWAJAL DHARA (2004-2005)

Swajal Dhara is being implemented in Varanasi District in 93 Gram Panchayats. Proposals from 16 Gram Panchayats of Varanasi District has been approved by District Water and Sanitation Committee for which agreement with 3 NGOs has been signed to undertake planning phase.<sup>14</sup> Swajal Dhara is a demand driven and community based project, where major thrust needs to be on community empowerment and development of ownership by the community. Community participation is essential for the sustainability of the assets created. These processes are extremely important to be followed. According to a Report of DRDA on arrival of Parliamentary Standing Committee to Varanasi District, as the pressure to utilise the funds in the current financial year (2004-05) is high, the process of community participation has to be cut short. Provision to continue a service agency in the O&M Phase for six months as handholding is desired. According to official report of District Rural Development Authority of Varanasi District, a time extension for the utilisation of Swajal Dhara must be given so that it can be effectively implemented.

### WATER QUALITY MONITORING UNDER THE PROGRAMME

For water quality monitoring and surveillance, 1 percent amount is reserved under Accelerated Rural Water Supply Programme allocation for drinking water. During survey, we came to find out that the hand pumps established under the programme are functioning properly and through it people who were earlier deprived of safe drinking water are able to get it within short distance in the district. Now 100 new habitations have been identified by the State Government that does not have safe sources of drinking water. The list has been submitted to the Government of India.

### SANITATION AND ENVIRONMENT

Sanitation awareness among people is essential for environmental protection.

#### Total Sanitation Campaign

Total Sanitation Campaign (TSC) is a Central government financial programme. This programme aims at increasing sanitation among people by providing 80 percent of subsidy in building toilets, soak pits, waste deposit pits, etc. If people become aware of the need of sanitation and effort is made at individual level, then the problem of hygiene will be solved. The Total Sanitation Campaign was implemented in the district from the year 2000-01. Under it 76 percent of project cost is given by the Central Government and 24 percent of the project cost is borne by the State Government. According to the District Panchayati Raj Officer of Varanasi District to promote Community Participation in

information, education and communication (IEC), they have taken their measured aspects by Nukkar Natak, Wall paintings, hoardings, advertisement in newspaper and broadcasting on Doordarshan and meeting, training on different levels, etc.<sup>47</sup> During survey, we came to find that due to low limit of government financing (Rs.500) toilets are of very poor quality. Besides beneficiaries have the tendency to save even within that meagre amount. So, even where toilets are built, these are not used by the people. Besides, these toilets are not covered. So, problem of covering these toilets arises. Besides, people in the rural areas of the Varanasi District have the tendency to use open field for toilet purpose. Even many well-to-do people do not have toilets in their houses. So, a lot of toilets built under the programmes are in an unusable condition.

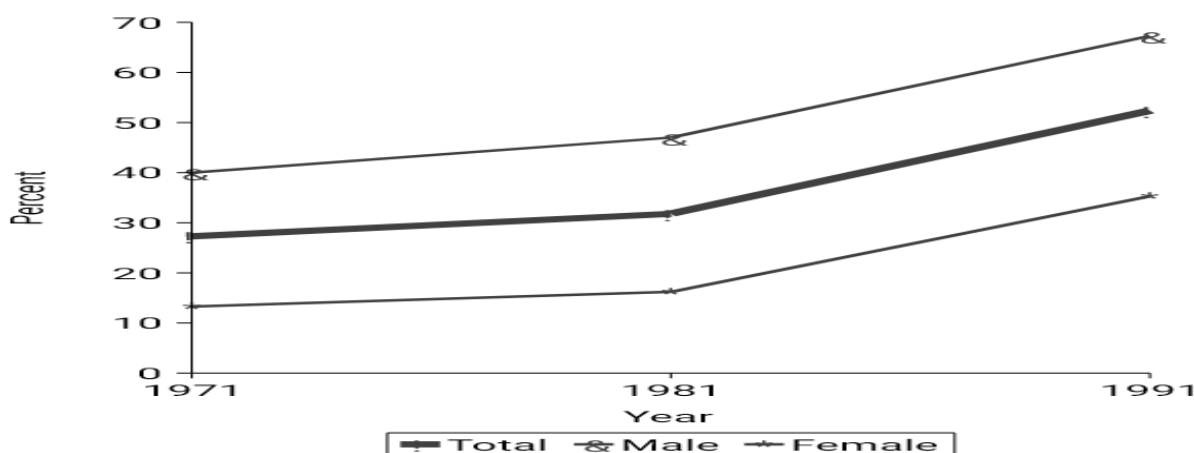
### **DRINKING WATER AND SANITATION IN SCHOOLS OF RURAL AREAS (Basic Shiksha)**

Basic Shiksha is related with imparting education to the unprivileged class of society and to rural children. These groups are the prime target groups of sanitation campaign. According to the agenda of Total Sanitation Campaign, these are the prime target group of sanitation campaign. School children are the vehicle through which sanitation awareness could be created. According to the Report of Zila Basic Shiksha Adhikari of Varanasi District, there is no more any school in the district, which do not have facilities of drinking water and toilets and there is provision of separate toilets for boys and girls. All public schools and private schools are having drinking water and toilet facilities. Under Sarva Shiksha Abhiyan all schools of the district have been provided drinking water and sanitation.<sup>15</sup> During survey, we came to find out that toilets in schools are mostly in a non-usable condition. They are mostly littered with garbage and animal excretes. We found out in many queries that even school teachers do not have toilets in their homes. DPRO of Varanasi District<sup>16</sup> said in an interview that due to low literacy level, people are unable to understand implication of sound environmental practices. Programmes related with sanitation are unable to make much headway in the population. He said that in the construction of toilets, government provides a subsidy of Rs.500 and beneficiaries are supposed to contribute Rs.125 for it. But they did not come forward to avail the benefit. Similarly, government provides subsidy for the construction of soak pits and waste disposal pits. But people are somehow not active participants in the programme.

### **LITERACY LEVEL IN THE DISTRICT**

High literacy level is an essential pre-requisite for the environmental sustainability. High literacy level creates awareness among people and it, in turn, helps them to be sensitive towards environmental needs. Literacy level of the district of Varanasi during the last three decades is represented in Figure 6.

**FIGURE 6: DECADE WISE LITERACY RATE (MALE AND FEMALE) OF VARANASI DISTRICT<sup>50</sup>**



So, we find that according to census 1991, literacy level in the district is 52.4 percent. It means nearly half the population is still illiterate. Literacy level among male is 67.3 percent while in female it is 35.3 percent in the district as is also evident from Figure 6.

### POPULATION GROWTH IN THE DISTRICT

Population explosion is one of the factors that have put strain upon our natural resources and habitat. The total population of the district of Varanasi was 1228891 in 1901, which has turned out to be 3782949 in 1991 as indicated in Figure 7.<sup>17</sup>

FIGURE 7: DECADE WISE POPULATION (RURAL AND URBAN) OF VARANASI DISTRICT<sup>51</sup>

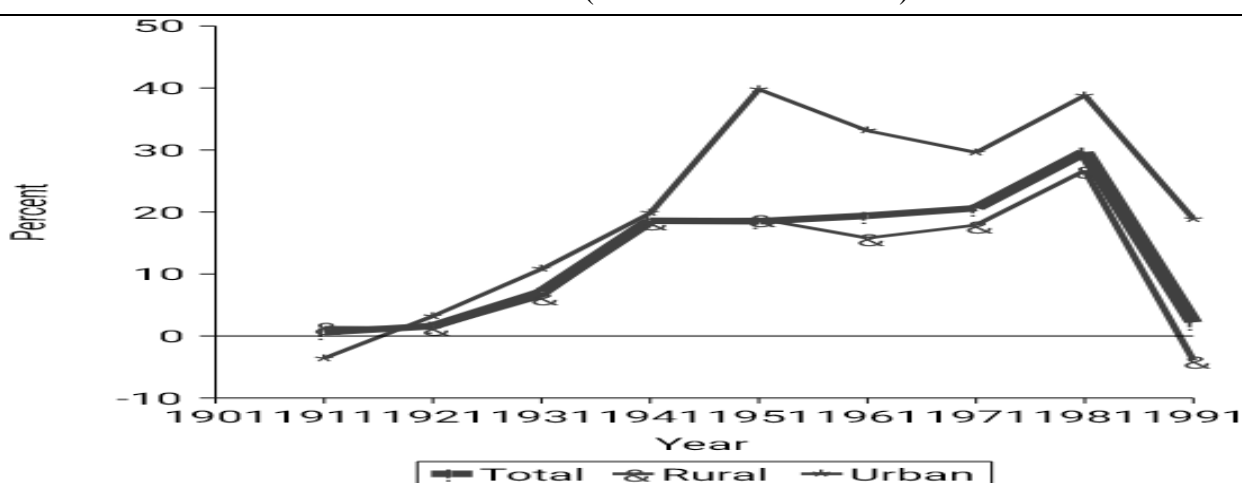


Figure 7 shows that the growth of population from 1981-1999 has been 2.2 percent. So, it appears that population growth is gradually moving towards stabilisation.<sup>18</sup>

### ENERGY CONSERVATION AND NATIONAL BIOGAS SCHEME

National Biogas Scheme, which aims at converting biomass into energy, is under implementation in the district. During the analysis of plan report, we came to find out that plan has been successful in meeting out its target. In the financial year 2000-2001, 100 biogas plants were established in the district and during the financial year 2002-2003, 105 biogas plants were established in the district. Total number of biogas plants in the district from 2000-2003 is given below in Table 13:

TABLE 13: TOTAL NUMBER OF BIOGAS PLANTS IN VARANASI DISTRICT<sup>52</sup>

Year	Number of Biogas Plants
2000-2001	3816
2001-2002	3917
2002-2003	4022

Total number of biogases in proportion to the population is very small.

## **REFERENCES**

1. *Statistical Magazine*, District Vatanasi, Year 2003, Finance and Treasury Section, State Planning Institute, Uttar Pradesh, p.21.
2. *Ibid.*, p.22
3. *Ibid.*, p.22.
4. *Ibid.*, p. 22
5. *Ibid.*, p.23.
6. Report of *DRDA* of Varanasi District, 2004.
7. *Statistical Magazine*, *op. cit.*, p.21.
8. *A Brief Note on Rural Development Programmes on Arrival of Hon'ble Member of Parliamentary Standing Committee*. Visit from November 24, 2004 to November 25, 2004, District Varanasi, p.32.
9. *Ibid*, p.11.
10. *Ibid*, p.11.
11. *Ibid*, p.11.
12. *Ibid*, p.12.
13. *Statistical Magazine*, *op. cit.*, p.21.
14. *A Brief Note on Rural Development Programmes on Arrival of Hon'ble Member of Parliamentary Standing Committee*, *op. cit.*, p.25.
15. *Ibid*, p.23.
16. *Ibid*, p.24.
17. *Ibid*, p.25.
18. *A Brief Note on Rural Development Programmes on Arrival of Hon'ble Member of Parliamentary Standing Committee*, *op. cit.*, p.25.
19. *Ibid*, p.25.
20. *Ibid*, p.26.
21. Interview with District Panchayat Raj Officer, dated 25.06.2004, Vikas Bhavan, Varanasi.
22. *A Brief Note on Rural Development Programmes on Arrival of Hon'ble Member of Parliamentary Standing Committee*, *op. cit.*, p.30.
23. Interview with District Panchayat Raj Officer, dated 25.06.2004, Vikas Bhavan, Varanasi.
24. *Statistical Magazine*, *op. cit.*, p.21.
25. *Ibid*, p.17.
26. Report of *DRDA* of Varanasi District, March 2004.