



# Institute of Social Transformation

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To

Jignyasa Kurlapkar  
CSR Head  
RALLIS India Ltd  
23dr Floor, VIOS Tower  
New Cuffe Parade, Off Estern Freeway, Wadala Mumbai

Madam

Find herewith the brief report of Impact assessment of Jal Dhan Programme implemented in Beed District.

I am also sending the hard copy of bill submitted and received to your office.

Thanking You,

Yours Faithfully

Dr. V.V.Kulkarni

President

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Brief Report of Jal dhan project  
Beed district of Marathwada Region of Maharashtra

**Introduction:**

Water scarcity involves water crisis, water shortage, water deficit or water stress. Water scarcity can be due to physical water scarcity and economic water scarcity. Physical water scarcity refers to a situation where natural water resources are unable to meet a region's demand while economic water scarcity is a result of poor water management resources. Water is the most essential material for human survival, after air. Without water, life would not be possible. Yet, these days, clean drinking water is a scarce resource in many parts of the world, including India.

Beed is one of the district of Marathwada region of Maharashtra. It is situated flanked by Aurangabad and Jalna districts in the north, Parbhani in the east, Latur in the south east, Osmanabad in south and Ahmednagar district in the west and southwest. It is bounded by north latitude 18°28' and 19°28' and east longitude between 74°48' and 76°45'. The district headquarters is located at Beed Town. For administrative purpose the district has been divided in 11 talukas viz., Beed, Georai, Patoda, Ashti, Shirur (Kasar), Ambajogai, Kaij, Majalgaon, Dharur, Parli (Vajinath) and Wadwani.

As per census 2011, the population of the district is 25.85 lakh. The district has 6 towns and 1360 villages. The major part of the district comes under Godavari basin. Godavari, Manjra and Sina are the major rivers that drain the district along with their tributaries.

***Issues of Water scarcity:***

Beed comes under drought prone region. A severe drought has been sweeping the Marathawada region which has resulted in loss of several livelihood resources. Beed district is dependent on Agriculture as its Main source of income. Today loss of agriculture due to water scarcity is a major concern. Wrong agricultural practices have adversely affected the ground water resources. Habitants have also pointed out the presence of factories which excessively draw ground water.

Some of the problems faced by Beed due to water scarcity are as under:

1. Due to scarcity of water there is no work in the agriculture and many migrate to nearby cities for earning.
2. Water availability for drinking and domestic use has not got the emphasis it should have from Government.



3. Generally everyday women have to spend 6 to 8 hours to fetch water at the distance of 2 to 3 km. In summer season, the situation further gets aggravated and almost all water sources gets dried.
4. To get the water tanker the village Gram Panchayat has to make special efforts to contact political leader to get the approval for water tanker. There is no specific time of water tanker to deliver the water in village.
5. Seasonal migration compensates for the lack of employment opportunities during the dry season and reduces seasonal income variability of the poor households in Beed district.
6. With a semi-arid topography, below average rainfall, and limited irrigation infrastructure, the predominantly rural district subsists through rain-fed agriculture and wage employment. The climate is marked by the alternation of a wet and dry season with annual rainfall confined to three to four months from June to August/September with a peak in July.

### ***Climate and Rainfall***

The Climate of the district is characterized by a hot summer and general dryness through-out the year except during the south-west monsoon season, i.e., June to September. The temperature rises rapidly after February till May, which is the hottest month of the year. The mean daily maximum temperature during May is 42.0°C and the mean daily minimum temperature during December is 12.0°C

The normal annual rainfall (1901-1996) varies from about 600 to 800 mm. It is minimum in the western part around Ashti and gradually increases towards east and reaches maximum around Majalgaon. The study also reveals that except the western part of the district around Ashti, the entire district experienced moderate and severe drought conditions for more than 20% of the years and can be categorized as "drought area".

### ***Government's efforts:***

Government is trying to overcome this problem by implementing Water conservation Programme in this district however the resources needed for covering all the blocks of the district are very huge.

In rural areas where water conservation program has been implemented those areas have developed in such a way that the purchasing capacity of the poor has increased to the extent that they can afford the items which are not daily necessities.

To implement the water conservation program, it needs long-term planning, favorable topologically conditions and cooperation of the local people. Year wise provision for water conservation programme is very essential but due to several loopholes in the existing programme the rate of success is not as anticipated.

### ***Rallis efforts:***

In 2015 there was acute scarcity of drinking water in Marathwada including Beed. Considering this situation Rallis India Limited has taken initiative to find out permanent

solution to overcome this problem and started Jal Dhan project as a part of Corporate Social Responsibility in villages from Latur and Beed districts.

Rallis India Limited convinced the concern villagers about the reality of the problem, the solution to overcome these issues and motivated the villagers to take the ownership of the project by becoming the implementing partner for Rallis. Villagers have contributed minimum 10% of the amount via "Shraamdaan".

As per the topography, various methods were implemented like deepening and de-silting Nala, pond, existing water storage structures, constructing small check-dams, ponds so on and so forth. The local village authorities and the Government authorities also appreciated the pioneering efforts of the Rallis India Limited and requested them to continue this activity in Beed District.

### ***Coverage:***

Rallis initiate work in Beed in 2015-16 with 5 villages, now Rallis has covered 15 villages from Beed district. Seeing Rallis work, farmers, village authorities and local leaders were fully convinced that by minimum investment they can get the maximum returns. This message was sprayed in other villages also. Hence there was huge demand for Jal Dhan projects throughout district.

Since 2015 Rallis India Limited has covered 49 villages under its Jal dhan project from Marathwada. On this background impact assessment of the Jal Dhan project was conducted in below villages. These villages where selected on the basis of year of the work done.

### **Name of the Selected Villages for study**

1. Bansarola
2. Chincholi Mali
3. Malegaon
4. Pimpalgaon Gade
5. Pimpalgaon Nakhale
6. Pimpre (Kol) Budruk & Kurd
7. Rui Dharur
8. Shelu Amba
9. Sirsala
10. Telgaon

### ***Methodology used for Impact assessment:***

The information for assessing the impact of Jal Dhan program on various aspects of the community life was collected from various stakeholders like:



1. Farmers
2. Women
3. Gram Panchayat members
4. Youths.

The respondents were selected by using the simple random sampling method.

Questionnaire consisted of various sections related to:

1. Agriculture
2. Economic development
3. Cropping pattern and cropping intensity
4. Drinking water
5. Other aspects such as dairy development, impact on local environment etc.

The broad observations about the impact created by the Jal dhan program are as follows:

❖ **Socio - economic profile of respondents:**

1. The respondents selected for collecting information related to the impact of Jal Dhan program were mainly the head of family who takes the decisions related to crop and agriculture.
2. Age: About 60% respondents belong to 50+ years and 40% of the respondents were between 30 to 40 years of age group.
3. Education: About 60% of the respondent were illiterate, 27% were educated up to seventh grade, only 13% were educated above seventh grade.
4. Government has provided education facility hence all children in the family are attending schools irrespective of gender, *indicating that the villagers are giving priority for education to their children without any gender discrimination.*
5. Occupation: Majority of the respondents reported that agriculture is the main occupation of the family.
6. Joint family system is still practiced and predominant in study area.

❖ **Health status:**

About 44% of respondents have reported that in their family there is at least one person having chronic illness.

❖ **Economic status:**

Assets such as Motorcycle, Tractor, Refrigerator, Mobile phones, LPG gas, Television, availability of electricity indicates the economic status of the family.

In study area it was found:

1. Above assets are available in almost all families irrespective of their monthly income or any other social status.
2. *About 63% of the families have taken the benefit of schemes provided by the government under various programs for village development.*
3. All families are having Saffron colour Rationing card. This is an indication of families belongs to below poverty line category

❖ **Availability of drinking water:**

The information related to availability of water throughout year before and after implementation of Jal Dhan programme, distribution system of drinking water at community level and practice of water disinfection was collected from the respondent. The brief observations are as follows –

1. Only 19% respondents has reported water was available before implementation of Jal Dhan program whereas 99% respondents reported water is available after Jal Dhan programme at community level. *This clearly indicates that Jal Dhan programme has made significant impact on the availability of water throughout year in the community.*
2. Government water scheme is implemented in all villages hence they are getting water from public tap.
3. Water disinfection is not practiced in any of the village either by Gram Panchayats or at domestic level. *All villagers are using untreated water for drinking and domestic use.*

❖ **Agriculture:**

The information related to availability of agriculture land, type of agriculture land, source of irrigation, efforts taken for saving the water, adequacy of water for various crops throughout year, selection of crop and use of high yielding variety of seeds, use of desilted soil and its impact and availability of agricultural labour this information is collected from the respondents.

The broad observations are as follows after the Jal dhan program-

1. Almost all respondents possess agriculture land of them 70% possess irrigated and 25% possess non-irrigated / dry land.
2. 81% of respondent reported the main source of water supply for agriculture is *well irrigation*. Rest of the 19% has explained other sources such as Canal and Bund for short period of the year.
3. 25% of respondents expressed that water is available throughout year whereas 75% have reported adequate water is available only for 8 to 9 months.
4. 43% of respondents also reported that along with the well irrigation they have also the substitute source of irrigation that is bore well.



5. 50% of respondent use drip irrigation while 7% use sprinklers for saving the water utilised in agriculture. Considerable number of the respondents that is 43% is not using any measure for saving the water.
6. About 57% respondent have tested Soil before finalizing the crop.

❖ **Crop selection:**

Choosing the crop to be taken in a particular season is mainly based on the market prices.

1. About 90% of respondents have reported that decision of crop to be taken is based on last year and current year market price of the crop
2. *Almost all farmers are using high yielding variety of hybrid seeds. Crop insurance is also practiced by all farmers in the village.*
3. *39% of respondents have used the soil received from de-silting process during Jal Dhan. These farmers have reported that it has made a significant impact on increase in crop as well as intensity of crops in a particular season.*
4. About 40% of respondent have reported they have secondary occupation to support the main occupation.
5. *79% respondents reported that agricultural labourers are available throughout year. This clearly indicates that the daily wages are available at village level hence migration is arrested substantially. This is one of the most significant indirect impact at of Jal Dhan program at community level.*

**Part I - Information, participation and Perception about impact of Jal Dhan programme:**

Information related to awareness and participation about Jal Dhan programme, efforts taken by farmers at community level and at individual level, source of financial support, nature of work undertaken, benefit of Jal Dhan program, villagers cooperation for Jal Dhan program, gram panchayats initiative and impact of these activities on the community and on agriculture, etc. is collected and presented.

The brief observations on the data are as follows-

1. Almost 98% of the respondents were aware about the program. They got information from the gram panchayat.
2. 72% of respondents reported they participated very actively in Jal dhan program and offers the help as and when needed.

Co operation of the villagers is one of the most important aspects in any community development programme. *Active participation by 72% of the people shows substantial community participation in Jal Dhan program.*

3. *98% of the respondents expressed that there is a great benefit of Jal Dhan program and almost 94% of respondents have reported there is an impact of Jal*

*Dhan work on development of the village as well as the families having agricultural land nearby project area.*

❖ **People's cooperation, contribution, Governments help and gram panchayats initiative for Jal Dhan work –**

The success of the public work mainly depends upon active involvement of the villagers. As Jal Dhan program was implemented through CSR of Rallis India Limited.

The broad observations in this regard are as follows –

1. *85% of villagers have expressed there was full cooperation from villagers but due to poor economic condition they we're not been able to make much contribution*
2. *Due to Jal dhan, there is a significant impact on agriculture as the rain water which use to run off is arrested and utilized in agriculture.*
3. *Water percolation has helped substantially to increase the water table in the area. Increased water table has helped substantially to make water available for drinking throughout year.*
4. *Due to water availability even during summers, Farmers have opted for cultivating leafy vegetables in a smaller quantity. Availability of leafy vegetable has helped for reducing vitamin deficiencies among the women and children.*
5. *About 90% of the respondents reported that seeing the impact of Jal dhan, Gram Panchayat of respective village is taking initiative for implementing such type of activities in remaining areas. Indeed some of the Gram Panchayat has already submitted the proposal for Jal Dhan project to government.*

Though it is a very difficult to measure the impact in a quantifiable number, perception of stakeholders can indicate the extent of impact of this program.

6. *About 52% of the respondents reported that there is the impact of this program on the village community and 19% of the respondents (those respondents were located nearby project area) expressed that there is a great impact of this program on agriculture.*
7. *80% respondent reported after Jal dhan there is increase in cultivable land and 19% respondents reported it has made impact on livestock development. This development has resulted in increase in income generation and economic development of the villagers.*
8. *About 93% reported there is a great impact on availability of drinking water throughout year.*

*One can conclude that this program has made the impact on agriculture as well as the drinking water in the community.*

❖ **Perception related to production of various food grains before and after Jal Dhan program:**



Indian agriculture is based on nature. Depending upon the natural and climatic conditions farmers are choosing the crop to be taken in a particular season. The information related to the production of various food grains, oilseeds seeds, pulses in Kharip, rubbi and summer season before Jal Dhan and after Jal dhan.

The broad observations are as follow-

1. *Substantial number of respondent said there is remarkable increase in the production of food grain (in general, oilseeds, pulses vegetable).*
2. *Substantial number of respondents reported there is an increase in variety of crops such as Millets, Legumes, Pulses, oil seeds, Vegetables, Cotton, Sugercane due to availability of water for longer duration*
3. *Large number of respondents reported that there is increase in crop production in Rabbi and summer season after Jal dhan*
4. *98% of the respondents has reported water for summer crop was not available before this program*
5. *Due to Jal Dhan there is a substantial changes in cropping pattern is reported by almost all respondents.*
6. *80% of respondent said manure is now easily available*

❖ **Benefits of Jal Dhan on small farmers, impact on family savings, economic development, availability of livestock and availability of fodder:**

The Indian agriculture is mainly based on traditional practice. Even today there is hardly any mechanization and advanced agriculture practices in rural area.

1. *About 96% of respondents have reported there is increase in cash flow due to the Jal Dhan*
2. *93% respondents reported Jal dhan has made impact on savings and equal number of respondents reported that there is economic development in the family.*
3. *About 50% respondents have reported there is an increase in livestock and 39% reported the green fodder is available throughout year at village level.*

**Part II Perception of women about Jal Dhan program -**

As discussed in the methodology women were selected from each village to assess the impact of Jal Dhan program on community. As *Women* are mainly concerned with the use of water especially for drinking and domestic use they have been consult.

The broad observation about women's perception is as follows-

❖ **Social profile:**

1. 74% respondents were above 40 years of age group
2. 62% of the women were illiterate.

3. 90% of women stayed in joint family system
4. All women are sending their children in school. There is no discrimination as regard the education in family.
5. 92% women got benefit of government schemes.
6. *About 90% of the respondents has reported drinking water is available throughout the year after implementation of this program.*

❖ **Agriculture:**

Agriculture sector is one of the important sector as women get daily wages at local level. In each family, a woman is significantly contributing in agriculture.

On this background the information regarding the basis of selection of crop, use of improved seed, information about Jal Dhan program and participation of villagers in this program was collected from women.

1. *About 96% women reported that market condition decides the crop to be taken*
2. *All families are using improved seed and also there is a practice of crop insurance.*
3. *Almost all women were aware about the Jal Dhan program being implemented by Rallis India Limited and more than 72% women reported that their family members were actively involved in Jal Dhan program of the village.*
4. *About 94% of the women reported that there is a benefit of Jal Dhan program to the community as well as to the individuals.*
5. *About 92% of women expressed that there is an economic development due to Jal Dhan program*
6. *72% of women reported that there is a full cooperation of villagers to this program. Due to poor economic conditions there is hardly any response for fundraising by the villagers for such type of the activities.*
7. Almost 85% of the respondents have reported there is a positive impact of Jal Dhan program on various aspects of the community.
8. Most of the women respondents reported that there is a change in the cropping pattern and the production of the various crops.
9. *80% women respondent reported that even though in a smaller quantity water is available during summer season it is helping them to grow leafy vegetables which helped for reducing the Anemic condition among the women.*
10. There are several changes in various aspects of agriculture and community life is reported by all respondents- mainly increase in irrigated agriculture land, bringing more land under cultivation, change in number of crops, type of crop, availability of fodder and organic manures and also there is a change in cultivation practices at community level.
11. *Most of the women have reported that they are willing to use the new technology in agriculture for saving the water and getting more crop production.*



12. *There is a substantial income generation due to Jal Dhan program is reported by 76% of the family and 96% of the women have reported there is a increase (Rs. 350+) in the rates of daily wages particularly for women.*

*This program has helped substantially for creating daily wage earning opportunities at community level as most of the farmers taking multiple crops as well as they are taking different types of the crop in their agriculture. Most of the farmers are using bore well to support traditional by irrigation.*

### **Part III: Gram Panchayat officials**

The detailed discussion with Panchayat members were undertaken in each village. Most of them expressed that Jal Dhan program is very useful for improving agricultural production, developing livestock and dairy, developing continuous source of drinking water in nearby village, availability of water during summer and substantial changes in various practices in agricultural operations.

1. Most of the Gram Panchayat members have reported that they observed the impact of Jal Dhan program on communities, social, economical and health aspects hence they are pursuing the proposals for getting the funds from government undertake more extensive activities at community level.
2. One of the benefits very specifically the officials were mentioning is that as water is available for domestic use construction of toilet facilities at community level or an individual level becomes easier. Earlier it was not possible to meet the target given by the government but now it is possible because water is available.
3. *Beed district is facing the problem of drought and scarcity of water since last 25 years but after implementation of this program the villagers are facing less problem of water scarcity.*
4. *Earlier drinking water was supplied through tanker from the month of February every year but this period is substantially reducing after Jal Dhan programme.*
5. *They also reported that there were several bore wells in village. During rainy season water is available by this bore well and from the month of February or March of every year borewell gets dried. Naturally the villagers have to face the problem of drinking water every year. However after implementation of the programme water is available in all bore wells till the end of April every year. This has helped substantially to reduce the water scarcity period at community level.*
6. *Most of the Gram Panchayat officials also reported that due to availability of Water health of community has been improved substantially.*
7. *The water table has increased substantially due to which farmers are motivated to get more and more cash crops rather than traditional crops.*
8. *The village leaders are now interested in implementing such type of the activities at other places also.*

**Conclusion:**

1. Rallis India Limited's Jal dhan program has impacted community in positive manner and in majority of villages resolve the water scarcity issue.
2. Jal dhan has also contributed in economic development and arresting migration.
3. Villagers, government authorities are appreciating the program and requesting Rallis India Limited to cover all villages from their region under Jal dhan.