

# SOCIO-ECONOMIC IMPACT OF JALANIDHI PROJECT; A CASE STUDY IN THE PARATHODU GRAMA PANCHAYAT, KANJIRAPALLY, KERALA

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**Abstract:** Safe drinking water is one of the basic fundamental right of a human being. And it is the duty of the a democratic government to ensure the same to its citizens. Jalanidhi is a World Bank assisted “Kerala Rural Water Supply and Sanitation Project” for the prompt delivery of adequate quantity of water and sanitation implemented .. The project introduced some reforms in rural water supply sector and is based on principles such as demand responsiveness, community ownership and sustainability of investments through cost recovery and participatory operations and management. The study concludes that the Jalanidhi project can be considered as beneficial not only from the economic point of view but also it improves the self esteem the vulnerable sections of the society.

**Keywords:** Jalanidhi, Kerala Rural Water Supply and Environmental Sanitation Project, solid waste management, Samitis.

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## I. INTRODUCTION

Jalanidhi is a World Bank assisted “Kerala Rural Water Supply and Sanitation Project” for sustained delivery of adequate quantity of water and sanitation implemented by “Kerala Rural Water Supply and Sanitation Agency. Jalanidhi ensure that the rural household in any water stressed parts of Kerala receive dependable supply of piped water in their homes at a price that even low income households can afford. The main beneficiaries of Jalanidhi are people belonging to SC, ST, BPL, Fisher folks etc. This project has been implemented completely by two phases. Jalanidhi Phase 1 and Jalanidhi Phase 2.

The project introduced some reforms in rural water supply sector and is based on principles such as demand responsiveness, community ownership and sustainability of investments through cost recovery and participatory operations and management. The cost share in this project implementation is : 75% of the total cost is beard by State Government, 15% is contributed by Gram Panchayats and 10% is taken from the beneficiary groups. The maintenance cost is completely beard by the beneficiary groups itself.

### Different Phases of Jalanidhi

**Phase 1:** World Bank aided Rs. 381.5crore for the rural water supply and sanitation project to Jalanidhi. The GPs<sup>1</sup> have a major role in implementing community based water supply projects under Jalanidhi. KRWSA<sup>2</sup> has also established a wide network of NGO's in mobilizing communities. <sup>3</sup> Implemented during the period 2000-2008 in Jalanidhi Phase1 there were

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<sup>1</sup> Gram Panchayat

<sup>2</sup> Kerala Rural Water supply and Sanitation Agency

<sup>3</sup> <http://spb.kerala.gov.in>

3694 small water supply schemes and 16 large water supply schemes and benefitted 10.56 lakhs population. The project was implemented for the first time in Four Districts of Kerala –Malappuram, Palakkad, Kozhikode, Thrissur. The project got expanded to further areas after getting successful implementation results from the beneficiaries of these areas.

**Phase 2:** This phase is the continuation of Jalanidhi phase1 and implemented during the period 2012-2018. The project covers about 17.5lakh rural people for water supply and sanitation services and to cover 200 GP's in 12 districts; many of which are in Central Kerala's Kottayam and Idukki. Total project expenditure as on March 2018 was Rs.1105.06crore. 70,153 households (7,46,097) beneficiaries are now getting water under this scheme. Total number of Ground Water Recharge as on September 15, 2018 is 2,552 and majority is in Kottayam District (972).

## II. SIGNIFICANCE OF THE STUDY

Kerala is considered as the land of water resources with high rainfall, rivers, backwaters, lakes etc. However, the highly uneven temporal and spatial distribution of water resources, rapidly increasing stress on water resources due to population growth, rising living standards and economic expansion and the creeping impact of climate change adversely affect the viability of water resources. The access to clean water and sanitation are basic necessities of life. Thus the successful implementation of Jalanidhi ensure the availability and equal distribution of clean water in rural areas.

The Jalanidhi project also target on the solid waste management through the establishment of latrines in public places and rural areas. The Verme compost, Biogas plants provided under Jalanidhi are good ways for household waste management. The project also aims on the conservation of traditional water resources and check dams' construction. The Ground Water Recharging is one of the notable services provided under Jalanidhi.

As this project is based on social contract it makes people responsible for the protection and maintenance of the project. The Samitis were formed as a part of implementing Jalanidhi in various wards in a panchayat. Small groups of households who wanted better water supply were come together to build and run their own water supply schemes under the guidance of the Samitis. They were helped to dig new wells, drill bore wells or to draw water from rivers, streams and lakes.

As a part of this project implementation people get access to pure drinking water and thus the incidence of Diarrhea and Dysentery has reduced dramatically. As this project is mainly implemented by Government through panchayats and beneficiary groups, it turns a testimony to the success of the decentralized model.

## III. OBJECTIVES OF THE STUDY

1. To examine the various projects under Jalanidhi.
2. To study the water scarcity exists in the area and examine how Jalanidhi act as remedy in Parathodu Grama Panchayat.
3. To analyze the socio-economic and political impact of the Jalanidhi project.

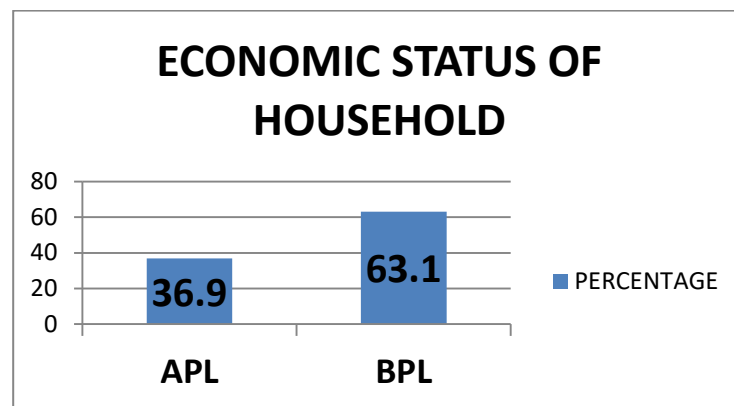
## IV. METHODOLOGY OF THE STUDY

This study has made use of both primary and secondary data.. The primary data is collected through conducting personal interviews with the beneficiary groups, Jalanidhi Project Manager in Parathode GP, the members of Samitis in various Wards. Out of 230 beneficiaries of Jalanidhi project in two wards of Parathodu Grama Panchayat, 38 samples were taken using random sampling techniques. The secondary data is collected from collected from various articles, research journals like EPW ,Economic reviews of the State planning Board, Kerala of the concerned periods ,website of Jalnidhi project etc. Descriptive statistical tools were used to analyze the primary data.

**Period of study:** From June 2019 to December 2019

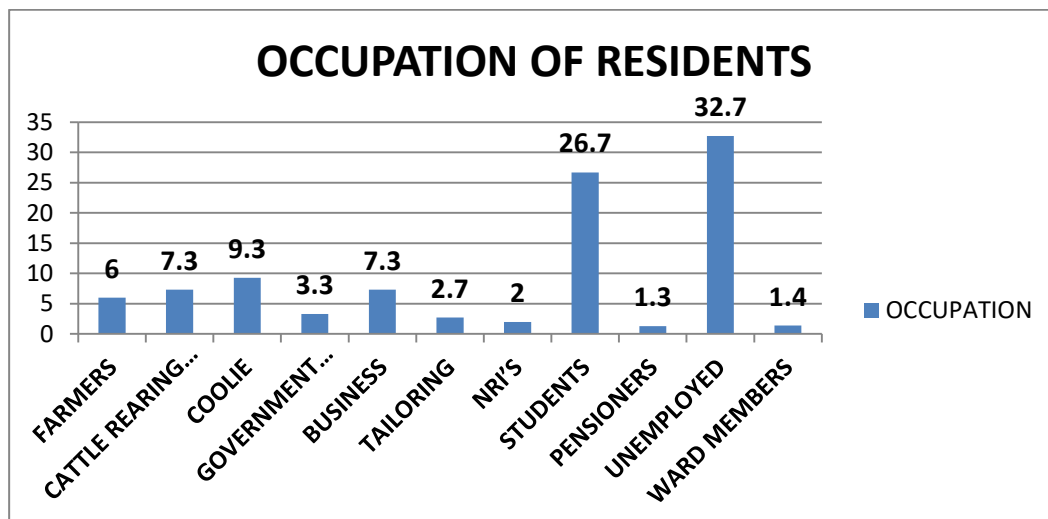
## V. RESULTS AND DISCUSSION

**Economic Status of the beneficiaries:** This section analyses the economic status of the beneficiaries of the programme.For the analysing it simple percent analysis has been applied.The result of the analysis are presented in the diagram given below .

**Source: Primary Data**

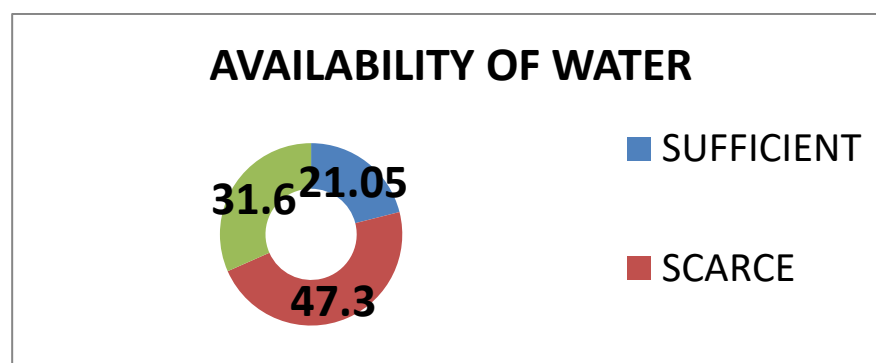
It indicates that the majority people i.e. 63.1% belongs to BPL category while other 36.9% are APL. So the major beneficiaries are the vulnerable sections of the society pinpoints the social importance of the project in the study area.

**Occupational Profile of the beneficiaries:** This section analyses the occupational status of the beneficiaries of the programme..The result of the analysis are presented in the diagram given below

**Source: Primary Data**

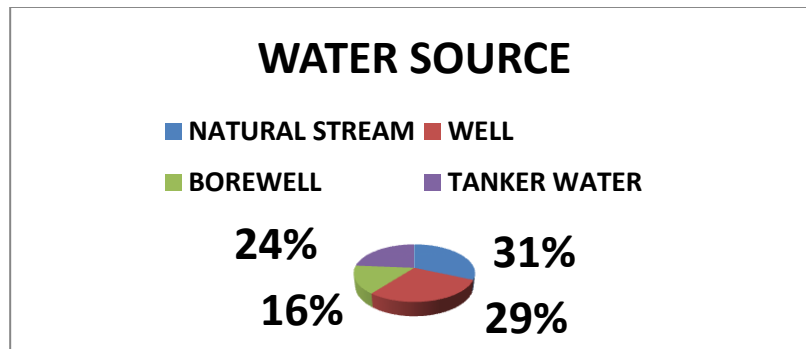
It indicates that the majority people i.e. 32.7% are unemployed while other 26.7% are students.. It indicates that the proportion of the earning members of the family is comparatively low.

**Distribution of Households based on the availability of Water :** The region is severely affected by the lack of safe drinking water.

**Source: Primary Data**

The diagram depicts that about 52.65% of households in this region faces water scarcity and 21.05 % are satisfied with the water available to them. This aspect of the study points out why the study is significant in the Parathode Grama Panchayat.

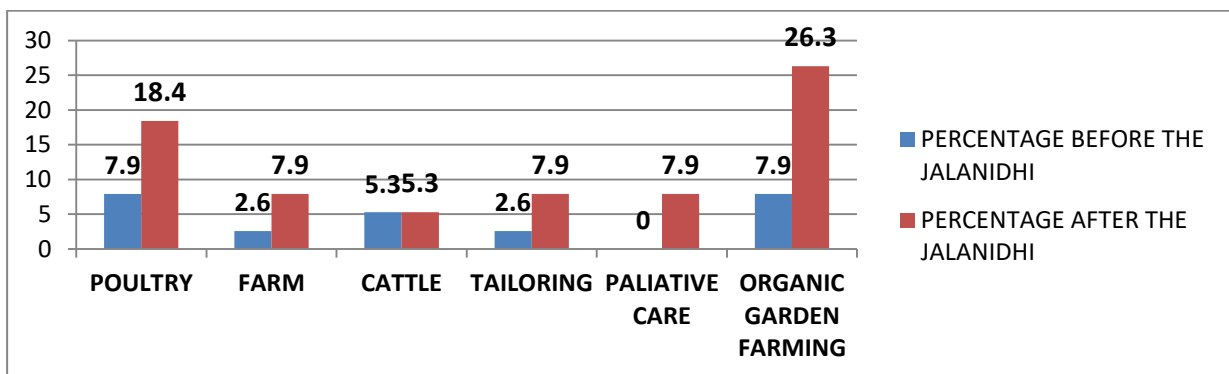
**Classification of households based on the source of water available :** The people in the study area mainly depends on natural stream for satisfying their need.



Source: Primary Data

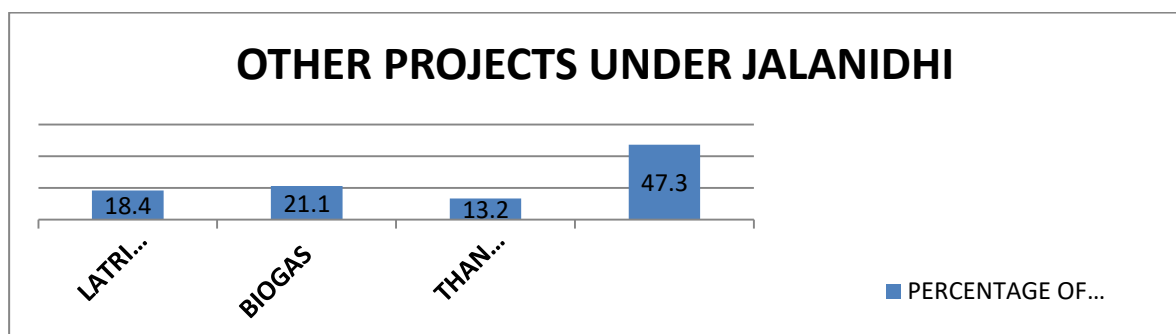
The above figure indicates that majority of household (31%) depends on Natural Stream as the water source and many still use the tanker water to meet their needs.

**The comparative study of Livelihood Supporting Activities before and after Jalandihi :** The figure depicts that after the implementation of Jalandihi there an increase in all activities except Cattle rearing which remains same before and after i.e.5.3%. There is sharp increase in the vegetable gardening i.e. from 7.9% -26.3%.The Palliative Care services rises to 7.9% from 0%. This indicates the positive impact of the introduction of Jalandihi in the panchayat



Source: Primary Data

**Other Projects under Jalandihi :** Even though , the prime aim of Jalandihi project is to provide the safe drinking facility to the targeted population, there are some sub objectives for the programme and those activities also get proper attention and implementation in the area.

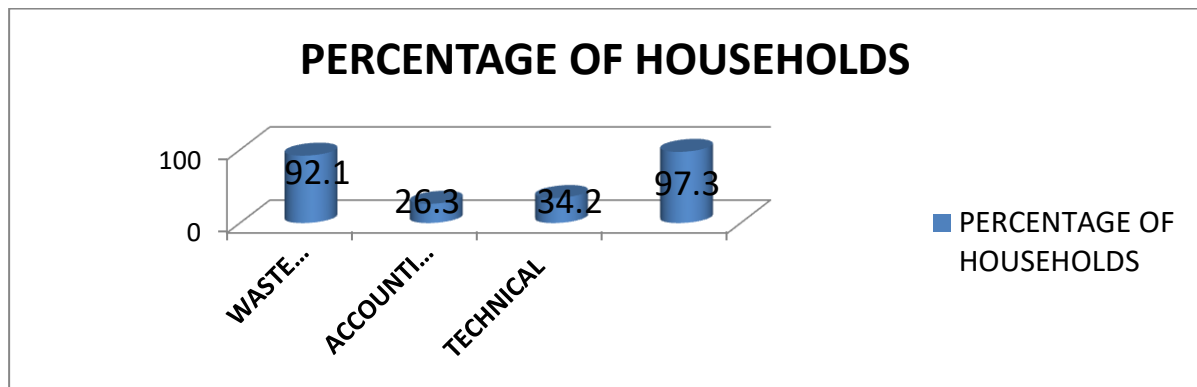


Source: Primary Data

From the above figure it is clear that the construction of Rain water pits help farmers to conserve the running water. The 21.1% of beneficiaries received Biogas plants under the Jananidhi project. Under the Thanneerthadam project about 13.2% of natural streams got revived. The above results indicate the multi-dimensional aspects of the Jananidhi project which paved the way for the improvement of their standard of living

#### Households Participated in the Training Programs Conducted Under Project Jananidhi

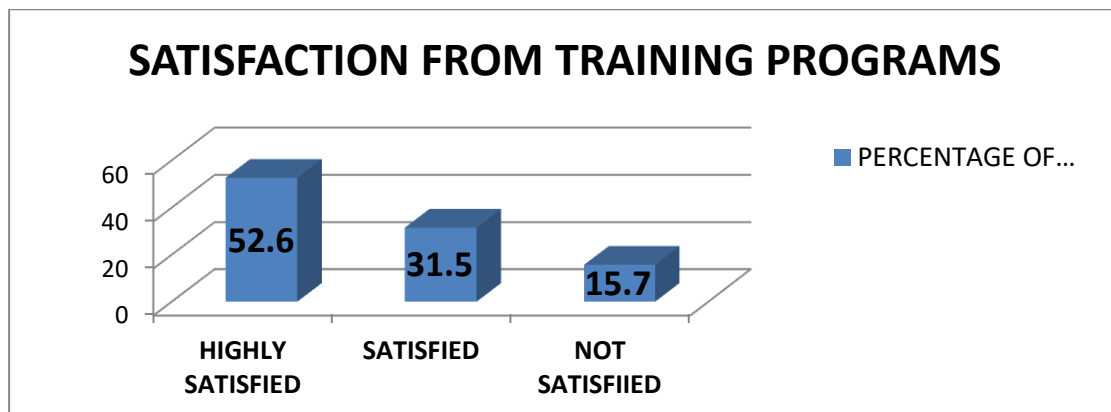
There exists an active participation of beneficiaries in Training programs organized under Jananidhi. 26.3% and 34.2% of women were given special training in Accounting and Technical fields. This is depicted in the following figure.



Source: Primary Data

There exists an active participation of beneficiaries in Training programs organized under Jananidhi. 26.3% and 34.2% of women were given special training in Accounting and Technical fields. According to their opinion these programs made them aware of various methods of water conservation and waste management .

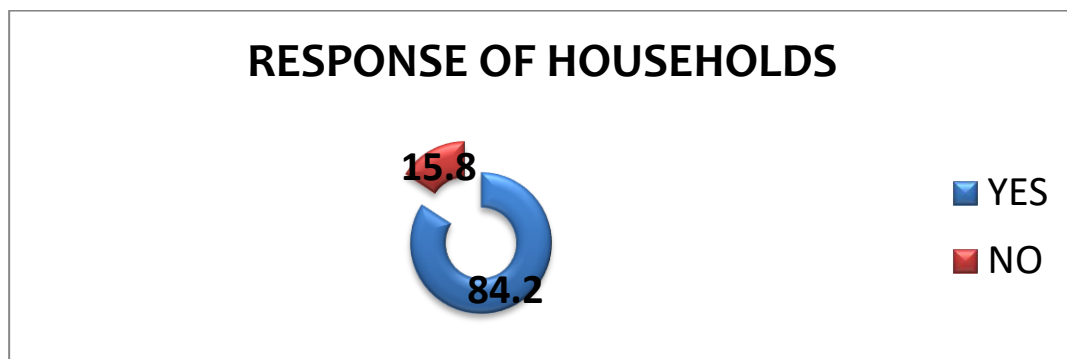
**Satisfaction of Beneficiaries from various training programs :** The implementation of various training programmes improves their social literacy and awareness of environment protection and environment friendly waste management. Accordingly majority are satisfied with those training programmes.



Source: Primary Data

The above figure indicates that the 52.6% and 31.5% strongly support and appreciate the training programs organized under Jananidhi. The main beneficiaries of these programs are women. Also it make the young generation aware of the water conservation and proper waste disposal techniques.

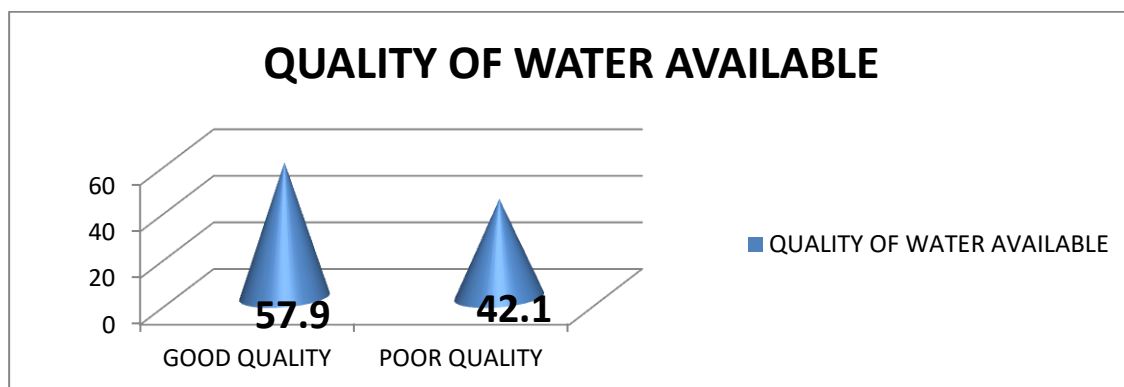
**The availability of water from Jananidhi :** Study was also conducted to check whether they get water from Jananidhi during needy time.



**Source: Primary Data**

Majority of them( 84.2% ) agreed that Jananidhi is a great help for them during extreme water scarce condition. 15.8% are not satisfied yet. This is due to the drying of the water source constructed under Jananidhi project.

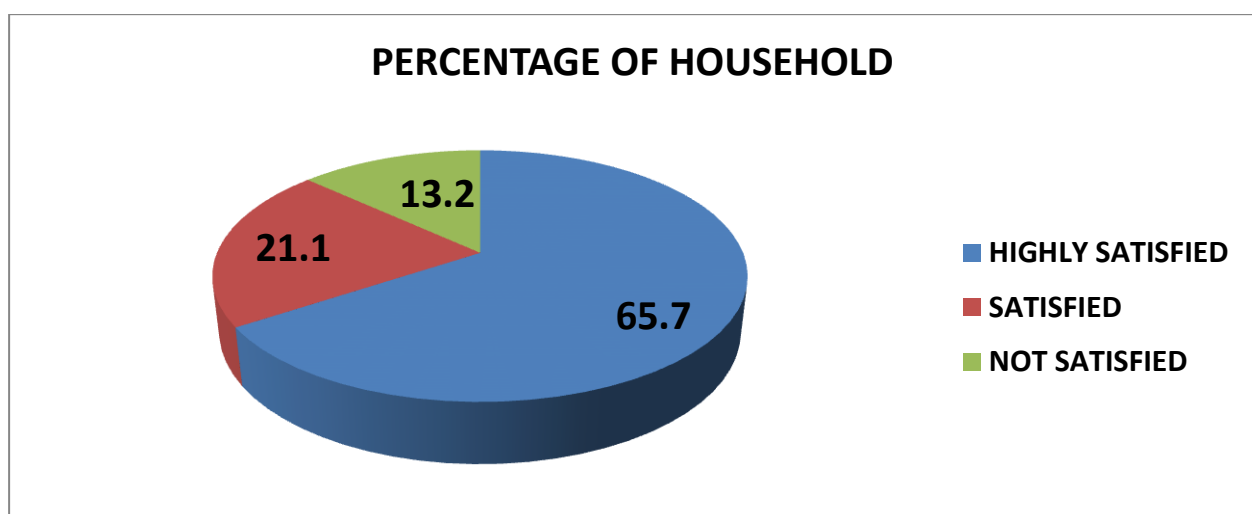
**The quality of water available through Jananidhi:** Regarding the quality of the water available there arose mixed response.



**Source: Primary Data**

From the response of the beneficiaries of Jananidhi it is identified that the water available through this project is not fit for drinking in some areas..The data depicts that 57.9% agreed that the water available for them is fit for drinking. But 42.1% are not satisfied with the quality of water.

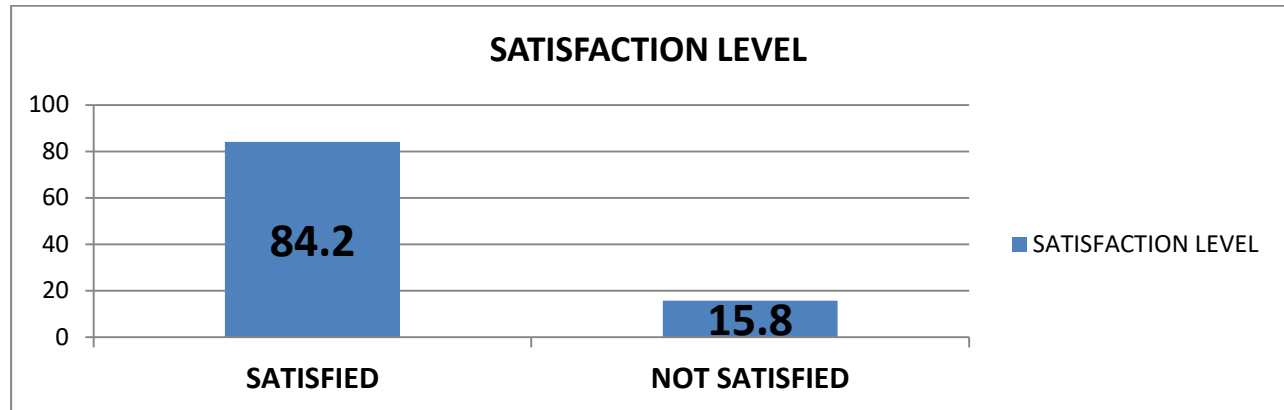
**Role of Panchayat in the Jananidhi Project:** From the study it is clear that successful implementation of the Janidhi project is carried out through Panchayat and it in turn implies the effectiveness of decentralized governance.



**Source: Primary Data**

The study pointed out the effective management of Grass root level decentralized policies in India. About 65.7% of households are satisfied with the role of Panchayat in Jalanidhi Project management.

**Satisfaction among beneficiaries of Jalanidhi :** The study indicates that majority of the beneficiaries are satisfied with the project.



**Source: Primary Data**

In the above figure, it is clear that majority (84.2%) of people are satisfied with the services provided under Jalanidhi. This indicates the popularity and success of the project among masses.

## VI. FINDINGS

Majority of the beneficiaries belongs to BPL Category. More than half of the respondents are satisfied with the services provided under Jalanidhi and they are also satisfied with the quantity and quality of water available through the project. The main livelihood of the sample under study of the sample depend on farming.

The study observed that out of majority of the respondents (80%) suffered from water scarcity and their main source of water is natural springs. The study made it clear that through the execution of Jalanidhi about 90% of people could save the money spend for tanker water.

It is revealed from the study that 50% of women are now able to engage in other profitable activities by saving their time they spend for water fetching before.

The study pointed out that around 97% of beneficiaries attend the various training programs conducted under this scheme.

The study found that many families (53%) now became self sufficient as they could practice agriculture and its subsidiary activities due to the availability of water and extra time.

The study put the fact that 60% of women get more advanced knowledge in water conservation, Waste management, Accounting, Plumbing etc. through various training programme under the scheme.

The study revealed that the toilets provided under this scheme improves the Sanitation facilities of people. The study examined that 70% benefited from the rain water pits, Check dams, Natural water resource conservation etc. the scheme.

The study viewed that all the respondents actively participate in meetings held by Samitis of Jalanidhi. The study found that the Samitis provide an opportunity to women to share their views and concerns and to hold leadership.

Majority of beneficiaries remarked that the Panchayat officials well cooperate with the Samiti's and meet their all requirements and it indicates there exists a positive correlation between the decentralized governance and successful implementation of the Jalanidhi project. The study also examined that the officials conduct an audit and machinery check up in every Wards once in a month.

The study examined that the implementation cost of Jalanidhi is accepted and is not a concern for middle and rich households but 23% of low income groups could not able to afford this cost.

The study pointed out that in some areas due to the ineffective pipelines and impure source of water, the Jalanidhi is not effectively working and beneficiaries (6%) are not satisfied.

## VII. PROBLEMS IDENTIFIED DURING THE STUDY

The following are some of the problems faced by the beneficiaries of Jalanidhi identified during the survey.

The quantity of water circulated is insufficient

The quality of water available through Jalanidhi is under suspicious condition.

Beneficiaries are unable to hold the high implementation cost of Jalanidhi.

The reservation conditions are not followed while allotting the slot.

Lack of proper water treatment plants.

The damaged and rusted pipelines

## VIII. SUGGESTIONS AND CONCLUSION

The Jalanidhi scheme would become more effective if the following suggestions are implemented:

The project has also been implemented in areas of financial stability and sufficient water. There is the need for constructing check dams near the natural spring to get adequate water for beneficiaries in hilly areas. The use of good quality pipelines for water supply and tanks for storage is also suggested for the quality delivery of the water. Good water treatment plants should be established for pure water supply. As a part of this project the authorities should establish water purifier near roads to provide pure drinking water to travelers. Prior to the implementation of the scheme officials must conduct preference survey in the area. As a part of the Jalanidhi, Latrines implementation must be expanded to more areas. It is advisable to charge only nominal or no charge from the low income group, only then the project benefits and uplift the marginalized sections of the society. Women must be provided with some loans for practicing Household farming.

The respondents in the study area suffer from extreme water stress and they have to spend a huge sum of money and time for potable water during summer season. Apart from the piped water supply other projects like Waste management, Latrines, Rain water conservation etc. are implemented as a part of this scheme. The introduction of this project elevate the women by bestowing them with various Training programs and yield them an extra time to engage in other profitable ventures. Jalanidhi project also vitalized the social relations. The Samiti's meet once in a month, discuss various ideas and impart people to foster their relations. In short Jalanidhi project can be considered as beneficial not only from the economic point of view but also it improves the self esteem the vulnerable sections of the society. So in conclusion, Parathode Panchayat Jalanidhi seems to be successful in providing piped water to water stress areas.

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