

**Evaluation Series: 87**

**AN EVALUATION STUDY ON  
JALANIDHI PROJECTS IN KERALA**

**EVALUATION DIVISION  
KERALA STATE PLANNING BOARD**

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## FOREWORD

The government of Kerala has launched an ambitious Rural Water Supply and Sanitation Programme, *Jalanidhi*, which is part-funded by the World Bank and implemented by the KRWSA. The Programme seeks to cover 92 Grama Panchayats spread over the four districts of Thrissur, Palakkad, Malappuram and Kozhikode and 18 Grama Panchayats spread over the remaining nine districts, excluding Alappuzha. Its estimated cost is Rs.381.5 crores, and its objective is to improve the quality of rural water supply and sanitation.

The Evaluation Division of the State Planning Board has carried out an evaluation study of the *Jalanidhi* Programme in 8 Grama Panchayats, 2 each from the four districts where the Programme is concentrated. The Report of the study which follows is based on primary data collected from the Beneficiary Groups and individual households, supplemented by secondary data collected from KRWSA and DPMU.

While the Study attests to the increase in water supply that has been made possible owing to *Jalanidhi*, it also raised some important policy issues. The *Jalanidhi* Programme, like other World Bank-funded Programmes, insists on beneficiary contribution, limited in the present case to 15 percent of the project costs in the non-ST areas, and on the payment of User Charges. Correspondingly, the Programme accords the major role in the operation of projects to Beneficiary Groups.

As against this model where the Beneficiaries are supposed to contribute to and operate the project, the alternative model would be to get the State Government and the Panchayats to meet the entire project cost, avoiding Beneficiary contribution altogether, to do away with User Charges, at least for the BPL population, and to let the Panchayat take full control of the operation and administration of the project.

The second model has two advantages: first, no additional tier like the Beneficiary Group intrudes into the domain of the elected Panchayat; and second, the benefits of the projects extend to all, irrespective of their economic position. It is, in short, more in keeping with the philosophy that it is the responsibility of the State (which includes the Panchayats as its lowest-tier) to provide the basic amenities to all citizens irrespective of their economic status.

In view of the finding of the Study that some of the poorest people in the areas covered by *Jalanidhi* may have got excluded from the benefits of the project owing to their inability to contribute to the project cost, the case for the second model gets considerably strengthened.

The present Study was prepared by a team of officers of the Evaluation Division, assisted by officers of the Social Service Division, under the overall supervision of the Chief, Evaluation Division. Valuable technical advice was given by Dr.K.N.Harilal, Member, State Planning Board.

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Thiruvananthapuram,  
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## **EXECUTIVE SUMMARY**

The Jananidhi Project was originally designed to implement in 80-100 Grama Panchayats in four districts, viz. Thrissur, Palakkad, Malappuram and Kozhikode. As per the revised plan by the end of 2006, 92 Grama Panchayats spread over Thrissur, Palakkad, Malappuram and Kozhikode and 18 Grama Panchayats spread over remaining 9 districts, excluding Alappuzha, were included in the Project with an estimated (revised) cost of Rs. 381.5 Crores.

The specific objectives of the Project are:

- To demonstrate the viability of the cost recovery and institutional reforms by developing, testing and implementing the new decentralized service delivery model on a pilot basis;
- To build the State's capacity in improved sector management in order to scale up the new Model State wide.

The main components of the Project include institutional building, community development, infrastructure building, state wide sector development and natural resources development.

Kerala Rural Water Supply and Sanitation Agency (KRWSA) has conducted series of Studies for assessing the performance and sustainability of the Project.

The present Study is intended to review the performance of the First Phase of the Jananidhi Project, covering physical and financial targets and achievements, and level of consumer behavior.

The specific objectives of the Study include the issues related with the following.

- Identification of beneficiary Panchayats;
- Adequacy of quality drinking water and sanitation;
- Achievement of physical targets;
- Cost effectiveness of water supply schemes;
- Selection of Beneficiary Groups (BGs) and efficiency of decentralized delivery model in water supply; and
- Consumer satisfaction.

Jananidhi Projects covered 112 Grama Panchayats in various districts; the present Evaluation Study is limited to 8 Grama Panchayats, two Panchayats each from Thrissur, Palakkad, Malappuram and Kozhikode. The Panchayats are selected on the basis of higher investments in Jananidhi Projects and higher investments in SC/ST Projects under Jananidhi. Along with

secondary data collected from KRWSA and DPMU, primary data was collected from Beneficiary Groups (BGs) and households using structured questionnaires. The Survey covered more than 250 families from each Panchayat.

The major findings of the Study include the following:

- Among the four districts selected for the Study, Thrissur had perennial water supply coverage of 57% prior to the implementation of the Jalanidhi Project and it was 51% in Palakkad, 56% in Malappuram and 61% in Kozhikode.
- In the selected 8 Panchayats, perennial water supply coverage was between 25%-69% prior to the implementation of the Project.
- Implementation of the Jalanidhi has created an additional coverage ranging from 26%-36% at the district level and 25%-56% at the Panchayat level.
- Total water supply coverage reached 75%-95% at the district level and 45%-98% at the Panchayat level after the implementation of the project.
- At the time of Survey, 90% of the Jalanidhi water supply schemes were completed and the remaining nearing completion.
- In certain Panchayats beneficiaries covered more APL families than BPL families.
- As per the Project 16% of beneficiaries would be SC/ST. It is seen that there are separate schemes for ST, but no separate schemes for SCs.
- The fund utilization was in the ratio of 75:10:15 between the Government, Panchayats and beneficiaries; however, it was in the ratio of 80:10:10 for ST schemes.
- Beneficiaries have diverse opinion regarding the water availability, quality and overall performance of the schemes; in general water availability was limited to one to three hours per day.
- To meet the operational and maintenance cost of the project, monthly subscription at the rate of Rs.30-Rs.60 was collected from the beneficiaries on the basis of the capacity of water tank.
- Among the beneficiaries, 60% were using water for drinking and cooking, and others for various purposes.
- Lesser amount was expended for individual water supply schemes than the estimated cost; however, expenditures exceeded the estimated cost for comprehensive schemes (Multi BGs).
- The average cost of water supply per household varied between Rs. 7112 and Rs.17410 at the Panchayat level.
- For environmental sanitation, new latrines, latrine conversion, soak pits and compost pits are constructed; Government subsidy was at the rate of Rs.2000 per latrines and Rs.1000 per conversion.
- For empowering the beneficiaries, training programmes are also organized.
- In general, 80% of the beneficiaries positively remarked about the Project.

Even though, the Project has met the water requirement to the tune of 80% of the rural population, the study identified certain defects in its implementation and operation, which are circumvented on the following issues.

- Poor water sources and hilly terrains reflecting in inadequacy of water supply.
- Due to lack of proper coordination monthly charges are not properly collected in certain Panchayats.
- Since the poorest people are unable to pay the 15% of beneficiary shares, they were left out from the Project coverage.
- Role of Panchayats was merely as facilitators and as a result the operation and maintenance of the project was given to BGs, which were not in a position to handle it properly.
- Issues between DPMU and supporting organizations resulted in delay in the completion of certain schemes.
- Failure of certain projects are due to poor quality materials used; and
- Political decisions in the identification of water supply sites at local level resulted in failure of certain schemes due to drying of water sources.

The study proposes the following recommendations for extending the Jalanidhi Project to other uncovered areas and thereby solving the scarcity of water.

- Make it mandatory that all Panchayats should earmark sufficient Plan funds to solve the water supply problems by utilizing the available water resources potential.
- The role of Panchayats may be upgraded from the level of a facilitator to the level of controller and administrator of the Project.
- For the effective functioning of the Project appropriate committee may be constituted by including various stakeholders.
- BGs are to be strengthened through proper support and arrangements of regular meeting.
- The Panchayat Secretaries should maintain proper accounting and follow strict monitoring of the Project.
- Panchayats should take necessary measures to include the poorest people, who are unable to pay the BG share, in the Project coverage.

The Study conclude that proper utilization of water resources, maintenance and strengthening of the infrastructure created under Jalanidhi, and extension of the Jalanidhi Model to other uncovered Panchayats with adequate funding will solve the problem of water scarcity in rural areas in Kerala.

## **CHAPTER - I**

### **INTRODUCTION**

Jalanidhi, a World Bank aided Rural Water Supply and Environmental Sanitation Project was formulated in mid 1999. Project implementation plan was prepared and appraised in mid 2000 and an agreement with the World Bank was signed on 4th January 2001. The Government have also created an autonomous institution, viz, 'Kerala Rural Water Supply and Sanitation Agency (KRWSA)' to implement this project. The project expected to cover 3 lakh households, benefiting a population of more than 15 lakh from the selected Grama Panchyats.

Communities in the project areas are expected to benefit from improved and sustainable water supply and environmental sanitation services. The stakeholders enjoyed time savings in collecting water, better health from more and cleaner water, improved sanitation and hygiene practises. Women are considered as the most beneficial group. The project made efforts to mainstream women users into the planning and decision making activities. Grama panchayat involved in the project got benefited from panchayat strengthening programmes and mobilisation of internal resources from beneficiaries. Government of Kerala improved institutional capacity to facilitate water supply and sanitation services in the state due to the project. The Project has been designed as a demand responsive Project with a community driven development approach in its implementation. The project integrated water supply with sanitation, health promotion, and environmental management and ground water re-charge measures.

#### **1.1 The Jalanidhi Project**

The project was originally designed to implement in 80-100 Grama Panchayats in four Districts of Kerala viz, Thrissur, Palakkad, Malappuram and Kozhikode with an estimated cost of Rs.451.40 crore over a period of five years from 2001. GOK has selected these districts on the basis of shortages in water availability or water quality, relatively large population of poor and socially disadvantaged, and high demand for improved services. These four Districts constituted a geographically contiguous unit. Of this, three Districts also represent different topographical regions in Kerala viz, coastal, midlands and highlands.

During the mid term review of the project in 2003, it was found that the Panchayats had achieved its targets at a lower cost than the estimated one. Hence, the estimate was revised; it was also decided to scale up the project to other Districts. As per the revised plan by the end of 2006, 92 Grama Panchyats spread over Thrissur, Palakkad, Malappuram and Kozhikode and 18 Grama Panchayats spread over the remaining 9 Districts, (2 Grama Panchayats from each District) were included in the project. Alappuzha was not covered under this project because of the disinterest of the people.

Besides, 2 Grama Panchayats from Kollam District were also selected to implement Tsunami Rehabilitation programme under the Project. In total the project covered 112 Grama Panchayats. The revised estimate of the project was Rs.381.5 crores including Rs.60 crores for scaling up the activities across the State and Rs.60 crores for Tsunami Rehabilitation Project.

#### **1.1.1 Objectives of the Project.**

The overall development objective of the project was to assist Govt. of Kerala to improve the quality of rural water supply and environmental sanitation. Service delivery to achieve sustainability of investment was also envisaged in the project. It also supports Government of Kerala in furthering its sector related goal of increasing the access of Kerala's rural population, particularly the poor and the disadvantaged groups for getting drinking water supply and environmental sanitation services. The specific development objectives of the project are:

*(a) To demonstrate the viability of cost recovery and institutional reforms by developing, testing and implementing the new decentralised service delivery model on a pilot basis*

*(b) To build the State's capacity in improved sector management in order to scale up the new model State wide.*

#### **1.1.2 Project Period**

Project was originally conceived in 2001 for 5 years. Instead of completion on 2006 still it is continuing for completing the incompleting schemes.

#### **1.1.3 Project Cost**

Originally the project was estimated for Rs.451.40 crores with shares of Rs.329.25 crores from World Bank, Rs.34.24 crores by Grama panchayats and Rs.87.95 crores by Beneficiary



share. But later it was revised to Rs.381.5 crores and incurred an expenditure of Rs.380 crores at the end of December 2009. The pattern of funding of the revised estimate is that the external assistance is Rs.274.68 crore, which is 72 percent of the project cost, 7 percent each from GOK and Gramapanchayats and the remaining from Beneficiary Groups.

#### **1.1.4 Implementation Process of the Project**

Panchayats are selected under the project following four criteria, (a) higher proportion of poor and vulnerable groups, (b) severity of water scarcity (c) low level of latrine coverage, and (d) higher level of implementation capacity. Special programmes targeted for poor and vulnerable sections are implemented through selection of special BGs and Tribal Development Project implementation. The scheme had a project cycle of 27 months, divided into four phases, 3 months for pre-planning, 12 months for planning, 8 months for implementation and 4 months for post implementation.

#### **1.1.5 Project Components**

Main Components of the Project included institutional building, community development, infrastructural building, state wide sector development and natural resource development. Major programmes implemented under the project included:-

- Water Supply Scheme – Small,
- Comprehensive Water Supply Scheme,
- New Latrine,
- Latrine Conversion,
- Comprehensive Ground Water Recharge,
- Ground Water Recharging – Point recharge,
- Environmental – Works,
- Drainage, and

- Rain Water Harvesting – Structures.

### **1.1.6 Funding pattern and Beneficiary selection**

The pattern of assistance followed in the Project was in the ratio of 75:10:15 between Government, Panchayats and Beneficiaries in general schemes and in Tribal project it was 80:10:10 respectively. The beneficiaries included 52% BPL families, 16% SC/ST population and 32% from local population including general category.

### **1.1.7 Organisational Setup of the Project**

Programme sustainability through participatory approach was focussed through Jananidhi project implementation. In order to implement the scheme smoothly and effectively, a well established systematic organisational arrangement was made from the State level to the Local body. The organisational arrangement made under Jananidhi is detailed below.

#### ***a. Kerala Rural Water Supply and Sanitation Agency (KRWSA)***

The Kerala Rural Water Supply and Sanitation Agency (KRWSA) was setup at the State level in November 1999 to operationalise the Jananidhi project in the selected Districts. It is an autonomous body under the Department of Water Resources, Government of Kerala mainly concerned with facilitating and supporting local initiatives in ensuring adequate supply of water in rural Kerala.

#### ***b. District Project Management Unit (DPMU)***

District project Management unit was established in nine Districts and certain units had administrative control over nearby Districts. These DPMU acted as the front line contact points of KRWSA providing technical and financial support to the Grama Panchayats and Supporting Organisation.

#### ***c. Grama Panchayat (GP)***

Grama panchayat is the Local Government institution operating as the nodal body at the panchayat level. The Grama Panchayat share is 10% of the capital expenses and also functions as

the final arbitrating authority. The Panchayat selected the area and issued administrative sanction for implementing the scheme.

***d. Supporting Organisation (S O)***

The supporting organisation is identified by the KRWSA in consultation with the Panchayat to assist the Grama panchayat and the Beneficiary Group in Technical and managerial matters. The SO prepare the project for getting administrative and Technical sanction and the took initiative in the implementation. They supervise the work, prepare bills and submit to the DPMU. The SO is funded by the project and is designed to taper off by the scheme period fixed already.

***e. Beneficiary Groups (BGs)***

1.23 At the individual scheme level, Beneficiary Group (BG) was established comprising of the actual users who were responsible for the operation and maintenance of the project. Their role starts right from source identification, technology selection, community contracting, operation and maintenance of the scheme.

***f. Beneficiary Group Federation (BGF)***

BGs are functioning according to the bye-laws of charitable societies Act. Like wise BG Federations are also acting according to the bye-laws of Charitable Societies Act. It is an association of BGs with the required legal standing. BG Federations take active care in co-ordinating the functions of BGs. It is a check and advisory/ supervisory agency over the BGs. It liaison with the panchayats and act as the voice of the BGs.

**1.2 Over all Programme of the Project Based on KRWSA**

**1.2.1 Water Supply**

The latest progress report furnished by KRWSA states that in order to ensure the availability of quality drinking water, 112 Grama Panchayats were brought under Water Supply Schemes. Water supply schemes are implemented through constructing new or renovating existing ponds or wells and connected it with overhead tank of various capacities. Water Supply Schemes are being managed and operated by Beneficiary Committees.

Three types of water supply schemes have been undertaken under Jananidhi

- a) Small types,

- b) Comprehensive schemes, and
- c) Tsunami rehabilitation schemes

There are 3120 small new schemes under the programme, of this 3116 Water Supply Schemes have already completed including 162 Water Supply Schemes under TDP, and handed over to the community for operation and maintenance. As on 31.12.2008 about 10 lakh people including 1,67,663 households and 175 (institutions) are getting water through Jalanidhi schemes.

Up to March 2009, a total of 3704 Water Supply Schemes are completed as against the target of 3712 and 8 Schemes are in progress.

#### *Rehabilitation of KWA scheme*

The Project rehabilitated 148 schemes of KWA schemes so far.

#### *Rehabilitation of Grama Panchayat Water Supply Scheme*

So far 253 Grama panchayat water supply scheme are rehabilitated under the project.

#### *Institutional schemes*

So far 175 schemes are completed and commissioned for various institutions including schools and hospitals.

#### *Comprehensive schemes*

So far 10 comprehensive Water Supply Schemes have been completed and commissioned.

#### *Tsunami Rehabilitation Project*

Out of the proposed 2 projects in Tsunami Rehabilitation areas of Kollam and Alappuzha Districts only one scheme at Chavara Panmana has been taken up with an estimated cost of Rs.35.50 crores.

### **1.2.2 Construction of Latrines**

Under sanitation coverage, the project has invested 11 % of the project outlay through the selected Panchayats. Sanitation coverage included the prevention of biological contamination by construction of sanitary latrine and conversion of unsanitary latrine to sanitary latrines. Up to the end of March 2009, 68023 new latrines are constructed and 24,194 unsanitary latrines are converted to sanitary, against the target of 40,000 and 8000 respectively. 26 Grama Panchayats

have achieved 100% household latrine coverage at the end of March 2008, as part of Sanitation Programme.

Water Supply and Sanitation activities were also set up in Schools. So far water supply facilities have been arranged in 173 Schools/Anganvadies through Jananidhi projects and sanitation facilities are provided to 126 Government/aided schools and 80 Anganvadies up to September 2008. As part of the project 68362.2 m drainage works are also completed.

### **1.2.3 Environmental Management Schemes**

A total of 89,319 environmental sanitation structures like compost pit, soak pit and vermi compost units have been constructed. The project also assigned equal weightage in building up the community awareness on sanitation and hygiene and its relation to water.

### **1.2.4 Ground water Recharge (GWR)**

Ground Water Recharge was an important component of the project. The projects adopted both structural and agronomic measures to enrich the ground water level. As a matter of fact it is evident that the ground water level in the State is depleting day by day. The ground water level receding drastically during the summer months and drying up of wells are the common features in many parts of the State. The ground water replenishment and hence the levels depend on many other things; based on this Ground Water Recharging structures are being designed. Under the project contour bunding, trenching, rain pits, water harvesting structures, stream bunds and trenches through vegetative measures, terracing, sub surface dykes, check dams, gabian structures etc are constructed. The existing wells as well as the newly commissioned water supply schemes are benefited from Ground Water recharge structures.

Source recharge measures are inbuilt as part of the project design and 33 comprehensive GWR activities are implemented in selected Panchayats with the objective to implement GWR activities, where ground water levels are dropping. 1013 point GWR facilities are affected. Pond renovation works, construction of check dams, cross bunds, contour bunds, trenches, roof water recharge to pits/ well, rain pits and various agronomic measures were the main renovations made under this component.

### **1.2.5 Tribal Development programme**

As part of the programme 10 Tribal projects were taken up with the active participation of 162 BGs, covering 6755 Tribal households. All the works are completed and commissioned benefiting about 3500 Tribals, 2587 new latrines were constructed so far for the ST beneficiaries. 10721 people were trained in SHP and 498 people got training in various skill development activities.

### **1.2.6 State Wide Sector Development**

#### *a. Sector Policy Development*

This component envisaged providing technical assistance to Government of Kerala for state wide planning, development and management of water sector in a comprehensive and integrated manner. Under this programme a study on the strategy for transfer of single panchayat KWA schemes had been completed. The consultants have presented their report to the Government and the recommendations have been accepted in principle.

#### *b. Sector Information Management Study*

Sector Information Management Study aimed to develop a sector information system for status and performance of water and sanitation services which is essential to measure progress in achieving the goals and targets for RWSS services. The SIMS had been piloted in the 3 Grama Panchayats and District Panchayats of Malappuram District.

## **1.3 Sustainability of Rural Water Supply Schemes: Evaluation Study of KRWSA**

KRWSA has conducted series of studies for assessing the performance and sustainability of the Project. The Vth series study published during September 2008 included two parts (A and B). The study is based on Palakkad and Thrissur experiences. From the Study the following points need special mention.

Part A strictly followed the terms of reference. Part B is pioneering attempt to operationalise the multimimensional sustainable development using *core* analysis and *Fuzzy Interference System*.

The Kerala Rural Water supply and sanitation Project has been designed based on the principles of National Rural water supply policy reforms. The specific development objectives of the project are:

- a) To demonstrate the viability of cost recovery from the community and users and institutional reform by developing testing and implementing the new decentralized service delivery model.
- b) Build the State's capacity for improved sector management in order to scale up the new decentralized service delivery system.

The experience gained in the People's Planning exercise in the State in combination with the increased demand for the provision of potable water has given a boost to the local self-governments to initiate schemes of the present nature as envisaged in the "Jalanidhi Project". Unlike many other drinking water systems, the Beneficiary Groups (BGs) in Jalanidhi got legal entity by registering themselves, ensures stakeholding of the project by contributing 15% of the capital cost. The users are fully involved in all the activities right from identifying the sources, deciding on the technology to be utilized, community contracting, implementation and operations, and maintenance for which adequate training is provided and guidelines made available, ensuring sustainability in the long run. Intra-group and inter group subsidization is also permitted in order to ensure "Right to Water" to all, under the over all supervision of the beneficiary groups. Thrift & Credit schemes are promoted in the Beneficiary Groups as "Self Help Groups", which are operated by women from among the group. The project made conscious efforts to mainstream women users into the planning and decision-making activities, as they are the best judges of their need.

Data are collected through sample surveys, focus group discussions, and Participatory Rural Appraisal (PRA) Techniques, from 393 schemes (250 from Palakkad and 143 from Thrissur) spread over 11 Grama Panchayats in Palakkad and 10 in Thrissur.

The Project has the following salient features of sustainability. Unlike supply driven systems (operated by the Kerala Water Authority) the unique nature of the scheme is that both community and the local level Panchayat Raj institutions have a role in its governance. Survey results show that 95% of the BGs are operational on the date of visit, which is a good indication of sustainability in source and other aspects of operation and maintenance. Almost 90% of the members are satisfied with the functioning of the system which shows that water is available to

the community according to their needs. Participation of women both at the time of implementation of the project as well as on its operation and maintenance has wider implications and is a good signal of driving the systems on a sustainable path. Even systems that are earlier under the KWA and Grama Panchayats are transferred to the BGs, indicate very high acceptability of the programme by the community. Coverage of population in Jalandhi panchayats was far higher than the state average of 65%, with 100% house connection. The project is a good case in point of how community can contribute and part finances the capital requirements for their own benefit, provided if it is channelised through an appropriate institutional mechanism in which they have a stake. However there exist very minor teething problems of ensuring quality, water recharge through appropriate watershed management etc. that are being taken care of by the government through appropriate interventions.

Major findings of the study include:-

- a) *About 75% of the households boil water before drinking, which is a good indication of the caution taken by the community.*
- b) *Water stress in terms of availability measured as less than 40 litres per capita per day, is more in Trichur, and is concentrated on certain GPs.*
- c) *Field survey reveals, 82.7 % of the BGs in Palakkad and 72.4% of the BGs in Trichur do have membership of women in decision-making process, and participation of women in key posts of Treasurer was 87% in Palakkad and 83.7% in Trichur.*
- d) *One remarkable aspect, worth noting is that the coverage of population in Jalandhi panchayats is far higher than the state average of 65%.*
- e) *Almost 100% house connection exist in all the BGs surveyed. This ensures water security to the people and community.*
- f) *Systems that are earlier owned and operated by KWA and also by Grama panchayats are later transferred to the demand driven systems in Jalandhi covered Panchayats. This shows a greater acceptability of the programme by the community.*
- g) *Livelihood support activities particularly with women initiative are working in many BGs is a good indication of ensuring sustainability. In some of the BGs they themselves have evolved micro enterprises to finance the operation and maintenance of the systems, with participation*



*from its members, resulting in no burden on the members and at the same time water is assured. All these contribute to sustainability efficiently and effectively in the long run.*

Part B of the report attempts a consolidation of all key factors with a theoretical basis.

In this part an operational model for the evaluation of sustainability is developed from the sustainable development literature. The theoretical literature indicates that sustainability is multi-dimensional and vague in nature. Therefore empirical model should consider both the concepts. The choice is based on the impact of the attributes on sustainability. These attributes are measured through primary surveys and then subjected to analysis using ‘models of vagueness’ for the identification of sustainable and those with threat to sustainability. Two methods of vague modelling are used for the analysis, one for ‘core’ attributes (supervaluationism) and the other for ‘non-core’ attributes (fuzzy inference system). The overall results show that more than 90% systems in the two districts do not face any threat. Another essential threat is on the quality of water. Financial and institutional threats are also to be looked into for ensuring full long-term sustainability of systems.

#### **1.4 Background of the State Planning Board Evaluation Study**

The World Bank aided Jalanidhi Project was originally designed for 6 years from 2001 and on completion of 1<sup>st</sup> phase, Govt. decided to continue the project for a 2<sup>nd</sup> phase. The State Planning Board, directed to initiate a study to review the 1<sup>st</sup> phase of the Project covering, amount allocated, received and spent, the physical targets and achievement with level of consumer satisfaction.

#### **1.5 Objectives of the study**

Main objectives of the study are the following:-

- *To assess whether the beneficiary Panchayats are selected on the basis of shortages in availability of water and quality of water and whether it benefited relatively large population of poor and disadvantaged;*
- *To evaluate whether the project ensured the availability of adequate quality of drinking water and provided environmental sanitation facility;*
- *To assess the project achievement based on the physical target;*

- *To study whether the cost effectiveness of the roject;*
- *To study whether the BGs are selected in accordance with in the BPL and SC/ST ratios as specified in the project. The study enquires whether the project is able to develop and implement the water supply and sanitation schemes through decentralised service delivery model, owned and operated by the beneficiary communities; and*
- *To assess whether the people are satisfied with the performance of the project.*

## **1.6 Methodology**

Jalanidhi Project spread over 112 Panchayats of various Districts, which constitute 92 Grama Panchayats from Thrissur, Palakkad, Malappuram and Kozhikode and 20 Grama Panchayat from 9 Districts except Alappuzha. The present Evaluation Study is limited to 2 Panchayats each from the four Districts which are identified on the basis of high investment on Jalanidhi project and high investment on SC/ST projects under Jalanidhi. Accordingly, the details of investments made by the Panchayats of these four districts are collected, verified and selected for the study. The population status and investment details are stated in chapter 3 of the Report.

Primary and secondary data collected from the following four levels are used in the study.

- State level information from KRWSA,*
- District level information from DPMU,*
- Project level details from Beneficiary Groups, and*
- Respondent level information collected through surveying the Households /individuals.*

The primary survey includes two categories, one for the Beneficiary Committees or Beneficiary Groups and another for Households as stakeholders (items in (c) and (d)). The state level and District level informations are collected from the office records and interviews.

Since the project is a socially benefited schedule and a critical factor for living, concious efforts are made to cover 90% of the total BGs and households of the selected Panchayats under the survey. Information relating to the performance of the scheme was collected from the households. Operational and technical issues are collected from the beneficiary committees and were analysed. In addition to the above, the procedure followed for the implementation of the scheme, the organisational arrangements and materials like scheme report and other office proceedings are collected from various DPMU and State level office.

Household and Beneficiary Group level data are collected through primary survey by selected enumerators from the Panchayats concerned. In the selected Panchayats (8 Nos.), with the help of Panchayat Committee, 4 enumerators with qualification above plus two classes are selected and the Officers of Planning Board provided necessary training to them for conducting the survey and filling the proforma.

In each Panchayat Beneficiary Groups are formed for the effective implementation of the project. Each enumerator has covered more than 250 families from each Panchayat and the data collection took one month period.

### **1.7 Tools used**

Structured questionnaires are finalised after pilot study in consultation with KRWSA, DPMU and site verification. Questionnaire part 'A' is prepared for households and Beneficiary Group separately. Primary data are collected by personally contacting the beneficiaries and beneficiary groups concerned. The investigators also visited the scheme site for analysing the field reality. The project focused to benefit more than 50% BPL families. So the BPL parameters are also collected and consolidated. Opinion survey of households on various dimensions are collected particularly on the availability of water and hygienic practices followed for maintaining the quality of water and sanitation programme.

The study was supervised by a Team of Officers of the Evaluation Division of the State Planning Board with the support of Social Service Division. Three Officers of the Evaluation Division and one Officer from the Social Service Division are given the supervising charge of data collection in the four Districts. The survey started during February 2008 and completed at the end of March 2008.

### **1.8 Limitation of the Study**

Jalanidhi Project was implemented in all the Districts except Alappuzha but the present Study is limited to four Districts Viz. Thrissur, Palakkad, Malappuram and Kozhikode. These four districts are the initial Districts which have taken up the project. The study covered almost all the Water scarcity areas of the Panchayats in the identified Districts.

Though the project was implemented in 112 Grama Panchayats, it was decided to select eight Grama Panchayats, two each from the four Districts, one ordinary Panchayat incurred high

expenditure for the project and another Panchayat invested high amount for SC/ST population. The total number of Panchayats selected for the study is limited to 8 from the 4 selected Districts.

The registered number of Beneficiary Groups for implementation of the project (BG) is not uniform in all Panchayats. In some Panchayats the number of BGs are higher and in others the number of BGs are comparatively lower and this difference was due to the like and dislike of the local people or dependence of source of water availability. It was already decided that the enumerators should cover 250 families each, but in reality, the number of families was more than expected and so they could not cover all the BGs within one month time. So the survey covered 80 to 90% of the Beneficiary Groups.

The project covered a host of schemes but the study focused mainly on availability of quality water from the constructed new Water Supply Schemes or renovated water supply schemes and Environmental Sanitation benefits through Latrine Construction / Conversion and Pit Construction.

## **1.9 Chapterisation of the Report**

The study comprised of 4 main chapters. Chapter 1 is the introductory part, which cover the objectives of Jalanidhi project, coverage of Beneficiaries, the estimates and expenditures so far, the component of the project, over all achievements of the project, various stages of implementation of the project, the organisational set up for implementation, objectives of the study, methodology of the study and limitation of the study.

Chapter 2 deals with the status of drinking water perennials in the selected Districts and Panchayats prior to the implementation of the project.

Chapter 3 is the main part of the Report, which reflects the performance of the project based on the survey and the views of beneficiaries towards the implementation of the project.

The statistics and details of the beneficiaries, the average cost incurred for the project per family, the attitude of the beneficiaries towards the project and the monthly subscription paid by the beneficiaries etc are explained in the third chapter.

Chapter 4 reveals the findings of the survey and recommendation for further measures taken for maintaining the existing ones and extension of the schemes to uncovered areas.

## **CHAPTER 2**

### **WATER SUPPLY COVERAGE PRIOR TO JALANIDHI PROJECT**

Water is an inevitable component in our daily life. Scarcity of water is a major problem facing the society today. Water for drinking and cooking requires special standard. Maintaining the required standard, make available in adequate quantity for daily use and ensuring its sustainability are serious concerns and it is focussed in almost all water supply schemes initiated by the Government.

Creating accessibility in drinking water availability is very important. In order to maintain the availability of water in adequate quality and quantity, the Government have introduced Centrally Sponcered, State sponcered and externally aided projects in the State. Jananidhi is one among this kind, funded by World Bank, which was introduced in the State during 2001 with the main objective of assisting the Government of Kerala to improve the quality of Rural Water Supply and Environmental Sanitation.

The status of water supply and sanitation coverage of the State at the time of introduction of the Project showed that piped water coverage in the State was 51% with urban coverage of 77.66%. In rural areas it was below 40% and most of the families depended on private water schemes, which are usually open wells. Most of these wells dry up by early March and remain so till monsoons. Studies on the purity of water showed a widespread bacteriological contamination in open wells, bore wells and surface sources. Sanitation coverage was only 51% in the urban areas and 44% in the rural areas. Only 32% families below poverty line had latrine facilities.

For the implementation of Jananidhi, Government of Kerala has initially selected four Districts from the State on the basis of their problems in water availability and water quality. Relatively large population of poor and socially disadvantaged and having high demand for improved services were focussed as the beneficiaries. The four Districts included Thrissur, Palakkad, Malappuram and Kozhikode. Present Evaluation study is focussed on two panchayats each from the above four Districts. The coverage of water availability in the four Districts and 8 Panchayats seelcted for the study are detailed below.

## **2.1 Thrissur District**

Thrissur with its rich history, cultural heritage and archaeological wealth, is called the cultural capital of Kerala. Thrissur was formed in 1949, consisting of 5 Taluks and 204 Villages.

Mountains of the District form an irregular online along the Western ghats with ridges and conical peaks. There are about 30 peaks in the District. The highest peak, Karimalagapuram in the District lies at the boundary of the District.

The main rivers in the District are Bharathapuzha, Kecheri (Vadakkanchery), Karuvannur and Chalakkudy. The District has five major irrigation schemes namely Peechi, Chalakkudy, Vazhani, Chimmoni- Mupli and Cheerakuzhy projects.

The District has a tropical climate with an oppressive hot season and seasonal rainfall. As per 2001 Census, the District has a population of 2974232 persons, of which SC constitute 354226 and ST, 4826.

The Jalanidhi Project was started in Thrissur District during 2001. Panchayats are identified and taken up for implementation of the Project on the basis of problems in availability of water. Out of 92 panchayats, 17 panchayats are selected from Thrissur District. Among the 17 panchayats, 2 panchayats viz, Varavoor and Thiruwilwamala panchayats are selected for the present Evaluation Study.

From Thrissur District 90801 families including 11349 BPL families are identified and found that 51890 (57%) families had drinking water facilities prior to the introduction of the Project and the remaining households are taken up under the Project.

### **2.1.1 Varavoor Grama Panchayat**

Varavoor Grama Panchayat is one among the two Panchayats selected from Thrissur District, which is having an area of 26.76 sq.km. It is located in the South by Deshamangalam Grama panchayat, North by Erumapetti Grama panchayat, East by Mullurkkara Grama Panchayat and West by Thiruvittakkode Grama Panchayat. It is mainly an agricultural Village. The panchayat is having a population of 21234 with 55 BPL families and it also included 4216 SC population. Varavoor panchayat was taken up for implementation of Jalanidhi project in the 5<sup>th</sup> batch. For the project 4008 families are identified from water scarcity areas of the panchayat and

found that 63% (2528) families are having water perennials prior to the project. The remaining families (37%) needed coverage through the project.

**Table 2.1 Status of Water supply coverage Prior to Jananidhi in Varavoor panchayat**

No	Particulars	Coverage
1	Total Households (Nos)	4008
2	Households having access to water perennial (Nos)	2528
3	Households having access to water Perennial (%)	63.07

### 2.1.2 Thiruvilwamala Grama Panchayat

Thiruvilwamala Panchayat is the second Panchayat selected for the study from Thrissur District. The Panchayat is located in the Western Boundary of Thrissur District having an area of 37.94 sq.km, located in the Thalapalli Taluk and Pazhayannur Block. The panchayat covered a population of 27137 with 5929 families including 5578 SC population. Of this, 1330 families are BPL families. The project was introduced in the panchayat during 2004. At the time of introduction of the project 2672 households were having water perennials (45.07%). More than 50 % households needed support from the project. The Water supply status prior to Jananidhi is as gives in Table 2.2.

**Table 2.2 Status of Water supply coverage prior to Jananidhi in Thiruvilwamala Panchayat**

No	Particulars	Coverage
1	Total Households (Nos)	5929
2	Households having access to water perennial (Nos)	2672
3	Households having access to water Perennial (%)	45.07

## 2.2 Palakkad District

Palakkad is the largest District in Kerala having an area of 4480 sq.km, which accounts for 11.21 percentage of the total area of the State. It is situated at the foot of the Western Ghats and it is the gateway to Kerala from North. Palakkad is bounded on the East by Coimbatore

District of Tamil Nadu, on the North and North West by Malappuram District and on the South by Thrissur District. The District is blessed with 6 important rivers viz; Bharathapuzha, Kunndi, Gayathripuzha, Thoothapuzha, Bhavani, and Siruvani. These rivers are having good facilities for irrigation. There is no backwater or lakes or navigable canals in the District. Out of 10 completed irrigation projects of Kerala, 6 are in this District, which include Walayar, Malampuzha, Cheerakuzhi, Gayathri (Meenkara, Culliyar), Mangalam and Pothundy. The climate of the District is tropical and is unique due to the presence of the Palakkad Gap. The District is experiencing severe droughts appearing year after year. It is an irony that a green verdant State like Kerala has an average per capita availability of potable water lesser than that of Rajasthan.

Out of 90 panchayats, 20 panchayats are selected from the most drought affected areas. The District has 33833 families which included 18701 BPL families covering 2070 SCs and 3681 STs. Of the total families, 52.93% were having water perennials prior to the project. Kongad and Sholayur are the two Panchayats selected from Palakkad District for the present study.

### 2.2.1 Kongad Grama Panchayat

Kongad Panchayat is located nearly 20 kms away from Palakkad town having an area of 35.55 sq.kms. It is located at Palakkad Block in Palakkad Taluk in the district. The total population of the Panchayat is 27792 with 5736 families. Of this, 39% (2237) are covered with water perennials prior to the Project and 1719 families are taken up for the project.

**Table 2.3 Status of Water supply coverage prior to Jananidhi in Kongad Panchayat**

No	Particulars	Coverage
1	Total Households (Nos)	27792
2	Households having access to water perennial (Nos)	2237
3	Households having access to water Perennial (%)	39%

### 2.2.2 Sholayur Grama Panchayat

Sholayur Grama panchayat is the second Panchayat selected from Palakkad district for the Evaluation Study of Jananidhi Project. The panchayat is having an area of 150.76 sq.km located at Attapady Block in Mannarkad Taluk in Palakkad District and it spread over Sholayur and Kottathara Villages and the people are mainly engaged in agricultural activities. In the South



East of the Panchayat lays Thachanpara Panchayat and Veerapandy panchayat in Tamilnadu. Pudur and Agali Panchayats laying at the North – West boundaries of Sholayur. The Tribal population of the Panchayat include 4797 families with 18388 populations. The BPL families of the Panchayat constitute 1311. The Panchayat is having the largest number of ST population in the state. It is one among the 10 ST projects implemented under Jalanidhi. Sholayur is a Panchayat of hills and mountains. Total coverage of drinking water availability in the Panchayat prior to the implementation of Jalanidhi in the general category was 65% and tribal was 31%. The status of water supply prior to the project is shown below in Table – 2.4.

**Table 2.4 Status of Water Supply Coverage prior to Jalanidhi in Sholayur Panchayat**

No	Particulars	Coverage
1	Total Households (Nos)	4797
2	Households having access to water perennial (Nos)	1487
3	Households having access to water Perennial (%)	31

### **2.3 Malappuram District**

Malappuram District ranks 3<sup>rd</sup> in area among the Districts in Kerala. It is having an area of 3550 Sq.Km. Jalanidhi project commenced its activities in Malappuram during 1999-2000. The District had a population of 36,25,471 as per 2001 Census. In terms of density of population, the district is the 5<sup>th</sup> and in urban densit, it is the 9<sup>th</sup> in the State. It occupies the 9<sup>th</sup> position in literacy rate with 89.6% (2001). The District has 7.9% SC and 0.3% ST population of the state. Out of 99 Grama panchayats in Malappuram District, 33 Panchayats are identified for implementing Jalanidhi Projects which constitute, 1,90,694 households having a population of 11,47,123. Prior to Jalanidhi project, there were 107414 families (56%) having the access to perennial water supply.

Aliparamba and Muthedam are the two Panchayats selected from the District for the present study.

### 2.3.1 Aliparamba Grama panchayat

Aliparamaba Grama panchayat has an area of 34.37 sq.km. Total population of the panchayat is 37038 which constitute 6842 families including 120 SC and 2 ST families. The BPL families constitute 362. Prior to the project 46% (3118) of the families are covered with water perennials and the remaining 3414 houholds are included under Jalanidhi.

**Table 2.5 Status of Water supply coverage prior to Jalanidhi in Aliparamba Panchayat**

No	Particulars	Coverage
1	Total Households (Nos)	6842
2	Households having access to water perennial (Nos)	3118
3	Households having access to water Perennial (%)	46

### 2.3.2 Muthedam Grama panchayat

Muthedam Grama Panchayat is the second panchayat from Malapuram selected for the project, which is located at Nilambur Block in Nilambur Taluk, having an area of 140.3 sq.kms. The total population of the panchayat is 22088 including 1178 SC and 595 STs. Total number of households is 4417, out of which 30% are covered under water perennials before the project. The remaining 1851 households are included for Jalanidhi Projects. The prior status of water supply of the panchayat is as given in Table – 2.6.

**Table 2.6 Status of Water supply coverage prior to Jalanidhi in Muthedam Panchayat**

No	Particulars	Coverage
1	Total Households (Nos)	4417
2	Households having access to water perennial (Nos)	1325
3	Households having access to water Perennial (%)	30

## 2.4 Kozhikode District

Kozhikode District, having an area of 2344 sq.km accounts for 6% of the total area of the State and ranked at 9<sup>th</sup> position in area of the State. It is bounded on the East by Wayanad District and on the North by Kannur District. Malappuram lies on the South and Arabian Sea in the West. Kozhikode district ranked the 5<sup>th</sup> among the Districts in population having 28,79,131

persons. The District has 80 km cost line. It ranks the 3<sup>rd</sup> in density of population (1228) and also in urban density (3288). The District ranked the 8<sup>th</sup> in sex ratio with 1057 females per 1000 males. The District has 7% SC and 0.2% ST population. It ranked 7<sup>th</sup> in literacy rate (92.2%). Kozhikode was one among the four Districts initially selected for the implementation of Jalanidhi project. There are 78 Grama Panchayats with 3,64,557 rural families. Out of 78 Grama Panchayats, 22 are selected for implementation of Jalanidhi. These Panchayats covered 1,20,832 households including 15784 BPL families. Out of this, 74105 (61%) had access to Perennial water before the project. Koduvally and Narikuni are the two Panchayats selected from the District for the present study.

#### **2.4.1 Koduvally Grama panchayat**

The Panchayat has an area of 23.85 sq.km with a apopulation of 45844 which constitute 9043 households. Of which 4643 are BPL households. The population include 228 SC and 103 ST families. Prior to the project 69% of the households were having water perennial. The coverage of water supply prior to the project was as given in Table – 2.7.

**Table 2.7 Status of Water supply coverage prior to Jalanidhi in Koduvally Panchayat**

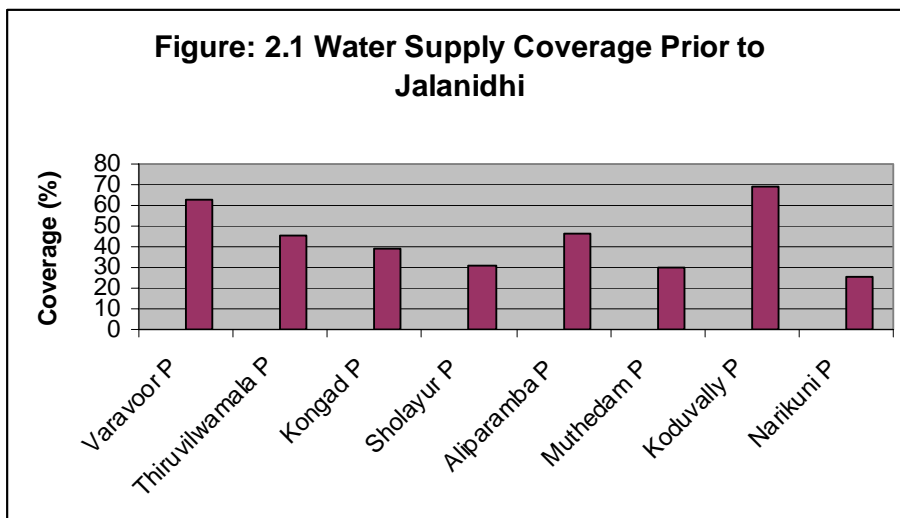
No	Particulars	Coverage
1	Total Households (Nos)	9043
2	Households having access to water perennial (Nos)	6240
3	Households having access to water Perennial (%)	69

#### **2.4.2 Narikuni Grama Panchayat**

Narikuni Panchayat is the second Panchayat selected from Kozhikode District for the Evaluation study of Jalanidhi project. The Panchayat has an area of 17.74 sq.km. and it supported a population of 28804, with 5083 households. The total population included 2972 SCs and 55 STs. In the Panchayat, there are 5083 households. Out of this 1276 (25%) of households were already covered with perennial drinking water. Status of water supply prior to the implementation of the Project is as given in Table – 2.8.

**Table.2.8 Status of Water supply coverage prior to Jananidhi in Narikuni Panchayat**

No	Particulars	Coverage
1	Total Households (Nos)	5083
2	Households having access to water perennial (Nos)	1276
3	Households having access to water Perennial (%)	25



## CHAPTER 3

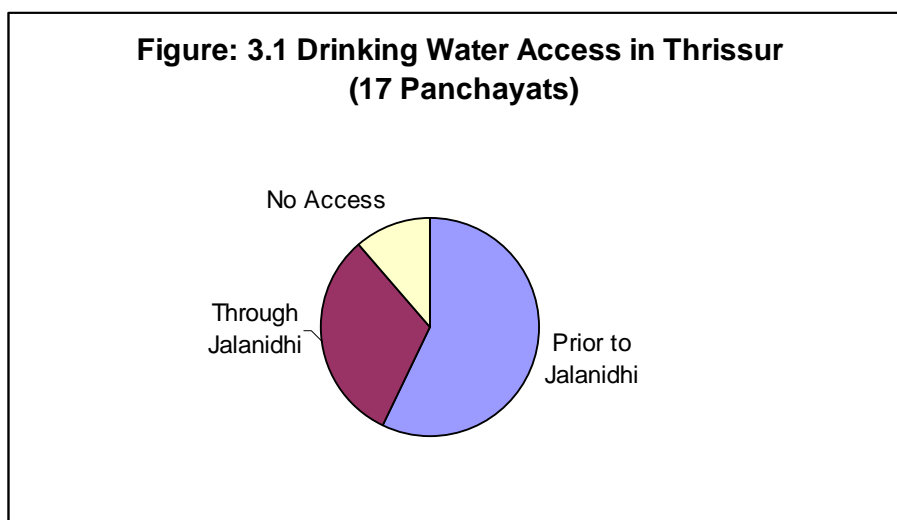
### PERFORMANCE ANALYSIS OF JALANIDHI IN THE SELECTED PANCHAYATS

#### 3.1 Thrissur District

Thrissur was one among the four Districts which are initially selected for the implementation of 'Jalanidhi' projects. Seventeen Panchayats are selected from Thrissur District for the project in 5 batches. The total beneficiaries under the scheme include 90801 households including 2510 SC, 9 ST and 454005 General population.

##### 3.1.1 Water Supply Schemes under Jalanidhi in the District

A total of 90801 families are benefited through the implementation of Jalanidhi in Thrissur District. Of these families, 11349 are BPL families. Total coverage of drinking water availability in the District prior to the implementation of the project was 57.15 % and an additional coverage of 31.42 % was created through the project. Thus the total coverage of drinking water availability in the District reached to the level of 88.57% after the project. Out of 628 water supply schemes sanctioned in the District, 523 are completed and commissioned at the time of survey and remaining are expected to be completed with in the extended period. The status of Water Supply in the District is detailed in Table 3.1.



**Table 3.1 Coverage of Water Supply Schemes in Thrissur District**

SL.No.	Particulars	Coverage
1	Grama Panchayat selected (Nos)	17
2	Total households (Nos)	90801
3	Households having access to water Perennial prior to the project (Nos)	51890
4	House holds having access to water – perennial (%)	57.15
5	Jalanidhi Households coverage (Nos)	28531
6	Jalanidhi Households coverage (%)	31.42
7	Total Water supply coverage after project (Nos)	80421
8	Total coverage after project (%)	88.57

Source: DPMU, Thrissur

An amount of Rs.2915.18 lakh was utilised for the implementation of Jalanidhi Project in Thrissur District, which include Rs 2186.38 lakhs as government share, Rs.437.28 lakh as beneficiary share and Rs. 291.52 lakh Panchayat share. The financial details are given in the Table 3.2.

**Table 3.2 Financial Status of Jalanidhi Schemes in Thrissur District**

Particulars	Amount (Rs lakhs)
Government Share	2186.38
Panchayat share	291.52
Beneficiary share	437.28
Total amount expended	2915.18

Source: DPMU Thrissur

As mentioned earlier Jalanidhi Projects are implemented in 17 Panchayats in Thrissur District. Out of this, two Panchayats are selected for the Evaluation Study, on the basis of the implementation status furnished by DPMU. The study focussed on the panchayats, which has incurred highest cost for Jalanidhi Projects and also having highest SC/ST concentration.

Accordingly, Varavoor and Thiruvilwamala Panchayats are selected for the Evaluation study of the project from Thrissur District.

### 3.1.2 Varavoor Panchayat

Varavoor Grama Panchayat is having an area of 26.76 sq.km. It is located in the South by Deshamangalam Grama panchayat, North by Erumapeti Grama Panchayat, East by Mullurkkara Grama Panchayat and West by Thiruvittakkode Grama Panchayat. It is mainly an agricultural village. The Panchayat has a population of 21234 which include 4216 SC population. It is reported that there are no ST population.

Varavoor Panchayat was taken up for the implementation of Jananidhi project in the 5th batch. Water supply and environmental sanitation programme are also implemented as part of the project in the Panchayat for an amount of Rs.292.92 lakhs.

The households having access to water perennial prior to the project was 63.07% and additional coverage created through the project was 35.18%. Thus the total coverage achieved at the end of the project was 98.25%. The status of water supply in the Panchayat before and after the Project is detailed in Table 3.3.

**Table 3.3 Water Supply Coverage before & after the Jananidhi Project Varavoor Panchayat**

Particulars	Coverage
Total House holds (Nos)	4008
Households having access to perennial water prior the project	2528
Households having access to perennial water after the project (%)	63.07
Jananidhi Households coverage (Nos)	1410
Jananidhi HHs coverage (%)	35.18
Total households coverage after Jananidhi project (Nos)	3938
after project (Nos)	
Total coverage after project (%)	98.25

Source: DPMU, Thrissur

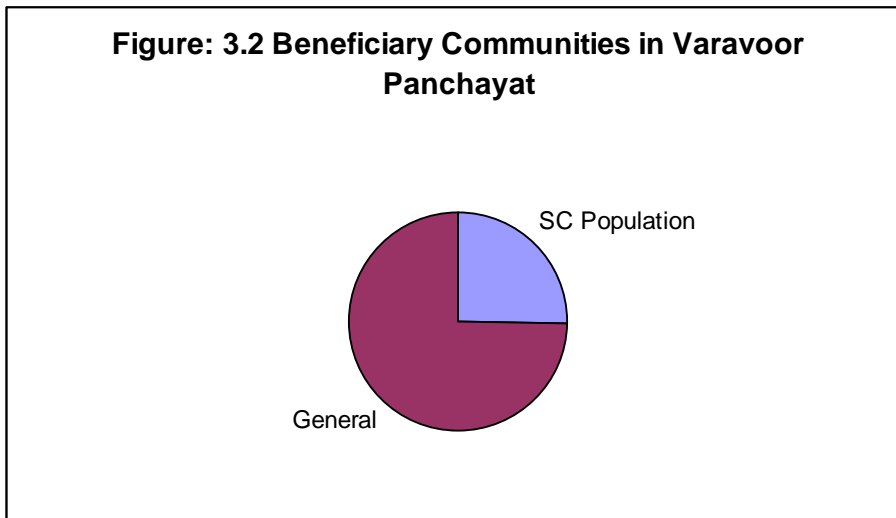
**Table 3.4 Beneficiary Group wise No. of Families and Population under the Project in Varavoor Panchayat**

Sl. No	Name of BG	No of Families				Total Population
		SC	ST	General	Total	
1	2	3	4	5	6	7
1	Dhansasree	2	-	36	38	149
2	Karthika	-	-	33	33	127
3	Jalasree	2	-	50	52	225
4	Ayalkoottam	1	-	53	54	246
5	Swasraya	-	-	38	38	185
6	Narmada	12	-	18	30	123
7	Triveni	9	-	30	39	187
8	Jaladhara	1	-	44	45	174
9	Sangamithra	7	-	15	22	135
10	Gangotri	5	-	46	51	202
11	Ramanihira	12	-	15	27	130
12	Haritha	-	-	53	53	295
13	Kairali	-	-	12	12	49
14	Mythri	13	-	11	24	102
15	Anugraha	13	-	31	44	
16	Thripathi	1	-	31	32	131
17	Aiswarya	-	-	47	47	242
18	Jalaregha	1	-	51	52	202
19	Varavoor	1	-	29	30	148
20	Vaisali	21	-	19	40	175
21	Navajeevan	17	-	27	44	188
22	Jalasangamam	28	-	3	31	149
23	Sarayu	20	-	9	29	104
24	Kulirma	-	-	39	39	160
25	Jalasangamam	31	-	4	35	156
26	Sangamam	22	-	19	41	202
27	Souparnika	20	-	18	38	135
28	Souhrida	-	-	46	46	202
29	Naduvattom	-	-	28	28	137
30	Priyadarshini	22	-	38	60	214
31	Friends	1	-	27	28	123
32	Karuna	21	-	15	36	161
33	Nila	16	-	19	35	144
34	Palakkal	-	-	27	27	132
35	Kaveri	35	-	9	45	204
	<b>Total</b>	<b>334</b>	<b>-</b>	<b>990</b>	<b>1325</b>	<b>5638</b>

Source: Field Survey



In the Panchayat, 37 Beneficiary Groups are organised for the effective implementation of various programmes of Jalanidhi. The survey covered in 35 Beneficiary Groups. The total population of the BGs was 5638 which constitute 1325 families including 334 SC families. BG wise category of population and families are shown in the Table 3.4.



Water supply schemes as well as environmental sanitation programmes are implemented through out the 35 BGs. One BG represents one Water supply scheme. The details of BG wise programmes implemented in the Panchayat are shown in the Table 3.5.

#### **3.1.2.1 Beneficiary GroupWise Basic Information**

Out of 1375 families surveyed, 655 families are BPL and 670 are APL. Out of the total BPL families SC constitute 299 and among APL families 36 constitute SCs. The details are furnished in Appendix I.

Land holding of the beneficiary groups are shown in the Appendix 2. Majority of the beneficiaries have land below 20 cents, 286 families hold land between 20 cents to 40 cents.

With regard to the nature of housing of the BGs, majority of them are living in tiled houses (848) and 420 are in concrete houses. Details are furnished in Appendix 3. Appendix 4 states the occupational classification of BGs. Majority belong to the category of coolies.

**Table-3.5 Beneficiary Group wise No. of Schemes and families benefited in Varavoor Panchayat**

Sl.No	Name of BG	No of families benefited					
		WSS	RWH	Latrine	LC	Soak Pits	Compost Pits
1	2	3	4	5	6	7	8
1	Dhansasree	1	-	1	-	1	21
2	Karthika	1	-	3	-	32	32
3	Jalasree	1	-	8	-	-	-
4	Ayalkoottam	1	-	4	3	29	26
5	Swasraya	1	-	2	-	-	-
6	Narmada	1	-	4	-	16	5
7	Triveni	1	-	6	4	9	25
8	Jaladhara	1	-	2	-	18	18
9	Sangamithra	1	-	1	-	-	-
10	Gangotri	1	-	3	1	8	47
11	Ramanihira	1	-	4	-	-	-
12	Haritha	1	-	9	12	12	-
13	Kairali	1	-	1	-	-	-
14	Mythri	1	-	-	-	25	25
15	Anugraha	1	-	8	1	5	5
16	Thripthi	1	-	1	1	8	30
17	Aiswarya	1	-	-	-	3	47
18	Jalaregha	1	-	6	-	15	48
19	Varavoor	1	-	5	16	5	30
20	Vaisali	1	-	8	1	-	-
21	Navajeevan	1	-	6	-	28	34
22	Jalasangamam	1	-	14	-	26	28
23	Sarayu	1	-	1	4	4	5
24	Kulirma	1	-	-	3	24	2
25	Jalalsangamam	1	-	18	5	8	14
26	Sangamam	1	-	4	2	10	7
27	Souparnika	1	-	3	-	-	-
28	Souhrida	1	-	-	27	25	34
29	Naduvattom	1	-	-	-	-	-
30	Priyadarshini	1	-	24	22	-	60
31	Friends	1	-	3	-	-	28
32	Karuna	1	-	6	-	21	14
33	Nila	1	-	1	-	-	-
34	Palakkal	1	-	4	9	-	13
35	Kaveri	1	-	4	9	46	46
	<b>Total</b>	<b>35</b>		<b>164</b>	<b>120</b>	<b>378</b>	<b>644</b>

Source: Field survey

### **3.1.2.2 Project Cost**

There are 35 water supply schemes in Varavoor Panchayat under the Project. The estimated cost of the project was Rs.201.54 lakhs and the expenditure incurred was Rs.184.03 lakhs, which is 90% of the amount estimated for the project. The pattern of funding was in the ratio of 75:15:10 between Government, beneficiary and panchayat, respectively. The details of estimate and expenditure are given in Table 3.6. The BG with 53 families has incurred the highest expenditure and the lowest was reported in the BG having 12 number of families.

### **3.1.2.3 Average cost per Water Supply Scheme in the Panchayat**

In Varavoor Panchayat Jalanidhi Water supply scheme was implemented for a total cost of Rs.201.54 lakhs and incurred an expenditure of Rs.184.03 lakhs, which included Rs.142.48 lakhs KRWSA share, Rs.17.73 lakhs Panchayat share and Rs.23.82 lakhs as Beneficiary share. The highest expenditure was reported in the BG Haritha having 53 families with a cost of Rs.853900, where as the highest average cost was incurred in BG 'Sangamithra' with 22 families of Rs.21796. Lowest average cost incurred was in 'Sangamam'BG with 41 families and with a cost of Rs.11759/-

Average cost of water supply scheme per family in the panchayat is worked out to be Rs. 13888, which may not be reasonable in comparison to major water supply schemes.

**Table-3.6 Beneficiary Group wise allotment and expenditure for  
Water Supply Schemes in Varavoor Panchayat (Rs)**

Sl.No	Name of BG	Expenditure				Total
		Estimate Amount	KRWSA share	Panchayat share	Beneficiary share	
1	2	3	4	5	6	7
1	Dhansasree	569300.00	409113.00	54548.00	81823.00	545484.00
2	Karthika	-	398475.00	53130.00	79695.00	531300.00
3	Jalasree	788900.00	493181.00	65758.00	98636.00	657575.00
4	Ayalkoottam	908600.00	669045.00	39206.00	133809.00	842060.00
5	Swasraya	950000.00	-	-	-	-
6	Narmada	498200.00	389317.00	48665.00	48665.00	486647.00
7	Triveni	564000.00	382715.00	51029.00	76543.00	510287.00
8	Jaladhara	621600.00	478733.00	63831.00	95747.00	638311.00
9	Sangamithra	458700.00	359631.00	47951.00	71926.00	479508.00
10	Gangotri	808900.00	621340.00	56845.00	85268.00	763453.00
11	Ramanihira	493300.00	364249.00	45531.00	45531.00	455311.00
12	Haritha	882000.00	640425.00	85390.00	128085.00	853900.00
13	Kairali	221600.00	170900.00	22787.00	34180.00	227867.00
14	Mythri	478700.00	338139.00	42267.00	42267.00	422673.00
15	Anugraha	669800.00	-	-	-	-
16	Thripathi	519600.00	361307.00	48174.00	72261.00	481742.00
17	Aiswarya	708500.00	433662.00	57822.00	86732.00	578216.00
18	Jalaregha	749800.00	486016.00	64802.00	97204.00	648022.00
19	Varavoor	555300.00	417232.00	55631.00	83446.00	556309.00
20	Vaisali	-	482960.00	60370.00	60370.00	603700.00
21	Navajeevan	771200.00	570051.00	71256.00	71257.00	712564.00
22	Jalasangamam	409900.00	306129.00	38266.00	38266.00	382661.00
23	Sarayu	564300.00	425934.00	53242.00	53242.00	532418.00
24	Kulirma	511600.00	469822.00	49310.00	73965.00	593097.00
25	Jalasangamam	523000.00	427685.00	53461.00	53461.00	534607.00
26	Sangamam	599400.00	385695.00	48212.00	48212.00	482119.00
27	Souparnika	550600.00	360030.00	45004.00	45004.00	450038.00
28	Souhrida	700000.00	485852.00	64780.00	97171.00	647803.00
29	Naduvattom	550000.00	416946.00	55593.00	83389.00	555928.00
30	Priyadarshini	860000.00	655039.00	81880.00	81880.00	818799.00
31	Friends	410000.00	292449.00	38993.00	58490.00	389932.00
32	Karuna	632600.00	401837.00	58980.00	58980.00	519797.00
33	Nila	636200.00	443209.00	59095.00	88641.00	590945.00
34	Palakkal	388300.00	249469.00	33263.00	49894.00	332626.00
35	Kaveri	599800.00	461468.00	57684.00	57684.00	576836.00
	<b>Total</b>	<b>20153700.00</b>	<b>14248055.00</b>	<b>1772756.00</b>	<b>2381724.00</b>	<b>18402535.00</b>

Source:Field Survey

**Table 3.7 Average cost of water supply scheme in Varavoor Panchanayat (Rs)**

Sl.No	Name of BG	No of Families	Total Expenditure	BG wise Average Cost
1	2	3	4	5
1	Dhansasree	38	545484.00	14355
2	Karthika	33	531300.00	16100
3	Jalasree	52	657575.00	12646
4	Ayalkoottam	54	842060.00	15594
5	Swasraya	38	-	-
6	Narmada	30	486647.00	16222
7	Triveni	39	510287.00	13084
8	Jaladhara	45	638311.00	14185
9	Sangamithra	22	479508.00	21796
10	Gangotri	51	763453.00	14970
11	Ramanihira	27	455311.00	16863
<b>12</b>	<b>Haritha</b>	<b>53</b>	<b>853900.00</b>	<b>16111</b>
13	Kairali	12	227867.00	18989
14	Mythri	24	422673.00	17611
15	Anugraha	44	-	-
16	Thripthi	32	481742.00	15054
17	Aiswarya	47	578216.00	12302
18	Jalaregha	52	648022.00	12462
19	Varavoor	30	556309.00	18544
20	Vaisali	40	603700.00	15093
21	Navajeevan	44	712564.00	16195
22	Jalasangamam	31	382661.00	12344
23	Sarayu	29	532418.00	18359
24	Kulirma	39	593097.00	15208
25	Jalalsangamam	35	534607.00	15274
26	Sangamam	41	482119.00	11759
27	Souparnika	38	450038.00	11843
28	Souhrida	46	647803.00	14083
29	Naduvattom	28	555928.00	19855
30	Priyadarshini	60	818799.00	13647
31	Friends	28	389932.00	13926
32	Karuna	36	519797.00	14439
33	Nila	35	590945.00	16884
34	Palakkal	27	332626.00	12319
35	Kaveri	45	576836.00	12819
	<b>Total</b>	<b>1325</b>	<b>18402535.00</b>	<b>13888</b>

Source:Field Survey

#### **3.1.2.4 Collection of water charges**

In Varavoor panchayat water charges are collected through monthly subscription of Rs.50/. A uniform rate is fixed for all the BGs. The operational and maintenance cost of all the projects are normally covered in the monthly subscription. Details are shown in Appendix 5.

#### **3.1.2.5 Performance of Water Supply Schemes in Varavoor Panchayat**

For the effective implementation of Jalanidhi programme, 37 BGs are set up in the panchayat. One BG represents one water supply scheme and all are completed and commissioned. The survey was conducted only in 35 BGs covering 1325 families. Out of this, 250 families are drawing water from their own well for drinking and 55 families are using neighbours well for drinking purpose.

The types of water supply schemes implemented in the panchayat are new ones or renovating existing wells or ponds. For Jalanidhi, 4008 households are identified and found that 2528 households are already covered with water perennials and the remaining 1410 households are taken up for the project. The number of families of each BG ranges from 12 to 60. The expenditure incurred for the schemes ranged from Rs.3 lakhs to Rs 8 lakhs. It is understood that there is no direct relation between the number of families and cost of the scheme. Implementing a scheme in a particular area especially hilly area required high cost due to the nature of source, type of soil and type of materials needed for water connection. The average cost calculated per household in the panchayat was Rs.13888 and this may not be reasonable as far as KWA schemes are concerned. The KWA schemes are big schemes and the source and number of consumers are so large and payments are made for usage of water. But under Jalanidhi Project small units are constructed for few families and as such the cost of construction is more. Under Jalanidhi Project nothing is collected from the consumers except Rs.50 as monthly subscription. It is generally accepted that in socially benefited schemes like water supply and power generation attention should be given to social benefit rather than cost.

The availability of water in each BG was already fixed for certain hours only and as such, the beneficiaries have to store it for their use. Majority of them got water for one hour and a few families got water for two or three hours. They stored it in tanks, buckets and in vessels. Survey reveals that 318 (24%) families using water for drinking, 387 (29%) families are using water for

washing & cleaning and 415 (31%) families are using water for all purposes. Details of usage of water and availability of water are given in Appendix 6 and 7.

Regarding time, quality and quantity of water available, 98% are satisfied with quality and 95% are satisfied with quantity of water available through Jalanidhi. More than 95% of the beneficiaries opined that the project was a success. Details are shown in Appendix 8.

With regard to the functioning of the water supply schemes 97% beneficiaries expressed good remarks.

#### **3.1.2.6 Environmental Sanitation Programmes**

In the Varavoor panchayat environmental sanitation programmes are carried out through construction of latrine, latrine conversion, soak pit and compost pits. Under this programme 164 latrines are constructed and 120 latrine conversions made for an estimated cost of Rs.12.31 lakhs and Rs.3.63 lakhs respectively. BG wise schemes with expenditure incurred are shown in Table 3.8. For soak pits and compost pits construction an amount of Rs.2.28 lakhs and Rs.5.65 lakhs respectively are incurred. BG wise details of pits construction are shown in Table 3.9.

**Table 3.8 Beneficiary Group wise Details of Latrine Construction in Varavoor Panchayat**

Sl. No	Name of BG	New Latrine			Latrine Conversion		
		KRWSA Share	Beneficiary Share	Total	KRWSA Share	Beneficiary Share	Total
1	2	3	4	5	6	7	8
1	Dhansasree	2000.00	4000.00	6000.00	-	-	-
2	Karthika	6000.00	18000.00	24000.00	-	-	-
3	Jalasree	10000.00	21000.00	31000.00	-	-	-
4	Ayalkoottam	8000.00	18000.00	26000.00	2000.00	11000.00	13000.00
5	Swasraya	3000.00	11000.00	14000.00	-	-	-
6	Narmada	8000.00	16000.00	24000.00	-	-	-
7	Triveni	9000.00	27000.00	36000.00	5000.00	4000.00	9000.00
8	Jaladhara	-	-	-	-	-	-
9	Sangamithra	2000.00	4000.00	6000.00	-	-	-
10	Gangotri	5000.00	7000.00	12000.00	1000.00	3000.00	4000.00
11	Ramanihira	8000.00	24000.00	32000.00	-	-	-
12	Haritha	18000.00	44000.00	62000.00	-	-	-
13	Kairali	2000.00	6000.00	8000.00	-	-	-
14	Mythri	-	-	-	-	-	-
15	Anugraha	16000.00	15500.00	31500.00	1000.00	2000.00	3000.00
16	Thripathi	2000.00	7000.00	9000.00	1000.00	3000.00	4000.00
17	Aiswarya	-	-	-	-	-	-
18	Jalaregha	12000.00	29000.00	41000.00	-	-	-
19	Varavoor	10000.00	22000.00	32000.00	16000.00	41000.00	57000.00
20	Vaisali	16000.00	62000.00	78000.00	1000.00	2000.00	3000.00
21	Navajeevan	12000.00	25000.00	37000.00	-	-	-
22	Jalasangamam	28000.00	84000.00	112000.00	-	-	-
23	Sarayu	12000.00	24000.00	36000.00	-	-	-
24	Kulirma	2000.00	1000.00	3000.00	-	-	-
25	Jalalsangamam	121000.00	36000.00	157000.00	5000.00	15000.00	20000.00
26	Sangamam	10000.00	25000.00	35000.00	-	-	-
27	Souparnika	60000.00	20000.00	80000.00	-	-	-
28	Souhrida	20000.00	5000.00	25000.00	27000.00	56000.00	83000.00
29	Naduvattom	-	-	-	-	-	-
30	Priyadarshini	48000.00	96000.00	144000.00	22000.00	110000.00	132000.00
31	Friends	6000.00	4000.00	10000.00	-	-	-
32	Karuna	12000.00	28000.00	40000.00	-	-	-
33	Nila	2000.00	6000.00	8000.00	-	-	-
34	Palakkal	11000.00	29000.00	40000.00	-	-	-
35	Kaveri	8000.00	23000.00	31000.00	10000.00	25000.00	35000.00
	<b>Total</b>	<b>489000.00</b>	<b>741500.00</b>	<b>1230500.00</b>	<b>91000.00</b>	<b>272000.00</b>	<b>363000.00</b>

Source: Field Survey



**Table-3.9 Beneficiary Group wise details of Pits Construction**

Sl.No	Name of BG	No of Soak Pits Constructed	KRWSA share	Beneficiary share	Total	No. of Compost Pits constructed	KRWSA share	Beneficiary share	Total
1	2	3	4	5	6	7	8	9	10
1	Dhansaree	-	375.00	425.00	800.00	21	7875.00	8925.00	16800.00
2	Karthika	1	-	-	-	30	11250.00	12750.00	24000.00
3	Jalasree	-	-	-	-	-	-	-	-
4	Ayalkoottam	29	10875.00	12325.00	23200.00	26	9750.00	11050.00	20800.00
5	Swasraya	-	-	-	-	-	-	-	-
6	Narmada	10	3750.00	4250.00	8000.00	5	1875.00	2125.00	4000.00
7	Triveni	9	3375.00	3825.00	7200.00	25	9375.00	10625.00	20000.00
8	Jaladhara	18	6750.00	7650.00	14400.00	18	6750.00	7650.00	14400.00
9	Sangamithra	-	-	-	-	-	-	-	-
10	Gangotri	8	3000.00	3400.00	6400.00	-	17625.00	19975.00	37600.00
11	Ramanihira	-	-	-	-	47	-	-	-
12	Haritha	12	4500.00	5100.00	9600.00	-	-	-	-
13	Kairali	-	-	-	-	-	-	-	-
14	Mythri	-	-	-	-	25	9375.00	10625.00	20000.00
15	Anugraha	5	1625.00	2125.00	3750.00	3	1125.00	1125.00	2250.00
16	Thripathi	7	3000.00	3400.00	6400.00	29	11250.00	12750.00	24000.00
17	Aiswarya	3	1125.00	1275.00	2400.00	47	17625.00	19975.00	37600.00
18	Jalaregha	15	5625.00	6375.00	12000.00	48	18000.00	20400.00	38400.00
19	Varavoor	5	1875.00	2125.00	4000.00	30	11250.00	12750.00	24000.00
20	Vaisali	-	-	-	-	-	-	-	-
21	Navajeevan	28	10500.00	11900.00	22400.00	34	12750.00	14450.00	27200.00
22	Jalasangamam	26	9750.00	11050.00	20800.00	28	9750.00	11900.00	21650.00
23	Sarayu	6	2250.00	2550.00	4800.00	20	7500.00	14500.00	22000.00
24	Kulirma	2	750.00	850.00	1600.00	1	375.00	425.00	800.00
25	Jalasangamam	1	375.00	425.00	800.00	36	13500.00	15300.00	28800.00
26	Sangamam	7	2625.00	2975.00	5600.00	32	12000.00	13600.00	25600.00
27	Souparnika	-	-	-	-	-	-	-	-
28	Souhrida	25	9375.00	10625.00	20000.00	34	12750.00	14450.00	27200.00
29	Naduvattom	-	-	-	-	-	-	-	-
30	Priyadarshini	-	-	-	-	60	22500.00	25500.00	48000.00
31	Friends	-	-	-	-	-	10500.00	11900.00	22400.00
32	Karuna	-	-	-	-	-	-	-	-
33	Nila	12	7875.00	8925.00	16800.00	14	5250.00	5950.00	11200.00
34	Palakkal	-	-	-	-	13	4225.00	5525.00	9750.00
35	Kaveri	46	17250.00	19550.00	36800.00	46	17250.00	19550.00	36800.00
	<b>Total</b>	<b>275</b>	<b>106625.00</b>	<b>121125.00</b>	<b>227750.00</b>	<b>672</b>	<b>261475.00</b>	<b>303775.00</b>	<b>565250.00</b>

Source: Filed Survey

### **3.1.2.7 Supporting organisation**

“Community Aided Sponsorship Programme” is the supporting organisation of the Project in the Panchayat. An amount of Rs.20.87 lakhs was allotted to this organisation for providing all support for implementing the Jalanidhi Project.

### **3.1.2.8 Training Programme**

Training programmes are conducted for Rs.5 lakhs (estimated) in the Varavoor Grama Panchayat. But an amount of Rs.3 lakhs was spent for the training programmes conducted in the Panchayat. Training given through Jalanidhi Scheme was much beneficial to the people. Some people also got computer training, which is expected to provide new opportunities in other jobs.

### **3.1.2.9 Major Problems and Issues**

- i. Educational status of some BG members are not up to the level to keep up the accounting properly. The project was implemented only in areas where people showed much interest and they were willing to participate and abide the conditions of cost sharing.*
- ii. Inadequate supply of water created problem in meeting their demand in certain BGs.*
- iii. People created problems in acquisition of land for water supply schemes.*

### **3.1.3 Thiruvilwamala Grama Panchayat**

Jalanidhi project was started in Thiruvilwamala Panchayat during 2004. The project included Water supply scheme, latrine construction, drainage work, Grama Panchayat strengthening, trainings, ground water recharging etc.

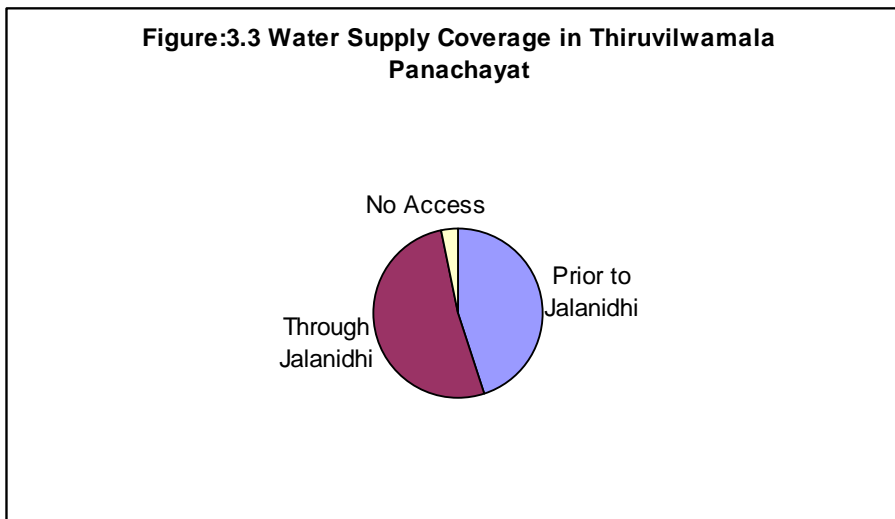
Percentage of households having access to water perennial was 2672 (45.07%) prior to the project and the total households covered under water supply after the project was 5742. The status of the Panchayat in water supply and sanitation before and after the project are detailed in Table 3.10.

**Table 3.10 Water Supply Coverage before & after the project in Thiruvilwamala G.P**

Particulars	coverage
Total No of house holds (Nos)	5929
Households having access to water Perennial (Nos)	2672
Percentage of HHs having access to water Perennial (%)	45.07
Jalanidhi Households coverage (Nos)	3070
Percentage of Jalanidhi HHs coverage	51.78
Total House holds coverage after project (Nos)	5742
Percentage of total coverage after project	96.85

Source:DPMU, Thrissur

Total number of BGs organised for the implementation of Jalanidhi was 64, but the survey covered only in 57 BGs with a total family of 2515 including 525 SC families. BG wise category of population and families are shown in Table 3.11

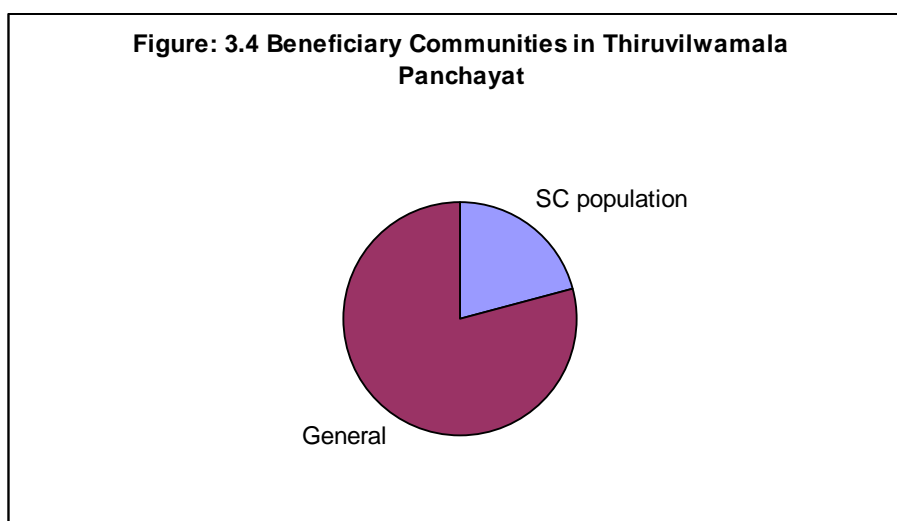


**Table 3.11 Beneficiary Group wise No. of Families and Population in Thiruvilwamala Panchayat**

Sl. No	Name of BG	No of Families				Total Population
		SC	ST	General	Total	
1	2	3	4	5	6	7
1	Soorya	15	-	19	34	103
2	Souhradha	7	-	36	43	208
3	Souhradha II	5	-	17	22	116
4	Thejas	2	-	4	6	32
5	Kaveri	12	-	53	65	250
6	Kalluvettiparambu	-	-	70	70	264
7	Soudheswari	4	-	55	59	234
8	Nila	2	-	57	59	227
9	Thelakattu	1	-	32	33	149
10	Navadhara	38	-	21	59	233
11	Archana	21	-	25	46	131
12	Amritha	3	-	17	20	78
13	Punarjani	-	-	21	21	57
14	Rassi	-	-	20	20	107
15	Parakattupadam	2	-	45	47	186
16	Triveni	4	-	43	47	205
17	Bhagyadhara	11	-	58	69	241
18	Poothanakara	3	-	47	50	226
19	Karuna	17	-	39	56	228
20	Sree Lakshmi	10	-	51	61	291
21	Pavithram	7	-	61	68	300
22	Pattiparambu	2	-	40	42	208
23	Nivethitha	20	-	5	25	131
24	Ganaga Pravah	16	-	6	22	105
25	Sivasakthi	45	-	35	80	383
26	Snehavarsha	1	-	29	30	113
27	Sruthilayam	20	-	8	28	127
28	Chakkachankadu	16	-	55	71	297
29	Gramalakshmi	36	-	8	44	197
30	Kootala	6	-	36	42	180
31	Tharangani	38	-	14	52	244
32	Mullakkal	6	-	31	37	153
33	Mythri	13	-	28	41	215
34	Ganga	9	-	32	41	184
35	Souparnika	1	-	57	58	225
36	Saraswathi	2	-	55	57	235
37	Sreyas	28	-	72	100	417

Sl. No	Name of BG	No of Families				Total Population
		SC	ST	General	Total	
38	Varsha	15	-	22	37	167
39	Snehadhara	4	-	35	39	179
40	Vinayaka	2	-	46	48	188
41	Mannam	1	-	46	47	197
42	Kankalayam	12	-	46	58	266
43	Mahathma	11	-	23	34	111
44	Anugraha	5	-	31	36	204
45	Akshaya	21	-	32	53	224
46	Kairali	4	-	31	35	155
47	Vigneswara	-	-	5	5	19
48	Aiswarya	2	-	11	13	55
49	Samruthi	5	-	45	50	224
50	Vettakkaran Kavu	-	-	39	39	157
51	Soubhagya	-	-	35	35	116
52	Thanal	7	-	43	50	234
53	Gayathri	2	-	51	53	170
54	Kattukulam	11	-	48	59	262
55	Siva Ganga	-	-	46	46	227
56	Jalasree	-	-	42	42	216
57	Chaithnya	-	-	11	11	50
	<b>Total</b>	<b>525</b>	<b>-</b>	<b>1990</b>	<b>2515</b>	<b>10701</b>

Source: Field Survey



Beneficiary Groups got the benefit of water supply and environmental sanitation programmes. Each BG represents one water supply scheme. As part of the Project 71 Rain water harvesting structures are also completed in various parts of the Panchayat. The details of BG wise programmes implemented in the Panchayat are shown in the Table 3.12.

**Table-3.12 Beneficiary Group wise Schemes implemented in Thiruvilwamala Panchayat**

Sl.No	Name of BG	Schemes					
		No.of family	RWH	Latrine	LC	Soak Pits	Compost Pits
1	2	3	4	5	6	7	8
1	Soorya	34	-	5	-	-	-
2	Souhradha	43	2	17	-	-	-
3	Souhradha II	22	-	1	-	-	-
4	Thejas	6	-	-	-	-	-
5	Kaveri	65	18	7	-	-	-
6	Kalluvettiparambu	70	6	6	-	-	-
7	Soudheswari	59	-	12	-	-	-
8	Nila	59	-	-	3	-	-
9	Thelakattu	33	-	-	-	-	-
10	Navadhara	59	8	7	-	-	-
11	Archana	46	11	1	-	-	-
12	Amritha	20	-	-	-	-	-
13	Punarjani	21	-	-	-	-	-
14	Rassi	20	-	-	2	-	-
15	Parakattupadam	47	-	-	-	-	-
16	Triveni	47	-	9	-	-	-
17	Bhagyadhara	69	-	15	-	-	-
18	Poothanakara	50	-	10	-	-	-
19	Karuna	56	2	10	-	-	-
20	Sree Lakshmi	61	-	6	-	-	-
21	Pavithram	68	-	19	-	-	-
22	Pattiparambu	42	-	6	-	-	-
23	Nivethitha	25	-	-	-	-	-
24	Ganaga Pravah	22	3	8	-	-	-
25	Sivasakthi	80	-	21	2	-	-
26	Snehavarsha	30	-	8	-	-	-
27	Sruthilayam	28	-	14	-	-	-
28	Chakkachankadu	71	-	6	-	-	-
29	Gramalakshmi	44	-	-	-	-	-
30	Kootala	42	-	-	1	-	-
31	Tharangani	52	-	-	-	-	-

Sl.No	Name of BG	No.of family	RWH	Latrine	LC	Soak Pits	Compost Pits
32	Mullakkal	37	-	-	-	-	-
33	Mythri	41	-	18	-	-	-
34	Ganga	41	-	2	-	-	-
35	Souparnika	58	-	1	-	-	-
36	Saraswathi	57	-	-	-	-	-
37	Sreyas	100	9	9	-	-	-
38	Varsha	37	-	1	-	-	-
39	Ssnehadhara	39	-	10	-	-	-
40	Vinayaka	48	-	-	-	-	-
41	Mannam	47	-	-	-	-	-
42	Kankalayam	58	6	-	-	-	-
43	Mahathma	34	-	10	-	-	-
44	Anugraha	36	-	-	-	-	-
45	Akshaya	53	-	11	-	-	-
46	Kairali	35	-	-	-	-	-
47	Vigneswara	5	-	-	-	-	-
48	Aiswarya	13	-	-	-	-	-
49	Samruthi	50	-	18	-	-	-
50	Vettakkaran Kavu	39	-	-	-	-	-
51	Soubhagya	35	6	3	-	-	-
52	Thanal	50	-	-	-	-	-
53	Gayathri	53	-	-	-	-	-
54	Kattukulam	59	-	-	-	-	-
55	Siva Ganga	46	-	-	-	-	-
56	Jalasree	42	-	2	-	-	-
57	Chaithanya	11	-	-	-	-	-
	<b>Total</b>	<b>2515</b>	<b>71</b>	<b>273</b>	<b>14</b>	<b>-</b>	<b>-</b>

Source: Field Survey

### 3.1.3.1 Beneficiary Group wise Basic Information

As mentioned earlier the survey covered in 57 Beneficiary Groups. There was 2515 households in the BGs consisting of 1185 APL families and 1330 BPL families. The total number of SCs included in APL was 98 and 427 BPL families. The details are given in Appendix 1.

Regarding land holdings of the families, 1650 families have land below 20 cents and 178 families have land above one acre. Among the families having land above 20 cents, 364 families

have 20-40 cents of land, 174 families have 40-60 cents of land and 109 families 60-80 cents of land. Details are given in Appendix 2.

Out of 2515 families, 468 have in concrete houses and 2042 households are living in tiled houses. Only few were living in thatched houses and huts. The details are furnished in Appendix 3. Majority of the family members are coolies and it is their main source of income. The survey reveals that only 269 are engaged in agriculture related work, and 947 are doing other works. Details are given in Appendix 4.

### 3.1.3.2 Project cost

There are 60 water supply schemes in Thiruvilwamala Grama Panchayat for an estimated cost of Rs.398.19 lakhs and incurred an expenditure of Rs.331.60 lakhs (83%). Government of Kerala released Rs.252.70 lakhs, BG contribution was Rs.58.13 lakhs and Grama panchayats share was Rs.36.96 lakhs. Survey covered in 57 BGs, but the expenditure position of 14 BGs were not available during the survey period. The expenditure incurred for the available BGs was Rs.235.57 lakhs. As per the available details, highest expenditure was reported in BG named *Mannam* for Rs.1148735/- having 47 families and lowest expenditure in, *Snehavarsha* BG for Rs. 256890/- having 30 families. Details are given in Table 3.13.

**Table-3.13 Beneficiary Group wise Allotment and Expenditure for Water Supply Schemes in Thiruvilwamala panchayat**

Sl.No	Name of BG	Allotment of Funds as per Survey (in Rs)				
		Estimate Amount	KRWSA share	Panchayat share	Beneficiary share	Total
1	2	3	4	5	6	7
1	Soorya	346581.00			55800.00	55800
2	Souhradha	-	650047.00	124334.00	337394.00	1111775
3	Souhradha II	-	650047.00	124334.00	137394.00	911775.00
4	Thejas	-				
5	Kaveri	991000.00		78234.00	72600.00	150834.00
6	Kalluvettiparambu	-	459750.00	61300.00	94500.00	615550.00
7	Soudheswari	-	480116.00	64016.00	96600.00	640732.00
8	Nila	600000.00	507974.00	67730.00	130500.00	706204.00



9	Thelakattu	-	393567.00		27000.00	420567.00
10	Navadhara	552271.00	493574.00	61697.00	50770.00	606041.00
11	Archana	-	407200.00	50900.00	46100.00	504200.00
12	Amritha	467859.00	412817.00	55042.00	102480.00	570339.00
13	Punarjani	645000.00	548600.00		46110.00	594710.00
14	Rassi	-	338250.00	45100.00	93425.00	476775.00
15	Parakattupadam	-	363100.00	55160.00	95175.00	513435.00
16	Triveni	-	494531.00	65938.00	50600.00	611069.00
17	Bhagyadhara	-				
18	Poohanakara	419967.00	375375.00	50050.00	62995.00	488420.00
19	Karuna	-			71799.00	71799.00
20	Sree Lekshmi	-				
21	Pavithram	-	468000.00	62400.00	92400.00	622800.00
22	Pattiparambu	469200.00	414000.00	55200.00	72600.00	541800.00
23	Nivethitha	-	249970.00		36000.00	285970.00
24	Ganaga Pravah	-	319956.00	19224.00	35650.00	374830.00
25	Sivasakthi	108000.00	864000.00	18000.00	112500.00	994500.00
26	Snehavarsha	-	177940.00	32180.00	46770.00	256890.00
27	Sruthilayam	-				
28	Chakkachankadu	852350.00			191250.00	191250.00
29	Gramalakshmi	-				
30	Kootala	-				
31	Tharangani	657000.00	584000.00	73000.00	77775.00	734775.00
32	Mullakkal	-				
33	Mythri	750000.00	562500.00	30000.00	113475.00	705975.00
34	Ganga	660000.00	495000.00	66000.00	92250.00	653250.00
35	Souparnika	459000.00	344250.00	45900.00		390150.00
36	Saraswathi	473450.00	417750.00	55700.00	113100.00	586550.00
37	Sreyas	-	707200.00		141687.00	848887.00
38	Varsha	460000.00	368000.00	147200.00	76500.00	591700.00
39	Ssnehadhara	515000.00	386250.00	51500.00	9000.00	527750.00
40	Vinayaka	157760.00	348000.00	46400.00	38250.00	432650.00
41	Mannam	-	877897.00	147565.00	123273.00	1148735.00
42	Kankalayam	-	420700.00	47760.00	117395.00	585855.00
43	Mahathma	-	302788.00		54635.00	357423.00
44	Anugraha	-				
45	Akshaya	643000.00	482250.00	64300.00	77600.00	624150.00
46	Kairali	509974.00	382481.00	50997.00	76496.00	509974.00
47	Vigneswara	-				
48	Aiswarya	-				
49	Samruthi	-				
50	Vettakkaran Kavu	620706.00	465530.00	62071.00	90975.00	618576.00
51	Soubhagya	-	259680.00	34624.00	77375.00	371679.00

52	Thanal	-	565500.00	75320.00	112450.00	753270.00
53	Gayathri	-	33980.00		80150.00	114130.00
54	Kattukulam	714071.00	512488.00	68332.00	102497.00	683317.00
55	Siva Ganga	-				
56	Jalasree	-				
57	Chaithnya	-				
	<b>Total</b>	<b>12072189.00</b>	<b>17585058.00</b>	<b>2157508.00</b>	<b>3733295.00</b>	<b>23556861.00</b>

Source: field Survey

### 3.1.3.3 Average BG wise Cost per Water Supply Schemes in the Panchayat

As per the Survey an average of 400 litres of water was available per day for each family. Total cost of Souhradha II Water Supply Schemes comes to 911775 with 22 families which show highest average cost per family of Rs.41444. But certain other BGs incurred higher expenditure with less unit cost because of greater number of beneficiaries.

Average cost of water supply schemes in Thiruvilwamala Grama Panchayat is worked out to be Rs.7982 per family. Details are given in Table 3.14.

**Table 3.14 Average cost of Water Supply Schemes in the Panchayat**

Sl.No	Name of BG	No of families	Total Expenditure (Rs)	Cost per family (Rs)
1	2	3	4	5
1	Soorya	34		
2	Souhradha	43	1111775.00	25855
<b>3</b>	<b>Souhradha II</b>	<b>22</b>	<b>911775.00</b>	<b>41444</b>
4	Thejas	6	-	
5	Kaveri	65		
6	Kalluvettiparambu	70	615550.00	8793
7	Soudheswari	59	640732.00	10859
8	Nila	59	706204.00	11969
9	Thelakattu	33		
10	Navadhara	59	606041.00	10271
11	Archana	46	504200.00	10960
12	Amritha	20	570339.00	28516
13	Punarjani	21		
14	Rassi	20	476775.00	23838
15	Parakattupadam	47	513435.00	10924
16	Triveni	47	611069.00	13001
17	Bhagyadhara	69	-	
18	Poothanakara	50	488420.00	9768

19	Karuna	56		
20	Sree Lekshmi	61	-	
21	Pavithram	68	622800.00	9158
22	Pattiparambu	42	541800.00	12900
23	Nivethitha	25		
24	Ganaga Pravah	22	374830.00	17037
25	Sivasakthi	80	994500.00	12431
26	Snehavarsha	30	256890.00	8563
27	Sruthilayam	28	-	
28	Chakkachankadu	71		
29	Gramalakshmi	44	-	
30	Kootala	42	-	
31	Tharangani	52	734775.00	14130
32	Mullakkal	37	-	
33	Mythri	41	705975.00	17218
34	Ganga	41	653250.00	15932
35	Souparnika	58		
36	Saraswathi	57	586550.00	10290
37	Sreyas	100		
38	Varsha	37	591700.00	15991
39	Ssnehadhara	39	527750.00	13532
40	Vinayaka	48	432650.00	9013
41	Mannam	47	1148735.00	24441
42	Kankalayam	58	585855.00	10100
43	Mahathma	34		
44	Anugraha	36	-	
45	Akshaya	53	624150.00	11776
46	Kairali	35	509974.00	14570
47	Vigneswara	5	-	
48	Aiswarya	13	-	
49	Samruthi	50	-	
50	Vettakkaran Kavu	39	618576.00	15860
51	Soubhagya	35	371679.00	10619
52	Thanal	50	753270.00	15065
53	Gayathri	53		
54	Kattukulam	59	683317.00	11581
55	Siva Ganga	46	-	
56	Jalasree	42	-	
57	Chaithanya	11	-	
	<b>Total</b>	<b>2515</b>	<b>20075341.00</b>	<b>7982.00</b>

Source: Field Survey

### **3.1.3.4 Collection of Water Charges**

Water charges are collected from beneficiary Groups and water charges vary from BG to BG (Rs.35 to Rs.50). Similarly, capacity of main water tank is also varying from 500 litres to 20,000 litres. About 56 % of BGs are paying Rs.50 as water charge and it is utilised for operation and maintenance charges of the scheme. There are problems in collecting water charges because of poor financial condition of beneficiaries or some BG members are not willing to pay the charge during rainy season. Details of monthly subscription are shown in Appendix 5.

### **3.1.3.5 Performance of Water Supply Schemes in Thiruvilwamala Panchayat**

Water supply schemes are implemented through 57 BGs and all the water supply schemes implemented in the panchayat are completed and commissioned. It is found that an amount of Rs.398.19 lakh was the estimated project cost and incurred expenditure was Rs.331.60 lakhs, which was 83% of the estimate. Government of Kerala share was Rs.252.70 lakhs, BGs contribution was Rs.58.13 lakhs and Grama panchayats shared Rs.36.96 lakhs. The pattern of assistance was in the ratio of 75:15:10.

Water supply coverage in the Panchayat was 45.02% before the implementation of the project and Jalanidhi targeted to benefit 51.78% additionally. The total coverage achieved was 96.85%. Significant development has achieved in the panchayat for water availability. The details of cost and expenditure of 14 BG are not available at the time of survey as mentioned earlier. Hence it could not be possible to analyse the higher and lower expenditures. The average cost of water supply schemes in the panchayat was worked out to be Rs.7982/- which was higher than the water supply schemes of KWA. This type of comparison might not be rational as these schemes are implemented in areas where KWA had no schemes. In socially benefited schemes such as drinking water schemes cost benefit comparison are not worked out to be socially acceptable from the point of view of poor community.

The availability of water in each BG was already fixed for a particular time period ranges from 1 hour to 3 hours, 95% of people got it for 1 hour. As a result the beneficiaries have to store it for their use. Most of the beneficiaries are storing water in tank. Some are storing water in buckets, vessels and tanks. 2184 families are storing water in tank. Survey reveals that 1382

(55%) families using water for drinking, 510(20%) using it for washing and cleaning, 898 (36%) using it for cooking and all purposes. Details of water availability is shown in Appendix 6.

As per the survey majority of BG members are satisfied with availability of water in respect to time, quantity and quality. Details are given in Appendix 7. Only 4% are not satisfied in time, quality and quantity. In general, people have good opinion on water supply schemes in Thiruvilwamala Grama Panchayat. The level of satisfaction about the project is shown in Appendix 8.

### **3.1.3.6 Rain Water Harvesting**

Rain water harvesting structures are constructed in building/institutions which is high seasonal demand. It encouraged individuals/communities/agencies in drought prone areas to take up RWH as a sustainable solution to their drinking water needs.

In Thiruvilwamala Panchayat 508 units of water recharge points are planned of which 461 are completed. Similarly 2 check dams and 3 pond protections are planned and both completed. For the above works Rs.22.61 lakh was the expenditure as against the target of Rs 34.71 lakhs. Rain water harvesting tanks of various capacities are constructed, which included 92 tanks of 5000 litres one tanks of 10,000 litres and 91 tanks of 1 lakh litres.

### **3.1.3.7 Environmental Sanitation Programmes**

Thiruvilwamala panchayat has also given focus on environmental sanitation programmes. This is carried out through construction of new latrines and latrine conversion. Latrine construction benefited to 273 families, costing an amount of Rs.12.28 lakhs, which included Rs.5.24 lakhs of KRWSA share and Rs 7.04 lakhs beneficiary share. The expenditure details are given in the Table 3.15. Latrine conversion was implemented only in two BGs.

### **3.1.3.8 Supporting Organisation**

“Apex Voluntary Agency for Rural Development (AVARD)” is the supporting organisation of Thiruvilwamala Grama Panchayat. It played an important role in creating awareness among the people. An amount of Rs.32.62 lakhs was paid to the supporting organisation for the support they provided for Jalanidhi implementation.

**Table-3.15 Beneficiary Group wise details of Latrine Construction in Thiruvilwamala panchayat**

Sl. No	Name of BG	New Latrine			Latrine Conversion		
		KRWSA Share	Beneficiary Share	Total	KRWSA Share	Beneficiary Share	Total
1	2	3	4	5	6	7	8
1	Soorya	10000.00	11500.00	21500.00	-	-	-
2	Souhradha	32000.00	48000.00	80000.00	-	-	-
3	Souhradha II	2000.00	1800.00	3800.00	-	-	-
4	Thejas	-	-	-	-	-	-
5	Kaveri	14000.00	42000.00	56000.00	-	-	-
6	Kalluvettiparambu	12000.00	18000.00	30000.00	-	-	-
7	Soudheswari	24000.00	33600.00	57600.00	-	-	-
8	Nila	2000.00	2000.00	4000.00	6000.00	4500.00	10500.00
9	Thelakattu	-	-	-	-	-	-
10	Navadhara	24000.00	24000.00	48000.00	-	-	-
11	Archana	2000.00	3500.00	5500.00	-	-	-
12	Amritha	-	-	-	-	-	-
13	Punarjani	-	-	-	-	-	-
14	Rassi	4000.00	6000.00	10000.00	-	-	-
15	Parakattupadam	-	-	-	-	-	-
16	Triveni	18000.00	28000.00	46000.00	-	-	-
17	Bhagyadhara	30000.00	29000.00	59000.00	-	-	-
18	Poothanakara	18000.00	25000.00	43000.00	-	-	-
19	Karuna	18000.00	22000.00	40000.00	-	-	-
20	Sree Lekshmi	-	-	-	-	-	-
21	Pavithram	38000.00	42000.00	80000.00	-	-	-
22	Pattiparambu	12000.00	18000.00	30000.00	-	-	-
23	Nivethitha	-	-	-	-	-	-
24	Ganaga Pravah	16000.00	13500.00	29500.00	-	-	-
25	Sivasakthi	16000.00	19200.00	35200.00	-	-	-
26	Snehavarsha	14000.00	20800.00	34800.00	-	-	-
27	Sruthilayam	28000.00	41100.00	69100.00	-	-	-
28	Chakkachankadu	16000.00	12000.00	28000.00	-	-	-
29	Gramalakshmi	-	-	-	-	-	-
30	Kootala	2000.00	4000.00	6000.00	-	-	-
31	Tharangani	-	-	-	-	-	-
32	Mullakkal	-	-	-	-	-	-
33	Mythri	38000.00	59900.00	97900.00	1000.00	500.00	1500.00
34	Ganga	2000.00	2000.00	4000.00	-	-	-
35	Souparnika	-	-	-	-	-	-
36	Saraswathi	-	-	-	-	-	-
37	Sreyas	18000.00	28000.00	46000.00	-	-	-

38	Varsha	2000.00	3000.00	5000.00	-	-	-
39	Ssnehadhara	20000.00	26500.00	46500.00	-	-	-
40	Vinayaka	-	-	-	-	-	-
41	Mannam	-	-	-	-	-	-
42	Kankalayam	4000.00	6500.00	10500.00	-	-	-
43	Mahathma	20000.00	21000.00	41000.00	-	-	-
44	Anugraha	-	-	-	-	-	-
45	Akshaya	24000.00	33000.00	57000.00	-	-	-
46	Kairali	-	-	-	-	-	-
47	Vigneswara	-	-	-	-	-	-
48	Aiswarya	-	-	-	-	-	-
49	Samruthi	36000.00	47500.00	83500.00	-	-	-
50	Vettakkaran Kavu	-	-	-	-	-	-
51	Soubhagya	4000.00	6000.00	10000.00	-	-	-
52	Thanal	-	-	-	-	-	-
53	Gayathri	-	-	-	-	-	-
54	Kattukulam	-	-	-	-	-	-
55	Siva Ganga	-	-	-	-	-	-
56	Jalasree	-	-	-	-	-	-
57	Chaithanya	4000.00	5500.00	9500.00	-	-	-
	<b>Total</b>	<b>524000.00</b>	<b>703900.00</b>	<b>1227900.00</b>	<b>7000.00</b>	<b>5000.00</b>	<b>12000.00</b>

Source: Field Survey

### 3.1.3.9 Training Programmes

In Thiruvilwamala Panchayat training programme are arranged for an estimated amount of Rs.5 lakhs but only Rs.2.18 lakhs was expended. The beneficiaries got good support for their livelihood through training.

#### 3.1.3.10 Problems and Issues

- i. Lack of confidence over the supporting organisation in the implementation of the scheme.*
- ii. Some Beneficiary Groups failed to execute the scheme due to their inefficiency in technical and financial matters.*
- ii. Power failures affected the scheme badly.*
- Iv. Interference from various sections negatively affected the functioning of the scheme.*
- v. Water charge collection was difficult in economically poor BGs and mainly during rainy season.*

## 3.2 Palakkad District

Palakkad district is one among the four districts selected for the Evaluation study of implementation of Jalanidhi schemes. A total of 20 Panchayats have been selected from the District through 5 batches for implementing the schemes. The total beneficiaries under these schemes are about 1,19,495 households including 10,529 SC households and 8506 ST households as detailed in Table 3.16.

**Table 3.16 Palakkad District – General Information of Jalanidhi Panchayats**

Sl. No.	Details	
1	Total Jalanidhi Panchayats through 5 batches (Nos)	20
2	Total families (Panchayat) (Nos)	1,19,495
3	SC families (Nos)	10,529
4	ST families (Nos)	8506

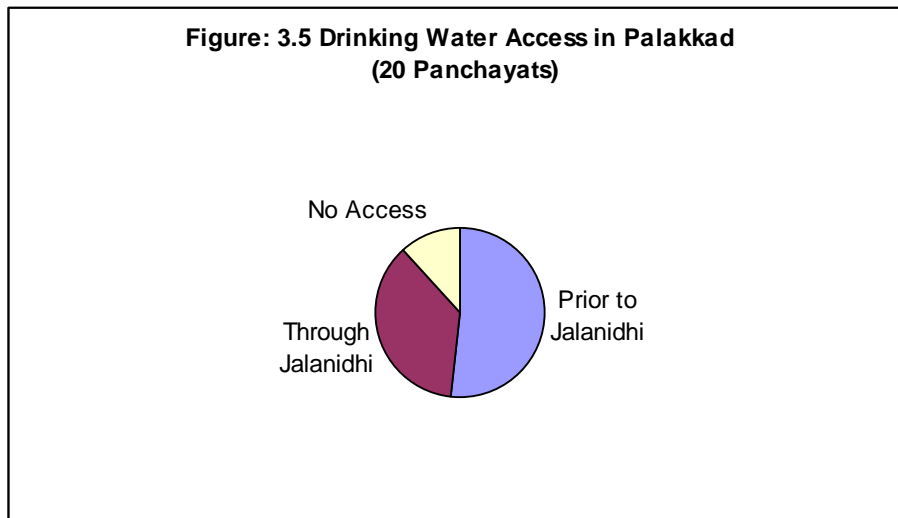
Source: DPMU, Palakkad

### 3.2.1 Drinking Water Supply Schemes in Palakkad District

In Palakkad district, a total of 33,833 families got water through Jalanidhi Schemes. Of these, 18,701 are BPL families, 2,070 SC families and 3,681 ST families and the remaining are the local people. In the District, the total coverage of drinking water availability was 51.93% prior to the implementation of Jalanidhi Project, but through the Jalanidhi project, 36.45% of population are additionally brought under the coverage of safe drinking water. Thus, the total coverage of drinking water availability in the District was 88.38%. There are 672 completed and commissioned water supply schemes in the District as on 31.03.2008. Details are given in Table 3.17.

The financial review of KRWSA as on 31.03.2008 reveal that the total amount expended on the project in the District was Rs 5722.37 lakhs including the share of Govt, Panchayats and Beneficiary Groups. Details are given in the Table 3.18.





**Table 3.17 Details of Drinking Water Supply Schemes under Jalanidhi Schemes in Palakkad District (20 Panchayats)**

Sl. No.	Particulars of DWSS	No. of Households
1	Availability of drinking water through Jalanidhi (Total families) (nos)	33833
2	BPL families (Nos)	18701
3	SC families (Nos)	2070
4	ST families (Nos)	3681
5	Drinking water availability before the implementation of Jalanidhi (%)	51.93%
6	Additional area brought under drinking water availability through the implementation of Jalanidhi (%)	36.45%
7	Total coverage of drinking water availability in the District (%)	88.38%
8	Total No. of BGs registered (Nos)	706
9	Total No. of Jalanidhi drinking water supply schemes in the district	676
10	Total No. of BGs having drinking water distribution	672
11	Total No. of drinking water supply schemes completed and commissioned	672
12	Total No. of Drinking Water Supply Schemes yet to be completed and commissioned	4

Source: DPMU, Palakkad

**Table 3.18 Financial status of Jananidhi Schemes implemented in Palakkad District  
(Rs. lakhs)**

Govt. Share	4645.03
Beneficiary Share Collected	591.64
Panchayat Share Collected	485.70
Total Amount Expended	5722.37

Source: DPMU, Palakkad

### 3.22 Jananidhi for Tribals

In Palakkad District, the Government has selected 4 tribal Panchayats, viz Agali, Muthalamada, Pudur and Sholayur for implementing Jananidhi project, which got benefit to 2939 households through 78 BGs. An estimated amount of Rs.295 lakhs was earmarked for the implementation of these schemes. The total expenditure incurred was Rs. 246 lakhs, including the share of KRWSA, Panchayats and Beneficiaries which are in the ratio of 80: 10: 10 respectively. The details are shown in the Table 3.19.

**Table 3.19 Details on the Implementation of Jananidhi Projects in Tribal Panchayats  
(as on 31.3.2008)  
(Rs in lakhs)**

Sl. No.	Name of Panchayat	No. of BGs	No. of House holds	Estimate Amount	Expendi ture	Govt Share	Panch-ayat Share	Beneficiary Share
1	Agali	25	927	98.53	81.69	65.36	8.17	8.17
2	Muthalamada	19	733	99.18	84.00	67.19	8.40	8.40
3	Pudur	21	682	57.78	45.45	36.36	4.55	4.55
4	Sholayur	13	597	39.02	34.98	27.98	3.50	3.50
	<b>Total</b>	<b>78</b>	<b>2939</b>	<b>294.51</b>	<b>246.12</b>	<b>196.89</b>	<b>24.62</b>	<b>24.62</b>

Source: DPMU, Palakkad

Out of 20 Jananidhi Panchayats identified from Palakkad district, on the basis of high investment in general projects as well as projects in ST concentration, two Panchayats have been selected for the present study. It includes Kongad Grama Panchayat and Sholayur Grama Panchayat.

### 3.2.3 Kongad Panchayat

Kongad Panchayat has earmarked highest allocation for Jalanidhi projects covering water supply, sanitation, Grama Panchayat strengthening, training and so on.. As per DPMU records the total coverage of drinking water availability in the Panchayat prior to the implementation of Jalanidhi was 39% and after the implementation of Jalanidhi an additional 32% was brought under drinking water availability. Thus, the total coverage of drinking water availability in the Panchayat was 71%. The details are shown in Table 3.20.

**Table 3.20 Details of Drinking Water Supply and Coverage in Kongad Panchayat**

Sl. No.	Particulars	Achievements
1	Total Number of Households (Nos)	5736
2	Coverage of Drinking water (%)	39
3	Households covered under Jalanidhi (Nos)	1719
4	Coverage (%)	32
5	No. of BPL families benefited	562
6	No. of SC/ST families benefited	148

Source: DPMU, Palakkad

The total number of Beneficiary Groups registered for implementation of Jalanidhi project was 43, which included one school BG as well. Number of families benefiting drinking water through Jalanidhi in the Panchayat included 1719 households, of which 562 were BPL families and 148 ST/SC families. Though there are 43 Beneficiary Groups, 39 BGs and one school BG are identified for the present study. Jalanidhi programmes implemented in the panchayats are given in Table 3.21.

#### 3.2.3.1 Beneficiary Group Wise Basic Details

The present study covered 40 Beneficiary Groups, including one school BG, from the Panchayat. There are 1532 households in 39 Beneficiary Groups settled in the Panchayat consisting of 92 SCs, 21 STs and 1419 General Category families. Out of 1532 households, 1172 households belong to APL groups and 360 are BPL. The total number of family members in all the BGs comes to 6425. Of these, 12 families are not members of SC and ST category. BG wise details of category of population is shown in Table 3.22 and the status of APL and BPL families are shown in Appendix 1.

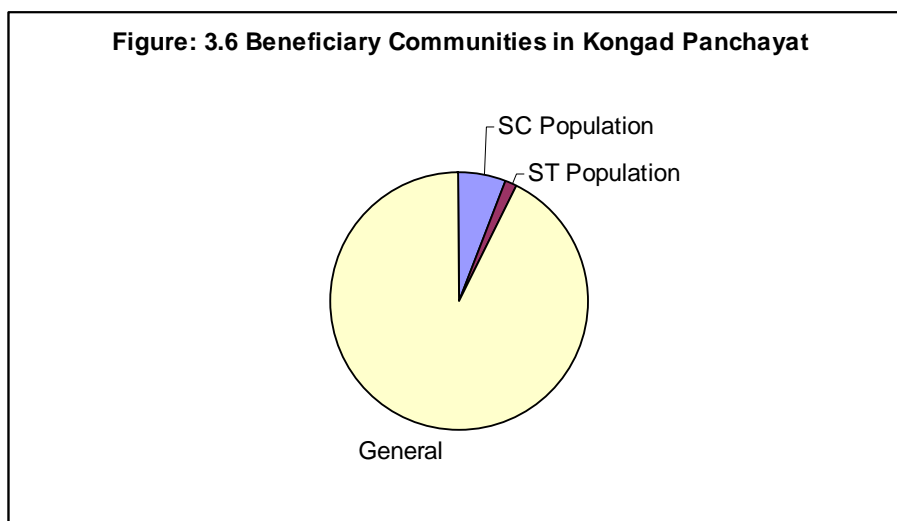
Table 3.21 Beneficiary Group wise Schemes implemented in Kongad Panchayat

Sl. No.	Name of BG	Schemes						Remarks
		WSS	RWH	Latrine	LC	Soak Pits	Compost Pits	
1	Akshaya	1	0	0	0	0	0	As per survey details latrine conversion, Soak Pits and Compost Pits has not been reported
2	Amrutha	1	0	0	0	0	0	
3	Attakkad	1	0	0	0	0	0	
4	Ayyappankunnu	1	0	0	0	0	0	
5	Ayyappankavu	1	0	2	0	0	0	
6	Bhagyasree	1	0	3	0	0	0	
7	Challikkal	1	0	0	0	0	0	
8	Cholakund	1	0	0	0	0	0	
9	Chundekkad	1	0	2	0	0	0	
10	Gandhi	1	0	60	0	0	0	
11	Gangothry	1	0	0	0	0	0	
12	Jalapriya	1	0	0	0	0	0	
13	Janadhara	1	0	0	0	0	0	
14	Janapriya, Cherappatta	1	0	0	0	0	0	
15	Janapriya, Kunnikkode	1	0	0	0	0	0	
16	Kasthoorba	1	0	1	0	0	0	
17	Krishna	1	0	0	0	0	0	
18	Kunnath-Kovelingil	1	0	5	0	0	0	
19	Mahatma Gandhi	1	0	0	0	0	0	
20	Manikkassery	1	0	0	0	0	0	
21	Manjerikavu	1	0	0	0	0	0	
22	Menassery	1	0	2	0	0	0	
23	Nellikunnu	1	0	5	0	0	0	
24	Nila	1	0	2	0	0	0	
25	Oruma, Mundeppadam	1	0	4	0	0	0	
26	Pavithram	1	0	1	0	0	0	
27	Puliyankad	1	0	4	0	0	0	
28	Samrithi	1	0	1	0	0	0	
29	Sindhu	1	0	0	0	0	0	
30	Sivaganga	1	0	53	0	0	0	
31	Sivapuri	1	0	2	0	0	0	
32	Souhrida	1	0	1	0	0	0	
33	Souparnika	1	0	0	0	0	0	

34	Thrippalamunda	1	0	0	0	0	0
35	Thriveni	1	0	3	0	0	0
36	Vandana	1	0	0	0	0	0
37	Varuna	1	0	0	0	0	0
38	Vettukulam	1	0	0	0	0	0
39	Vivekananda	1	0	0	0	0	0
40	Yuvajana	1	0	0	0	0	0
	<b>Total</b>	<b>40</b>	<b>0</b>	<b>151</b>	<b>0</b>	<b>0</b>	<b>0</b>

Source: Field Survey

Of the 1532 households in the Panchayat, 608 families are having land area ranged from 20-50 cents. The numbers of families having land area of less than 20 cents are 452, and 182 families hold land area between 100 cents and above. The details are shown in the Appendix 2. Out of 1532 households, 1126 households have tiled houses and 404 in concrete buildings. Majority of the family members are coolies and was their main source of income in the Panchayat area. The survey revealed that only 187 households are engaged in agriculture and allied activities. BG wise details are given in Appendix 3 and 4.



**Table 3.22 Beneficiary Group wise No. of Families**

Sl. No.	Name of BG	No. of Families				Total No. of members in each Family
		SC	ST	General	Total	
1	Akshaya	0	0	50	50	145
2	Amrutha	1	2	33	36	150
3	Attakkad	2	0	9	11	44
4	Ayyappankunnu	0	0	20	20	80
5	Ayyappankavu	2	2	37	41	157
6	Bhagyasree	1	0	33	34	126
7	Challikkal	6	1	67	74	269
8	Cholakund	0	0	59	59	302
9	Chundekkad	0	0	21	21	82
10	Gandhi	3	0	59	62	276
11	Gangothry	8	0	29	37	163
12	Jalapriya	1	0	36	37	149
13	Janadhara	1	0	27	28	123
14	Janapriya, Cherappatta	0	2	22	24	97
15	Janapriya, Kunnikkode	5	1	41	47	197
16	Kasthoorba	8	1	40	49	196
17	Krishna	0	0	37	37	130
18	Kunnath-Kovelingil	3	0	22	25	123
19	Mahatma Gandhi	7	0	29	36	171
20	Manikkassery	1	0	22	23	92
21	Manjerikavu	1	0	22	23	123
22	Menassery	0	0	40	40	178
23	Nellikunnu	10	6	38	54	219
24	Nila	1	0	23	24	116
25	Oruma, Mundeppadam	0	0	34	34	152
26	Pavithram	0	0	55	55	114
27	Puliyankad	6	1	36	43	206
28	Samrithi	0	0	30	30	139
29	Sindhu	0	0	20	20	73
30	Sivaganga	1	0	54	55	228
31	Sivapuri	0	1	26	27	112
32	Souhrida	1	0	63	64	284
33	Souparnika	0	0	51	51	203
34	Thrippalamunda	School BG (Water Supply to School puposes)				
35	Thriveni	6	1	20	27	99
36	Vandana	4	0	29	33	145
37	Varuna	0	0	50	50	200
38	Vettukulam	3	0	43	46	255

39	Vivekananda	1	0	49	50	239
40	Yuvajana	9	3	43	55	268
	<b>Total</b>	<b>92</b>	<b>21</b>	<b>1419</b>	<b>1532</b>	<b>6425</b>

Source: Field Survey

### 3.2.3.2 Project Cost

The estimate and expenditure incurred for water supply schemes under Jananidhi in Kongad Panchayat are given in Table 3.23. As per the survey, an estimated amount of Rs.306.32 lakhs has been earmarked for 40 water supply schemes in the Panchayat. But the actual expenditure incurred was Rs.282.45 lakhs (92%) for these schemes. The pattern of funding was in the ratio of 75:10:15 by Government, Panchayat and Beneficiaries respectively. Out of this Rs.282.45 lakhs, Rs.211.84 lakhs was the share of KRWSA (75%), Rs.28.24 lakhs(10%) the share of Panchayats and the share of Beneficiary groups was Rs.42.37 lakhs (15%). As per the survey, out of 40 BGs, the biggest amount was expended in the BG named 'Gandhi' with Rs.13,71,722/- and has the maximum number of households (82). The lowest amount expended was in the school BG named 'Thrippalamunda' (Rs.95.652/-), where the number of beneficiaries are not estimated clearly, all students and staff of the school are the beneficiaries.

**Table-3.23 Beneficiary Group wise Estimate and Expenditure of Water Supply Schemes in Kongad panchayat**

Sl. No.	Name of BG	Actual No. of Households	Estimate Amount	Expenditure as per survey (in Rs.)			Total
				KRWSA share	Panchayat share	Beneficiary share	
1	Akshaya	66	1297400	949259	126568	189852	1265679
2	Amrutha	46	1425814	686022	91470	137204	914696
3	Attakkad	36	672500	525143	70019	105029	700191
4	Ayyappankunnu	30	474000	335326	44710	67065	447101
5	Ayyappankavu	46	810000	607500	81000	121500	810000
6	Bhagyasree	35	572000	411542	54872	82309	548723
7	Challikkal	74	1500000	885695	118093	177139	1180927
8	Cholakund	59	790000	593475	79130	118695	791300
9	Chundekkad	22	124000	89418	11922	17884	119224

<b>10</b>	<b>Gandhi</b>	<b>82</b>	<b>1465100</b>	<b>1028792</b>	<b>137172</b>	<b>205758</b>	<b>1371722</b>
11	Gangothry	42	610000	436850	58248	87371	582469
12	Jalapriya	51	861302	637955	85061	127591	850607
13	Janadhara	32	608000	454839	60645	90968	606452
14	Janapriya, Cherappatta	24	474140	339508	45268	67902	452678
15	Janapriya, Kunnikkode	47	833500	522825	69710	104565	697100
16	Kasthoorba	52	875000	626156	83488	125231	834875
17	Krishna	41	650000	487642	65019	97528	650189
18	Kunnath- Kovelingil	25	316100	237075	31610	47415	316100
19	Mahatma Gandhi	36	935551	680634	90751	136127	907512
20	Manikkasser y	35	699000	499399	66587	99880	665866
21	Manjerikavu	23	525000	375765	50102	75153	501020
22	Menassery	40	746700	459147	61220	91829	612196
23	Nellikunnu	55	750000	562500	75000	112500	750000
24	Nila	25	759000	357236	47631	71447	476314
25	Oruma, Mundeppada m	34	555400	371481	49531	74296	495308
26	Pavithram	55	559069	402883	53718	80577	537178
27	Puliyankad	66	1102687	827015	110269	165403	1102687
28	Samrithi	34	614625	434689	57959	86938	579586
29	Sindhu	37	536406	402305	53641	80461	536407
30	Sivaganga	55	948806	680786	90772	136157	907715
31	Sivapuri	41	750000	563565	75142	112713	751420
32	Souhrida	64	950000	715010	95335	143002	953347
33	Souparnika	54	850000	599093	79879	119819	798790
<b>34</b>	<b>Thrippalam unda</b>	<b>0</b>	<b>100100</b>	<b>71739</b>	<b>9565</b>	<b>14348</b>	<b>95652</b>
35	Thriveni	25	767471	358317	47776	71663	477756
36	Vandana	33	740000	526644	70219	105329	702192
37	Varuna	50	771949	540698	72093	108140	720931
38	Vettukulam	46	737000	516644	68886	103329	688859
39	Vivekananda	51	1024450	776675	103557	155335	1035567
40	Yuvajana	55	850000	606632	80884	121326	808842
	<b>Total</b>	<b>1724</b>	<b>3063207</b>	<b>21183879</b>	<b>2824522</b>	<b>4236778</b>	<b>28245178</b>

Source: Field Survey



### **3.2.3.3 Average Cost of Jalanidhi Projects in Kongad Panchayat**

Though Jalanidhi Water Supply Schemes in Kongad Panchayat has an estimated cost of Rs 306.32 lakhs, expenditure incurred was only Rs 282.45 lakhs, which benefited 1724 families. The cost varied from one BG to another due to the changes in the nature of the project, location and extension of project area. The expenditure incurred for each project and the average unit cost are given in Table 3.23. The average cost of Water supply scheme per family in the panchayat was Rs.16384/- and the details are shown in the Table 3.24.

### **3.2.3.4 Collection of Water charges**

Water charges are imposed on the households of the BG concerned and it vary from BG to BG. It ranged from Rs.35 to Rs.60. In Kongad Panchayat, 60% of the beneficiaries paid the rate fixed at Rs.50/- as monthly subscription. The operational and maintenance cost of the projects are vested with the Beneficiary Groups and normally met under water charges collected. It was reported that the collection of monthly subscription was very poor in majority of BGs. The details of monthly subscription of water charges are shown in Appendix 5.

### **3.2.3.5 Performance Analysis of Water Supply Schemes in the Panchayat**

Jalanidhi Water Supply Scheme was implemented in the Panchayat through 40 BGs (including one School BG), which covered 1532 households. Each BG represents one Water Supply Scheme. All are completed and commissioned. Of these families, 755 (49%) families have reported that they have other sources for drinking water including own well and neighbours' well. Jalanidhi Water Supply schemes introduced in the Panchayat included new open draw wells and also renovated existing wells with overhead tanks.

In the Panchayat, BGs are generally organised with 25 families. Hence the number of beneficiaries in the school could not be assessed easily; the cost of the School BG was the lowest. If we calculate the number of beneficiaries of school, the average cost will be further lower than that is estimated here. It could be seen that small schemes require higher estimates than that of big projects

**Table 3.24 Water Supply Schemes – Average Cost with respect to each family in Kongad Panchayat**

Sl. No.	Name of BG	Actual No. of Households	Total Expenditure (Rs.)	Unit Cost per family (Rs.)	Remarks
1	Akshaya	66	1265679	19177	
2	Amrutha	46	914696	19885	
3	Attakkad	36	700191	19450	
4	Ayyappankunnu	30	447101	14903	
5	Ayyappankavu	46	810000	17609	
6	Bhagyasree	35	548723	15678	
7	Challikkal	74	1180927	15958	
8	Cholakund	59	791300	13412	
9	Chundekkad	22	119224	5419	
10	Gandhi	82	1371722	16728	
11	Gangothry	42	582469	13868	
12	Jalapriya	51	850607	16679	
13	Janadhara	32	606452	18952	
14	Janapriya, Cherappatta	24	452678	18862	
15	Janapriya, Kunnikkode	47	697100	14832	
16	Kasthoorba	52	834875	16055	
17	Krishna	41	650189	15858	
18	Kunnath-Kovelingil	25	316100	12644	
19	Mahatma Gandhi	36	907512	25209	
20	Manikkassery	35	665866	19025	
21	Manjerikavu	23	501020	21783	
22	Menassery	40	612196	15305	
23	Nellikunnu	55	750000	13636	
24	Nila	25	476314	19053	
25	Oruma, Mundeppadam	34	495308	14568	
26	Pavithram	55	537178	9767	
27	Puliyankad	66	1102687	16707	
28	Samrithi	34	579586	17047	
29	Sindhu	37	536407	14497	
30	Sivaganga	55	907715	16504	
31	Sivapuri	41	751420	18327	
32	Souhrida	64	953347	14896	
33	Souparnika	54	798790	14792	
34	Thrippalamunda	0	95652	0	School BG
35	Thriveni	25	477756	19110	

36	Vandana	33	702192	21279	
37	Varuna	50	720931	14419	
38	Vettukulam	46	688859	14975	
39	Vivekananda	51	1035567	20305	
40	Yuvajana	55	808842	14706	
	<b>Total</b>	<b>1724</b>	<b>28245178</b>	<b>16384</b>	

Source: Field Survey

Per day availability of water was already fixed and accordingly, the beneficiaries have to store it for their use. Most of the beneficiaries were storing the water in tank, bucket or in vessels. It is reported that 1193 (78%) beneficiaries of 40 BGs have been using the available water for all purposes. It is also reported that 366 beneficiaries were using the water for drinking, 347 for washing and cleaning and 245 using it for cooking purposes. The details of availability and use of water are shown in Appendix 6 and 7.

### 3.2.3.6 Assessment of Water Availability

The survey shows that, an average of 14567 liters of water was available per day to all the beneficiaries of 40 BGs. Of the total of 1532 households, 568 households (37%) got water for one hour daily, and 783 (51%) households (51%) got water 3 hours daily. Majority of the beneficiaries are satisfied with the availability of water in respect to time and quantity. As per the survey, out of 1532 beneficiaries, 1507(98%) beneficiaries are satisfied with time of distributing water, of quantity and 1493 (97%) are satisfied with the quality of water available under Jalanidhi schemes. Out of 1532 beneficiaries, about 94% of the beneficiaries (1445 beneficiaries) reported that there were KWA schemes in the project site, but almost all are depending the Jalanidhi project for their daily use. Of the total beneficiaries, 92% reported that the quality of the water was good and 8% opined that the source of water was poor. Appendix 8 shows these details.

### 3.2.3.6 Sanitation Facilities

The survey revealed that out of 40 BGs, 17 BGs have introduced new Latrine pits, which benefited 151 families. The highest number of beneficiaries are reported in two BGs, 'Gandhi' and 'Sivaganga' with 60 and 53 beneficiaries respectively. The details of latrines constructed are

shown in the the Table 3.25. It is clear from the table that the expenditure incurred for 151 new latrines was Rs. 9.73 lakhs consisting of Rs.3.00 lakhs of KRWSA and Rs.6.73 lakhs of beneficiary share. Of this, 3.00 lakhs each has expended for ‘Gandhi’ and ‘Sivaganga’ BGs, KRWSA share was only Rs. 2000/- per latrine and the balance amount was met by the beneficiaries themselves.

The details of latrine conversion, and soak pits and compost pits are not furnished in the data collected and so the details could not be included in the Report.

**Table 3.25 Beneficiary Group wise details of Latrine Construction in Kongad Panchayat**  
(Amount in Rs.)

Sl. No.	Name of BG	No. of Families benefited	New Latrine		
			KRWSA share	Beneficiary share	Total
1	Ayyappankavu	2	4000	16000	20000
2	Bhagyasree	3	6000	35000	41000
3	Chundekkad	2	4000	22000	26000
<b>4</b>	<b>Gandhi</b>	<b>60</b>	<b>120000</b>	<b>190500</b>	<b>310500</b>
5	Kasthoorba	1	2000	11000	13000
6	Kunnath-Kovelingil	5	10000	65000	75000
7	Menassery	2	4000	6500	10500
8	Nellikunnu	5	10000	65000	75000
9	Nila	2	4000	10000	14000
10	Oruma, Mundeppadam	4	8000	13000	21000
11	Pavithram	1	2000	5000	7000
12	Puliyankad	4	8000	5200	13200
13	Samrithi	1	2000	5000	7000
<b>14</b>	<b>Sivaganga</b>	<b>53</b>	<b>106000</b>	<b>168500</b>	<b>274500</b>
15	Sivapuri	2	4000	10000	15000
16	Souhrida	1	2000	4000	6000
17	Thriveni	3	6000	39000	45000
	<b>Total</b>	<b>151</b>	<b>302000</b>	<b>670700</b>	<b>973700</b>

Source: Field Survey

### 3.2.3.7 Supporting Organisation

Attappady Social Service Organisation (ASSO), one of the leading NGOs in Kerala, was the supporting Organisation of Jalanidhi project in Kongad Grama Panchayat. DPMU officials

reported that, an amount of Rs.27.57 lakhs was expended for the formation and implementation of ASSO by the Panchayat under the head of Jananidhi projects.

#### **3.2.3.8 Problems and Issues**

- i. Since the General Body meeting of the BGs are not compulsory, majority of the beneficiaries did not attend the meeting and are unaware about the functions of the scheme.*
- ii. It was reported that majority of the beneficiaries are not paying their monthly subscription.*
- iii. In certain schemes the real beneficiaries are not getting water properly due to the mistakes in the Distribution Line of Water Supply Scheme or due to the mistakes in identification of water sources. For example 'Ayyappankavu' BG and 'Chundekkad BG with estimated cost of Rs. 810000, and Rs.119224. The source was from open well.*
- iv. There was misuse of water and lack of coordination from the organisers in the BGs.*
- v. Lack of co-ordination and frequent breakdown of machinery reported by the beneficiaries of most of the BGs, especially Kunnath-Kovelingil water supply scheme.*
- vi. The Supporting Organisation of the Panchayat has withdrawn from the project before completion of the project and it created serious problems.*

#### **3.2.4 Sholayur Panchayat**

Sholayur Panchayat is one of the Tribal Panchayat which earmarked highest allocation for Jananidhi projects like Water Supply, Sanitation, GP Strengthening, training etc. The present Evaluation study has considered the Sholayur Panchayat, which spent huge amount for various schemes in ST area. Coverage of drinking water availability in the Panchayat prior to the implementation of Jananidhi in the general category was 65% and tribal 31%, but after the implementation of Jananidhi it could achieve an additional drinking water availability of 26%, and 13% respectively. Thus, the total coverage of drinking water availability for general category

in the Panchayat has gone to 91% in general category and for tribals 44%. A total of 1808 families got benefited through the implementation of Jalanidhi. The benefited families include general as well as tribal, with classification of BPL/APL households. The water supplies status before and after the project are furnished in Table 3.26.

**Table 3.26 Status of DWSS in Sholayur Panchayat**

Sl. No.		General (%)	Tribal (%)
1	Total coverage of Drinking Water Availability before the implementation of Jalanidhi (%)	65	31
2	Total coverage of Drinking Water Availability through the implementation of Jalanidhi (%)	26	13
3	Total coverage of Drinking Water Availability in the Panchayat (%)	91	44
4	Total No. of Households benefited	1202	606
5	Coverage of BPL families	887	426
6	Coverage of ST families	426	426

Source:DPMU, Palakkad

As on 31/03/08, an amount of Rs.393.19 lakhs has been expended for the implementation of Jalanidhi projects in the Panchayat for various schemes. Of these, an amount of Rs195.37 lakhs has been utilised for new drinking water supply schemes, Rs.27.54 lakhs utilised for Supporting Organisation and Rs.1.5 lakhs for strengthening the Grama Panchayat. Various Jalanidhi programmes introduced in the Panchayat are shown in Table 3.27.

#### **3.2.4.1 Jalanidhi Schemes for Tribals**

Total coverage of drinking water availability prior to the implementation of Jalanidhi in the tribal category was 31% and after the implementation of Jalanidhi there was an addition of 13% in coverage. The total coverage of drinking water availability for tribals in the Panchayat was 44%. Total number of tribal families benefited in the Panchayat through Jalanidhi except general population was 606 households including 426 SC/ST BPL families and details are shown in Table 3.28.

**Table 3.27 Beneficiary Group wise No. of Schemes implemented in Sholayur Panchayat Under Jananidhi**

Sl. No.	Name of BG	No. of Schemes benefitted					
		WSS	RWH	Latrine	LC	Soak Pits	Compost Pits
1	Aiswarya	1	0	35	0	0	0
2	Akshara	1	0	27	0	0	0
3	Anaswara	1	0	31	0	0	0
4	Amruthadhara	1	0	11	0	0	0
5	Arogyamatha	1	0	0	0	0	0
6	Brahmaputhra	1	0	24	0	0	0
7	Darsana	1	0	59	0	0	0
8	Durga	1	0	49	0	0	0
9	Ganga	1	0	38	0	0	0
10	Greenvalley	1	0	26	0	0	0
11	Indiraji	1	0	25	0	0	0
12	Indiranadhi	1	0	19	0	0	0
13	Jaladhara	1	0	43	0	0	0
14	Jeevandhara	1	0	4	0	0	0
15	Kalaivani	1	0	51	0	0	0
16	Kananvahini	1	0	84	0	0	0
17	Karunya	1	0	53	0	0	0
18	Kripa	1	0	51	0	0	0
19	Mariyamman	1	0	60	0	0	0
20	Maithri	1	0	54	0	0	0
21	Minerva	1	0	6	0	0	0
22	Navajeevan	1	0	22	0	0	0
23	Santhinagar	1	0	42	0	0	0
24	Sreeja	1	0	0	0	0	0
25	Sreekrishna	1	0	66	0	0	0
26	Subash	1	0	30	0	0	0
27	Thainadhi	1	0	31	0	0	0
28	Thekkekadampara	1	0	65	0	0	0
29	Thusharam	1	0	34	0	0	0
30	Udaya	1	0	47	0	0	0
31	Ushas	1	0	7	0	0	0
32	Vanadurga	1	0	62	0	0	0
33	Veerakali	1	0	48	0	0	0
34	Veetikundu	1	0	14	0	0	0
35	Vrindavan	1	0	38	0	0	0
	<b>Total</b>	<b>35</b>	<b>0</b>	<b>1256</b>	<b>0</b>	<b>0</b>	<b>0</b>

Source: Field Survey

An amount of Rs 84.54 lakhs has been expended for the implementation of various schemes under Jananidhi Project exclusively for tribals in the Panchayat. Of these, an amount of Rs 31.39 lakhs has been utilized for new drinking water supply schemes, Rs 30.50 lakhs for Supporting Organisation, Rs 9.76 lakhs for strengthening the Grama Panchayat, and 9.58 lakhs for new two pit latrines.

Sholayur Panchayat has organized 37 Beneficiary Groups including one School BG for Jananidhi Projects both for the General as well as to the ST Population. But the survey covered 35 BGs including tribal categories. Total families included in 35 BGs are 1545. At the time of survey out of 35 water supply schemes only 21 BGs have been completed and commissioned. The remaining schemes under 14 BGs have not been completed. It was reported that the reason for delay was due to the delay in getting sanction from Forest Department and also the appearance of monsoon along with heavy rain which negatively affected construction of scheme in the area. It was also reported that the works are in progress on a war footing and is expected to complete with in the project period.

#### **3.2.4.2 Beneficiary Group Wise Basic Details**

The survey covered 35 Beneficiary Groups, including one school BG. There are 1545 households in 35 Beneficiary Groups consisting of 116 SCs, 745 STs and 684 in General Category. BG wise details of family and population are given in Table 3.28. Out of 1545 households, 414 households belong to APL group and 1131 from BPL group. The details are shown in Appendix 1.

Average number of members in each family in each BG was 5364. There are no SC and ST members in 2 BGs namely Amruthadhara and Jaladhara.

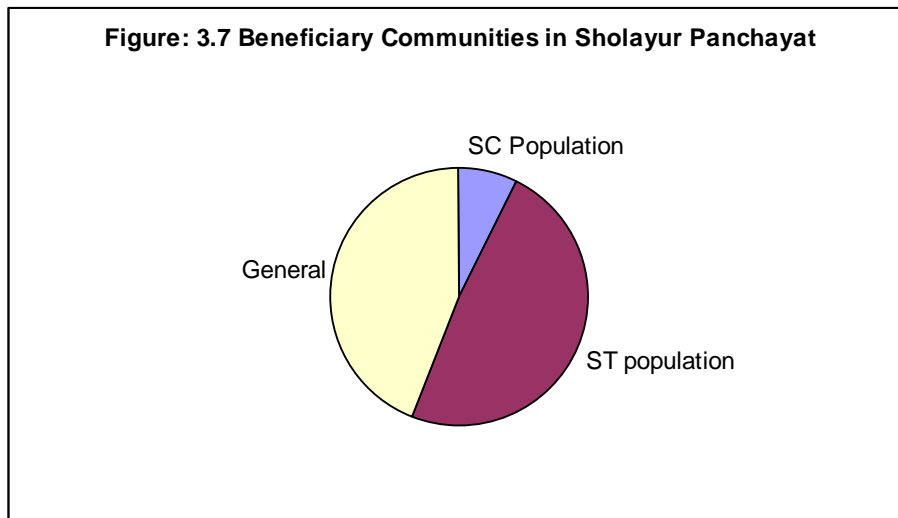
With regard to the size of land holdings, out of 1545 households in the Panchayat, 90 families have land area range from 20-50 cents. There was 477 families having land less than 20 cents and 894 families having land of 100 cents and above. The details are shown in the Appendix 2. Out of 1545 households, 1244 households have tiled houses, 80 in concrete buildings and 61 families settled in huts. Majority of the family members (957) are coolies. The survey revealed that only 440 households have engaged in agriculture and allied activities including 148 in fields such as rubber tapping, cashew workers, milk selling etc. BG wise details are given in Appendix 3 and 4.



**Table 3.28 Beneficiary Group wise No. of Families in Sholayur Panchayat**

Sl. No.	Name of BG	No.of Families				Total No. of members in each Family
		SC	ST	General	Total	
1	Aiswarya	0	9	37	46	168
2	Akshara	4	0	23	27	88
3	Anaswara	1	17	55	73	213
4	Amruthadhara	0	0	11	11	35
5	Arogyamatha	School BG				
6	Brahmaputhra	0	1	24	25	85
7	Darsana	0	41	29	70	204
8	Durga	0	48	1	49	164
9	Ganga	9	5	24	38	149
10	Greenvalley	4	24	32	60	222
11	Indiraji	0	7	18	25	100
12	Indiranadhi	0	1	18	19	82
13	Jaladhara	0	0	43	43	169
14	Jeevandhara	0	1	3	4	14
15	Kalaivani	4	48	22	74	264
16	Kananvahini	31	12	41	84	275
17	Karunya	0	35	18	53	172
18	Kripa	23	8	20	51	195
19	Mariyamman	1	43	23	67	178
20	Maithri	13	7	46	66	208
21	Minerva	1	0	5	6	24
22	Navajeevan	1	5	16	22	82
23	Santhinagar	0	22	21	43	134
24	Sreeja	0	18	1	19	69
25	Sreekrishna	10	71	10	91	325
26	Subash	0	14	17	31	89
27	Thainadhi	1	32	16	49	198
28	Thekkekadampara	0	60	30	90	356
29	Thusharam	0	14	20	34	110
30	Udaya	0	44	11	55	185
31	Ushas	1	2	18	21	86
32	Vanadurga	3	51	8	62	238
33	Veerakali	0	57	3	60	217
34	Veettikundu	1	20	0	21	56
35	Vrindavan	8	28	20	56	210
	<b>Total</b>	<b>116</b>	<b>745</b>	<b>684</b>	<b>1545</b>	<b>5364</b>

Source: field Survey



### 3.2.4.3 Project Cost

The allotment and expenditure of water supply schemes under Jananidhi in Sholayur Panchayat are given in Table 3.29. The survey was conducted in 35 BGs in the Panchayat. An estimated amount of Rs.170 lakhs has been earmarked for the water supply schemes in the Panchayat. But the actual expenditure incurred was Rs.159 lakhs for the implementation of these schemes. Out of this amount, Rs.123 lakhs was the share of KRWSA, Rs.16 lakhs the share of Panchayat and Rs.20 lakhs the share of Beneficiary groups. The patterns of assistance to the BGs are not uniform. Some BGs adopted 75:10:15 ratio and some others adopted 80:10:10 ratio. As a tribal panchayat, the accepted ratio was 80:10:10 for water supply schemes, but many BGs have not followed this guideline under Jananidhi project. As per the survey, out of 35 BGs, the highest amount was incurred for the BG named 'Jaladhara' (Rs.13.15 lakhs) in the Panchayat. The BG includes 43 families and the Scheme was not completed at the time of survey. The lowest amount incurred was for BG, 'Greenvalley' (Rs.95,000/-) having 71 families. The scheme was completed and commissioned.

**Table 3.29 Beneficiary Group wise Estimate of Funds to Water supply Schemes in Sholayur Panchayat**

Sl. No.	Name of BG	Expenditure as per survey (in Rs.)				
		Estimate Amount	KRWSA share	Panchayat share	Beneficiary share	Total
1	Aiswarya	300000	173566	23142	34713	231421
2	Akshara	623800	467850	62380	93570	623800
3	Anaswara	340000	255000	34000	51000	340000
4	Amruthadhara	775000	396004	52801	79201	528006
5	Arogyamatha	204750	139230	18564	27846	185640
6	Brahmaputhra	321000	196052	26140	39210	261402
7	Darsana	525000	393750	52500	78750	525000
8	Durga	145000	116000	14500	14500	145000
9	Ganga	557101	417826	55710	83565	557101
<b>10</b>	<b>Greenvally</b>	<b>350000</b>	<b>76000</b>	<b>9500</b>	<b>9500</b>	<b>95000</b>
11	Indiaraji	618800	464100	61880	92820	618800
12	Indiranadhi	372000	279000	37200	55800	372000
<b>13</b>	<b>Jaladhara</b>	<b>1315000</b>	<b>986250</b>	<b>131500</b>	<b>197250</b>	<b>1315000</b>
14	Jeevandhara	595350	446513	59535	89303	595350
15	Kalaivani	550000	440000	55000	55000	550000
16	Kananvahini	647500	485625	64750	97125	647500
17	Karunya	259100	194325	25910	38865	259100
18	Kripa	406000	304500	40600	60900	406000
19	Mariyamman	475000	380000	47500	47500	475000
20	Maithri	585000	468000	58500	58500	585000
21	Minerva	528500	348545	46473	69709	464727
22	Navajeevan	390000	312000	39000	39000	390000
23	Santhinagar	720000	576000	72000	72000	720000
24	Sreeja	100000	80000	10000	10000	100000
25	Sreekrishna	575000	460000	57500	57500	575000
26	Subash	347500	200160	25020	25020	250200
27	Thainadhi	210000	168000	21000	21000	210000
28	Thekkekadampara	375000	224360	28045	28045	280450
29	Thusharam	861900	689520	86190	86190	861900
30	Udaya	335000	268000	33500	33500	335000
31	Ushas	375000	281250	37500	56250	375000
32	Vanadurga	475400	356550	47540	71310	475400
33	Veerakali	1000000	644054	80507	80507	805068
34	Veetikundu	400000	320000	40000	40000	400000
35	Vrindavan	365000	292000	36500	36500	365000
	<b>Total</b>	<b>17023701</b>	<b>12300030</b>	<b>1592387</b>	<b>2031449</b>	<b>15923865</b>

Source: Field survey

#### **3.2.4.4 Average Cost of Water supply in Sholayur Panchayat**

The Panchayat has registered 35 BGs for water Supply Schemes and 21 BGs have completed and commissioned their schemes. The total cost incurred and average cost calculated for each completed schemes are detailed in Table 3.30. Of the completed 21 schemes the highest average cost incurred per family was Rs. 19579 for the BG 'Indiranadhi' having 19 families. The BG named 'Greenvally' with 71 families reported the lowest cost of Rs.95000 and also the lowest average cost of Rs.1338. The Scheme was having comparably less number of households and incurred more cost than that of schemes having lesser households. The average cost of water supply schemes in the panchayat was Rs.7111/- per household.

#### **3.2.4.4 Collection of Water charges**

Water charges are imposed on the basis of the number of households in the BGs concerned and it vary from BG to BG. In Sholayur Panchayat, the water charges was fixed between the range of Rs.20/- and Rs 50/- as monthly subscription. Though all the schemes are not fully commissioned, monthly subscription was already fixed and will be collected when it becomes functional. The details are shown in the Appendix 5. The operation and maintenance cost of the projects are normally covered by the water charges. However, it is reported that the collection of monthly subscription was very poor in large number of BGs.

#### **3.2.4.5 Performance Analysis of Water Supply Schemes in the Panchayat.**

The panchayat has organised 35 BGs for implementing Jananidhi schemes and each BG represents one water supply scheme. Out of 35 water supply schemes only 21 BGs have been completed at the time of survey period. The remaining schemes under 14 BGs are at different stages of implementation. The details of completed and incomplete schemes are shown in Table 3.28. The reason, for the delay in completion is already mentioned.

**Table-3.30 Water Supply Schemes – Average Cost of completed and commissioned Project in Sholayur Panchayat**

Sl. No.	Name of BG	Actual No. of Households benefited	Total Expenditure (Rs.)	Unit Cost incurred per family (Rs.)	Remarks
1	Anaswara	46	231421	5031	Completed
2	Arogyamatha	0	185640	School BG	Completed
3	Brahmaputhra	25	261402	10456	Completed
4	Darsana	83	525000	6325	Completed
5	Durga	49	145000	2959	Completed
6	Greenvalley	71	95000	1338	Completed
7	Indiranadhi	19	372000	19579	Completed
8	Kalaivani	85	550000	6471	Completed
9	Mariyamman	70	475000	6786	Completed
10	Maithri	66	585000	8864	Completed
11	Santhinagar	43	720000	16744	Completed
12	Sreeja	19	100000	5263	Completed
13	Sreekrishna	121	575000	4752	Completed
14	Subash	36	250200	6950	Completed
15	Thainadhi	69	210000	3043	Completed
16	Thekkekadampara	93	280450	3016	Completed
17	Udaya	56	335000	5982	Completed
18	Ushas	25	375000	15000	Completed
19	Veerakali	61	805068	13198	Completed
20	Veetikundu	22	400000	18182	Completed
21	Vrindavan	57	365000	6404	Completed
	<b>Total</b>	<b>1070</b>	<b>7609760</b>	<b>7112</b>	<b>Completed</b>

Source: Field Survey

The project covered 745 Tribal families included in 35 BGs. Out of 35 water supply schemes only 21 are completed at the time of survey. The schemes in the Sholayur panchayat are not completed within the scheduled period of the project. Various reasons are stated for the delay in the completion of the project. Eventhough, the schemes are not completed but the full expenditure was shown against each completed schemes. It is also observed that the tribals are

located in remote hilly areas and they are the neediest people of the Project, but it is seen that their interests are not protected.

The availability of water in each BG was already fixed for particular hours. Hence the beneficiaries have to store it for their use. Most of the beneficiaries are storing the water by using tanks, buckets or vessels. It was reported that 72% of the beneficiaries of 21 BGs have been using the available water for cooking and drinking purposes. They also reported that 69% of the beneficiaries are using the water for washing and cleaning and 29% using it for all purposes. The details are shown in Appendix 6 and 7.

It is evident from the survey that, an average of 3814 litres of water was available to all the beneficiaries of 21 BGs in the Panchayat per day. Of the total of 1545 households, 52 households (4%) opined that water was available daily one hour, 576 households (37%) reported that water was available daily 3 hours from the scheme. Majority of the beneficiaries are satisfied with the time and quantity of the water available from the schemes in Sholayur Panchayat. Out of 1545 beneficiaries, 1020 beneficiaries are satisfied with time of distributing water, 1018 beneficiaries are in favour of the availability of quantity and 1017 (66%) are satisfied with the quality of water available under Jalanidhi schemes. Around 34% of the beneficiaries (522 beneficiaries) reported that there are no KWA schemes in the project site. The remaining 527 (34%) have reported that there was KWA schemes in the Panchayat area. Appendix 8 and 9 shows these details. As per the survey 1012 beneficiaries (98%) have reported that the quality of the water was good, 20 beneficiaries opined that it was moderate. Details are shown in Appendix 8. Since majority of the ST houses are located in hilly areas and water was not available in most of the days; it is reported that the water source identified are poor.

#### **3.2.4.6 Sanitation Facilities**

Jalanidhi project included environmental sanitation as well. It is reported that 1256 households from 35 BGs have been benefited from new pit latrines in the Panchayat. Large numbers of people got benefit in the BGs named 'Kannanvahini and Sreekrishna' under the scheme with 84 and 66 numbers of latrines respectively. The details of latrines are furnished in Table 3.31. It is clear from the table that the expenditure incurred for 1256 new latrines was

Rs.61 lakhs consisting of Rs.25 lakhs of KRWSA share and Rs36 lakhs of beneficiary share. Of this, 5.24 lakhs and 1.35 lakhs respectively expended for Kananvahini and Sreekrishna' BGs. KRWSA share was only Rs. 2000/- per latrine and the balance amount was met by the beneficiaries themselves. It was reported that out of 1256 latrines provided, 337 beneficiaries are not using it due to the incompleteness of latrines. By utilising the KRWSA share of Rs 2000/-they have constructed the closet with slab and are not contributing the beneficiary share for the completion of schemes.

#### **3.2.4.7 Supporting Organisation**

Socio Economic Unit Foundation (SEUF), an NGO is the Supporting Organisation of Jalanidhi project in Sholayur Grama Panchayat.

#### **3.2.4.8 Problems and Issues**

- i. Out of 35 BGs in Sholayur Grama Panchayat 21 Water Supply Schemes have been completed. Rest of the schemes (14) are at different stages of implementation and works on these schemes are progressing on a war footing basis for completion within the project period. Delay in completion is a question on the objectives of the project.*
- ii. Operation and maintenance charges from the beneficiaries concerned are not collected properly. This has affected the smooth functioning of the completed scheme.*
- iii. Some of the beneficiaries reported that they got effective training under the project and have acquired special skills through the trainings and understood accounting, paper bag preparation, plumping, maintenance of motor etc.*
- iv. The beneficiaries of Veetikundu Water Supply Scheme have reported that water was not available on proper times because they have settled in hilly areas and water was available only once in two weeks.*
- v. In Sholayur Grama Panchayat, out of 1545 families of 35 BGs, 1256 families have latrine facilities through Jalanidhi. But, some of the beneficiaries did not utilise their beneficiary contribution for latrine construction. The share of KRWSA was just Rs.2000/-and utilising this they have constructed closet and slab without the side wall.*

vi. The utilisation of drinking water potential created through the project was a success. The survey revealed that there is considerable under utilised water potential created under Jalanidhi projects

**Table-3.31 Beneficiary Group wise details of Latrine Construction in Sholayur Panchayat (Amount in Rs.)**

Sl. No.	Name of BG	No. of Families benefited	New Latrine			Used or Not	
			KRWSA share	Beneficiary share	Total	Y	N
1	Aiswarya	35	70000	138000	208000	35	0
2	Akshara	27	54000	129000	183000	27	0
3	Anaswara	31	62000	65000	127000	31	0
4	Amruthadhara	11	22000	50620	72620	11	0
5	Brahmaputhra	24	48000	116350	164350	24	0
6	Darsana	59	118000	146500	264500	59	0
7	Durga	49	98000	44000	142000	6	43
8	Ganga	38	76000	224750	300750	38	0
9	Greenvalley	26	52000	140000	192000	26	0
10	Indiaraji	25	50000	143000	193000	1	25
11	Indiranadhi	19	38000	35000	73000	19	0
12	Jaladhara	43	86000	348500	434500	6	32
13	Jeevandhara	4	8000	24000	32000	4	0
14	Kalaivani	51	102000	38000	140000	48	3
15	Kananvahini	84	168000	355500	523500	44	40
16	Karunya	53	106000	204000	310000	53	0
17	Kripa	51	102000	146400	248400	51	0
18	Mariyamman	60	120000	73000	193000	60	0
19	Maithri	54	108000	279250	387250	54	0
20	Minerva	6	12000	36000	48000	6	0
21	Navajeevan	22	44000	89850	133850	22	0
22	Santhinagar	42	84000	57850	141850	42	0
23	Sreekrishna	66	132000	3000	135000	18	48
24	Subash	30	60000	42500	102500	30	0
25	Thainadhi	31	62000	17000	79000	18	13
26	Thekkekadampara	65	130000	98500	228500	65	0
27	Thusharam	34	68000	153500	221500	34	0
28	Udaya	47	94000	6000	100000	0	47
29	Ushas	7	14000	27500	41500	7	0
30	Vanadurga	62	124000	168800	292800	0	0
31	Veerakali	48	96000	155000	251000	21	27
32	Veetikundu	14	28000	0	28000	0	21
33	Vrindavan	38	76000	9000	85000	0	38
	<b>Total</b>	<b>1256</b>	<b>2512000</b>	<b>3565370</b>	<b>6077370</b>	<b>860</b>	<b>337</b>

Source: Field Survey



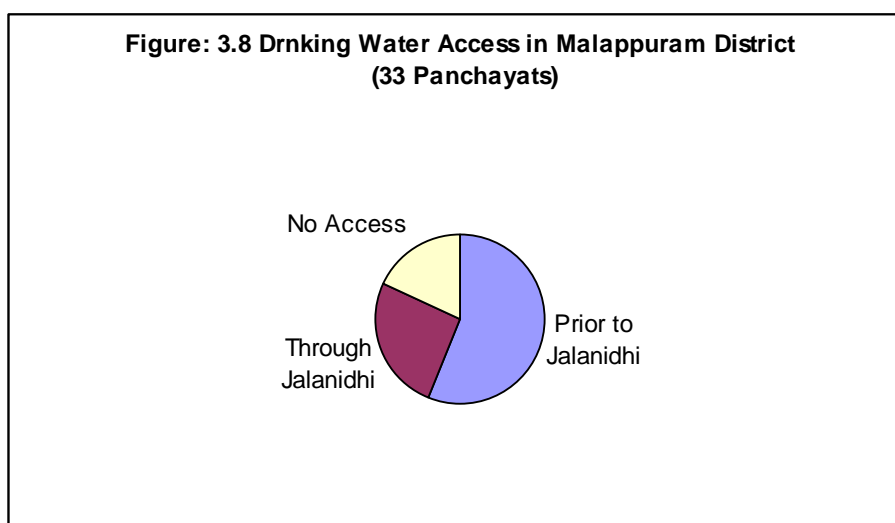
### 3.3 Malappuram District

The District has an area of 3550 sq.km. Jalanidhi Project commenced its activities in Malappuram during 1999-2000. Out of 99 Grama Panchayats in the District, 33 Panchayats are identified for implementing Jalanidhi Projects. Prior to Jalanidhi Project there are 107414 families (56%) having access to perennial water supply. Jalanidhi covered 49031 Households in Malappuram District benefiting a population of 300220. The additional coverage was 26 %. Thus the total coverage of water availability in the Panchayat reached to 82 %. Details are furnished in the Table 1.

**Table 3.32 Malappuram District – General Information of Jalanidhi Panchayats**

Sl. No.	Details	
1	Total Jalanidhi Panchayats	33
2	Total families (Panchayat) (Nos)	107414
3	Water supply coverage before the project (%)	56
4	Additional Water supply coverage through the Project (Nos.)	49031
5	Coverage (%)	26
5	Total coverage (%)	82

Source: DPMU, Malappuram



An amount of Rs 8389.11 lakh was utilised for various programmes under Jalanidhi in Malappuram District till August 2008. Among 33 Grama Panchayats, 2 Gramapanchayats Viz, Aliparamba & Muthedam are selected for the Evaluation study on the basis of highest expenditure incurred and highest SC/ST Population concentrated Panchayats, where Jalanidhi Projects are implemented.

### **3.3.1 Aliparamba Panchayat**

Aliparamba Gramapanchayat has an area of 34.37 sq.km. As per 2001 Census it has a population of 37038. Prior to the implementation of Jalanidhi Project the number of households with access to perennial water supply was 3118, which constituted 46 % of the total households. Out of 6842 households in the Grama Panchayat, 3414 are covered under Jalanidhi, benefiting a population of 19265. The number of Beneficiary Groups organised in the panchayat comes to 69. West Manalaya and Kodakkaparamba are the two new comprehensive Water Supply Schemes, with Multi B.G system. The above mentions Comprehensive Water Supply Schemes consist of 24 BGs each, covering of 1284 and 1240 Households respectively. East Manalaya is also a rehabilitated comprehensive water Supply Scheme. Previously it was owned and operated by Kerala Water Authority. Under the new dispensation the scheme contains 10 B.Gs having coverage of 813 House Holds. Out of the remaining 11 B.Gs, 9 are school BGs. Name of Beneficiary Groups with Number of Households are given in Table 3.33.

#### **3.3.1.1 Beneficiary Group wise Details of Schemes Implemented in the Panchayat**

From the survey it was found that the entire Households got benefited from Water Supply Schemes. Water Supply Schemes included five schemes. Of which two are comprehensive water supply schemes which are newly constructed, two independent schemes, and one rehabilitated scheme. Though many schemes are implemented in Aliparamba, the study mainly focussed on Water Supply Schemes, Environmental sanitation including construction of New Latrines, Conversion of single pit latrines into two pit latrines, Soak Pits and Compost Pits. The study covered 274 new latrines and 156 converted latrines. Around 306 Households got benefited from soak pits and 306 Households benefited from Compost Pits. Details of programmes are shown in

Table 3.34. So far an amount of Rs.76,092,795 was utilised, of which Govt of Kerala share comes to Rs.56,150,108.

**Table 3.33 Beneficiary Groupwise Households**

	Name of BG	House hold	Catagory
1	Aiswarya	21	New
2	Nayagra	56	New
3	East Manalaya (10 BG)	813	KWA
4	ALPS Vazhiyilapara	156	School B.G
5	GHSS Aliparamba	621	„
6	ALPS Manalaya	237	..
7	SMLPS Kunnath	188	„
8	AMLPS Edaikkal	224	„
9	AMLPS Vazhenkada	193	„
10	AMLPS Kambram	349	„
11	ALPS Pariyampuram	114	„
12	GHS Anamangad	833	„
	Comprehensive Sacheme		
1	West Manalaya (24 BG)	1284	New
2	Kodakkaparamba (24 BG)	1240	New
	Total (A)	*3,414	

\* Except School BGs

Source: DPMU, Malappuram

### 3.3.1.2 Beneficiary Group Wise Basic Information

The panchayat has organised 69 BGs for the implementation of Jalanidhi project and 3414 Households got benefit out of the schemes. Of the total BGs, 57 BGs covering 922 households are surveyed and studied. Three comprehensive water supply schemes viz, East Manalaya, West Manalaya and Kodakkapramba are established in the panchayat, which benefited 3337 households. In addition to the 3 multi BGs, two independent water supply schemes, Aiswarya & Nayagra BGs, are also taken up for the study, which has 77 Households. Out of the 77 Households 61 are selected for the study. There are 14 BGs comprising of 3 multi BGs, 9 School BGs and two independent BGs. The study focussed only on 5 BGs including the 3 multi BGs covering 922 households. The details of BG wise category of population and number of households are shown in Table 3.35.

The survey was conducted among 57 BGs comprising 922 Households. Out of this, 120 are SC households and 2 ST Households. In the general category there are 800 Households. Altogether 57 BGs comprised of 5214 people.

**Table 3.34 Beneficiary Group wise No. of Schemes implemented in Aliparamba Panchayat**

Sl. No.	Name of BG	No. of Schemes benefited						
		Families benefited	WSS	Latrine	LC	GWR	Soak Pits	Compost Pit
1	Aiswarya	14	1	4	6	-	-	-
2	Nayagra	47	1	12	35	-	-	-
3	East Manalaya	1						
	1. Haritha	20		-	-	-	-	-
	2. Jeevandhara	16		-	-	-	-	-
	3. J.K.M	20	-	-	-	-	-	-
	4. Kudineer	15	-	-	-	-	-	-
	5. Megha	20	-	7	11	-	-	-
	6. Nithyavarshini	19	-	4	-	-	-	-
	7. Sneha	22	-	-	-	-	-	-
	8. Snehadhara	20	-	6	-	-	-	-
	9. Souhridha	20	-	19	-	-	-	-
	10. Thriveni	21	-	3	11	-	-	-
4	Kodakparamba	1						
	1. Aaswasam	15	-	-	-	-	-	-
	2. Akshaya	16	-	5	2	-	12	12
	3. Anashwara	15	-	5	6	#REF!	8	8
	4. Anugraha	17	-	6	-	-	11	11
	5. Bismi	15	-	12	-	-	14	14
	6. Dahajalam	15	-	15	-	-	-	-
	7. Ganga	15	-	11	-	-	12	12
	8. Kairali	16	-	13	1	-	4	4
	9. Kairali	14	-	-	-	-	15	15
	10. Kaveri	16	-	5	2	-	-	-
	11. Kulirma	15	-	12	3	-	6	6
	12. Navodaya	16	-	8	-	-	-	-
	13. Navodaya	15	-	-	-	-	-	-
	14. Neerdhara	15	-	12	-	-	-	-
	15. Oasis	15	-	10	-	-	-	-
	16. Pamba	15	-	15	-	-	14	14

	17. Rahath	15	-	-	-	-	-	
	18. Samsam	15	-	4	11	-	9	9
	19. Soubhagya	16	-	4	11	-	13	13
	20. Souhridha	15	-	-	-	-	10	10
	21. Thejas	16	-	5	2	-	-	-
	22. Yuvadhara	15	-	13	-	-	-	-
	23. Zamzam	15	-	-	-	-	4	4
5	West Manalaya		1					
	1. Anugraha	15	-	1	6	-	-	-
	2. Anugraha	15	-	-	-	-	15	15
	3. Jaladhara	11	-	2	4	-	9	9
	4. Janakeeyam	15	-	2	8	-	-	-
	5. Jeevanasree	13	-	3	-	-	13	13
	6. Kaveri	15	-		-	-	-	-
	7. Mahul Hayath	15	-	10	-	-	-	-
	8. Mahul Muthalaq	10	-	1	-	-	9	9
	9. Nabah	14	-	9	2	-	14	14
	10. Narmada	15	-	2	2	-	15	15
	11. Nehar	16	-	6	5	-	15	15
	12. Nila	16	-	7	1	-	16	16
	13. Nile	15	-		13	-	-	-
	14. Nithyodaya	14	-	2	6	-	-	-
	15. Nayagra	16	-		-	-	-	-
	16. Pariyapuram	17	-	2	-	-	16	16
	17. Priyadarshini	15	-	-	2	-	15	15
	18. Samridhi	15	-	-	-	-	14	14
	19. Sarovar	15	-		-	-	14	14
	20. Sarvodaya	15	-	6	1	-	-	-
	21. Varsha	9	-	6	-	-	9	9
	22. Yamuna	15	-	5	5	-	-	-
	<b>Total</b>	<b>922</b>		<b>274</b>	<b>156</b>		<b>306</b>	<b>306</b>

Source: Field Survey

Out of 922 households, 120 belong to SC and among these, 96 Households belong to BPL category and only 24 belong to APL. Out of the 800 Households in the general Category, 264 belong to BPL and the remaining 536 Households belong to APL. These details are given in Appendix 1.

Of the surveyed 922 Households only 786 Households responded to the question of land holding size, of this 425 (57%) Households' land holding size comes below 20 cents. Around

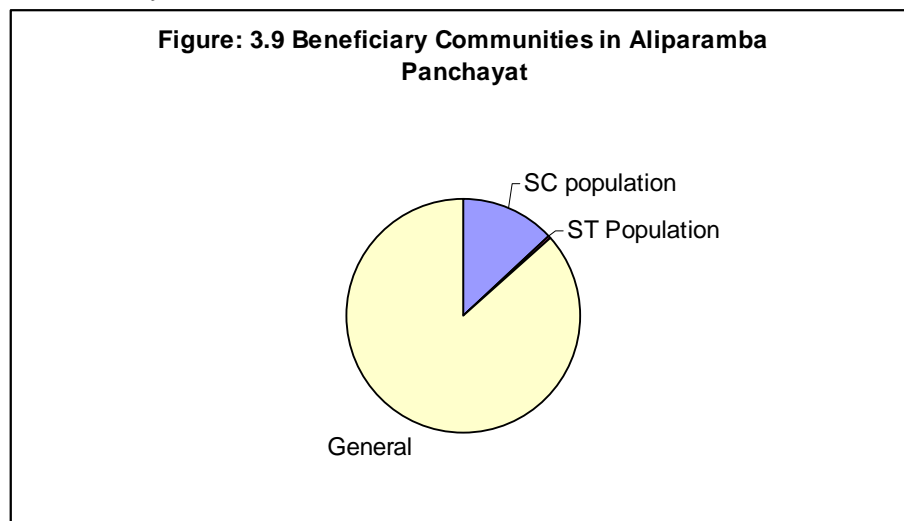
185 Households have 20-40 cents, 71 Households have 40-60 cents and only 46 Households have holding size above one acre. Details are given in Appendix 2.

**Table 3.35 Beneficiary Group wise Number of Families and Population in Aliparamaba Panchayat**

Sl.No	Name of BG	No of families				Total Population
		SC	ST	General	Total	
1	Aiswarya	-	-	14	14	70
2	Nayagra	5	1	41	47	295
	<b>East Manalaya</b>					
	1. Haritha	-	-	20	20	107
	2. Jeevandhara	5	-	11	16	78
	3. J.K.M	2	-	18	20	100
	4. Kudineer	-	-	15	15	107
	5. Megha	1	-	19	20	99
	6. Nithyavarshini	-	-	19	19	115
	7. Sneha	12	-	10	22	106
	8. Snehadhara	3	-	17	20	122
	9. Souhridha	11	-	9	20	100
	10. Thriveni	1	-	20	21	117
	<b>Kodakkaparamba</b>					
	1. Aaswasam	-	-	15	15	72
	2. Akshaya	-	-	16	16	81
	3. Anashwara	-	-	15	15	115
	4. Anugraha	7	-	10	17	98
	5. Bismi	-	-	15	15	84
	6. Dahajalam	-	-	15	15	93
	7. Ganga	3	-	12	15	75
	8. Kairali	-	-	16	16	94
	9. Kairali	-	-	14	14	99
	10. Kaveri	3	-	13	16	93
	11. Kulirma	1	-	14	15	74
	12. Navodaya	-	-	16	16	104
	13. Navodaya	2	-	13	15	73
	14. Neerdhara	9	-	6	15	80
	15. Oasis	-	-	15	15	95
	16. Pamba	5	-	10	15	83
	17. Rahath	-	-	15	15	79
	18. Samsam	-	-	15	15	83
	19. Soubhagya	5	-	11	16	99
	20. Souhridha	-	-	15	15	89
	21. Thejas	-	-	16	16	87

	22. Yuvadhara	1	1	13	15	110
	23. Zamzam	-	-	15	15	91
West Manalaya						
	1. Anugraha	3	-	12	15	77
	2. Anugraha	-	-	15	15	97
	3. Jaladhara	-	-	11	11	58
	4. Janakeeyam	1	-	14	15	83
	5. Jeevanasree	-	-	13	13	86
	6. Kaveri	8	-	7	15	72
	7. Mahul Hayath	2	-	13	15	94
	8. Mahul Muthalaq	-	-	10	10	53
	9. Nabah	-	-	14	14	75
	10. Narmada	6	-	9	15	63
	11. Nehar	1	-	15	16	77
	12. Nila	-	-	16	16	85
	13. Nile	-	-	15	15	106
	14. Nithyodaya	-	-	14	14	92
	15. Nayagra	10	-	6	16	94
	16. Pariyapuram	-	-	17	17	95
	17. Priyadarshini	-	-	15	15	94
	18. Samridhi	1	-	14	15	78
	19. Sarovar	2	-	13	15	78
	20. Sarvodaya	-	-	15	15	72
	21. Varsha	5	-	4	9	37
	22. Yamuna	5	-	10	15	81
	<b>Total</b>	<b>120</b>	<b>2</b>	<b>800</b>	<b>922</b>	<b>5214</b>

Source: Field Survey



Regarding the nature of houses of beneficiary group, 268 families reported that they have concrete houses 640 Households have tiled houses and 8 families reside in thatched houses, 6 Households are in sheds, sheet etc. Details are shown in Appendix 3.

The occupational classification revealed that 693 Households are headed by coolies, 99 engaged in agriculture and 130 in other activities. Details are given in Appendix 4.

### **3.3.1.3 Project Cost**

Utilising an amount of Rs.629.14 lakhs, 14 schemes benefiting 3414 households are completed and commissioned. The pattern of funding was 75:15:10 respectively by Government, Beneficiaries and Panchayat. The expenditure included Rs 471.86 lakh as Government share, Rs.62.91 lakh, Panchayat share and Rs.94.37 lakh as beneficiary share. There are comprehensive schemes and mega projects included to cover beneficiaries above 1200 families. It is seen that the highest expenditure incurred was in West Manalaya by Rs.309.96 lakhs followed by Kodakkaparamba, Rs. 230.78 lakhs. Regarding The multi BG schemes or mega projects cost was greater than ordinary water supply schemes. Details are given in Table 3.36.

### **3.3.1.4 Average cost of the water supply schemes**

Out of 14 BGs taken up for the study 9 are School BGs, 3 multi BGs and two independent BGs. There are 3414 Households directly benefited from the Water Supply Schemes. Five water supply schemes including school BG incurred expenditure of Rs.623.18 lakhs for completion and commissioning. Per family cost of Water Supply Schemes in the panchayat is worked out as Rs.9941/-. Details are shown in the Table 3.36.A.

### **3.3.1.5 Collection of water charges**

In order to maintain regular water supply, monthly subscription is collected from the BGs. The subscription ranges from Rs.50 to 60 according to the capacity of the tank. The operation and maintenance of water supply schemes are carried out from the charge. Collection of subscription is shown in Appendix 5.



**Table- 3.36 Beneficiary Group wise Allotment and Expenditure of Water Supply Schemes in Aliparamba Panchayat (in Rs.)**

Sl.No	Name of BG	Estimate				Total
			GOK	Beneficiary Group	Grama Panchayat	
1	Aiswarya	741000	500633	100127	66751	667511
2	Nayagra	47800	34876	6975	4650	46501
3	East Manalaya (10 BG)	42660	31995	6399	4,266	42660
<b>4</b>	<b>ALPS Vazhiyilapara</b>	<b>29600</b>	<b>18829</b>	<b>3766</b>	<b>2511</b>	<b>25106</b>
5	GHSS Aliparamba	33000	24149	4830	3220	32199
6	ALPS Manalaya	29600	47915	9583	6389	63887
7	SMLPS Kunnath	128000	88009	17602	11735	117346
8	AMLPS Edaikkal	62000	39924	7985	5323	53232
9	AMLPS Vazhenkada	77000	53330	10666	7111	71107
10	AMLPS Kambram	314100	213932	42786	28524	285242
11	ALPS Pariyampuram	170000	107777	21555	14370	143702
12	GHS Anamangad	774000	5543369	1108674	739116	7391159
13	<b>West Manalaya (24 BG)</b>	<b>29982345</b>	<b>23172304</b>	<b>4634461</b>	<b>3089641</b>	<b>30896406</b>
14	Kodakkaparamba (24 BG)	24783000	17308509	3461702	2307801	23078012
	<b>Total (A)</b>	<b>57,214,105</b>	<b>47,185,551</b>	<b>9,437,111</b>	<b>6,291,408</b>	<b>62,914,070</b>

Source: Field Survey

### 3.3.1.6 Performance Analysis of Jalanidhi Water Supply Schemes in the Panchayat

Two comprehensive water supply schemes, 9 school water supply schemes and two ordinary water supply schemes together formed 14 Water Supply Schemes completed and commissioned in the Panchayat.

The estimated cost of the Project was Rs. 572.14 lakhs, but the expenditure incurred was Rs.629.14 lakh, which showed 10% increase from the estimates. The increase in expenditure could be due to the newly constructed comprehensive water supply scheme, which benefitted 2524 families. The average cost per family is worked out as Rs.21385, if we include the expenditure of the two comprehensive schemes. The average cost of water supply schemes in the panchayat is worked out as Rs.9941. However, there is no logic behind it, since 70% of the expenditure is related to two comprehensive schemes stated above.

**Table – 3.36.A Unit Cost of Water supply Scheme in Aliparamba Panchayat (Rs)**

Sl.No	Beneficiary Group	No.of families	Total cost	Average Cost
1	Nayagra	56	667511	11920
2	AMLPS Kambram	319	46501	School BG
3	East Manalaya (10 BG)	114	42660	„
4	ALPS Vazhiyilapara	156	25105	„
5	GHSS Aliparamba	621	32198	„
6	ALPS Manalaya	193	63887	„
7	SMLPS Kunnath	833	117345	„
8	AMLPS Edaikkal	224	53232	„
9	AMLPS Vazhenkada	188	71106	„
10	Aiswarya	56	667511	11920
11	ALPS Pariyampuram	21	285243	13583
12	GHS Anamangad	813	7391158	9091
13	West Manalaya (24 BG)	1240	30896405	24063
14	Kodakkaparamba (24 BG)	1,284	23078012	18611
	<b>Total</b>	<b>6,329</b>	<b>62,914,065</b>	<b>9941</b>

Source: Field Survey

Of the 922 household surveyed 490 (53%) families are using the water for drinking, 101 families (11%) for washing and cleaning, 302 families (33%) for all purposes and 4% families are using it for cooking. Details shown in Appendix 6.

The time of availability of water was fixed by the BGs and it ranged from 1 hour to 3 hours daily. Out of the 922 households surveyed, 56% Households reported that they got water for one hour, 13% of Households got it for 1 ½ hour daily, 24% Households for 2 hours, and 4% Households got water for 3 hours daily. These details are shown in Appendix 7.

With respect to the quality and functioning of the water supply schemes, 84 % of the beneficiaries reported that the scheme was functioning in good way. Only 54 Households reported that the functioning of Water Supply Scheme was average. The details are given in Appendix 8. To make available the water for daily use the beneficiaries have to store when it was supplied.

### **3.3.1.7 Sanitation Facilities**

The present study also focussed on the implementation of environmental sanitation. Though 402 new latrines are constructed in the Panchayat under the project, the study covered only 274 latrines. It is also found that 305 latrine conversions are also under the project; however, the survey covered only 156. The newly created assets are maintained properly by the beneficiaries. Assistance was given at the rate of Rs.2000/- per new latrine and Rs. 1000/- for latrine conversion.

### **3.3.1.8 Pits Construction**

Clean environment was given a major thrust in the Jalanidhi Project. With a view to achieve this objective, soak Pits & compost Pits are constructed for the families of Beneficiary Groups. 317 Soak pits and 313 Compost pits are constructed in the Panchayat by spending Rs.114100/- each for the two programmes. BG wise details are shown in Table 3.37.

### **3.3.1.9 Problems and Issues**

In the project area nearly 10% of the beneficiaries raised certain problems and issues, which are detailed below:-

- i. The water source was inadequate.*
- ii. Lack of co-ordination among the office bearers regarding the implementation of the Scheme.*
- iii. Poor maintenance of the scheme.*
- iv. Frequent breack down created problems in the supply.*
- v. Occurrence of electricity failure.*
- vi. Poor quality of pipes used created problems in the functioning of the project.*

**Table-3.37 Beneficiary Group wise details of Pits Construction ion Alipatamba Panchayat**

Sl. No	Name of BG	No of families	No. of Soak Pits Constructed	KRWSA Share	Beneficiary share	Total	No. of Constructed	KRWSA Share	Beneficiary share	Total
						Compost Pits				
1	Aiswarya	14	-	-	-	-	-	-	-	-
2	Nayagra	47	-	-	-	-	-	-	-	-
3	East Manalaya									
	1. Haritha	20	-	-	-	-	-	-	-	-
	2. Jeevandhara	16	-	-	-	-	-	-	-	-
	3. J.K.M	20	-	-	-	-	-	-	-	-
	4. Kudineer	15	-	-	-	-	-	-	-	-
	5. Megha	20	-	-	-	-	-	-	-	-
	6. Nithyavarshini	19	-	-	-	-	-	-	-	-
	7. Sneha	22	-	-	-	-	-	-	-	-
	8. Snehadhara	20	-	-	-	-	-	-	-	-
	9. Souhridha	20	-	-	-	-	-	-	-	-
	10. Thriveni	21	-	-	-	-	-	-	-	-
4	Kodakkaparamba									
	1. Aaswasam	15	-	-	-	-	-	-	-	-
	2. Akshaya	16	12	4200	-	4200	12	4200	-	4200
	3. Anashwara	15	8	2800	-	2800	8	2800	-	2800
	4. Anugraha	17	11	3850	-	3850	11	3850	-	3850
	5. Bismi	15	14	4900	-	4900	14	4900	-	4900
	6. Dahajalam	15	-	-	-	-	-	-	-	-
	7. Ganga	15	12	4200	-	4200	12	4200	-	4200
	8. Kairali	16	4	1400	-	1400	4	1400	-	1400
	9. Kairali	14	15	5250	-	5250	15	5250	-	5250
	10. Kaveri	16	-	-	-	-	-	-	-	-
	11. Kulirma	15	6	2100	-	2100	6	2100	-	2100
	12. Navodaya	16	-	-	-	-	-	-	-	-
	13. Navodaya	15	-	-	-	-	-	-	-	-
	14. Neerdhara	15	-	-	-	-	-	-	-	-
	15. Oasis	15	-	-	-	-	-	-	-	-
	16. Pamba	15	14	4900	-	4900	14	4900	-	4900
	17. Rahath	15	-	-	-	-	-	-	-	-
	18. Samsam	15	9	3150	-	3150	9	3150	-	3150
	19. Soubhagya	16	13	4550	-	4550	13	4550	-	4550
	20. Souhridha	15	10	3500	-	3500	10	3500	-	3500
	21. Thejas	16	11	3850	-	3850	11	3850	-	3850
	22. Yuvadhara	15	-	-	-	-	-	-	-	-
	23. Zamzam	15	4	4550	-	4550	-	4550	-	4550
5	West Manalaya									
	1. Anugraha	15								
	2. Anugraha	15	15	5250		5250	15	5250		5250
	3. Jaladhara	11	9	3150		3150	9	3150		3150

4. Janakeeyam	15								
5. Jeevanasree	13	13	4550		4550	13	4550		4550
6. Kaveri	15								
7. Mahul Hayath	15								
8. Mahul Muthalaq	10	9	3150		3150	9	3150		3150
9. Nabah	14	14	4900		4900	14	4900		4900
10. Narmada	15	15	5250		5250	15	5250		5250
11. Nehar	16	15	5250		5250	15	5250		5250
12. Nila	16	16	5600		5600	16	5600		5600
13. Nile	15								
14. Nithyodaya	14								
15. Nayagra	16								
16. Pariyapuram	17	16	5600		5600	16	5600		5600
17. Priyadarshini	15	15	5250		5250	15	5250		5250
18. Samridhi	15	14	4900		4900	14	4900		4900
19. Sarovar	15	14	4900		4900	14	4900		4900
20. Sarvodaya	15								
21. Varsha	9	9	3150		3150	9	3150		3150
22. Yamuna	15								
Total	922	317	114100		114100	313	114100		114100

Source: Field Survey

### 3.3.2 Muthedam Panchayat

Muthedam Grama Panchayat is located at Nilambur Block in Nilambur Taluk in Malppuram district with an area of 140.3 sq.kms. The panchayat is surrounded by Government Forests, spreading over Karulayi and Karimpuzha pachayats and having a total population of 22088 including, 1178 SCs.

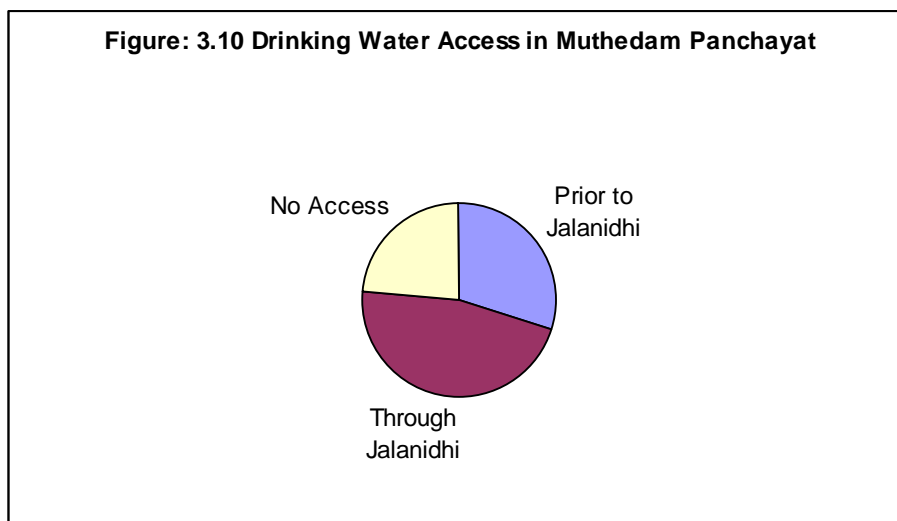
Muthedam Panchayat is the second Panchayats selected from Malappuram District for the study, which has earmarked highest allocation under Jalandhi project for various schemes such as water supply, sanitation, pits construction, GP strengthening, training etc. Total coverage of drinking water availability before the implementation of Jalandhi was 30% and after the implementation of Jalandhi the coverage of drinking water availability additionally created was 46%. At present the total coverage of drinking water availability in the Panchayat is 76%. Total number of families benefiting drinking water through the implementation of Jalandhi in the Panchayat was 1851 households. As on 31/3/08, an amount of Rs.420 lakhs has been expended in the Panchayat for various Jalandhi projects. Of these, an amount of Rs.301 lakhs has been

utilised for new drinking water supply schemes, Rs.28.74 lakhs for the Supporting Organisation, Rs.6.2 lakhs for strengthening Grama Panchayat etc. The status of water supply before and after the Project are shown Table 3.38.

**Table 3.38 Status of Drinking Water Supply in Muthedam Grama Panchayat**

Sl. No.	Particulars	Status
1	Total coverage of Drinking Water Availability before the implementation of Jalanidhi (%)	30 %
2	Total coverage of Drinking Water Availability only through the implementation of Jalanidhi (%)	46 %
3	Total coverage of Drinking Water Availability in the Panchayat (%)	76 %
4	Total No. of Households benefited	1851

Source: DPMU, Perinthalmanna



The Panchayat has organised 45 Beneficiary Groups for Jalanidhi and they included 16 individual BGs, 7 multi BGs and 3 school BGs. Accordingly, each multi BG comprising of their respective BGs. Certain BGs have formed a BG federation named Multi BG. Thus, there was 26

BGs functioning in the Panchayat for Water supply and other schemes. The survey covered all the 26 BGs in the Panchayat. The BG wise details are shown in the table 3.39.

**Table 3.39 Number of Multi BGs and their adjoining BGs in Muthedam Panchayat**

Sl. No.	Name of Multi BGs	Name of BGs includes in the Multi BGs	No. of BGs
1	Akshaya	<b>Jeevajaladhara</b>	3
		<b>Darsana</b>	
		<b>Jaladhara</b>	
2	Dhara	Sangamam	3
		Souhrida	
		Aiswarya	
3	Karimpuzha	<b>Kairali</b>	3
		<b>Varsha</b>	
		<b>Surya</b>	
4	Kottamala	Nila	3
		Prince	
		Brothers	
5	Oruama	<b>Keerthi</b>	5
		<b>Challenge</b>	
		<b>Urava</b>	
		<b>Prathibha</b>	
		<b>Navajeevan</b>	
6	Pravahuni	Chaliyar	5
		Nirdhamani	
		Ganga	
		Kaveri	
		Jeevanraksha	
7	Shrothus	<b>Thriveni</b>	1
	<b>Total</b>		<b>23</b>

Source Field Survey

As part of the survey, all the 26 BGs including 3 school BGs have been surveyed in the Panchayat. The total number of beneficiaries under 23 household BGs comes to 1729. Out of 26 Water supply schemes, 14 water supply connections are made for Anganwadis, Churches, Mosques, Madrassas, Hospitals, societies etc. Therefore the total number of Household connections was limited to 1716. The Details of Jalanidhi schemes taken up in the Panchayat are shown in the following Table 3.40.

**Table 3.40 Beneficiary Group wise No. of Schemes Implemented in Muthedam Panchayat**

Sl. No.	Name of BG	No. of Schemes benefitted						
		House holds	WSS	RWH	Latrine (New)	LC	Soak pit	CompostPits
1	Akshaya	78	1	-	-	-	73	73
2	Amrithavahini	61	1	-	-	27	27	27
3	Athulya	57	1	-	12	43	55	55
4	Chettiyarangadi	41	1	-	-	41	41	41
5	Dhara	135	1	-	38	8	120	117
6	Friends	48	1	-	-	-	47	47
7	Kalpana	41	1	-	1	40	41	41
8	Karimpuzha	146	1	-	-	81	42	42
9	Kottamala	164	1	-	-	164	164	164
10	Kuzhipankulam	46	1	-	-	5	45	45
11	Marrathinkadavu	36	1	-	3	33	36	36
12	Navadhara	42	1	-	-	2	38	38
13	Oruma	150	1	-	3	139	55	150
14	Pranavam	30	1	-	3	27	29	29
15	Pravahini	209	1	-	-	200	202	202
16	Punnapuzha	38	1	-	-	37	37	37
17	Poovandankunnu	84	1	-	-	25	14	14
18	Saphalam	90	1	-	-	90	90	90
19	Swapna	38	1	0	6	18	28	22
20	Shrothus	81	1	-	2	12	78	78
21	Tagore RWH	13	1	13	-	13	13	13
22	Thavakkal	39	1		-	39	39	39
23	Vijay	61	1	-	1	61	60	60
24	St. Marys School		1	School BG				
25	PMMUP School		1	School BG				
26	UMALP School		1	School BG				
	<b>Total</b>	<b>1715</b>	<b>26</b>	<b>13</b>	<b>69</b>	<b>1105</b>	<b>1374</b>	<b>1460</b>

Source: Field Survey

### 3.3.2.1 Beneficiary GroupWise Basic Details

There are 26 Beneficiary groups in the Panchayat, including 3 school BGs. There are 1715 households in 23 Beneficiary Groups settled in the Panchayat consisting of 132 SCs, 65 STs and 1518 in General category. Out of 1715 households, 691 households belong to APL group and 1024 came under BPL group. The total number of members BGs comes to 8044.



The details are given in the Table 3.41. The Beneficiary Group wise APL, BPL details are shown in Appendix 1

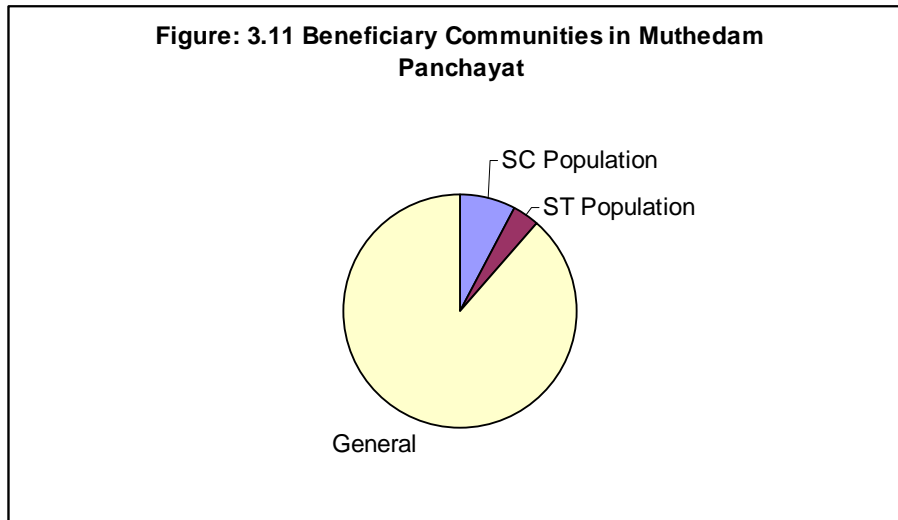
**Table 3.41 Beneficiary Group wise No. of Families and Population in Muthedam panchayat**

Sl.No	Name of BG	No of families			Total	Total Population	Remarks
		SC	ST	General			
1	Akshaya	-	1	77	78	390	1 Society
2	Amrithavahini	4	-	56	60	248	1 Anganwadi
3	Athulya	9	-	47	56	308	1 Church
4	Chettiyarangadi	4	4	32	40	205	1 Anganwadi
5	Dhara	21	1	113	135	643	
6	Friends	-	-	48	48	213	
7	Kalpana	2	-	39	41	229	
8	Karimpuzha	1	2	140	143	599	1 Church, 1 Mosque, 1 Madrassa
9	Kottamala	1	9	152	162	791	1 Church, 1 Mosque
10	Kuzhipankulam	-	-	46	46	253	
11	Marrathinkadavu	-	-	36	36	199	
12	Navadhara	-	-	42	42	264	
13	Oruma	28	30	92	150	440	
14	Pranavam SC	24	5	1	30	138	
15	Pravahini	8	-	200	208	986	1 Anganvadi
16	Punnapuzha	2	-	35	37	176	1 Madrasa
17	Poovandankunnu	16	-	68	84	426	
18	Saphalyam	9	-	79	88	486	2 Mosque
19	Swapna	2	3	33	38	181	
20	Shrothus	1	-	80	81	378	
21	Tagore RWH	-	-	13	13	40	
22	Thavakkal	-	9	30	39	163	
23	Vijay	-	1	59	60	288	1 Society
24	St. Marys School						School BG
25	PMMUP School						School BG
26	UMALP School						School BG
	<b>Total</b>	<b>132</b>	<b>65</b>	<b>1518</b>	<b>1715</b>	<b>8044</b>	

Source: Field Survey

Out of 1715 households in the Panchayat, 933 have less than 20 cents of land and 278 families, 100 cents and above. The details are shown in the Appendix 2. Out of 1715 households,

1150 households settled in tiled houses and 512 in concrete buildings. Majority of the family members (1120) are coolies and only 466 households engaged in agriculture and allied activities. BG wise details are given in the Appendix 3 and 4.



### 3.3.2.2 Project Cost

The allotment and expenditure for water supply schemes under Jananidhi in Muthedam Panchayat are given in Table 3.42. The survey was conducted in 26 BGs, including 3 school BGs. As per the survey, an estimated amount of Rs.327 lakhs has been earmarked for the water supply schemes in the Panchayat. But the actual expenditure incurred was 92% (Rs.301 lakhs). Out of this amount Rs.226 lakhs was the share of KRWSA (75%), Rs.30 lakhs was the share of Panchayats (10%) and the share of Beneficiary Groups was Rs.45 lakhs (15%). Out of 26 BGs, the highest amount was expended for the BG named 'Kottamala' a multi BG (Rs.41,29,759/-) followed by 'Oruma,' also a multi BG (Rs.31,56,795/-) having a total of 164 and 150 households respectively in these BGs in the Panchayat and the lowest amount expended for a school BG named 'UMA LP school' (Rs.54077/-).

**Table 3.42 Beneficiary Group wise allotment of Funds to Water Supply Schemes in Muthedam Panchayat (Rs.)**

Sl. No	Name of BG	Expenditure (Rs.)				Total
		Estimate Amount	KRWSA share	Panchayat share	Beneficiary share	
1	Akshaya	1204500	717341	96646	142468	956455
2	Amrithavahini	1181500	793743	105832	158748	1058324
3	Athulya	902000	599485	79931	119898	799314
4	Chettiyarangadi	557700	392382	52317	78478	523177
5	Dhara	2915000	2167943	289059	433589	2890591
6	Friends	883000	595109	79348	119022	793479
7	Kalpana	790000	576756	76901	115350	769007
8	Karimpuzha	2460000	1,855,360	247381	371072	2473813
9	Kottamala	4068000	3097319	412976	619464	4129759
10	Kuzhipankulam	834000	541456	72194	108291	721941
11	Marrathinkadavu	1042250	753641	100486	150,728	1004855
12	Navadhara	940500	636,523	84870	127,304	848697
13	Oruma	3911000	2367596	315679	473520	3156795
14	Pranavam SC	103400	72575	9,072	9,072	90718
15	Pravahini	2799000	2227163	296955	445432	2969550
16	Punnapuzha	746500	542554	72341	108510	723405
17	Poovandankunnu	780450	522472	69663	104495	696630
18	Saphalyam	1451000	1132578	151010	226517	1510105
19	Swapna	1274900	234974	31330	46994	313298
20	Shrothus	1584000	1185943	158126	237188	1581257
21	Tagore RWH	236000	163964	21862	32792	218618
22	Thavakkal	620400	475440	63392	95088	633920
23	Vijay	917400	616678	82224	123335	822237
24	St. Marys School	343000	194179	25891	38835	258905
25	PMMUP School	118000	77211	10295	15442	102948
26	UMALP School	66500	40558	5408	8111	54077
	<b>Total</b>	<b>32730000</b>	<b>22580943</b>	<b>3011189</b>	<b>4509743</b>	<b>30101875</b>

Source: Field Suvey

### 3.3.2.3 Average Cost

In the Panchayat, average cost varies with respect to the number of households and the expenditure of respective BGs. As per the survey details, Marathinkadavu BG has the highest average cost of Rs.27913/- as compared to other BGs in the Panchayat, where the total

expenditure incurred was Rs.10 lakhs having 36 beneficiary families. On the other hand, the lowest unit cost was recorded in the BG named ‘Pranavam SC’ with Rs.3024/. The average unit cost incurred to all the 23 BGs in the Panchayat was calculated as Rs.17,310/- which might be more or less reasonable as compared to KWA rate. In Multi BGs the cost was comparably higher than that of ordinary schemes. The details are shown in the following Table 3.43.

**Table 3.43 Water Supply Schemes – Average cost with family in Muthedam panchayat**

Sl.No.	Name of BG	Actual No. of households benefited	Total Expenditure (Rs.)	Average cost of the scheme
1	Akshaya	78	956455	12262
2	Amrithavahini	60	1058324	17639
3	Athulya	56	799314	14273
4	Chettiyarangadi	40	623177	13079
5	Dhara	135	2890591	21412
6	Friends	48	793479	16531
7	Kalpana	41	769007	18756
8	Karimpuzha	146	2473813	17299
9	Kottamala	162	4129759	25492
10	Kuzhipankulam	46	721941	15694
11	Marrathinkadavu	36	1004855	27913
12	Navadhara	42	848697	20207
13	Oruma	150	3156795	21045
14	Pranavam SC	30	90718	3024
15	Pravahini	208	2969550	14277
16	Punnapuzha	37	723405	19551
17	Poovandankunnu	84	696630	8293
18	Saphalyam	88	1510105	17160
19	Swapna	38	313298	8245
20	Shrothus	81	1581257	19522
21	Tagore RWH	13	218618	16817
22	Thavakkal	39	633920	16254
23	Vijay	60	822237	13704
24	St. Marys School	-	258905	-
25	PMMUP School	-	102948	-
26	UMALP School	-	54077	-
	<b>Total</b>	<b>1715</b>	<b>30101875</b>	<b>17310</b>

Source: Field Survey

#### **3.3.2.4 Collection of Water Charges**

Water charges are imposed on the beneficiaries on the basis of the number of households in each BG concerned. The normal rate was fixed at Rs.50/- as monthly subscription. The details are shown in Appendix 5. The operational and maintenance costs of the projects are normally covered by the water charges. Certain BGs are reluctant to pay the monthly subscriptions promptly.

#### **3.3.2.5 Performance Analysis of Water Supply Schemes in the Panchayat**

The Panchayat faced severe perennial drinking water problems and the ground water level declined drastically during the summer months resulting in drying up of wells seen. In the panchayat 26 BGs are completed and commissioned and each BG represent one water supply scheme. As per the survey details, all the 1715 beneficiaries of 23 BGs and the beneficiaries of 3 school BGs have got the water supply connection under Jalanidhi project. Most of the beneficiaries of Chettiyarangadi BG alleged that water was not available in peak and hilly areas. Of these families, only 208 and 602 families have reported that as other sources of drinking water they preferred own well and neighbors' well respectively. Out of 1715 beneficiaries, 1456 beneficiaries are storing the water in tank, 123 beneficiaries in vessels.

It was also reported that 1025 (60%) beneficiaries of 26 BGs have been using the available water for drinking purposes, 371 (21%) using for washing, cleaning, and 289 (17%) for all purposes. The details of utilization of water are shown in Appendix 6 and 7.

One BG named 'Tagore' was having 13 households, which got water from Rain Water Harvesting structures constructed under the Jalanidhi project. The utilisation of drinking water potential created by a project forms an important measure of its success. This study revealed that there was considerable under utilised water potential under the Jalanidhi Project.

It is clear from the survey that daily water availability was fixed for particular time in the BGs. Out of the total of 1715 households, 1555 households (92%) opined that water was available daily one hour, and 114 households (7%) reported that water was available daily 2 hours from the scheme. Majority of the beneficiaries are satisfied with respect to time, quantity and quality of the water from the scheme. As per the survey, out of 1715 beneficiaries 1465

beneficiaries (85%) are satisfied with time of distributing water, 1512 beneficiaries (88%) are in favour of the availability of quantity and 1556 (91%) satisfied with the quality of water available under Jalanidhi scheme in the Panchayat. Appendix 8 and 9 shows these details. As per the survey, 966 beneficiaries (56%) are reported that the quality of the water was average; only 352 (21%) beneficiaries opined that the quality of water was good and only 12 beneficiaries opined that it was a poor source. These details are shown in Appendix 10.

### **3.3.2.6 Sanitation Facilities**

A long term strategy was envisaged to promote environmental health perspective for achieving sustainable and equitable health and hygiene benefits across the community through improvement in water availability and sanitation services as ensured in the Project. Environmental sanitation includes compost pits, garbage pits, desilting and rehabilitation of existing ponds and soil management systems. Accordingly, it was reported that a total of 1174 households have got benefit from the use of both new two pits latrines and latrine conversion spreading over 9 BGs out of 23 BGs under Jalanidhi project in the Panchayat. The details of latrines constructed are shown in Table 3.44. It is clear from the table that expenditure incurred for 69 new latrines was Rs.2.87 lakhs consisting of Rs.1.38 lakhs of KRWSA share and Rs.1.49 lakhs of beneficiary share. KRWSA share was only Rs. 2000/- for constructing each new latrine and Rs.1000/- for latrine conversion and the balance amount has to be met by the beneficiaries themselves.

### **3.3.2.7 Soak Pits and Compost Pits**

Among 1715 beneficiaries in 23 BGs, 1374 soak pits and 1460 compost pits are constructed in the Panchayat under Jalanidhi projects. Apart from the beneficiary contribution, the Government have spent Rs. 5.15 lakhs and 5.49 lakhs for soak pits and compost pits respectively. KRWSA share was only Rs.375/- per pit and the balance amount has to be met by the beneficiaries themselves. In the Panchayat, majority of the beneficiaries of 23 BGs have made available both soak pits and compost pits. Details are shown in Table 3.45.

**Table 3.44 Beneficiary Group wise details of Latrine Construction in Muthedam Panchayat**

Sl. No	Name of BG	New Latrine				Latrine Conversion			
		No	KRWSA share	Beneficiary share	Total	No	KRWSA share	Beneficiary share	Total
1	Akshaya	-	-	-	-	-	-	-	-
2	Amrithavahini	-	-	-	-	27	27000	81000	108000
3	Athulya	12	24000	36000	60000	43	43000	36500	79500
4	Chettiyarangadi	-	-	-	-	41	41000	40900	81900
5	Dhara	38	76000	44000	120000	8	8000	7000	15000
6	Friends	-	-	-	-	-	-	-	-
7	Kalpana	1	2000	3000	5000	40	40000	120000	160000
8	Karimpuzha	0	-	-	-	18	18000	55000	73000
9	Kottamala	-	-	-	-	162	162000	160000	322000
10	Kuzhipankulam	-	-	-	-	5	5000	10000	15000
11	Marrathinkadavu	3	6000	15000	21000	33	33000	32900	65900
12	Navadhara	-	-	-	-	2	2000	4000	6000
13	Oruma	3	6000	9000	15000	51	51000	40950	91950
14	Pranavam	3	6000	4500	10500	27	27000	27000	54000
15	Pravahini	0	0	0	0	200	200000	210000	410000
16	Punnapuzha	-	-	-	-	37	37000	113000	150000
17	Poovandankunnu	-	-	-	-	25	25000	63000	88000
18	Saphalam	-	-	-	-	88	88000	87600	175600
19	Swapna	6	12000	32000	44000	18	18000	48000	66000
20	Shrothus	2	4000	2000	6000	12	12000	24000	36000
21	Tagore	-	-	-	-	13	13000	39000	52000
22	Thavakkal	-	-	-	-	39	39000	38400	77400
23	Vijay	1	2000	3000	5000	60	60000	60000	12000
24	St. Marys School								
25	PMMUP School								
26	UMALP School								
	<b>Total</b>	<b>69</b>	<b>138000</b>	<b>148500</b>	<b>286500</b>	<b>949</b>	<b>949000</b>	<b>1298250</b>	<b>2247250</b>

Source: Field Survey

### 3.3.2.8 Problems and Issues

- i. In the hilly and peak areas water was not available.
- ii. People in the low lying areas are misusing the water and not paying the monthly subscription properly.
- iii. Certain BGs remarked that source of water was inadequate to meet the demand.
- iv. Some of the beneficiaries of Water Supply schemes reported that there was misuse of water and lack of coordination from the organisers in certain BGs. The beneficiaries are interested in the initial stage of implementation and later their response was not positive.
- v. Frequent breakdown of machinery lead to improper functioning of the project.

vi. Quality of water supplied was up to the standard in certain parts.

**Table-3.45**  
**Beneficiary Group wise details of Pits Construction**

Sl. No	Name of BG	No of families	No. of Soak Pits Constructed	KRWSA Share	Beneficiary share	Total	No. of Com post Pits Constructed	KRWSA Share	Beneficiary share	Total
1	Akshaya	78	73	27375	-	27375	73	27375	-	27375
2	Amrithavahini	60	27	10125	43875	54000	27	10125	43875	54000
3	Athulya	56	55	20625	24575	45200	55	20625	24575	45200
6	Chettiyarangadi	40	40	15000	13325	28325	40	15000	13325	28325
7	Dhara	135	120	45000	2500	47500	117	43875	2625	46500
8	Friends	48	47	17625	-	17625	47	17625	-	17625
12	Kalpana	41	41	15375	66625	82000	41	15375	66625	82000
13	Karimpuzha	143	16	6000	26000	32000	16	6000	26000	32000
16	Kottamala	162	162	60750	53700	114450	162	60750	53700	114450
17	Kuzhipankulam	46	45	16875	-	16875	45	16875	-	16875
18	Marrathikadavu	36	36	13500	11075	24575	36	13500	12425	25925
19	Navadhara	42	38	14250	-	14250	38	14250	-	14250
21	Oruma	150	55	20625	20375	41000	55	20625	21625	42250
22	Pranavam	30	29	10875	9425	20300	29	10875	9425	20300
23	Pravahini	208	202	75750	90000	165750	202	75750	90000	165750
24	Punnapuzha	37	37	13875	60125	74000	37	13875	60125	74000
25	Poovandankunnu	84	14	5250	22750	28000	14	5250	22750	28000
26	Saphalam	88	88	33000	29450	62450	88	33000	29450	62450
	Swapna	38	28	10500	18200	28700	22	8250	17400	25650
27	Shrothus	81	78	29250	-	29250	78	29250	-	29250
29	Tagore	13	13	4875	21125	26000	13	4875	21125	26000
30	Thavakkal	39	39	14625	12675	27300	39	14625	12675	27300
33	Vijay	60	60	22500	19500	42000	60	22500	19500	42000
24	St. Marys School									
25	PMMUP School									
26	UMALP School									
	Total	1715	1343	503625	545300	1048925	1334	500250	547225	1047475

Source: Field Survey



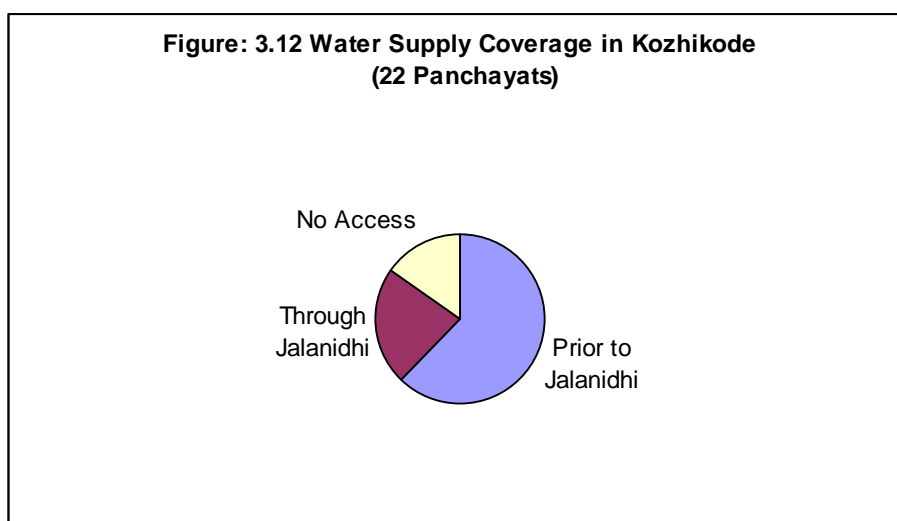
### 3.4. Kozhikode District

Kozhikode was the 4<sup>th</sup> District initially selected for the implementation of Jalanidhi Project. There are 78 Grama Panchayats with 3,64,557 rural families. Out of the 78 Grama Panchayats 22 Panchayats are selected for implementation of Jalanidhi. These Panchayats covered 1,20,832 households. Out of this 74105 have access to perennial water, which constitutes 61 %. 706 Water Supply Schemes are completed and commissioned in these Panchayats. Jalanidhi projects covered 27214 households through Grama Pachayats, which included 15784 BPL families. The family additionally covered under water supply was 22.62%. The total households having water facility increased 85% after the project. The Details are shown in the Table 3.46.

**Table 3.46 Kozhikode District – General Information of Jalanidhi Panchayats**

Sl. No.	Particulars	Coverage
1	Total Jalanidhi Panchayats	22
2	Total families (Panchayat) (Nos)	3,64,557
3	Water supply coverage before the project (%)	62.16
4	Families additionally covered	27214
5	Water Supply additional coverage due to the project (%)	22.62
	Total Coverage (%)	85

Source: DPMU, kozhikode



Out of the 22 Panchayat selected for Jananidhi, two Panchayats viz, Koduvally and Narikuni are selected for Evaluation Study on the basis of high investment and concentration SC/ST of population.

### 3.4.1 Koduvally Panchayat

Koduvally Panchayat is one among the two Panchayat selected from Kozhikode District for the Evaluation Study, which has earmarked higher amount for Jananidhi programmes in Kozhikode District. The panchayat has an area of 23.85 sq. km with a population of 45844, which constitute 9043 households. Of these households, 2515 are benefited under Jananidhi. Total population include 4643 BPL households. Out of this, 1559 are covered under the project which included 228 SC families and 103 ST families. The coverage of water availability is given in Table 3.47.

In Koduvally Grama Panchayat, Jananidhi projects are implemented during the June 2004 and the entire work was almost completed by December 2006. The Panchayat has organised 57 Beneficiary Groups for implementing Jananidhi water Supply Schemes and environmental sanitation programmes. Out of the above 57 BGs, 50 BGs are covered under the study. There are 9043 households in the Panchayat and Jananidhi covered 2515 households, out of which 2123 families are surveyed and studied. Various programmes implemented in the Panchayat included Water supply, Rainwater recharge, latrine construction, latrine conversion and Soakpit and Compost pit construction. The total investment was Rs.478 lakhs. The details of water supply coverage before and after the project are shown in Table 3.48.

**Table 3.47 Water supply coverage before and after the project in Koduvally Panchayat**

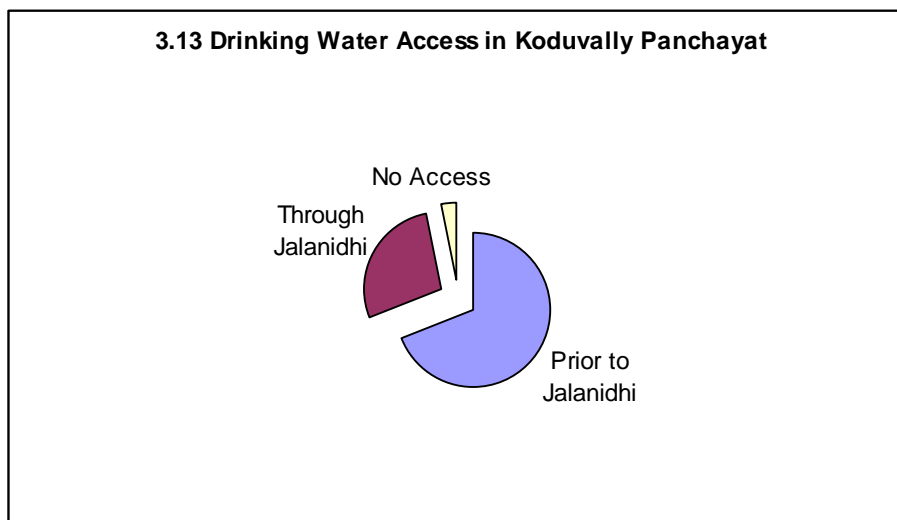
Particulars	Coverage
Households (Nos)	9043
Households having access to water Perennial (Nos)	6240
Percentage of water supply coverage (%)	69
Jananidhi Households coverage (Nos)	2515
Jananidhi HHs coverage (%)	27.81
Total Water supply coverage after project (Nos)	8755
Total coverage after project (%)	97

**Table-3.48 Beneficiary Group wise No. of Schemes Implemented in Koduvallyn Panchayat**

Sl. No.	Name of BG							
		WSS	RWH	Latrine	LC	GWR	Soak Pits	Compost Pit
1	Arakkambaramala	1	-	7	-	3	20	20
2	Aiswarya	1	6	-	1	22	21	25
3	Bismi	1	2	2	2	9	9	9
4	Daya	1	-	2	2	29	36	37
5	Dhara	1	2	2	2	21	24	26
6	Golden	1	1	4	4	14	17	19
7	Haritha	1	-	-	-	9	8	8
8	Indira	1	3	10	10	24	24	23
9	Jaladhara	1	3	3	2	9	14	18
10	Janakeeyam	1	-	3	-	13	7	6
11	Janasakthi	1	-	4	1	19	21	22
12	Kanavu	1	4	1	2	33	36	35
13	Kannakothi	1	-	1	2	3	39	39
14	Kanakkanam Kunnu	1	-	2	8	2	46	56
15	Karunya	1	1	6	6	31	33	32
16	Mahatma	1	-	1	1	32	35	36
17	Megha	1	4	-	-	26	26	21
18	Mythri	1	1	6	5	33	37	39
19	Nedumala	1	1	-	2	-	-	-
20	Panangadukunnu	1	-	-	-	-	5	8
21	Pulari	1	5	2	1	46	47	47
22	Pravaham	1	4	1	-	23	24	25
23	Puthuma	1	-	-	-	29	30	35
24	Pulloramala	1	2	5	-	2	30	38
25	Pratheeksha	1	1	1	5	-	25	38
26	Porgottur	1	5	4	4	52	57	59
27	Rahatt	1	2	1	1	30	31	31
28	Samsam	1	-	3	2	20	22	23
29	Souharda	1	-	-	-	18	20	22
30	Snehanithi	1	-	-	2	2	15	15
31	Yuvasakthi	1	-	10	4	13	59	66
32	Souhrutha	1	1	-	-	23	27	31
33	Sabhalam	1	2	3	4	42	43	44
34	Sahakarana	1	-	-	2	-	31	32
35	Soubhagya	1	-	9	-	1	27	30
36	Unnikarankuzhi	1	-	3	1	-	14	15
37	Ponpara	1	6	1	1	37	40	33
38	Sreyas	1	1	1	1	35	39	39

39	Samniwaya	1	-	1	1	1	6	6
40	Sathyadhara	1	-	2	-	-	19	19
41	Sangamam	1	-	-	-	3	11	15
42	Sukrutham	1	-	1	3	2	23	27
43	Sneha	1	3	5	5	34	36	32
44	Thejas	1	1	-	-	22	25	-
45	Thanal	1	1	5	5	40	43	43
46	Thachatkunnu	1	-	1	1	-	2	2
47	Thusharam	1	-	3	2	1	31	39
48	Thanneer	1	1	1	1	9	33	33
49	Theliner	1	1	2	1	33	36	36
50	Puthukindikunnumel	1	-	3	-	1	7	7
	<b>Total</b>	<b>50</b>	<b>12</b>	<b>117</b>	<b>98</b>	<b>169</b>	<b>1223</b>	<b>1373</b>

Source:Dpmu, Kozhikode

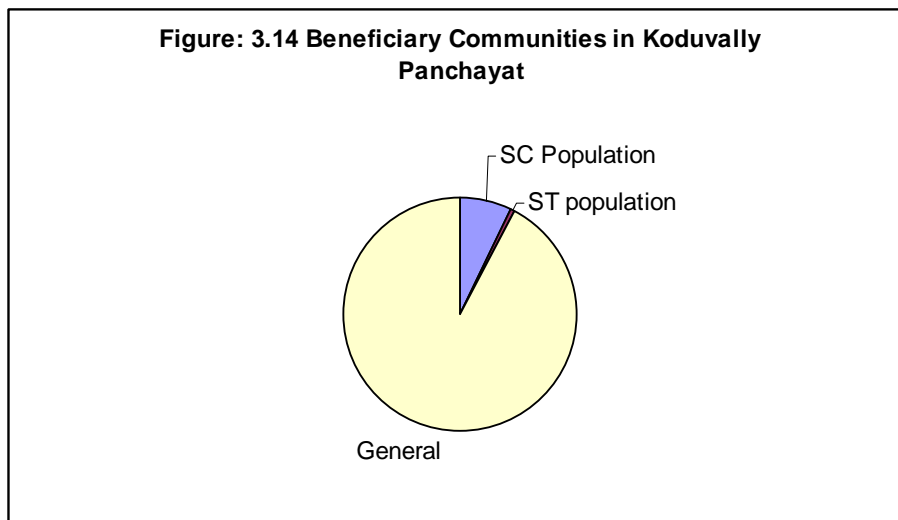


### 3.4.1.1 Beneficiary GroupWise Number of Schemes Benefited

From the survey of 2132 households, it is found that the entire families got benefited from water supply schemes, 136 families benefited from the construction of new latrines and 98 households benefited from latrine conversion, 1209 soak pits and 1351 compost pits are constructed. In addition to this, 12 Rain Water Harvesting Structures are also constructed. A large number of meetings and training programmes are conducted among the beneficiaries of Jalanidhi Projects. The details are given in Table 3.48.

### 3.4.1.2 Beneficiary Group Wise Basic Details

Detailed survey was conducted among 50 Beneficiary Groups comprising 154 scheduled castes households, 14 Scheduled Tribe households and 1964 general households. The total families benefited come to 2132 with 10265 population. These details are shown in Table 3.49.



Out of 2093 households surveyed, 154 belong to SCs. Among this 128 households are BPL families and the remaining 26 are APL. Among the ST families, 10 are in the BPL category. In the general category there are 1964 families. Out of this 1022 belongs to BPL and 942 belong to APL. Details are furnished in Appendix - I.

Out of 2132 households surveyed, 1465 have land below 20 cents, 480 families have land holding of 20-49 cents. 94 have holding size of 50 – 69 cents, 40 families have holding size of 70-99 cents and 53 families having land above 100 cents. Details are shown in Appendix 2. Out of the 2132 households covered under the study, 830 families had concrete houses, 907 lived in tiled houses and 263 in thatched houses. Around 132 houses are sheds, sheets, huts etc. Details are given in Appendix 3.

Out of the 2132 households surveyed, 1030 heads of Households are coolies, 156 engaged in agriculture and 52 Government employees, 222 head of the families employed in Gulf Countries and 143 are business men. The details are given in Appendix 4.

**Table – 3.49 Beneficiary Group wise No. of Families and Population in Kouvally Panchayat**

Sl.No	Name of BG	No of families				Total Population
		SC	ST	General	Total	
1	Arakkambramala	8	-	60	68	336
2	Aiswarya	-	-	28	28	138
3	Bismi	-	-	17	17	78
4	Daya	5	-	50	55	217
5	Dhara	8	-	23	31	133
6	Golden	-	-	29	29	150
7	Haritha	-	-	21	21	95
8	Indira	-	-	37	37	186
9	Jaladhara	2	-	49	51	247
10	Janakeeyam	2	-	33	35	162
11	Janasakthi	1	-	36	37	185
12	Kanavu	6	-	42	48	215
13	Kannakothi	2	-	52	54	245
14	Kanakkanam Kunnu	-	2	57	59	280
15	Karunya	2	-	40	42	211
16	Mahatma	-	-	57	57	271
17	Megha	5	-	23	28	144
18	Mythri	2	-	48	50	270
19	Nedumala	5	1	21	27	122
20	Panangadukunnu	21	-	43	64	330
21	Pulari	-	-	50	50	225
22	Pravaham	3	-	46	49	222
23	Puthuma	6	-	37	43	195
24	Pulloramala	2	-	51	53	233
25	Pratheeksha	1	-	37	38	195
26	Porgottur	15	1	56	72	329
27	Rahatt	2	-	38	40	240
28	Samsam	1	-	39	40	190
29	Souharda	-	-	32	32	148
30	Snehanithi	1	-	21	22	104
31	Yuvasakthi	5	7	68	80	332
32	Souhrutha	3	-	38	41	202
33	Sabhalam	4	-	62	66	325
34	Sahakarana	-	-	34	34	178
35	Soubhagya	11	-	30	41	183
36	Unnikarankuzhi	1	-	26	27	124
37	Ponpara	8	-	34	42	204

38	Sreyas	-	-	55	55	283
39	Samniwaya	-	-	12	12	61
40	Sathyadhara	1	-	32	33	193
41	Sangamam	1	-	30	31	158
42	Sukrutham	1	-	39	40	221
43	Sneha	2	-	47	49	248
44	Thejas	5	-	41	46	236
45	Thanal	2	-	45	47	223
46	Thachatkunnu	-	-	29	29	122
47	Thusharam	4	-	40	44	252
48	Thanneer	-	-	58	58	260
49	Thelineer	-	-	59	59	275
50	Puthukindikunnumel	6	3	12	21	89
	<b>Total</b>	<b>154</b>	<b>14</b>	<b>1964</b>	<b>2132</b>	<b>10265</b>

Source: Field Survey

### 3.4.1.3 Project Cost

An amount of Rs.291 lakhs has been incurred for the completion of 50 water supply schemes in Koduvally Panchayat. The share assistance was in the ratio of 75:15:10 by Government (Rs.218.09 lakhs), Beneficiary (Rs.43.62 lakhs) and Gramapanchayat (Rs.24.08) respectively. The highest cost of Rs.1169929/- for the water supply scheme was reported in the BG 'Sneha' having 49 families and the lowest amount for Rs.65602/- from the BG 'Samniwaya' having only 12 families. The total estimate of 50 water supply scheme was Rs.302 lakh and incurred expenditure was Rs. 290.79 lakhs. BG wise details of estimate and expenditure are furnished in Table 3.50.

**Table 3.50 Beneficiary Group Wise of Funds Water Supply Schemes in Koduvally Panchayat**

Sl.No	Name of BG	Expenditure in Rs				Total
		Estimate Amount	KRWSA share	Panchayat share	Beneficiary share	
1	Arakkambramala	1090000.00	799170.00	106556.00	159834.00	1065560.00
2	Aiswarya	556000.00	419164.00	55889.00	83833.00	558886.00
3	Bismi	130000.00	52197.00	6959.00	10439.00	69595.00
4	Daya	820000.00	567072.00	75610.00	113415.00	756097.00
5	Dhara	436500.00	318182.00	42424.00	63636.00	424242.00
6	Golden	755000.00	486406.00	64854.00	97281.00	648541.00
7	Haritha	300000.00	210731.00	28097.00	42146.00	280974.00
8	Indira	586000.00	426585.00	56878.00	85317.00	568780.00
9	Jaladhara	850000.00	586719.00	78229.00	117343.00	782291.00

10	Janakeeyam	440000.00	301219.00	40163.00	60244.00	401626.00
11	Janasakthi	580000.00	438797.00	58506.00	87759.00	585062.00
12	Kanavu	885000.00	600193.00	80025.00	120038.00	800256.00
13	Kannakothi	1269000.00	824316.00	109908.00	164863.00	1099087.00
14	Kanakkanam Kunnu	317700.00	240099.00	32015.00	48019.00	320133.00
15	Karunya	790000.00	585360.00	78048.00	117072.00	780480.00
16	Mahatma	390000.00	232868.00	31048.00	46573.00	310489.00
17	Megha	199000.00	145880.00	19451.00	29176.00	194507.00
18	Mythri	910000.00	601059.00	80142.00	120212.00	801413.00
19	Nedumala	564375.00	424410.00	56588.00	84882.00	565880.00
20	Panangadukunnu	320000.00	248863.00	33182.00	49773.00	331818.00
21	Pulari	572000.00	419132.00	55885.00	83826.00	558843.00
22	Pravaham	890000.00	659706.00	87962.00	131941.00	879609.00
23	Puthuma	375000.00	274816.00	36643.00	54963.00	366422.00
24	Pulloramala	207500.00	160490.00	21399.00	32098.00	213987.00
25	Pratheeksha	690000.00	501940.00	66926.00	100388.00	669254.00
26	Porgottur	160000.00	112053.00	14941.00	22410.00	149404.00
27	Rahatt	720019.00	508423.00	67790.00	101685.00	677898.00
28	Samsam	350000.00	251692.00	33559.00	50339.00	335590.00
29	Souharda	274500.00	424410.00	56588.00	84882.00	565880.00
30	Snehanithi	815000.00	587516.00	78335.00	117504.00	783355.00
31	Yuvasakthi	885000.00	654039.00	87206.00	130808.00	872053.00
32	Souhrutha	650100.00	434490.00	57932.00	86898.00	579320.00
33	Sabhalam	1138000.00	849022.00	113204.00	169804.00	1132030.00
34	Sahakarana	746000.00	472304.00	62974.00	94461.00	629739.00
35	Soubhagya	845500.00	614292.00	81906.00	122859.00	819057.00
36	Unnikarankuzhi	150000.00	115101.00	15347.00	23021.00	153469.00
37	Ponpara	580000.00	455008.00	60668.00	91002.00	606678.00
38	Sreyas	837200.00	576763.00	76902.00	115353.00	769018.00
<b>39</b>	<b>Samniwaya</b>	<b>83000.00</b>	<b>49202.00</b>	<b>6560.00</b>	<b>9840.00</b>	<b>65602.00</b>
40	Sathyadhara	529800.00	376074.00	50144.00	75215.00	501433.00
41	Sangamam	180000.00	127881.00	17051.00	25577.00	170509.00
42	Sukrutham	330000.00	247435.00	32991.00	49488.00	329914.00
<b>43</b>	<b>Sneha</b>	<b>1130500.00</b>	<b>877446.00</b>	<b>116993.00</b>	<b>175490.00</b>	<b>1169929.00</b>
44	Thejas	770350.00	597311.00	79642.00	119462.00	796415.00
45	Thanal	740000.00	538363.00	71782.00	107673.00	717818.00
46	Thachatkunnu	666000.00	502248.00	66967.00	100449.00	669664.00
47	Thusharam	380000.00	290905.00	38788.00	58181.00	387874.00
48	Thanneer	830000.00	604071.00	80543.00	120815.00	805429.00
49	Thelineer	1026700.00	701197.00	93494.00	140239.00	934930.00
50	Puthukindikunnumel	435000.00	317125.00	42284.00	63425.00	422834.00
	<b>Total</b>	<b>30175744.00</b>	<b>21809745.00</b>	<b>2907978.00</b>	<b>4361951.00</b>	<b>29079674.00</b>

Source: Field survey



### 3.4.1.4 Average Cost of Water Supply Schemes in the Panchayat

The survey covered 50 BGs having 2132 Households. Actually there are 2326 Households in these 50 BGs. The study found that Rs. 291 lakhs was utilised for commissioning the 50 Water Supply Schemes benefiting 2326 Households. The cost per family comes to Rs.12502. Details are given in Table 3.51.

**Table-3.51 Beneficiary Group Wise Allotment of Funds of Water Supply Schemes in Koduvally panchayat**

Sl.No	Name of BG	No.of House holds	Total cost	Average cost
1	Arakkambramala	75	1065560.00	14207.00
2	Aiswarya	30	558886.00	18629.00
3	Bismi	21	69595.00	3314.00
4	Daya	53	756097.00	14266.00
5	Dhara	36	424242.00	11785.00
6	Golden	33	648541.00	19653.00
7	Haritha	61	280974.00	4606.00
8	Indira	37	568780.00	15372.00
9	Jaladhara	53	782291.00	14760.00
10	Janakeeyam	35	401626.00	11475.00
11	Janasakthi	35	585062.00	16716.00
12	Kanavu	42	800256.00	19053.00
13	Kannakothi	64	1099087.00	17173.00
14	Kanakkanam Kunnu	73	320133.00	4385.00
15	Karunya	42	780480.00	18582.00
16	Mahatma	63	310489.00	4928.00
17	Megha	26	194507.00	7481.00
18	Mythri	64	801413.00	12522.00
19	Nedumala	30	565880.00	18862.00
20	Panangadukunnu	54	331818.00	6144.00
21	Pulari	56	558843.00	9979.00
22	Pravaham	48	879609.00	18325.00
23	Puthuma	46	366422.00	7965.00
24	Pulloramala	65	213987.00	3292.00
25	Pratheeksha	40	669254.00	16731.00
26	Porgottur	79	149404.00	1891.00
27	Rahatt	42	677898.00	16140.00

28	Samsam	42	335590.00	7990.00
29	Souharda	34	565880.00	16643.00
30	Snehanithi	56	783355.00	13988.00
31	Yuvasakthi	64	872053.00	13625.00
32	Souhrutha	38	579320.00	15245.00
33	Sabhalam	62	1132030.00	18258.00
34	Sahakarana	42	629739.00	14993.00
35	Soubhagya	42	819057.00	19501.00
36	Unnikarankuzhi	30	153469.00	5115.00
37	Ponpara	40	606678.00	15166.00
38	Sreyas	53	769018.00	14509.00
39	Samniwaya	20	65602.00	3280.00
40	Sathyadhara	36	501433.00	13928.00
41	Sangamam	32	170509.00	5328.00
42	Sukrutham	44	329914.00	7498.00
43	Sneha	55	1169929.00	21271.00
44	Thejas	45	796415.00	17698.00
45	Thanal	50	717818.00	14356.00
46	Thachatkunnu	39	669664.00	17170.00
47	Thusharam	45	387874.00	8619.00
48	Thanneer	62	805429.00	12990.00
49	Thelineer	68	934930.00	13748.00
50	Puthukindikunnumel	24	422834.00	17618.00
	<b>Total</b>	<b>2326</b>	<b>29079674.00</b>	<b>12502.00</b>

Source: Field Survey

#### 3.4.1.5 Collection of Water Charges

In order to make regular availability of water, a monthly subscription at the rate of Rs.30 to 60 was collected from the households. The variation in subscription was due to the differences in the capacities of over head tank. The operation and maintenance cost of the scheme was met from this subscription. The details are furnished in Appendix 5.

#### 3.4.1.6 Performace Analysis of Water Supply Schemes in Koduvally Panchayat

The survey was conducted in 2132 households under 50 BGs. One BG represents one water supply scheme. At the time of survey all water supply schemes are completed. Of the total

households, 439 families depend on own well for drinking purposes and 261 families on neighbours' well for drinking purposes.

As mentioned earlier sections water supply through Jananidhi programmes are not available through out the day. Specific hours are fixed for its availability and it ranged from one hour, to three hours. The beneficiaries have to store water in vessels, tanks and in buckets. Availability of water is shown in Appendix 6.

With regard to the use of water, out of the 2132 families surveyed, 206 (10 %) families are using it for drinking purpose, 761 (36 %) families for washing and cleaning, 196 (9 %) families for cooking and 1268 (59%) families for all purposes. These details are furnished in Appendix 7.

The project incurred an expenditure of 96.36% of the estimated cost and it covered 2326 beneficiaries in 50 BG. The BGs are organised with reasonable number of families and more than 50% belong to BPL families. The average cost was worked out as Rs 12502/-, it seems to be reasonable as far as small water supply schemes are concerned. The schemes are useful and its source and sustainability need to be examined technically.

The remarks about the functioning of water supply schemes and level of satisfaction of the beneficiaries with respect to quality, quantity and time of availability of water are different. More than 70% of the beneficiaries are satisfied with the functioning and availability of water. Very few complained that the scheme was not functioning effectively. The quality of water was good and availability was adequate. The remarks of the beneficiaries are shown in Appendix 8 .

#### **3.4.1.7 Ground Water Recharge**

Ground Water Recharging was an important component of the project. Here projects adopt both structural and agronomic measures to enrich the ground water level. As a matter of fact it is evident that the ground water level in the Panchayat was depleting day by day. The ground water level receding drastically during the summer months and drying up of wells are common features in many parts of the Panchayat. The ground water replenishment and hence the levels depend on, among other things, the manner by which Ground Water Recharging structures are being designed under the project. It included contour bunding, trenching, rain pits, water

harvesting structures, stream bunds and trenches through vegetative measures, terracing, sub surface dykes, check dams, gabian structures. The existing wells as well as the newly commissioned water supply schemes are benefited from Ground Water recharging structures. Utilising an amount of Rs.27.12 lakhs, 169 ground water units are constructed in 33 Beneficiary Groups.

#### **3.4.1.8 Sanitation Facilities**

Environmental sanitation programmes are highly focussed in the Panchayat. Out of the 2132 Households surveyed, 117 families reported that they are given assistance for New Latrines. It is also found that 98 latrine are converted into two pit latrines. For the construction of 117 of new latrine an amount of Rs 749500/- was utilised, out of which Rs.233000/- was the share of KRWSA, the remaining Rs 516500/- was the share of beneficiary groups. For conversion of 98 latrines an amount of Rs 311786/- was utilised. The share of KRWSA was Rs 103000/ and the remaining Rs. 208786/- was the share of BGs. The BG wise details are given in Table 3.52.

#### **3.4.1.9 Soak Pit Compost Pit**

Clean environment was given a major thrust in the project. With a view to achieve the objective of clean environment, Soak Pits and Compost Pits are constructed to benefit households in the B.Gs. 1223 soak pits are constructed utilising an amount of Rs 811675/-, out of this the share of Government was Rs 447110/- and the remaining amount of Rs 364440 was raised as beneficiary share. 1373 compost pit are also constructed at a cost of Rs 526675. Out of this Rs 504620 was the share of Government and the remaining amount of Rs 22025 was raised as beneficiary share. The BG Wise details are given in Table 3.52.

Pits are not constructed in a uniform manner and are not scientific. So far, 81 soak pits and 109 compost pits are constructed.

**Table-3.52 Beneficiary Group wise details of Latrine Construction in Koduvally panchayat**

Sl. No	Name of BG	New Latrine				Latrine Conversion			
		No	KRWSA share	Beneficiary share	Total	No	KRWSA share	Beneficiary share	Total
1	Arakkambaramala	7	14000.00	32000.00	46000.00	-	-	-	-
2	Aiswarya	6	12000.00	25000.00	37000.00	-	-	-	-
3	Bismi	2	4000.00	8000.00	12000.00	2	2000.00	4000.00	6000.00
4	Daya	-	-	-	-	2	2000.00	-	2000.00
5	Dhara	2	4000.00	7000.00	11000.00	2	2000.00	13000.00	15000.00
6	Golden	1	2000.00	4000.00	6000.00	4	4000.00	20000.00	24000.00
7	Haritha	-	-	-	-	-	-	-	-
8	Indira	3	6000.00	12000.00	18000.00	10	10000.00	28000.00	38000.00
9	Jaladhara	3	6000.00	17000.00	23000.00	3	3000.00	21000.00	24000.00
10	Janakeeyam	3	6000.00	12000.00	18000.00	-	-	-	-
11	Janasakthi	4	8000.00	13000.00	21000.00	1	1000.00	2486.00	3486.00
12	Kanavu	4	8000.00	13000.00	21000.00	1	1000.00	7000.00	8000.00
13	Kannakothi	1	2000.00	4000.00	6000.00	2	2000.00	5000.00	7000.00
14	Kanakkanam Kunnu	2	4000.00	8500.00	12500.00	8	8000.00	8000.00	16000.00
15	Karunya	1	2000.00	2000.00	4000.00	6	6000.00	6000.00	12000.00
16	Mahatma	-	-	-	-	1	1000.00	1000.00	2000.00
17	Megha	4	8000.00	14000.00	22000.00	-	-	-	-
18	Mythri	1	2000.00	3000.00	5000.00	6	6000.00	6000.00	12000.00
19	Nedumala	1	2000.00	4000.00	6000.00	-	-	-	-
20	Panangadukunnu	-	-	-	-	-	-	-	-
21	Pulari	5	10000.00	19000.00	29000.00	2	2000.00	-	2000.00
22	Pravaham	4	8000.00	26000.00	34000.00	1	1000.00	6000.00	7000.00
23	Puthuma	-	-	-	-	-	-	-	-
24	Pulloramala	5	10000.00	22000.00	32000.00	-	-	-	-
25	Pratheeksha	1	2000.00	-	2000.00	5	5000.00	5000.00	10000.00
26	Porgottur	5	10000.00	21000.00	31000.00	4	4000.00	13800.00	17800.00
27	Rahatt	2	4000.00	6000.00	10000.00	1	1000.00	-	1000.00
28	Samsam	-	-	-	-	3	3000.00	2000.00	5000.00
29	Souharda	-	-	-	-	-	-	-	-
30	Snehanithi	-	-	-	-	2	2000.00	-	2000.00
31	Yuvasakthi	10	20000.00	58000.00	78000.00	4	4000.00	4000.00	8000.00
32	Souhrutha	1	2000.00	3000.00	5000.00	-	-	-	-
33	Sabhalam	2	4000.00	8500.00	12500.00	3	3000.00	4000.00	7000.00
34	Sahakarana	-	-	-	-	2	2000.00	-	2000.00
35	Soubhagya	9	18000.00	42000.00	60000.00	-	-	-	-
36	Unnikarankuzhi	3	6000.00	17000.00	23000.00	1	1000.00	1000.00	2000.00
37	Ponpara	6	12000.00	33000.00	45000.00	1	1000.00	4000.00	5000.00
38	Sreyas	1	2000.00	5000.00	7000.00	1	1000.00	6000.00	7000.00
39	Samniwaya	1	2000.00	4000.00	6000.00	1	1000.00	6000.00	7000.00
40	Sathyadhara	2	4000.00	9000.00	13000.00	-	-	-	-
41	Sangamam	-	-	-	-	-	-	-	-

42	Sukrutham	1	2000.00	3000.00	5000.00	3	3000.00	9000.00	12000.00
43	Sneha	3	6000.00	10000.00	16000.00	5	5000.00	10000.00	15000.00
44	Thejas	1	1000.00	14000.00	15000.00	-	-	-	-
45	Thanal	1	2000.00	1000.00	3000.00	5	10000.00	-	10000.00
46	Thachatkunnu	1	2000.00	2000.00	4000.00	1	1000.00	1000.00	2000.00
47	Thusharam	3	6000.00	19000.00	25000.00	2	2000.00	14000.00	16000.00
48	Thanneer	1	2000.00	4000.00	6000.00	1	1000.00	1000.00	2000.00
49	TheLINEER	1	2000.00	2000.00	4000.00	2	2000.00	500.00	2500.00
50	Puthukindikunnumel	3	6000.00	9500.00	15500.00	-	-	-	-
	<b>Total</b>	<b>117</b>	<b>233000.00</b>	<b>516500.00</b>	<b>749500.00</b>	<b>98</b>	<b>103000.00</b>	<b>208786.00</b>	<b>311786.00</b>

Source: Field Survey

### 3.4.1.10 Training

Training programs in health, sanitation, capacity building, community training as well as skill training, including trainings for masons, plumbers, job oriented trainings, such as ready garments production, preparation of Ayurvedic medicines, beautician courses etc are conducted as part of Jananidhi programme and the participation was cent percent.

### 3.4.1.11 Problems and Issues

- i. *Inadequate source created problems in meeting the requirement of water.*
- ii. *Poor maintenance of the scheme.*
- iii. *Lack of co-ordination among BG members and office bearers created problems in the proper functioning of the scheme.*
- iv. *Frequent breakdown of machinery and low quality pipes resulted in failure in water supply.*

### 3.4.2 Narikuni Grama Panchayat

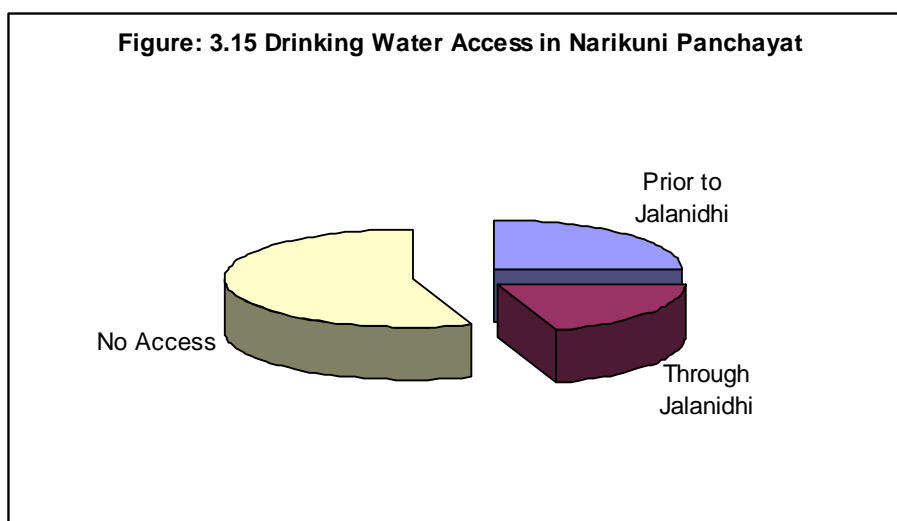
Narikuni Panchayat is the second Panchayat selected from Kozhikode District for the Evaluation Study of Jananidhi projects. The Panchayat has an area of 17.74 sq.km. As per KRWSA documents, during 2004, the panchayat supported a population of 28804, with 5083 households. Out of this, 1276 households including 5717 people are covered under Jananidhi. The total population included 2972 SCs and 55 STs. Survey for the study was conducted in 994 households including 193 SC Households and 20 ST Households covering a population of 3923.

In the Panchayat there are 5083 House holds, of this 1276 households are covered with perennial drinking water prior to the project. Under Jalanidhi by completing 22 Water Supply Schemes in the Panchayat, the coverage increased by 20% benefiting an additional population of 5717. For implementing Jalanidhi projects 22 Beneficiary Groups are organised in the Panchayat. Details of water supply availability prior and after the project are shown in the Table 3.53.

**Table 3.53 Water Supply coverage before & after the Project in Narikuni Panchayat**

Particulars	Achievement
House holds (Nos)	5083
Households having access to water Perennial (Nos)	1276
Households having access to water perennial (%)	25
Jalanidhi Households coverage (Nos)	1143
Jalanidhi HHs coverage (%)	20
Total Water Supply coverage after project (Nos)	2419
Total coverage after project (%)	45

Source: DPMU, Kozhikode



#### **3.4.2.1 Beneficiary GroupWise Number of schemes implemented in the Panchayat**

In the panchayat, 20 BGs are surveyed and each BG represents one Water supply scheme. The survey reveals that almost all the households got benefited from W.S.S and 199 households were benefited from the construction of new latrines and 35 households from latrine conversion.

507 soak pits and 506 compost pits are constructed. 3 Rain Water Harvesting structures and 26 Ground Water Recharging facilities are also constructed in the Panchayat. Lot of training programmes and meetings are conducted for the Beneficiaries for effective implementation of Jalanidhi Projects. Various programmes implemented in the panchayat are detailed in the Table 3.54.

**Table 3.54 Beneficiary Group wise details of Schemes implemented in Narikuni Panchayat**

Sl. No.	Name of BG	No. of Schemes benefitted						
		WSS	RWH	Latrine	LC	GWR	Soak Pits	Compost Pit
1	Akshaya	1	-	9	-	-	15	15
2	Accord	1	-	9	3	6	41	43
3	Arpana	1	-	3	-	-	9	9
4	Himam	1	-	16	2	-	31	39
5	Jaladhara	1	-	13	2	1	21	21
6	Oduvankunnu	1	-	10	1	-	9	9
7	Oruma	1	-	1	-	-	18	21
8	Pravaham	1	3	14	3	6	46	40
9	Santhivanam	1	-	9	-	-	36	36
10	Snehatheeram	1	-	12	3	-	28	31
11	Souparnika	1	-	2	7	-	18	19
12	Thoovala Kunnu	1	-	10	1	-	40	39
13	Triveni	1	-	12	-	-	18	27
14	Veringilora	1	-	22	1	-	4	15
15	Vengidoramala	1	-	23	4	-	75	43
16	Sangamam	1	-	4	3	12	17	16
17	Tripthi	1	-	7	-	-	21	20
18	Kaveri	1	-	4	3	-	23	25
19	Janapriya	1	-	4	-	-	11	10
20	Yamuna	1	-	15	2	1	26	28
	<b>Total</b>	<b>20</b>	<b>3</b>	<b>199</b>	<b>35</b>	<b>26</b>	<b>507</b>	<b>506</b>

Source: DPMU, Kozhikode

### 3.4.2.2 Beneficiary Group wise Basic Details

Detailed survey was conducted among 20 Beneficiary Groups comprising 193 scheduled Casts Households, 20 scheduled tribes households and 781 general Households. The total population benefited comes to 3923 in the 20 B.Gs. Details are shown Table 3.55. These families were also classified into BPL and APL. BPL families covered 673 which include 187 SCs, 18



STs and 468 General. The APL families include 314 General, 2 STs and 6 SCs and the total comes to 321. B.G wise details are shown in Appendix I.

**Table – 3.55 Beneficiary Group wise No. of Families and Population in Narikunni panchayat**

Sl.No	Name of BG	No of families				Total Population
		SC	ST	General	Total	
1	Akshaya	14	-	6	20	77
2	Accord	3	-	48	51	230
3	Arpana	2	-	28	30	72
4	Himam	13	-	47	60	264
5	Jaladhara	7	-	33	40	180
6	Oduvankunnu	12	-	47	59	257
7	Oruma	5	-	32	37	153
8	Pravaham	18	-	33	51	196
9	Santhivanam	23	-	36	59	223
10	Snehatheeram	6	-	36	42	174
11	Souparnika	-	-	24	24	82
12	Thoovala Kunnu	2	-	56	58	223
13	Triveni	23	-	49	72	284
14	Veringilora	18	20	55	93	439
15	Vengidoramala	21	-	73	94	433
16	Sangamam	2	-	20	22	67
17	Tripthi	7	-	17	24	67
18	Kaveri	7	-	36	43	132
19	Janapriya	-	-	25	25	73
20	Yamuna	10	-	80	90	297
	<b>Total</b>	<b>193</b>	<b>20</b>	<b>781</b>	<b>994</b>	<b>3923</b>

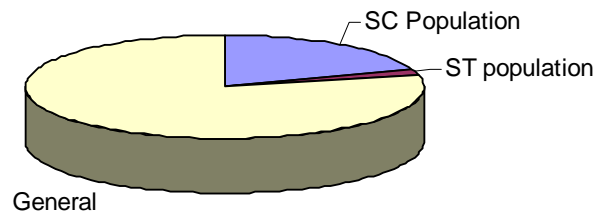
Source:DPMU. Kozhikode

With regard to land holding of the BGs, 483 families are having land below 20 cents, 265 households have a holding size of 20-49 cents, 112 families have a holding size of 50 – 69 cents. The number of families having land above 70 cents was 134. B.G wise details are shown in Appendix – 2.

Out of the 994 households surveyed, 288 families have concrete houses, 558 have tiled houses and 55 have thatched houses. 93 houses come under other category, which mainly consist of sheds, sheets, huts etc. Details are given in Appendix - 3

The nature of occupation of the head of the surveyed families, constitute 606 coolies, 87 in agriculture, 52 Government Employees, 18 employed in Gulf Countries and 31 are business men. The details are given in Appendix – 4

**Figure: 3.16 Beneficiary Communities in Narikuni Panchayat**



### **3.4.2.3 Project Cost**

In Narikuni panchayat 20 water supply schemes are implemented for an estimated cost of Rs.97.35 lakhs and incurred expenditure of Rs.91.49 lakhs. The pattern of funding was 75:10:15 between government, panchayat and beneficiaries respectively. The highest amount expended was reported in the Vengidoramala BG with Rs.7.78 lakh having 94 families and the lowest amount incurred was in the Triveni BG with Rs.1.74 lakhs having 72 families. The nature of water supply schemes was either new or renovated one. Details are given in the Table 3.56.

### **3.4.2.4 Average Cost of Water Supply Schemes**

The survey covered 20 BGs and 994 Households. In these 20 BGs, there are 1033 households. The total cost incurred for commissioning these 20 water supply schemes come to Rs.9148,675. Average household cost of surveyed water supply scheme in the Panchayat was worked out as Rs.8856.

In Narikuni Panchayat 22 water supply schemes are sanctioned and completed but the study was limited to 20 water supply schemes. Hence the actual average households cost of water supply scheme was worked out as Rs.8332 in the Panchayat.

**Table-3.56 Beneficiary Group Wise estimate of Funds of Water Supply Schemes**

Sl.No	Name of BG	Estimate Amount	Amount(in Rs)			
			KRWSA share	Panchayat share	Beneficiary share	Total
1	Akshaya	306876.00	230157.00	30688.00	46031.00	306876.00
2	Accord	966000.00	514839.00	68645.00	102968.00	686452.00
3	Arpana	400000.00	297000.00	39000.00	59400.00	395400.00
4	Himam	635000.00	462819.00	61709.00	92564.00	617092.00
5	Jaladhara	405937.00	304453.00	40594.00	60890.00	405937.00
6	Oduvankunnu	375000.00	281250.00	37500.00	56250.00	375000.00
7	Oruma	407000.00	294442.00	40592.00	60889.00	395923.00
8	Pravaham	565107.00	423830.00	56511.00	84766.00	565107.00
9	Santhivanam	306452.00	229839.00	30645.00	45968.00	306452.00
10	Snehatheeram	834000.00	517500.00	69000.00	103500.00	690000.00
11	Souparnika	440000.00	288750.00	38500.00	57750.00	385000.00
12	Thoovala Kunnu	398581.00	298936.00	39858.00	59787.00	398581.00
<b>13</b>	<b>Triveni</b>	<b>200000.00</b>	<b>130595.00</b>	<b>17413.00</b>	<b>26119.00</b>	<b>174127.00</b>
14	Veringilora	610000.00	515317.00	68709.00	13063.00	597089.00
<b>15</b>	<b>Vengidoramala</b>	<b>778694.00</b>	<b>584021.00</b>	<b>77869.00</b>	<b>116804.00</b>	<b>778694.00</b>
16	Sangamam	373000.00	252750.00	33700.00	50550.00	337000.00
17	Tripthi	350895.00	263171.00	35090.00	52634.00	350895.00
18	Kaveri	357960.00	268628.00	35769.00	53653.00	358050.00
19	Janapriya	375000.00	281250.00	56250.00	37500.00	375000.00
20	Yamuna	650000.00	503307.00	88016.00	58677.00	650000.00
	<b>Total</b>	<b>9735502.00</b>	<b>6942854.00</b>	<b>966058.00</b>	<b>1239763.00</b>	<b>9148675.00</b>

Source: Field Survey

#### **3.4.2.5 Collection of Water charges**

The running and maintenance costs of the water supply scheme are vested with the BG. Every family has to pay monthly subscription ranged from Rs.40 to Rs.75 depending upon the capacity of the over head tank. The capacity varied from 800 litres to 5500 liters. Details are shown in Appendix 5.

#### **3.4.2.6 Performance of Water Supply Schemes in the Panchayat**

The panchayat has organised 22 BG for the effective implementation of Jananidhi water supply scheme. The study covered 20 water supply schemes which are completed and

commissioned. From 20 BG, 994 families are surveyed and it revealed that 101 families used own well for drinking purposes and 68 families depend on neighbours' well for drinking water purposes.

**Table-13.57 Average cost of Water Supply Scheme in Narikuni Panchayat**

Sl.No	Name of BG	No.of families		
		(Actual)	Total	Average cost
1	Akshaya	20	306876.00	15344.00
2	Accord	51	686452.00	13459.00
3	Arpana	30	395400.00	13180.00
4	Himam	60	617092.00	10285.00
5	Jaladhara	40	405937.00	10148.00
6	Oduvankunnu	59	375000.00	6356.00
7	Oruma	37	395923.00	10700.00
8	Pravaham	51	565107.00	11080.00
9	Santhivanam	59	306452.00	5194.00
10	Snehatheeram	47	690000.00	14680.00
11	Souparnika	28	385000.00	13750.00
12	Thoovala Kunnu	58	398581.00	6872.00
13	Triveni	72	174127.00	2418.00
14	Veringilora	93	597089.00	6420.00
15	Vengidoramala	94	778694.00	8284.00
16	Sangamam	23	337000.00	14652.00
17	Tripthi	25	350895.00	14035.00
18	Kaveri	47	358050.00	7618.00
19	Janapriya	25	375000.00	15000.00
20	Yamuna	114	650000.00	5702.00
	<b>Total</b>	<b>1033</b>	<b>9148675.00</b>	<b>8856.00</b>

Source: Field Survey

Though 20 water supply schemes are completed and commissioned the availability of water was fixed for certain houses. Therefore the beneficiaries have to store it for their daily use. The survey found that 302 families stored water in fibre tanks, 378 families in buckets and 204 families used vessels for storing water.

Per day availability of water with respect of time is different from one BG to another BG. Out of the 994 households surveyed, 139 households got water for less than one hour, 165 families got it one hour, 221 households got it for 2 hours, and 127 households for 3 hours. In the case of 275 households water was available through out the day. Details are given in Appendix - 6.

Out of the 953 families responded, 55 families used the water for drinking purposes alone, 146 families for washing and cleaning, 32 families used it for cooking purpose, 720 families used the water for all purposes. Details are given in Appendix 7.

Out of the surveyed families (994) more than 80% are satisfied with availability of water with respect to timing, quality and quantity. Details are shown in Appendix 8.

Of the surveyed Households, 44% opined that functioning was good, 43% expressed that the functioning was very good and 58 Households responded that the performance was average.

Twenty two water supply schemes are implemented in the panchayat and the survey covered 20, which benefited 1033 families. The number of families ranged from 20 to 114. The estimate was Rs.97.36 lakhs and expenditure was Rs.91.49 lakhs. The average cost was worked out to be Rs.8856/-. It is quite reasonable to individual scheme. The highest cost incurred was for BG Vengidoramala with Rs.778694/- having 94 families. The beneficiaries expressed good remarks about the performance of the scheme but their sustainability need to be ensured through technical examination.

#### **3.4.2.7 Sanitation Facilities**

Environmental sanitation was a major component in the Jananidhi project. Out of the 994 households surveyed 190 reported that they are given assistance for new latrines. It is also found that 40 latrines are converted to two pit latrines. For the construction of 190 new latrines an amount of Rs 13.84 lakhs was utilised, out of which Rs 0.38 lakhs was the share of KRWSA, the remaining Rs 1.004 lakhs was the share of Beneficiary Groups. For 40 latrine conversion an amount of Rs 1.83 lakhs was utilised. The share of KRWSA was Rs .40 lakhs. The remaining amount of Rs 1.43 lakhs was the share of BGs. The details are given in Table 3.58.

**Table- 3.58 Beneficiary Group wise No. of Latrine Construction**

Sl. No	Name of BG	New Latrine				Latrine Conversion			
		No	KRWSA share	Beneficiary share	Total	No	KRWSA share	Beneficiary share	Total
1	Akshaya	8	16000.00	32000.00	48000.00	-	-	-	-
2	Accord	7	14000.00	30000.00	44000.00	4	4000.00	11000.00	15000.00
3	Arpana	2	4000.00	9000.00	13000.00	-	-	-	-
4	Himam	20	40000.00	99500.00	139500.00	-	-	-	-
5	Jaladhara	12	24000.00	106000.00	130000.00	-	-	-	-
6	Oduvankunnu	7	14000.00	33500.00	47500.00	1	1000.00	2000.00	3000.00
7	Oruma	1	2000.00	3000.00	5000.00	-	-	-	-
8	Pravaham	15	30000.00	58000.00	88000.00	4	4000.00	13000.00	17000.00
9	Santhivanam	9	18000.00	38000.00	56000.00	3	3000.00	7000.00	10000.00
10	Snehatheeram	8	16000.00	42000.00	58000.00	2	2000.00	17000.00	19000.00
11	Souparnika	2	4000.00	8000.00	12000.00	7	7000.00	8000.00	15000.00
12	Thoovala Kunnu	10	20000.00	84000.00	104000.00	1	1000.00	3000.00	4000.00
13	Triveni	13	26000.00	61000.00	87000.00	-	-	-	-
14	Veringilora	20	40000.00	69000.00	109000.00	1	1000.00	-	1000.00
15	Vengidoramala	20	40000.00	146000.00	186000.00	4	4000.00	20000.00	24000.00
16	Sangamam	4	8000.00	8000.00	16000.00	2	2000.00	13000.00	15000.00
17	Tripathi	6	12000.00	41000.00	53000.00	1	1000.00	5000.00	6000.00
18	Kaveri	6	12000.00	29000.00	41000.00	6	6000.00	24000.00	30000.00
19	Janapriya	3	6000.00	23000.00	29000.00	2	2000.00	9000.00	11000.00
20	Yamuna	17	34000.00	84000.00	118000.00	2	2000.00	11000.00	13000.00
	<b>Total</b>	<b>190</b>	<b>380000.00</b>	<b>1004000.00</b>	<b>1384000.00</b>	<b>40</b>	<b>40000.00</b>	<b>143000.00</b>	<b>183000.00</b>

Source: Field Survey

### 3.4.2.8 Pits Construction

Clean environment was given a major thrust in the project. With a view to achieve the objective of clean environment, soak pits and compost pits are constructed for the benefit of the households in the B.Gs. 505 soak pits are constructed utilising an amount of Rs 3.39 lakhs. Out of this amount the share of Govt was Rs 1.86 lakhs. The remaining amount of Rs 1.54 lakhs was raised as beneficiary share. 525 compost pits are also constructed at a cost of Rs 3.51 lakhs. Out of this Rs 1.96 lakh was the share of Govt. The remaining amount of Rs 1.55 lakhs was raised as beneficiary share. Details are given in Table 3.59.

**Table-3.59**  
**Beneficiary Group Wise Details of Pits Construction**

Sl. No	Name of BG	No of families	No. of Soak Pits Constructed	KRWSA Share	Beneficiary share	Total	No. of Compost Pits Constructed	KRWSA Share	Beneficiary share	Total
1	Arakkambaramala	68	20	7500.00	1725.00	9225.00	20	7500.00	500.00	8000.00
2	Aiswarya	28	22	7875.00	4250.00	12125.00	21	8250.00	625.00	8875.00
3	Bismi	17	9	3375.00	5875.00	9250.00	9	3375.00	-	3375.00
4	Daya	55	29	11625.00	19525.00	31150.00	36	13875.00	625.00	14500.00
5	Dhara	31	21	8250.00	2525.00	10775.00	24	9375.00	1975.00	11350.00
6	Golden	29	14	5625.00	1375.00	7000.00	17	6375.00	950.00	7325.00
7	Haritha	21	9	3375.00	6125.00	9500.00	8	3000.00	-	3000.00
8	Indira	37	24	8625.00	2250.00	10875.00	24	9000.00	500.00	9500.00
9	Jaladhara	51	9	3375.00	1750.00	5125.00	14	4400.00	250.00	4650.00
10	Janakeeyam	35	7	2250.00	125.00	2375.00	6	2625.00	125.00	2750.00
11	Janasakthi	37	21	9375.00	3850.00	13225.00	22	9375.00	750.00	10125.00
12	Kanavu	48	33	12000.00	3150.00	15150.00	36	12375.00	1475.00	13850.00
13	Kannakothi	54	39	14250.00	525.00	14775.00	39	14250.00	-	14250.00
14	Kanakkanam Kunnu	59	46	17250.00	17250.00	34500.00	56	21000.00	-	21000.00
15	Karunya	42	31	11625.00	19125.00	30750.00	33	12375.00	-	12375.00
16	Mahatma	57	32	10875.00	17000.00	27875.00	35	12750.00	450.00	13200.00
17	Megha	28	26	7500.00	5650.00	13150.00	26	7125.00	2775.00	9900.00
18	Mythri	50	33	13125.00	19125.00	32250.00	37	15000.00	-	15000.00
19	Nedumala	27	-	-	-	-	-	-	-	-
20	Panangadukunnu	64	5	1875.00	-	1875.00	8	2625.00	-	2625.00
21	Pulari	50	46	16500.00	22475.00	38975.00	47	16875.00	-	16875.00
22	Pravaham	49	23	8250.00	1450.00	9700.00	24	8625.00	425.00	9050.00
23	Puthuma	43	29	11625.00	19450.00	31075.00	30	12750.00	-	12750.00
24	Pulloramala	53	30	11250.00	30790.00	42040.00	38	14250.00	675.00	14925.00
25	Pratheeksha	38	25	9375.00	11300.00	20675.00	38	10125.00	-	10125.00
26	Porgottur	72	52	19125.00	5225.00	24350.00	57	20625.00	3325.00	23950.00
27	Rahatt	40	30	11250.00	450.00	11700.00	31	12000.00	100.00	12100.00
28	Samsam	40	20	7125.00	350.00	7475.00	22	7875.00	125.00	8000.00
29	Souharda	32	18	6750.00	10275.00	17025.00	20	8250.00	-	8250.00
30	Snehanithi	22	15	5625.00	11875.00	17500.00	15	5625.00	-	5625.00
31	Yuvasakthi	80	59	22500.00	44000.00	66500.00	66	24750.00	25.00	24775.00
32	Souhrutha	41	23	9750.00	2650.00	12400.00	27	11250.00	1250.00	12500.00
33	Sabhalam	66	42	15000.00	4675.00	19675.00	43	15375.00	800.00	16175.00
34	Sahakarana	34	31	11625.00	22250.00	33875.00	32	12000.00	625.00	12625.00
35	Soubhagya	41	27	10125.00	-	10125.00	30	11250.00	-	11250.00
36	Unnikarankuzhi	27	14	5250.00	7400.00	12650.00	15	5625.00	375.00	6000.00
37	Ponpara	42	37	11625.00	25.00	11650.00	40	12750.00	25.00	12775.00
38	Sreyas	55	35	13125.00	750.00	13875.00	39	13845.00	125.00	14000.00
39	Samniwaya	12	6	2250.00	-	2250.00	6	2250.00	-	2250.00
40	Sathyadhara	33	19	6375.00	225.00	6600.00	19	6750.00	-	6750.00

41	Sangamam	31	11	4125.00	6150.00	10275.00	15	5625.00	-	5625.00
42	Sukrutham	40	23	9000.00	-	9000.00	27	10125.00	-	10125.00
43	Sneha	49	34	12750.00	20250.00	33000.00	36	13500.00	-	13500.00
44	Thejas	46	22	8625.00	2375.00	11000.00	25	10125.00	725.00	10850.00
45	Thanal	47	40	10235.00	7875.00	18110.00	43	16125.00	1950.00	18075.00
46	Thachatkunnu	29	2	750.00	625.00	1375.00	2	750.00	-	750.00
47	Thusharam	44	31	10500.00	225.00	10725.00	39	13500.00	375.00	13875.00
48	Thanneer	58	9	3375.00	125.00	3625.00	33	12375.00	100.00	12475.00
49	Thelineer	59	33	11250.00	-	11250.00	36	13125.00	-	13125.00
50	Puthukindikunnumel	21	7	2250.00	-	2250.00	7	1875.00	-	1875.00
	<b>Total</b>	<b>2132</b>	<b>1223</b>	<b>447110.00</b>	<b>364440.00</b>	<b>811675.00</b>	<b>1373</b>	<b>504620.00</b>	<b>22025.00</b>	<b>526675.00</b>

Source: Field Survey

The pits are constructed not scientifically and in certain places incompleting pits are found. So far, 145 soak pits and 159 compost pits are destroyed, which constitute 28% and 30% of the soak & compost pits constructed.

### 3.4.2.9 Training

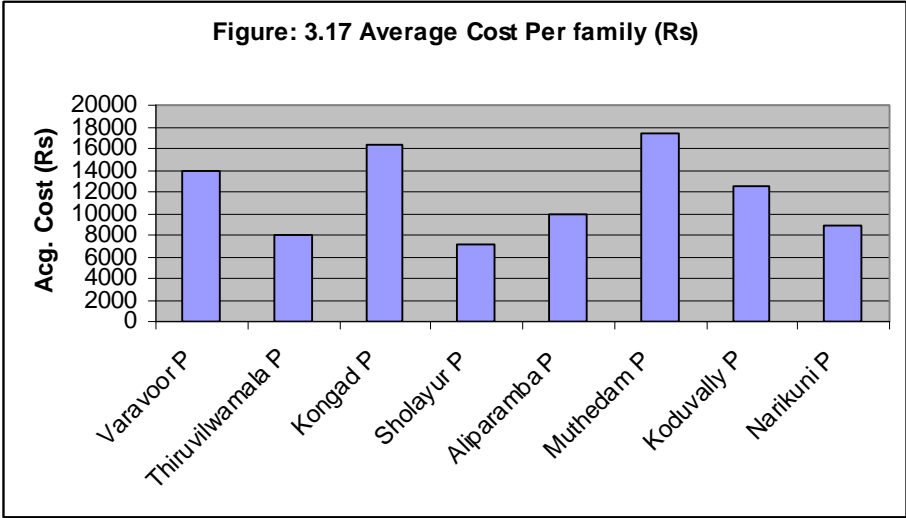
Training was a component of the project. Awareness creation was a focused programme of the project. With a view to ensure people's participation, creation of awareness and attitude and collective responsibility, trainings was important. Training on capacity building, community training, skill training etc are also conducted.

### 3.4.2.10 Supporting Organisations

Rural Agency for Social and Technological Advancement was (RASTA) the supporting organisation for the implementation of the project in Narikuni panchayat.



Figure: 3.17 Average Cost Per family (Rs)



## CHAPTER IV

### FINDINGS, SUGGESIONS AND RECOMMENDATIONS

The major findings of the present Evaluation Study on Jalanidhi are the following:-

- Jalanidhi schemes are initially implemented in Thrissur, Palakkad, Malappuram and Kozhikode Districts. These Districts are already covered with water perennials of 57%,45%, 51% and 61% respectively
- The project areas are selected on the basis of scarcity of water, problems in the availability of water and quality of water, poor enviornment sanitation facilities etc.
- In the selected 8 Panchayats for the study, prior to Jalanidhi they are covered with water perennials ranged from 25% to 69%.
- The implementation of Jalanidhi has achieved an additional coverage of 26% to 36% in the four Districts and 25 to 56% in the Panchayats.
- The number of Panchayat selected for Jalanidhi from among the four Districts are not based on any specific ratios with respect to number of panchayats. It has selected 18% Panchayats from Thrissur District (17:92), 22% from Palakkad District (20:90), 33% from Malappuram (33:99) and 28% from Kozhikode District (22:78). Problems in the availability of water was considered as the main factor.
- Even in the selected panchayats, all households are not identified for the projects. It covered only 80 to 90%.
- Jalanidhi implementation has achieved the total water supply coverage of the District to an extent of 75% to 95% and in Panchayats the total coverage increased to 45% to 98%.
- In the surveyed Panchayats, 90 percent of the water supply schemes are completed at the time of survey and the remaining are expected to complete before the expiry of the project.
- Selection of beneficiarie, as per the Project was 52% BPL, 16% SC/ST and remaining the local people. But the survey reveals that in certain Panchayats beneficiaries covered more APL families than BPL families.

- As per the Project, 16% of beneficiaries would be for SCs/STs. It is seen that there are separate schemes for STs, but no separate scheme for SCs. In Palakkad District four schemes are implemented exclusively for Tribals.
- Jalanidhi Project comprised of about 22 componets. Thrust was given to water supply and sanitation aspects.
- Water supply schemes implemented are simple water supply and comprehensive water supply schemes, which included newly constructed/renovated schemes.
- Few Rain Water Harvesting structures and Ground Water Recharges are constructed in two Panchayats out of 8 panchayats surveyed.
- Jalanidhi has also taken up and rehabilitated KWA schemes in the Panchayat,
- The fund utilised for the Project was in the ratio of 75:10:15 between Government, Panchayats and Beneficiaries. In ST schemes assistance was in the ratio of 80:10:10.
- The organisational setup of the Project was systematic and well organised.
- Water availability was limited to 1 to 3 hours per day. Beneficiaries from different Panchayats have diverse opinion regarding the availability, quality and performance of water supply schemes; these details are furnished in Appendix 8.
- For operation and maintenance of the Project, monthly subscription at the rate of Rs.30 to 60 was collected from the beneficiaries on the basis of the capacity of water tank.
- The opinion survey reveals that average of 80 % of the beneficiaries positively remarked about the project and 20% put negative remarks.
- With regard to the usage of water average of 60% beneficiaries are using the scheme for drinking and cooking purposes and others for various purposes.
- The expenditure incurred for the individual water supply schemes show a lesser amount than that of the estimated cost. In comprehensive schemes (multi BGs) the total expenditure incurred was 10% higher than the estimate.
- The average cost of water supply per household in each Panchayat varies from Rs.7112 to Rs.17410. In renovated schemes the average cost was less and new and multi projects the average cost was very high.

- Environmental sanitation was established either through construction of new latrines or conversion of existing latrine and pit construction.
- For Environmental sanitation, new latrines, latrine conversion, Soak Pits and Compost pits are provided in all the panchayats Government share was subsidized at the rate of Rs.2000/- per Latrines and Rs. 1000/- per conversion.
- Training programmes are conducted in the Panchayats as part of this project for empowering the beneficiaries.
- It is generally accepted that Jananidhi project has met the water requirement of 80% of the rural population. However, the survey reveals certain defects in its implementation and operation.
- In certain cases identification of area for water supply was done through political decision that indirectly affected the objective of the project.
- The source was poor in certain location that resulted in inadequate supply of water.
- Time for availability of water was not enough to meet their demand in some areas.
- Due to lack of co-ordination, the collection of monthly charges was not properly done in certain panchayats.
- The poorest of the poor are unable to pay the beneficiary share of 15% as stipulated in the Project and it is seen that such people are kept away from the benefit of project.
- In peak and hilly areas, water was not available from the schemes.
- The role of the Panchayat is limited to the level of a facilitator. Identification of area of the project, approval and distribution of Panchayat share to the schemes etc are the assigned functions of the panchayat.
- After completion of the project, it is left to Beneficiary Groups for operation and maintenance. A good number of the beneficiaries are BPL families and their income status and educational status are not up to the level to handle the operation and maintenance effectively for a long period.
- The commissioned projects are not handed over to the local Panchayats. As a result the life of the project, the source, funding, operation and maintenance create confusion in the society.

- There was delay in the implementation of the Project. It was mainly due to the issues existed between DPMU and supporting organisations and delay in getting sanction from authorities concerned.
- The material purchased for the schemes seems to be low quality that resulted in failure of certain Projects.

### **Suggestions and Recommendations**

Availability of water, especially quality water is an inevitable factor for daily life and its availability is to be ensured is a major concern of the Government. The model and procedure followed for implementation of Jalanidhi was really good since it was implemented in the background of a World Bank fund with technical and implementation support from an Autonomous Agency KRWSA. However, continuation of the scheme with foreign loan is not viable. But, if the State maintain and strengthen the infrastructure assets created through Jalanidhi in 112 panchayats and extent the programme in uncovered areas will help to meet the requirement of water to a great extent in rural areas. A sustainable water supply system to the rural areas is highly warranted especially on the ground that KWA has withdrawn almost all their schemes from the Panchayats. The Panchayats are independant bodies and should be capable of handling the crisis by evolving suitable strategies.

The following recommendations are offered for maintaining and extending Jalanidhi model Projects to other uncovered areas and solving the scarcity of water.

- Ensure adequate plan provision to the Panchayats and make it mandatory that every year Panchayats solve the water supply problems effectively and transparently on a priority basis.
- The Panchayats are having enough unutilised and underutilised water resource potential. If properly identified and utilised these resources the scarcity of water can be solved to a great extent.

- In the present set up of Jalanidhi Project implementation, the role of Panchayats are limited to the level of identification of area, sanction of the scheme and releasing the panchayat share. Such a system need to be restructured so as to give full authority to panchayats, covering identification of area, sanctioning scheme, releasing fund, implementing, monitoring, ownership holding and over all operation and maintenance. The role of the Panchayats is to be upgraded from the level of a facilitator to the level of controller and administrator of the Project.
- The Panchayat committee should identify the economically backward BGs and give adequate support for operation and maintenance of the existing schemes.
- The Panchayat Secretary should carefully maintain proper accounting and follow strict monitoring of the project.
- Regarding the poor people who are unable to pay BG share, the Panchayats should make available the benefit of the project by adjusting the beneficiary share from Panchayat fund.
- Every year Panchayats should prepare plan for strengthening the existing schemes and initiative new schemes based on priority areas for meeting the requirement of water. Special facilities may be arranged for peak and hilly areas for getting water for their daily use.
- For the effective functioning of the scheme appropriate committee may be constituted in the panchayat for identification of schemes, approval, implementation and purchases. The Committee should include the Panchayat President, Ward Members, Secretary and Technically qualified persons. If technically qualified persons are not available in the panchayat, arrange the support of an accredited NGO in times of identification of area, preparation of projects, supervision and implementation of projects on a payment basis.
- Day to day functioning and monitoring of the scheme may be entrusted to BGs concerned.
- Monthly meeting of BGs may be arranged for the smooth functioning of the scheme.

# **APPENDIX TABLES**

## Appendix Tables

### Appendix 1.1

#### Thiruvilwamala Pt. Beneficiary Group wise opinion of level of satisfaction with respect to Time, Quantity and Quality

Sl.No	Name of BG	Total Families	Time		Quantity		Quality	
			Y	N	Y	N	Y	N
1	2	3	4	5	6	7	8	9
1	Soorya	34	34	-	34	-	34	-
2	Souhradha	43	34	9	34	9	34	-
3	Souhradha II	22	22	-	22	-	22	-
4	Thejas	6	6	-	6	-	6	-
5	Kaveri	65	65	-	65	-	65	-
6	Kalluvettiparambu	70	70	-	70	-	70	-
7	Soudheswari	59	59	-	59	-	59	-
8	Nila	59	58	1	45	14	45	-
9	Thelakattu	33	33	-	33	-	33	-
10	Navadhara	59	51	8	51	8	51	8
11	Archana	46	31	15	31	15	30	15
12	Amritha	20	20	-	20	-	20	-
13	Punarjani	21	16	5	14	7	14	6
14	Rassi	20	18	2	18	2	19	1
15	Parakattupadam	47	47	-	47	-	47	-
16	Triveni	47	47	-	47	-	47	-
17	Bhagyadhara	69	69	-	69	-	69	-
18	Poothanakara	50	50	-	50	-	50	-
19	Karuna	56	55	1	55	1	55	-
20	Thejas	61	61	-	61	-	61	-
21	Pavithram	68	51	17	51	17	51	17
22	Pattiparambu	42	42	-	41	1	39	-
23	Nivethitha	25	25	-	25	-	25	-
24	Ganaga Pravah	22	22	-	22	-	22	-
25	Sivasakthi	80	80	-	80	-	80	-
26	Snehavarsha	30	25	5	25	5	25	5
27	Sruthilayam	28	25	3	25	3	25	3
28	Chakkachankadu	71	71	-	71	-	71	-
29	Gramalakshmi	44	44	-	44	-	44	-
30	Kootala	42	42	-	42	-	42	-
31	Tharangani	52	30	22	30	22	30	22
32	Mullakkal	37	37	-	37	-	37	-
33	Mythri	41	41	-	41	-	41	-
34	Ganga	41	41	-	41	-	41	-
35	Souparnika	58	58	-	58	-	58	-
36	Saraswathi	57	57	-	37	20	23	34
37	Sreyas	100	99	1	92	8	97	3



38	Varsha	37	37	-	37	-	37	-
39	Ssnehadhara	39	38	1	38	1	38	1
40	Vinayaka	48	41	7	41	7	41	7
41	Mannam	47	47	-	47	-	47	-
42	Kankalayam	58	58	-	58	-	58	-
43	Mahathma	34	34	-	34	-	34	-
44	Anugraha	36	36	-	36	-	36	-
45	Akshaya	53	53	-	53	-	53	-
46	Kairali	35	35	-	35	-	35	-
47	Vigneswara	5	5	-	5	-	5	-
48	Aiswarya	13	13	-	13	-	13	-
49	Samruthi	50	40	10	39	11	43	7
50	Vettakkaran Kavu	39	39	-	39	-	39	-
51	Soubhagya	35	33	2	33	2	33	2
52	Thanal	50	50	-	50	-	50	-
53	Gayathri	53	51	2	51	2	51	2
54	Kattukulam	59	58	1	58	1	58	1
55	BG Name not mentioned	46	46	-	46	-	46	-
56	BG Name not mentioned	42	11	31	11	31	11	31
57	BG Name not mentioned	11	11	-	11	-	11	-
	Total	2515	2372	143	2328	187	2321	165

### Appendix 1.2

#### Thiruvilwamala Pt. Beneficiary Group wise Classification of Families on the basis of Land Holdings

Sl.No	Name of BG	No of families with respect to Land Holdings (area in cents)					
		Below 20	20-40	40-60	60-80	80-100	100 above
1	2	3	4	5	6	7	8
1	Soorya	16	5	4	-	9	9
2	Souhradha	20	4	2	6	1	8
3	Souhradha II	13	1	-	-	1	7
4	Thejas	1	2	2	-	-	1
5	Kaveri	26	8	8	1	1	19
6	Kalluvettiparambu	65	3	2	-	-	-
7	Soudheswari	49	7	-	1	2	2
8	Nila	23	18	4	8	1	5
9	Thelakattu	17	3	3	3	-	7
10	Navadhara	38	6	2	4	1	-
11	Archana	35	5	2	4	-	1
12	Amritha	19	1	-	-	-	-
13	Punarjani	10	1	4	1	-	3
14	Rassi	19	-	-	-	-	1
15	Parakattupadam	31	10	3	-	-	1
16	Triveni	15	8	15	4	1	4
17	Bhagyadhara	31	19	4	8	1	4

18	Poothanakara	27	18	3	-	-	-
19	Karuna	46	5	2	3	-	3
20	Thejas	40	13	2	-	1	5
21	Pavithram	59	3	4	-	-	-
22	Pattiparambu	28	4	3	2	1	4
23	Nivethitha	25	-	-	-	-	-
24	Ganaga Pravah	20	1	-	-	-	1
25	Sivasakthi	56	6	8	6	2	2
26	Snehavarsha	19	6	2	1	-	2
27	Sruthilayam	23	3	2	-	-	-
28	Chakkachankadu	30	16	15	4	2	9
29	Gramalakshmi	41	2	-	1	-	-
30	Kootala	25	8	5	5	1	2
31	Tharangani	39	5	3	-	-	5
32	Mullakkal	33	-	1	2	-	1
33	Mythri	22	9	3	-	-	7
34	Ganga	34	1	5	1	1	2
35	Souparnika	35	17	1	1	1	3
36	Saraswathi	28	14	7	1	1	6
37	Sreyas	58	20	7	8	2	6
38	Varsha	37	-	-	-	-	-
39	Ssnehadhara	24	9	2	-	-	4
40	Vinayaka	21	10	3	5	-	9
41	Mannam	23	6	5	2	2	9
42	Kankalayam	40	11	5	-	-	2
43	Mahathma	33	1	-	-	-	-
44	Anugraha	25	3	-	2	1	5
45	Akshaya	44	6	2	-	-	1
46	Kairali	18	3	4	-	2	8
47	Vigneswara	4	1	-	-	-	-
48	Aiswarya	13	-	-	-	-	-
49	Samruthi	41	6	2	-	-	-
50	Vettakkaran Kavu	22	12	4	1	-	-
51	Soubhagya	27	6	-	-	-	-
52	Thanal	38	5	3	2	2	6
53	Gayathri	26	12	2	5	-	2
54	Kattukulam	33	10	7	5	2	-
55	BG Name not mentioned	35	3	2	5	1	-
56	BG Name not mentioned	25	8	5	3	-	2
57	BG Name not mentioned	5	-	-	4	-	-
	Total	1650	364	174	109	40	178

**Appendix1.3**  
**Thiruvilwamal Pt. Beneficiary Group wise No. of Households on the basis of nature of Houses**

Sl.No	Name of BG	No of families having					Total
		Concrete	Tile	Thatched	Hut	Others	
1	2	3	4	5	6	7	8
1	Soorya	3	31	-	-	-	34
2	Souhradha	4	39	-	-	-	43
3	Souhradha II	3	19	-	-	-	22
4	Thejas	-	6	-	-	-	6
5	Kaveri	18	47	-	-	-	65
6	Kalluvettiparambu	-	70	-	-	-	70
7	Soudheswari	11	48	-	-	-	59
8	Nila	11	48	-	-	-	59
9	Thelakattu	8	25	-	-	-	33
10	Navadhara	2	52	-	-	-	54
11	Archana	2	44	-	-	-	46
12	Amritha	-	19	1	-	-	20
13	Punarjani	4	15	-	-	-	19
14	Rassi	4	16	-	-	-	20
15	Parakattupadam	9	38	-	-	-	47
16	Triveni	6	41	-	-	-	47
17	Bhagyadhara	15	52	-	-	-	67
18	Poothanakara	8	42	-	-	-	50
19	Karuna	2	52	1	1	-	56
20	Thejas	3	58	-	-	-	61
21	Pavithram	10	58	-	-	-	68
22	Pattiparambu	8	34	-	-	-	42
23	Nivethitha	-	25	-	-	-	25
24	Ganaga Pravah	1	21	-	-	-	22
25	Sivasakthi	11	69	-	-	-	80
26	Snehavarsha	2	28	-	-	-	30
27	Sruthilayam	-	28	-	-	-	28
28	Chakkachankadu	14	60	2	-	-	76
29	Gramalakshmi	1	43	-	-	-	44
30	Kootala	26	20	-	-	-	46
31	Tharangani	5	47	-	-	-	52
32	Mullakkal	27	10	-	-	-	37
33	Mythri	5	36	-	-	-	41
34	Ganga	9	35	-	-	-	44
35	Souparnika	24	34	-	-	-	58
36	Saraswathi	2	55	-	-	-	57
37	Sreyas	13	88	-	-	-	101
38	Varsha	-	37	-	-	-	37
39	Ssnehadhara	4	35	-	-	-	39

40	Vinayaka	20	28	-	-	-	48
41	Mannam	18	29	-	-	-	47
42	Kankalayam	25	33	-	-	-	58
43	Mahathma	-	34	-	-	-	34
44	Anugraha	6	30	-	-	-	36
45	Akshaya	14	39	-	-	-	53
46	Kairali	12	23	-	-	-	35
47	Vigneswara	2	3	-	-	-	5
48	Aiswarya	-	13	-	-	-	13
49	Samruthi	10	40	-	-	-	50
50	Vettakkaran Kavu	27	12	-	-	-	39
51	Soubhagya	3	30	-	-	-	33
52	Thanal	20	30	-	-	-	50
53	Gayathri	4	47	-	-	-	51
54	Kattukulam	18	41	-	-	-	59
55	BG Name not mentioned	10	36	-	-	-	46
56	BG Name not mentioned	4	38	-	-	-	42
57	BG Name not mentioned	-	11	-	-	-	11
	Total	468	2042	4	1	-	2515

**Appendix 1.4**  
**Thiruvilwamal Pt. Beneficiary Group wise Occupational classification of Households**

Sl.No	Name of BG	Occupational Classification (in Nos)				Remarks
		Coolie	Agriculture	Others	Total	
1	2	3	4	5	6	7
1	Soorya	22	8	4	34	
2	Souhradha	29	5	9	43	
3	Souhradha II	7	10	5	22	
4	Thejas	3	-	3	6	
5	Kaveri	28	20	17	65	
6	Kalluvettiparambu	36	-	34	70	
7	Soudheswari	30	-	29	59	
8	Nila	28	15	16	59	
9	Thelakattu	17	6	10	33	
10	Navadhara	44	5	10	59	
11	Archana	28	2	16	46	
12	Amritha	16	-	4	20	
13	Punarjani	5	10	6	21	
14	Rassi	14	-	6	20	
15	Parakattupadam	24	3	20	47	
16	Triveni	33	7	7	47	
17	Bhagyadhara	14	1	54	69	
18	Poothanakara	28	14	8	50	
19	Karuna	27	3	26	56	
20	Thejas	44	10	7	61	

21	Pavithram	52	5	11	68
22	Pattiparambu	32	4	6	42
23	Nivethitha	25	-	-	25
24	Ganaga Pravah	20	2	-	22
25	Sivasakthi	51	5	24	80
26	Sneharasha	9	5	16	30
27	Sruthilayam	27	-	1	28
28	Chakkachankadu	37	17	17	71
29	Gramalakshmi	42	1	1	44
30	Kootala	16	-	26	42
31	Tharangani	28	2	22	52
32	Mullakkal	25	-	12	37
33	Mythri	28	3	10	41
34	Ganga	21	-	20	41
35	Souparnika	9	4	45	58
36	Saraswathi	25	17	15	57
37	Sreyas	36	5	59	100
38	Varsha	26	1	10	37
39	Ssnehadhara	25	5	9	39
40	Vinayaka	10	10	28	48
41	Mannam	8	4	35	47
42	Kankalayam	8	2	48	58
43	Mahathma	33	-	1	34
44	Anugraha	21	-	15	36
45	Akshaya	25	5	23	53
46	Kairali	15	17	3	35
47	Vigneswara	1	-	4	5
48	Aiswarya	12	-	1	13
49	Samruthi	37	-	13	50
50	Vettakkaran Kavu	7	-	32	39
51	Soubhagya	35	-	-	35
52	Thanal	15	4	31	50
53	Gayathri	29	3	21	53
54	Kattukulam	24	3	32	59
55	BG Name not mentioned	2	12	32	46
56	BG Name not mentioned	6	10	26	42
57	BG Name not mentioned	-	4	7	11
	Total	1299	269	947	2515

**Appendix 1.5**  
**Thiruvilwamal Pt. Beneficiary Group wise Monthly Subscription and Storage Capacity**

Sl. No	Name of BG	Monthly Subscription (in Rs)	Capacity of the Tank (in Ltrs)	Remarks
1	Soorya	45	5000	
2	Souhradha	50	10000	
3	Souhradha II	50	10000	
4	Thejas	45	5000	
5	Kaveri	45	15000	
6	Kalluvettiparambu	35	10000	
7	Soudheswari	45	10000	
8	Nila	50	10000	
9	Thelakattu	50	5000	
10	Navadhara	50	10000	
11	Archana	50	15000	
12	Amritha	35	10000	
13	Punarjani	40	5000	
14	Rassi	50	5000	
15	Parakattupadam	50	10000	
16	Triveni	50	10000	
17	Bhagyadhara	50	10000	
18	Poothanakara	35	7500	
19	Karuna	45	10000	
20	Thejas	45	10000	
21	Pavithram	50	10000	
22	Pattiparambu	50	10000	
23	Nivethitha	50	5000	
24	Ganaga Pravah	50	5000	
25	Sivasakthi	50	15000	
26	Sneharsha	50	5000	
27	Sruthilayam	50	7000	
28	Chakkachankadu	40	20000	
29	Gramalakshmi	50	10000	
30	Kootala	50	10000	
31	Tharangani	50	10000	
32	Mullakkal	30	7500	
33	Mythri	50	10000	
34	Ganga	50	7500	
35	Souparnika	35	15000	
36	Saraswathi	45	10000	
37	Sreyas	45	20000	
38	Varsha	50	7500	
39	Ssnehadhara	50	7500	

40	Vinayaka	50	10000	
41	Mannam	50	10000	
42	Kankalayam	40	15000	
43	Mahathma	40	7000	
44	Anugraha	50	10000	
45	Akshaya	50	10000	
46	Kairali	50	7500	
47	Vigneswara	35	10000	
48	Aiswarya	50	10000	
49	Samruthi	50	10000	
50	Vettakkaran Kavu	50	7500	
51	Soubhagya	40	7500	
52	Thanal	50	15000	
53	Gayathri	55	10000	
54	Kattukulam	50	10000	
55	BG Name not mentioned	35	10000	
56	BG Name not mentioned	45	10000	
57	BG Name not mentioned	35	10000	
	Total	2635	554000	

**Appendix 1.6**  
**Thiruvilwamala Pt. Beneficiary Group Wise details of Quantity and Availability of Water**

Sl.No	Name of BG	Availability of Water(per day) (with respect to No. of families)				Average Quantity (in Ltrs)/ day
		1 Hour	2 Hours	3 Hours	Total	
1	2	3	4	5	6	7
1	Soorya	34	-	-	34	350
2	Souhradha	43	-	-	43	360
3	Souhradha II	22	-	-	22	360
4	Thejas	6	-	-	6	350
5	Kaveri	65	-	-	65	-
6	Kalluvettiparambu	34	36	-	70	400
7	Soudheswari	59	-	-	59	500
8	Nila	58	-	-	58	400
9	Thelakattu	33	-	-	33	400
10	Navadhara	54	-	-	54	500
11	Archana	31	-	-	31	350
12	Amritha	56	-	-	56	500
13	Punarjani	19	-	-	19	250
14	Rassi	20	-	-	20	300
15	Parakattupadam	47	-	-	47	500
16	Triveni	47	-	-	47	400

17	Bhagyadhara	74	-	-	74	500
18	Poothanakara	50	-	-	50	350
19	Karuna	56	-	-	56	350
20	Thejas	53	-	-	53	350
21	Pavithram	52	-	-	52	400
22	Pattiparambu	42	-	-	42	500
23	Nivethitha	25	-	-	25	50
24	Ganaga Pravah	22	-	-	22	50
25	Sivasakthi	42	-	-	42	50
26	Snehavarsha	16	8	-	24	350
27	Sruthilayam	-	14	-	14	500
28	Chakkachankadu	76	-	-	76	350
29	Gramalakshmi	44	-	-	44	350
30	Kootala	46	-	-	46	400
31	Tharangani	31	-	-	31	400
32	Mullakkal	37	-	-	37	400
33	Mythri	28	-	-	28	500
34	Ganga	24	19	-	43	442
35	Souparnika	35	17	1	53	527
36	Saraswathi	61	3	-	64	350
37	Sreyas	100	-	-	100	500
38	Varsha	37	-	-	37	400
39	Ssnehadhara	39	-	-	39	450
40	Vinayaka	42	-	-	42	500
41	Mannam	46	-	-	46	698
42	Kankalayam	58	-	-	58	440
43	Mahathma	34	-	-	34	350
44	Anugraha	35	-	-	35	400
45	Akshaya	53	-	-	53	500
46	Kairali	35	-	-	35	400
47	Vigneswara	5	-	-	5	500
48	Aiswarya	13	-	-	13	400
49	Samruthi	45	-	-	45	500
50	Vettakkaran Kavu	39	-	-	39	400
51	Soubhagya	33	-	-	33	400
52	Thanal	50	-	-	50	400
53	Gayathri	51	-	-	51	500
54	Kattukulam	59	-	-	59	350
55	BG Name not mentioned	46	-	-	46	400
56	BG Name not mentioned	9	-	-	11	350
57	BG Name not mentioned	41	-	-	41	350
	Total	2312	97	1	2412	22277



**Appendix 1.7**

**Thiruvilwamal Pt. Beneficiary Group wise - Usage of Water by the households under WSS**

Sl. No	Name of BG	Total Families	No. of households using water for			
			Drinking	Washing & Cleaning	Cooking	All Purposes
1	2	3	4	5	6	7
1	Soorya	34	16	7	11	20
2	Souhradha	43	-	8	-	35
3	Souhradha II	22	-	-	-	22
4	Thejas	6	6	5	1	-
5	Kaveri	65	21	42	25	10
6	Kalluvettiparambu	70	66	5	66	1
7	Soudheswari	59	44	-	43	10
8	Nila	59	13	7	1	46
9	Thelakattu	33	18	14	28	11
10	Navadhara	59	5	7	4	44
11	Archana	46	31	28	2	9
12	Amritha	20	13	12	4	25
13	Punarjani	21	19	-	-	-
14	Rassi	20	17	-	17	1
15	Parakattupadam	47	30	3	31	12
16	Triveni	47	4	11	10	33
17	Bhagyadhara	69	50	1	7	20
18	Poothanakara	50	17	22	16	11
19	Karuna	56	14	10	-	37
20	Thejas	61	61	2	61	-
21	Pavithram	68	53	2	53	1
22	Pattiparambu	42	30	3	30	10
23	Nivethitha	25	24	1	24	-
24	Ganaga Pravah	22	-	22	-	4
25	Sivasakthi	80	31	31	17	46
26	Snehavarsha	30	10	4	4	12
27	Sruthilayam	28	14	-	14	11
28	Chakkachankadu	71	76	-	6	-
29	Gramalakshmi	44	6	7	15	18
30	Kootala	42	46	-	46	-
31	Tharangani	52	9	1	11	20
32	Mullakkal	37	37	-	36	-
33	Mythri	41	37	13	6	19
34	Ganga	41	10	10	8	24
35	Souparnika	58	15	10	5	44
36	Saraswathi	57	33	21	12	37
37	Sreyas	100	100	37	6	-
38	Varsha	37	29	-	29	7

39	Ssnehadhara	39	21	18	9	21
40	Vinayaka	48	42	-	-	-
41	Mannam	47	29	9	18	18
42	Kankalayam	58	14	6	16	34
43	Mahathma	34	12	8	3	22
44	Anugraha	36	16	9	14	18
45	Akshaya	53	36	7	30	20
46	Kairali	35	12	18	13	3
47	Vigneswara	5	-	-	-	4
48	Aiswarya	13	1	13	1	-
49	Samruthi	50	43	6	18	2
50	Vettakkaran Kavvu	39	33	26	17	3
51	Soubhagya	35	9	22	8	4
52	Thanal	50	32	15	23	12
53	Gayathri	53	39	1	38	44
54	Kattukulam	59	3	5	26	27
55	BG Name not mentioned	46	11	1	9	36
56	BG Name not mentioned	42	11	-	2	-
57	BG Name not mentioned	11	13	-	4	30
	Total	2515	1382	510	898	898

#### Appendix 1.8

#### Thiruvilwamala Pt. Beneficiary Group wise opinion of level of satisfaction with respect to Time, Quantity and Quality

Sl.No	Name of BG	Total Families	Time		Quantity		Quality	
			Y	N	Y	N	Y	N
1	2	3	4	5	6	7	8	9
1	Soorya	34	34	-	34	-	34	-
2	Souhradha	43	34	9	34	9	34	-
3	Souhradha II	22	22	-	22	-	22	-
4	Thejas	6	6	-	6	-	6	-
5	Kaveri	65	65	-	65	-	65	-
6	Kalluvettiparambu	70	70	-	70	-	70	-
7	Soudheswari	59	59	-	59	-	59	-
8	Nila	59	58	1	45	14	45	-
9	Thelakattu	33	33	-	33	-	33	-
10	Navadhara	59	51	8	51	8	51	8
11	Archana	46	31	15	31	15	30	15
12	Amritha	20	20	-	20	-	20	-
13	Punarjani	21	16	5	14	7	14	6
14	Rassi	20	18	2	18	2	19	1
15	Parakattupadam	47	47	-	47	-	47	-
16	Triveni	47	47	-	47	-	47	-
17	Bhagyadhara	69	69	-	69	-	69	-
18	Poothanakara	50	50	-	50	-	50	-

19	Karuna	56	55	1	55	1	55	-
20	Thejas	61	61	-	61	-	61	-
21	Pavithram	68	51	17	51	17	51	17
22	Pattiparambu	42	42	-	41	1	39	-
23	Nivethitha	25	25	-	25	-	25	-
24	Ganaga Pravah	22	22	-	22	-	22	-
25	Sivasakthi	80	80	-	80	-	80	-
26	Snehavarsha	30	25	5	25	5	25	5
27	Sruthilayam	28	25	3	25	3	25	3
28	Chakkachankadu	71	71	-	71	-	71	-
29	Gramalakshmi	44	44	-	44	-	44	-
30	Kootala	42	42	-	42	-	42	-
31	Tharangani	52	30	22	30	22	30	22
32	Mullakkal	37	37	-	37	-	37	-
33	Mythri	41	41	-	41	-	41	-
34	Ganga	41	41	-	41	-	41	-
35	Souparnika	58	58	-	58	-	58	-
36	Saraswathi	57	57	-	37	20	23	34
37	Sreyas	100	99	1	92	8	97	3
38	Varsha	37	37	-	37	-	37	-
39	Ssnehadhara	39	38	1	38	1	38	1
40	Vinayaka	48	41	7	41	7	41	7
41	Mannam	47	47	-	47	-	47	-
42	Kankalayam	58	58	-	58	-	58	-
43	Mahathma	34	34	-	34	-	34	-
44	Anugraha	36	36	-	36	-	36	-
45	Akshaya	53	53	-	53	-	53	-
46	Kairali	35	35	-	35	-	35	-
47	Vigneswara	5	5	-	5	-	5	-
48	Aiswarya	13	13	-	13	-	13	-
49	Samruthi	50	40	10	39	11	43	7
50	Vettakkaran Kavu	39	39	-	39	-	39	-
51	Soubhagya	35	33	2	33	2	33	2
52	Thanal	50	50	-	50	-	50	-
53	Gayathri	53	51	2	51	2	51	2
54	Kattukulam	59	58	1	58	1	58	1
55	BG Name not mentioned	46	46	-	46	-	46	-
56	BG Name not mentioned	42	11	31	11	31	11	31
57	BG Name not mentioned	11	11	-	11	-	11	-
	Total	2515	2372	143	2328	187	2321	165

**Appendix 2.1**  
**Varavoor Pt. Beneficiary Group wise Economic Status**

Sl.No	Name of BG	No. of APL families				No. of BPL families			
		General	SC	ST	Total	General	SC	ST	Total
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
1	Dhansasree	33	-	-	33	3	2	-	5
2	Karthika	27	-	-	27	6	-	-	6
3	Jalassree	28	-	-	28	22	2	-	24
4	Ayalkoottam	41	-	-	41	12	1	-	13
5	Swasraya	28	-	-	28	10	-	-	10
6	Narmada	13	5	-	18	5	7	-	12
7	Triveni	12	2	-	14	18	7	-	25
8	Jaladhara	43	-	-	43	1	1	-	2
9	Sangamithra	8	3	-	11	7	4	-	11
10	Gangotri	45	1	-	46	1	4	-	5
11	Ramanihira	8	2	-	10	7	10	-	17
12	Haritha	20	-	-	20	33	-	-	33
13	Kairali	10	-	-	10	2	-	-	2
14	Mythri	3	-	-	3	8	13	-	21
15	Anugraha	14	-	-	14	17	13	-	30
16	Thripathi	20	-	-	20	11	1	-	12
17	Aiswarya	28	-	-	28	19	-	-	19
18	Jalaregha	44	-	-	44	7	1	-	8
19	Varavoor	14	-	-	14	15	1	-	16
20	Vaisali	17	-	-	17	2	21	-	23
21	Navajeevan	21	1	-	22	6	16	-	22
22	Jalasangamam	2	1	-	3	1	27	-	28
23	Sarayu	3	6	-	9	6	14	-	20
24	Kulirma	24	-	-	24	15	-	-	15
25	Jalasangamam	1	-	-	1	3	31	-	34
26	Sangamam	9	3	-	12	10	19	-	29
27	Souparnika	14	6	-	20	4	14	-	18
28	Souhrida	29	-	-	29	17	-	-	17
29	Naduvattom	15	-	-	15	13	-	-	13
30	Priyadarshini	6	-	-	6	32	22	-	54
31	Friends	11	-	-	11	16	1	-	17
32	Karuna	7	-	-	7	8	21	-	29
33	Nila	15	-	-	15	4	16	-	20
34	Palakkal	19	-	-	19	8	-	-	8
35	Kaveri	2	6	-	8	7	30	-	37
	Total	634	36	-	670	356	299	-	655

**Appendix 2.2**  
**Varavoor Pt. Beneficiary Group wise Classification of Families on the basis of Land Holdings**

Sl.No	Name of BG	No of families with respect to Land Holdings (area in cents)					
		Below 20	20-40	40-60	60-80	80-100	100 above
1	2	3	4	5	6	7	8
1	Dhansasree	20	8	2	3	1	4
2	Karthika	19	11	2	-	1	-
3	Jalasree	43	6	2	-	-	-
4	Ayalkoottam	32	10	5	1	3	1
5	Swasraya	19	13	1	3	-	1
6	Narmada	22	3	5	-	-	-
7	Triveni	18	14	4	-	2	1
8	Jaladhara	15	11	10	2	2	1
9	Sangamithra	13	6	2	1	-	2
10	Gangotri	19	16	8	4	3	3
11	Ramanihira	15	11	2	-	-	1
12	Haritha	30	11	3	-	5	1
13	Kairali	5	4	3	-	1	1
14	Mythri	16	5	2	-	1	1
15	Anugraha	27	12	3	1	2	-
16	Thripthi	21	7	1	-	1	1
17	Aiswarya	22	14	7	1	3	-
18	Jalaregha	32	14	2	3	1	-
19	Varavoor	18	8	1	1	1	1
20	Vaisali	19	8	8	-	-	5
21	Navajeevan	25	9	3	1	1	5
22	Jalasangamam	21	6	3	1	-	-
23	Sarayu	21	6	2	-	1	-
24	Kulirma	25	7	2	4	1	-
25	Jalasangamam	31	5	-	-	-	-
26	Sangamam	37	2	-	-	2	-
27	Souparnika	24	4	3	-	-	5
28	Souhrida	34	6	-	-	-	-
29	Naduvattom	12	13	2	1	-	1
30	Priyadarshini	50	5	3	1	1	1
31	Friends	21	4	2	1	-	1
32	Karuna	25	9	3	-	-	-
33	Nila	12	1	6	2	-	13
34	Palakkal	19	9	1	1	-	1
35	Kaveri	35	8	2	-	1	-
	Total	817	286	105	32	34	51

**Appendix 2.3**  
**Varavoor Pt.Beneficiary Group wise No. of Households on the basis of nature of Houses**

Sl.No	Name of BG	No of families having					Total
		Concrete	Tile	Thtched	Hut	Others	
1	2	3	4	5	6	7	8
1	Dhansasree	21	16	-	-	1	38
2	Karthika	13	19	-	-	1	33
3	Jalasree	9	43	-	-	-	52
4	Ayalkoottam	25	20	-	-	7	52
5	Swasraya	15	22	-	-	2	39
6	Narmada	9	19	-	-	1	29
7	Triveni	4	34	-	-	1	39
8	Jaladhara	15	24	-	-	7	46
9	Sangamithra	10	14	-	-	1	25
10	Gangotri	23	29	-	-	1	53
11	Ramanihira	10	17	-	-	-	27
12	Haritha	13	37	-	-	3	53
13	Kairali	6	6	-	-	-	12
14	Mythri	5	3	-	-	18	26
15	Anugraha	8	35	-	-	1	44
16	Thripathi	17	15	-	-	-	32
17	Aiswarya	23	24	-	-	-	47
18	Jalaregha	22	29	-	-	1	52
19	Varavoor	3	27	-	-	-	30
20	Vaisali	16	23	-	-	1	40
21	Navajeevan	21	22	-	-	1	44
22	Jalasangamam	3	28	-	-	-	31
23	Sarayu	4	20	3	-	1	28
24	Kulirma	23	16	-	-	-	39
25	Jalalsangamam	5	30	-	-	-	35
26	Sangamam	11	29	1	-	-	41
27	Souparnika	9	27	-	-	-	36
28	Souhrida	11	28	-	-	-	39
29	Naduvattom	9	19	-	-	-	28
30	Priyadarshini	13	46	-	-	1	60
31	Friends	13	14	-	-	1	28
32	Karuna	6	30	-	-	-	36
33	Nila	8	25	-	-	2	35
34	Palakkal	11	18	-	-	1	30
35	Kaveri	6	40	-	-	-	46
	Total	420	848	4		53	1325

**Appendix 2.4**  
**Varavoor Pt. Beneficiary Group wise Occupational classification of Households**

Sl.No	Name of BG	Occupational Classification (in Nos)			
		Coolie	Agriculture	Others	Total
1	2	3	4	5	6
1	Dhansasree	6	2	30	38
2	Karthika	14	3	16	33
3	Jalasree	51	-	1	52
4	Ayalkoottam	24	-	28	52
5	Swasraya	20	5	14	39
6	Narmada	16	1	12	29
7	Triveni	30	1	8	39
8	Jaladhara	5	4	37	46
9	Sangamithra	20	-	5	25
10	Gangotri	9	3	41	53
11	Ramanihira	26	-	1	27
12	Haritha	40	5	8	53
13	Kairali	5	-	7	12
14	Mythri	25	-	-	25
15	Anugraha	30	2	12	44
16	Thripathi	23	2	7	32
17	Aiswarya	36	-	11	47
18	Jalaregha	21	-	31	52
19	Varavoor	21	3	6	30
20	Vaisali	30	3	7	40
21	Navajeevan	20	10	14	44
22	Jalasangamam	30	-	1	31
23	Sarayu	26	-	3	29
24	Kulirma	15	4	20	39
25	Jalasangamam	34	-	1	35
26	Sangamam	36	2	3	41
27	Souparnika	21	1	14	36
28	Souhrida	31	-	8	39
29	Naduvattom	21	1	6	28
30	Priyadarshini	56	2	2	60
31	Friends	7	3	18	28
32	Karuna	30	2	4	36
33	Nila	21	7	7	35
34	Palakkal	13	5	12	30
35	Kaveri	42	-	4	46
	Total	855	71	399	1325

**Appendix 2.5**  
**Varavoor Pt. Beneficiary Group wise Monthly Subscription**

Sl. No	Name of BG	Monthly Subscription (Rs)	Capacity of the Tank (in Ltrs)
1	2	3	4
1	Dhansasree	50.00	8500
2	Karthika	50.00	8500
3	Jalasree	50.00	10000
4	Ayalkoottam	50.00	15000
5	Swasraya	50.00	780
6	Narmada	50.00	5500
7	Triveni	50.00	7000
8	Jaladhara	50.00	10000
9	Sangamithra	50.00	7000
10	Gangotri	50.00	8500
11	Ramanihira	50.00	5500
12	Haritha	50.00	15000
13	Kairali	50.00	5000
14	Mythri	50.00	6000
15	Anugraha	50.00	12000
16	Thripathi	50.00	8000
17	Aiswarya	50.00	11500
18	Jalaregha	50.00	10000
19	Varavoor	50.00	75000
20	Vaisali	50.00	8000
21	Navajeevan	50.00	9500
22	Jalasangamam	50.00	8000
23	Sarayu	50.00	7000
24	Kulirma	50.00	9500
25	Jalasangamam	50.00	8500
26	Sangamam	50.00	10000
27	Souparnika	50.00	8000
28	Souhrida	50.00	8500
29	Naduvattom	50.00	5500
30	Priyadarshini	50.00	10000
31	Friends	50.00	7000
32	Karuna	50.00	8500
33	Nila	50.00	7000
34	Palakkal	50.00	5500
35	Kaveri	50.00	8000
	Total	1750	



**Appendix 2.6**

**Varavoor Pt-Beneficiary Group Wise details of Quantity and Availability of Water**

Sl.No	Name of BG	Availability of Water(per day) (with respect to No. of families)				Average Quantity (in Ltrs)/ day
		1 Hour	2 Hours	3 Hours	Total	
1	2	3	4	5	6	7
1	Dhansasree	38		-	38	350
2	Karthika	33	-	-	33	400
3	Jalasree	52	-	-	52	350
4	Ayalkoottam	45	7	-	52	400
5	Swasraya	39		-	39	500
6	Narmada	29	-	-	29	375
7	Triveni	39	-	-	39	500
8	Jaladhara	46	-	-	46	375
9	Sangamithra	12	13		25	375
10	Gangotri	53	-	-	53	400
11	Ramanihira	27	0	-	27	400
12	Haritha	53	-	-	53	500
13	Kairali	12	-	-	12	350
14	Mythri	25	-	-	25	300
15	Anugraha	44	-	-	44	300
16	Thripathi	32	-	-	32	350
17	Aiswarya	47	-		47	350
18	Jalaregha	52	-	-	52	350
19	Varavoor	30	-	-	30	350
20	Vaisali	40	-	-	40	375
21	Navajeevan	24	20	-	44	375
22	Jalasangamam	31	-	-	31	350
23	Sarayu	29	-	-	29	442
24	Kulirma	39	-	-	39	347
25	Jalalsangamam	23	12	-	35	350
26	Sangamam	41	1	-	41	380
27	Souparnika	36	-	-	36	475
28	Souhrida	39	-	-	39	375
29	Naduvattom	28	-	-	28	350
30	Priyadarshini	60	-	-	60	350
31	Friends	28	-	-	28	350
32	Karuna	30	6	-	36	350
33	Nila	35	-	-	35	400
34	Palakkal	30	-	-	30	300
35	Kaveri	41	5	-	46	375
	Total	1262	64	-38	1325	13219

**Appendix 2.7**  
**Varavoor Pt. Beneficiary Group wise - Usage of Water**

Sl. No	Name of BG	Total Families	No. of households using water for			
			Drinking	Washing & Cleaning	Cooking	All Purposes
1	2	3	4	5	6	7
1	Dhansasree	38	9	17	3	4
2	Karthika	33	8	14	9	10
3	Jalasree	52	2	17	3	14
4	Ayalkoottam	54	17	8	9	20
5	Swasraya	38	14	6	5	14
6	Narmada	30	3	10	5	12
7	Triveni	39	18	14	7	9
8	Jaladhara	45	-	21	1	15
9	Sangamithra	22	-	-	-	10
10	Gangotri	51	2	18	18	30
11	Ramanihira	27	7	8	3	12
12	Haritha	53	16	42	19	10
13	Kairali	12	-	-	-	12
14	Mythri	24	-	4	-	10
15	Anugraha	44	14	4	8	17
16	Thripthi	32	26	5	3	6
17	Aiswarya	47	2	13	1	20
18	Jalaregha	52	13	27	15	18
19	Varavoor	30	-	17	-	13
20	Vaisali	40	19	4	2	10
21	Navajeevan	44	5	8	16	10
22	Jalasangamam	31	15	3	3	13
23	Sarayu	29	15	2	1	12
24	Kulirma	39	12	-	9	16
25	Jalalsangamam	35	6	7	6	13
26	Sangamam	41	18	7	4	15
27	Souparnika	38	6	1	14	2
28	Souhrida	46	1	4	-	16
29	Naduvattom	28	2	17	-	12
30	Priyadarshini	60	18	23	22	12
31	Friends	28	4	11	2	5
32	Karuna	36	14	21	3	9
33	Nila	35	13	4	6	1
34	Palakkal	27	7	19	-	3
35	Kaveri	45	12	11	8	10
	Total	1325	318	387	205	415

**Appendix 2.8**

**Varavoor Pt. Beneficiary Group wise opinion of level of satisfaction with respect to  
Time, Quality and Quantity**

Sl.No	Name of BG	Total Families	Time		Quantity		Quantity	
			Y	N	Y	N	Y	N
1	2	3	4	5	6	7	8	9
1	Dhansasree	38	38	-	38	-	38	-
2	Karthika	33	33	-	33	-	33	-
3	Jalasree	52	52	-	52	-	52	-
4	Ayalkoottam	54	54	-	54	-	54	-
5	Swasraya	38	38	-	38	-	38	-
6	Narmada	30	30	-	30	-	30	-
7	Triveni	39	39	-	39	-	39	-
8	Jaladhara	45	44	1	44	1	44	1
9	Sangamithra	22	22	-	22	-	22	-
10	Gangotri	51	51	-	51	-	51	-
11	Ramanihira	27	27	-	27	-	-	27
12	Haritha	53	52	1	50	3	52	1
13	Kairali	12	12	-	12	-	12	-
14	Mythri	24	24	-	24	-	24	-
15	Anugraha	44	42	2	35	9	42	2
16	Thripthi	32	32	-	32	-	32	-
17	Aiswarya	47	47	-	47	-	47	-
18	Jalaregha	52	52	-	52	-	52	-
19	Varavoor	30	3	27	30	-	30	-
20	Vaisali	40	40	-	40	-	40	-
21	Navajeevan	44	44	-	40	4	35	9
22	Jalasangamam	31	31	-	31	-	31	-
23	Sarayu	29	29	-	29	-	29	-
24	Kulirma	39	39	-	39	-	39	-
25	Jalalsangamam	35	35	0	35	-	35	-
26	Sangamam	41	40	1	40	1	40	1
27	Souparnika	38	35	3	35	3	35	3
28	Souhrida	46	39	7	39	7	39	7
29	Naduvattom	28	27	1	27	1	27	1
30	Priyadarshini	60	60	-	60	-	60	-
31	Friends	28	28	-	28	-	28	-
32	Karuna	36	36	-	36	-	36	-
33	Nila	35	34	1	34	1	34	1
34	Palakkal	27	27	-	27	-	27	-
35	Kaveri	45	45	-	45	-	45	-
	Total	1325	1281	44	1295	30	1272	53

**Appendix 3.1**  
**Kongad Pt- Beneficiary wise Economic Status of the Households**

Name of BG	No. of APL families				No. of BPL families			
	General	SC	ST	Total	General	SC	ST	Total
Akshaya	50	0	0	50	0	0	0	0
Amrutha	30	0	1	31	3	1	1	5
Attakkad	9	0	0	9	0	2	0	2
Ayyappankunnu	9	0	0	9	11	0	0	11
Ayyappankavu	23	0	0	23	14	2	2	18
Bhagyasree	24	1	0	25	9	0	0	9
Challikkal	62	2	1	65	5	4	0	9
Cholakund	47	0	0	47	12	0	0	12
Chundekkad	9	0	0	9	12	0	0	12
Gandhi	45	2	0	47	14	1	0	15
Gangothry	29	1	0	30	0	7	0	7
Jalapriya	30	0	0	30	6	1	0	7
Janadhara	27	0	0	27	0	1	0	1
Janapriya, Cherappatta	16	0	0	16	6	0	2	8
Janapriya, Kunnikkode	38	2	1	41	3	3	0	6
Kasthoorba	25	1	0	26	15	7	1	23
Krishna	33	0	0	33	4	0	0	4
Kunnath-Kovelingil	16	0	0	16	6	3	0	9
Mahatma Gandhi	19	0	0	19	10	7	0	17
Manikkassery	22	0	0	22	0	1	0	1
Manjerikavu	22	0	0	22	0	1	0	1
Menassery	29	0	0	29	11	0	0	11
Nellikunnu	28	0	0	28	10	10	6	26
Nila	8	0	0	8	15	1	0	16
Oruma, Mundeppadam	34	0	0	34	0	0	0	0
Pavithram	52	0	0	52	3	0	0	3
Puliyankad	22	0	0	22	14	6	1	21
Samrithi	29	0	0	29	1	0	0	1
Sindhu	18	0	0	18	2	0	0	2
Sivaganga	50	0	0	50	4	1	0	5
Sivapuri	17	0	0	17	9	0	1	10
Souhrida	59	0	0	59	4	1	0	5
Souparnika	42	0	0	42	9	0	0	9
Thrippalamunda	School BG (Water Supply to School purposes)							
Thriveni	13	0	0	13	7	6	1	14
Vandana	22	0	0	22	7	4	0	11
Varuna	50	0	0	50	0	0	0	0
Vettukulam	36	0	0	36	7	3	0	10
Vivekananda	36	0	0	36	13	1	0	14
Yuvajana	27	2	1	30	16	7	2	25
<b>Total</b>	<b>1157</b>	<b>11</b>	<b>4</b>	<b>1172</b>	<b>262</b>	<b>81</b>	<b>17</b>	<b>360</b>

**Appendix 3.2**

<b>Kongad Pt- Beneficiary wise - Area wise Classification of Families on the basis of Land Holdings</b>						
<b>Sl. No.</b>	<b>Name of BG</b>	<b>No. of Families with respect to Land Holdings (Area in cents)</b>				
		<b>Below-20</b>	<b>20-50</b>	<b>50-70</b>	<b>70-100</b>	<b>100 and Above</b>
1	Akshaya	6	25	8	6	5
2	Amrutha	23	6	4	0	3
3	Attakkad	2	1	1	1	6
4	Ayyappankunnu	1	16	3	0	0
5	Ayyappankavu	15	23	3	0	0
6	Bhagyasree	1	32	0	1	0
7	Challikkal	2	66	6	0	0
8	Cholakund	9	23	9	14	4
9	Chundekkad	2	18	1	0	0
10	Gandhi	30	18	4	2	8
11	Gangothry	20	9	2	2	4
12	Jalapriya	15	17	1	2	2
13	Janadhara	11	13	4	0	0
14	Janapriya, Cherappatta	10	7	4	1	2
15	Janapriya, Kunnikkode	13	21	6	5	2
16	Kasthoorba	9	37	2	0	1
17	Krishna	19	10	4	0	4
18	Kunnath-Kovelingil	13	9	3	0	0
19	Mahatma Gandhi	28	3	3	0	2
20	Manikkassery	1	20	2	0	0
21	Manjerikavu	4	7	3	0	9
22	Menassery	4	5	13	9	9
23	Nellikunnu	29	25	0	0	0
24	Nila	22	1	0	0	1
25	Oruma, Mundeppadam	6	20	8	0	0
26	Pavithram	7	22	9	5	12
27	Puliyankad	14	27	2	0	0
28	Samrithi	8	5	5	4	8
29	Sindhu	7	3	3	3	4
30	Sivaganga	19	14	5	4	13
31	Sivapuri	11	10	1	2	3
32	Souhrida	0	8	18	20	18
33	Souparnika	25	9	8	1	8
34	Thrippalamunda	<b>School BG</b>				
35	Thriveni	3	20	3	1	0
36	Vandana	5	2	1	1	24
37	Varuna	15	21	6	1	7
38	Vettukulam	6	11	20	5	4
39	Vivekananda	7	13	12	5	13
40	Yuvajana	30	11	4	4	6
	<b>Total</b>	<b>452</b>	<b>608</b>	<b>191</b>	<b>99</b>	<b>182</b>

**Appendix 3.3**

**Kongad Pt- Beneficiary Group wise No. of Households on the basis of nature of Houses**

Sl. No.	Name of BG	No. of Families having					Total
		Concrete	Tile	Thatched	Hut	Others	
1	Akshaya	34	16	0	0	0	50
2	Amrutha	4	30	0	0	2	36
3	Attakkad	3	8	0	0	0	11
4	Ayyappankunnu	0	20	0	0	0	20
5	Ayyappankavu	5	36	0	0	0	41
6	Bhagyasree	3	31	0	0	0	34
7	Challikkal	12	62	0	0	0	74
8	Cholakund	24	35	0	0	0	59
9	Chundekkad	0	21	0	0	0	21
10	Gandhi	15	47	0	0	0	62
11	Gangothry	7	30	0	0	0	37
12	Jalapriya	7	30	0	0	0	37
13	Janadhara	9	19	0	0	0	28
14	Janapriya, Cherappatta	7	17	0	0	0	24
15	Janapriya, Kunnikkode	7	40	0	0	0	47
16	Kasthoorba	1	48	0	0	0	49
17	Krishna	8	29	0	0	0	37
18	Kunnath-Kovelingil	3	22	0	0	0	25
19	Mahatma Gandhi	17	19	0	0	0	36
20	Manikkassery	5	18	0	0	0	23
21	Manjerikavu	12	11	0	0	0	23
22	Menassery	9	31	0	0	0	40
23	Nellikunnu	4	50	0	0	0	54
24	Nila	2	22	0	0	0	24
25	Oruma, Mundeppadam	12	22	0	0	0	34
26	Pavithram	28	27	0	0	0	55
27	Puliyankad	4	39	0	0	0	43
28	Samrithi	14	16	0	0	0	30
29	Sindhu	9	11	0	0	0	20
30	Sivaganga	18	37	0	0	0	55
31	Sivapuri	8	19	0	0	0	27
32	Souhrida	18	46	0	0	0	64
33	Souparnika	8	43	0	0	0	51
34	Thrippalamunda	School BG					
35	Thriveni	1	26	0	0	0	27
36	Vandana	3	30	0	0	0	33
37	Varuna	27	23	0	0	0	50
38	Vettukulam	15	31	0	0	0	46
39	Vivekananda	35	15	0	0	0	50
40	Yuvajana	6	49	0	0	0	55
	<b>Total</b>	<b>404</b>	<b>1126</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1532</b>

**Appendix 3.4**  
**Kongad Pt- Beneficiary Group wise Occupational classification of Households**

Sl. No.	Name of BG	Occupational Classification (in Nos.)			
		Coolie	Agriculture	Others	Total
1	Akshaya	6	1	43	50
2	Amrutha	24	4	8	36
3	Attakkad	6	0	5	11
4	Ayyappankunnu	11	7	2	20
5	Ayyappankavu	13	4	24	41
6	Bhagyasree	15	6	13	34
7	Challikkal	24	10	40	74
8	Cholakund	53	3	3	59
9	Chundekkad	16	5	0	21
10	Gandhi	25	8	29	62
11	Gangothry	20	10	7	37
12	Jalapriya	28	3	6	37
13	Janadhara	16	8	4	28
14	Janapriya, Cherappatta	18	1	5	24
15	Janapriya, Kunnikcode	28	6	13	47
16	Kasthoorba	40	4	5	49
17	Krishna	15	7	15	37
18	Kunnath-Kovelingil	20	1	4	25
19	Mahatma Gandhi	21	2	13	36
20	Manikkassery	6	2	15	23
21	Manjerikavu	4	4	15	23
22	Menassery	27	3	10	40
23	Nellikunnu	45	2	7	54
24	Nila	21	1	2	24
25	Oruma, Mundeppadam	34	0	0	34
26	Pavithram	34	5	16	55
27	Puliyankad	23	3	17	43
28	Samrithi	6	13	11	30
29	Sindhu	6	4	10	20
30	Sivaganga	23	13	19	55
31	Sivapuri	18	5	4	27
32	Souhrida	37	5	22	64
33	Souparnika	35	8	8	51
34	Thrippalamunda	School BG			
35	Thriveni	17	5	5	27
36	Vandana	11	12	10	33
37	Varuna	35	0	15	50
38	Vettukulam	31	4	11	46
39	Vivekananda	28	5	17	50
40	Yuvajana	40	3	12	55
	<b>Total</b>	<b>880</b>	<b>187</b>	<b>465</b>	<b>1532</b>

**Appendix 3.5**  
**Kongad Pt- Beneficiary Group wise Monthly Subscription and Storage Capacity of the WS Tank**

Sl. No.	Name of BG	Monthly Subscription (in Rs.)	Capacity of the Tank (in Ltrs.)
1	Akshaya	50	15000
2	Amrutha	50	10000
3	Attakkad	40	10000
4	Ayyappankunnu	50	7500
5	Ayyappankavu	40	10000
6	Bhagyasree	40	7500
7	Challikkal	40	7500
8	Cholakund	50	10000
9	Chundekkad	40	7500
10	Gandhi	50	15000
11	Gangothry	50	8000
12	Jalapriya	50	12500
13	Janadhara	40	8000
14	Janapriya, Cherappatta	50	7000
15	Janapriya, Kunnikkode	40	8000
16	Kasthoorba	35	10000
17	Krishna	40	10000
18	Kunnath-Kovelingil	50	5000
19	Mahatma Gandhi	50	10000
20	Manikkassery	50	7500
21	Manjerikavu	50	5000
22	Menassery	40	7500
23	Nellikunnu	35	12500
24	Nila	50	7000
25	Oruma, Mundeppadam	35	7500
26	Pavithram	50	10000
27	Puliyankad	50	10000
28	Samrithi	50	7500
29	Sindhu	50	10000
30	Sivaganga	50	10000
31	Sivapuri	50	10000
32	Souhrida	50	15000
33	Souparnika	40	12000
34	Thrippalamunda	0	3000
35	Thriveni	30	7500
36	Vandana	50	10000
37	Varuna	50	7500
38	Vettukulam	50	7500
39	Vivekananda	40	10000
40	Yuvajana	50	12000
	<b>Total</b>	<b>1775</b>	<b>367500</b>



**Appendix 3.6**  
**Kongad PT - Beneficiary Group wise details of Quantity and Availability of Water**

Sl. No.	Name of BG	Availability of Water (with respect to No. of families)				Average Quantity (in Ltrs)
		1 Hour	2 Hours	3 Hours	Total Families	
1	Akshaya	0	0	50	50	400
2	Amrutha	5	27	4	36	256
3	Attakkad	2	3	6	11	215
4	Ayyappankunnu	20	0	0	20	500
5	Ayyappankavu	41	0	0	41	510
6	Bhagyasree	34	0	0	34	435
7	Challikkal	74	0	0	74	403
8	Cholakund	0	0	59	59	350
9	Chundekkad	21	0	0	21	283
10	Gandhi	0	0	62	62	281
11	Gangothry	35	2	0	37	319
12	Jalapriya	15	8	14	37	216
13	Janadhara	0	0	28	28	230
14	Janapriya, Cherappatta	0	24	0	24	240
15	Janapriya, Kunnikkode	0	30	17	47	241
16	Kasthoorba	47	2	0	49	544
17	Krishna	37	0	0	37	311
18	Kunnath-Kovelingil	17	4	4	25	466
19	Mahatma Gandhi	0	6	30	36	363
20	Manikkassery	23	0	0	23	307
21	Manjerikavu	0	3	20	23	304
22	Menassery	0	15	25	40	400
23	Nellikunnu	54	0	0	54	444
24	Nila	1	10	13	24	396
25	Oruma, Mundeppadam	0	0	34	34	450
26	Pavithram	0	0	55	55	400
27	Puliyankad	43	0	0	43	754
28	Samrithi	0	0	30	30	337
29	Sindhu	19	0	1	20	248
30	Sivaganga	0	0	55	55	360
31	Sivapuri	1	12	15	27	343
32	Souhrida	0	0	64	64	300
33	Souparnika	13	20	18	51	259
34	Thrippalamunda	0	School BG	0	0	475
35	Thriveni	27	0	0	27	517
36	Vandana	0	3	30	33	260
37	Varuna	0	0	50	50	250
38	Vettukulam	0	0	46	46	350
39	Vivekananda	0	0	50	50	450
40	Yuvajana	39	12	3	55	400
	<b>Total</b>	<b>568</b>	<b>181</b>	<b>783</b>	<b>1532</b>	<b>14567</b>

**Appendix 3.7**

**Kongad Pt- Beneficiary Group wise - Usage of Water by the households under WSS**

Sl. No.	Name of BG	Total Families	No. of households using water for			
			Drinking	Washing & Cleaning	Cooking	All Purposes
1	Akshaya	50	0	0	0	50
2	Amrutha	36	28	19	17	7
3	Attakkad	11	10	7	3	1
4	Ayyappankunnu	20	0	2	0	18
5	Ayyappankavu	41	0	0	0	41
6	Bhagyasree	34	0	0	0	34
7	Chalikkal	74	0	0	0	74
8	Cholakund	59	0	0	0	59
9	Chundekkad	21	0	0	0	21
10	Gandhi	62	0	0	0	62
11	Gangothry	37	0	5	0	32
12	Jalapriya	37	22	22	6	14
13	Janadhara	28	0	0	0	28
14	Janapriya, Cherappatta	24	24	24	24	0
15	Janapriya, Kunnikkode	47	47	47	5	24
16	Kasthoorba	49	0	0	0	49
17	Krishna	37	0	0	0	37
18	Kunnath-Kovelingil	25	25	0	0	25
19	Mahatma Gandhi	36	36	36	36	0
20	Manikkassery	23	0	0	0	23
21	Manjerikavu	23	0	0	0	21
22	Menassery	40	0	0	0	39
23	Nellikunnu	55	0	0	0	55
24	Nila	24	14	13	13	10
25	Oruma, Mundeppadam	34	0	0	0	34
26	Pavithram	55	0	0	0	55
27	Puliyankad	43	1	1	0	42
28	Samrithi	30	30	30	30	0
29	Sindhu	20	12	10	8	9
30	Sivaganga	55	5	4	0	51
31	Sivapuri	27	17	16	9	11
32	Souhrida	64	0	0	0	64
33	Souparnika	51	31	27	13	21
34	Thrippalamunda		School BG			
35	Thriveni	27	0	0	0	27
36	Vandana	33	33	33	33	0
37	Varuna	50	0	0	0	50
38	Vettukulam	46	0	0	0	46
39	Vivekananda	50	0	0	0	50
40	Yuvajana	55	31	51	48	9
	<b>Total</b>	<b>1533</b>	<b>366</b>	<b>347</b>	<b>245</b>	<b>1193</b>

**Appendix 3.8**

**Kongad Pt- Beneficiary Group wise opinion of level of satisfaction with respect to**

Name of BG	Total Families	Time		Quantity		Quality		KWA Scheme,if any	
		Y	N	Y	N	Y	N	Y	N
Akshaya	50	50	0	50	0	50	0	0	50
Amrutha	36	36	0	36	0	36	0	0	36
Attakkad	11	6	0	5	0	2	0	0	0
Ayyappankunnu	20	20	0	19	1	0	20	0	20
Ayyappankavu	41	41	0	39	0	41	0	0	41
Bhagyasree	34	34	0	34	0	34	0	0	34
Challikkal	74	74	0	74	0	74	0	0	74
Cholakund	59	59	0	59	0	59	0	0	58
Chundekkad	21	21	0	2	19	21	0	0	21
Gandhi	62	62	0	62	0	62	0	22	41
Gangothry	37	37	0	37	0	37	0	0	37
Jalapriya	37	37	0	37	0	37	0	0	37
Janadhara	28	28	0	28	0	28	0	0	28
Janapriya, Cherappatta	24	24	0	24	0	24	0	0	24
Janapriya, Kunnikkode	47	47	0	47	0	47	0	0	47
Kasthoorba	49	49	0	49	0	49	0	1	48
Krishna	37	37	0	37	0	37	0	0	37
Kunnath-Kovelingil	25	22	2	23	2	23	2	1	23
Mahatma Gandhi	36	36	0	36	0	36	0	0	36
Manikkassery	23	8	8	22	1	22	1	0	23
Manjerikavu	23	23	0	23	0	23	0	5	18
Menassery	40	40	0	40	0	40	0	18	22
Nellikunnu	55	55	0	44	11	54	0	0	55
Nila	24	24	0	24	0	24	0	2	22
Oruma, Mundeppadam	34	34	0	34	0	34	0	0	34
Pavithram	55	55	0	55	0	55	0	5	50
Puliyankad	43	43	0	42	1	42	0	0	43
Samrithi	30	30	0	30	0	30	0	0	30
Sindhu	20	20	0	20	0	20	0	0	20
Sivaganga	55	52	2	52	2	54	0	0	54
Sivapuri	27	27	0	27	0	27	0	0	27
Souhrida	64	64	0	64	0	64	0	10	54
Souparnika	51	51	0	51	0	51	0	0	51
Thrippalamunda	School BG								
Thriveni	27	27	0	27	0	27	0	0	27
Vandana	33	33	0	33	0	33	0	0	33
Varuna	50	50	0	46	4	45	5	10	40
Vettukulam	46	46	0	46	0	46	0	0	46
Vivekananda	50	50	0	8	42	50	0	1	49
Yuvajana	55	55	0	55	0	55	0	0	55
<b>Total</b>	<b>1533</b>	<b>1507</b>	<b>12</b>	<b>1441</b>	<b>83</b>	<b>1493</b>	<b>28</b>	<b>75</b>	<b>1445</b>

**Appendix 4.1**  
**Sholayur Pt- Beneficiary wise Economic Status of the Households**

Sl. No.	Name of BG	No. of APL families				No. of BPL families			
		General	SC	ST	Total	General	SC	ST	Total
1	Aiswarya	15	0	0	15	22	0	9	31
2	Akshara	2	0	0	2	21	4	0	25
3	Anaswara	36	0	0	36	19	1	17	37
4	Amruthadhara	11	0	0	11	0	0	0	0
5	Arogyamatha	School BG							
6	Brahmaputhra	13	0	0	13	11	0	1	12
7	Darsana	12	0	2	14	17	0	39	56
8	Durga	1	0	0	1	0	0	48	48
9	Ganga	6	2	1	9	18	7	4	29
10	Greenvalley	21	0	7	28	11	4	17	32
11	Indiraji	15	0	0	15	3	0	7	10
12	Indiranadhi	13	0	0	13	5	0	1	6
13	Jaladhara	31	0	0	31	12	0	0	12
14	Jeevandhara	2	0	0	2	1	0	1	2
15	Kalaivani	18	2	0	20	4	2	48	54
16	Kananvahini	5	0	0	5	36	31	12	79
17	Karunya	2	0	0	2	16	0	35	51
18	Kripa	4	1	1	6	16	22	7	45
19	Mariyamman	17	1	0	18	6	0	43	49
20	Maithri	12	2	4	18	34	11	3	48
21	Minerva	0	0	0	0	5	1	0	6
22	Navajeevan	10	0	0	10	6	1	5	12
23	Santhinagar	21	0	3	24	0	0	19	19
24	Sreeja	1	0	0	1	0	0	18	18
25	Sreekrishna	7	0	10	17	3	10	61	74
26	Subash	7	0	0	7	10	0	14	24
27	Thainadhi	7	0	7	14	9	1	25	35
28	Thekkekadampara	23	0	1	24	7	0	59	66
29	Thusharam	9	0	0	9	11	0	14	25
30	Udaya	5	0	2	7	6	0	42	48
31	Ushas	18	1	1	20	0	0	1	1
32	Vanadurga	2	0	0	2	6	3	51	60
33	Veerakali	2	0	0	2	1	0	57	58
34	Veettikundu	0	0	0	0	0	1	20	21
35	Vrindavan	14	3	1	18	6	5	27	38
	<b>Total</b>	<b>362</b>	<b>12</b>	<b>40</b>	<b>414</b>	<b>322</b>	<b>104</b>	<b>705</b>	<b>1131</b>

**Appendix 4.2**  
**Sholayur Pt- Beneficiary wise - Area wise Classification of Families**  
**on the basis of Land Holdings**

Sl. No.	Name of BG	No. of Families with respect to Land Holdings (Area in cents)				
		Below-20	20-50	50-70	70-100	100 and Above
1	Aiswarya	6	1	4	0	35
2	Akshara	2	2	2	2	19
3	Anaswara	26	8	2	0	37
4	Amruthadhara	0	0	0	0	11
5	Arogyamatha	School BG				
6	Brahmaputhra	18	0	5	0	2
7	Darsana	8	13	2	0	47
8	Durga	39	0	0	0	10
9	Ganga	5	1	1	2	29
10	Greenvalley	19	22	2	1	16
11	Indiaraji	0	0	1	0	24
12	Indiranadhi	7	0	0	0	12
13	Jaladhara	1	1	1	0	40
14	Jeevandhara	0	0	1	0	3
15	Kalaivani	50	10	0	0	14
16	Kananvahini	11	1	11	0	61
17	Karunya	0	1	5	0	47
18	Kripa	1	4	0	3	43
19	Mariyamman	2	0	2	0	63
20	Maithri	41	5	5	0	15
21	Minerva	0	0	0	0	6
22	Navajeevan	0	0	0	0	22
23	Santhinagar	0	0	0	0	43
24	Sreeja	0	0	0	0	19
25	Sreekrishna	79	1	0	0	11
26	Subash	0	2	3	0	26
27	Thainadhi *	28	2	0	0	7
28	Thekkekadampara	60	1	0	0	29
29	Thusharam	2	2	4	0	26
30	Udaya	25	6	0	0	24
31	Ushas	1	0	2	0	18
32	Vanadurga	5	2	5	1	49
33	Veerakali	0	0	3	0	57
34	Veettikundu	17	3	0	0	1
35	Vrindavan	24	2	1	1	28
	<b>Total</b>	<b>477</b>	<b>90</b>	<b>62</b>	<b>10</b>	<b>894</b>

\*Out of 49 families, 12 families have settled in Oorus in this BG

**Appendix 4.3**  
**Sholayr Pt- Beneficiary Group wise No. of Households on the basis of nature of Houses**

Sl. No.	Name of BG	No. of Families having					Total
		Concrete	Tile	Thatched	Hut	Others	
1	Aiswarya	4	42	0	0	0	46
2	Akshara	0	16	0	9	2	27
3	Anaswara	10	63	0	0	0	73
4	Amruthadhara	0	11	0	0	0	11
5	Arogyamatha	School BG					
6	Brahmaputhra	0	25	0	0	0	25
7	Darsana	0	64	0	6	0	70
8	Durga	0	49	0	0	0	49
9	Ganga	0	33	0	0	5	38
10	Greenville	2	52	0	0	6	60
11	Indiaraji	0	24	0	0	1	25
12	Indiranadhi	0	19	0	0	0	19
13	Jaladhara	6	25	0	0	12	43
14	Jeevandhara	0	4	0	0	0	4
15	Kalaivani	5	47	0	0	22	74
16	Kananvahini	5	55	0	0	24	84
17	Karunya	1	30	0	0	22	53
18	Kripa	0	35	0	0	16	51
19	Mariyamman	2	49	0	16	0	67
20	Maithri	10	42	0	0	14	66
21	Minerva	0	6	0	0	0	6
22	Navajeevan	4	18	0	0	0	22
23	Santhinagar	1	28	0	14	0	43
24	Sreeja	15	4	0	0	0	19
25	Sreekrishna	4	86	0	0	1	91
26	Subash	0	18	0	13	0	31
27	Thainadhi	0	49	0	0	0	49
28	Thekkekadampara	3	87	0	0	0	90
29	Thusharam	0	27	0	0	7	34
30	Udaya	3	45	0	0	7	55
31	Ushas	0	18	0	3	0	21
32	Vanadurga	3	46	0	0	13	62
33	Veerakali	0	60	0	0	0	60
34	Veetikundu	0	19	0	0	2	21
35	Vrindavan	2	48	0	0	6	56
	<b>Total</b>	<b>80</b>	<b>1244</b>	<b>0</b>	<b>61</b>	<b>160</b>	<b>1545</b>

**Appendix 4.4**  
**Sholayur Pt- Beneficiary Group wise Occupational classification**  
**of Households**

Sl. No.	Name of BG	Occupational Classification (in Nos.)			
		Coolie	Agriculture	Others	Total
1	Aiswarya	20	24	2	46
2	Akshara	10	17	0	27
3	Anaswara	33	22	18	73
4	Amruthadhara	0	11	0	11
5	Arogyamatha	School BG			
6	Brahmaputhra	25	0	0	25
7	Darsana	32	36	2	70
8	Durga	37	9	3	49
9	Ganga	22	12	4	38
10	Greenvalley	53	4	3	60
11	Indiraji	11	14	0	25
12	Indiranadhi	8	11	0	19
13	Jaladhara	2	41	0	43
14	Jeevandhara	2	2	0	4
15	Kalaivani	67	3	4	74
16	Kananvahini	26	7	51	84
17	Karunya	36	13	4	53
18	Kripa	36	12	3	51
19	Mariyamman	31	29	7	67
20	Maithri	28	11	27	66
21	Minerva	3	3	0	6
22	Navajeevan	7	15	0	22
23	Santhinagar	24	14	5	43
24	Sreeja	7	12	0	19
25	Sreekrishna	86	5	0	91
26	Subash	11	20	0	31
27	Thainadhi	44	3	2	49
28	Thekkekadampara	59	27	4	90
29	Thusharam	23	11	0	34
30	Udaya	51	4	0	55
31	Ushas	4	16	1	21
32	Vanadurga	46	12	4	62
33	Veerakali	45	14	1	60
34	Veettikundu	20	1	0	21
35	Vrindavan	48	5	3	56
	<b>Total</b>	<b>957</b>	<b>440</b>	<b>148</b>	<b>1545</b>

**Appendix 4.5**  
**Beneficiary Group wise Monthly Subscription and Storage Capacity of**  
**the WS Tank**

<b>Sl. No.</b>	<b>Name of BG</b>	<b>Monthly Subscription (in Rs.)</b>	<b>Capacity of the Tank (in Ltrs.)</b>
1	Aiswarya	24	10000
2	Akshara	30	15000
3	Anaswara	30	10000
4	Amruthadhara	20	10000
5	Arogyamatha	20	10000
6	Brahmaputhra	50	10000
7	Darsana	30	10000
8	Durga	25	10000
9	Ganga	0	10000
10	Greenvalley	21	10000
11	Indiaraji	17	10000
12	Indiranadhi	50	10000
13	Jaladhara	20	12000
14	Jeevandhara	25	10000
15	Kalaivani	25	20000
16	Kananvahini	0	16000
17	Karunya	0	10000
18	Kripa	0	12700
19	Mariyamman	30	10000
20	Maithri	30	10000
21	Minerva	27	10000
22	Navajeevan	21	10000
23	Santhinagar	30	10000
24	Sreeja	35	10000
25	Sreekrishna	25	15000
26	Subash	30	10000
27	Thainadhi	35	7500
28	Thekkekadampara	30	11500
29	Thusharam	19	15000
30	Udaya	30	10000
31	Ushas	41	10000
32	Vanadurga	0	10000
33	Veerakali	20	10000
34	Veetikundu	30	10000
35	Vrindavan	30	10000
	<b>Total</b>	<b>850</b>	<b>384700</b>



**Appendix 4.6**  
**Beneficiary Group wise details of Quantity and Availability of Water**

Sl. No.	Name of BG	Availability of Water (with respect to No. of families)				Average Quantity (in Ltrs)
		1 Hour	2 Hours	3 Hours	Total Families	
1	Aiswarya	0	0	0	0	0
2	Akshara	0	0	0	0	0
3	Anaswara	0	72	2	73	180
4	Amruthadhara	0	0	0	0	0
5	Arogyamatha	0	0	0	0	0
6	Brahmaputhra	0	25	0	25	197
7	Darsana	0	2	68	70	179
8	Durga	0	0	49	49	180
9	Ganga	0	0	0	0	0
10	Greenvalley	0	0	60	60	301
11	Indiraji	0	0	0	0	0
12	Indiranadhi	0	17	0	0	190
13	Jaladhara	0	0	0	0	0
14	Jeevandhara	0	0	0	0	0
15	Kalaivani	0	0	74	74	171
16	Kananvahini	0	0	0	0	0
17	Karunya	0	0	0	0	0
18	Kripa	0	0	0	0	0
19	Mariyamman	0	67	0	67	193
20	Maithri	0	6	58	66	120
21	Minerva	0	0	0	0	0
22	Navajeevan	0	0	0	0	0
23	Santhinagar	0	43	0	43	95
24	Sreeja	0	18	1	19	168
25	Sreekrishna	0	22	69	91	251
26	Subash	0	31	0	31	171
27	Thainadhi	49	0	0	49	188
28	Thekkekadampara	0	87	3	90	195
29	Thusharam	0	0	0	0	0
30	Udaya	0	0	55	55	240
31	Ushas	3	18	0	21	169
32	Vanadurga	0	0	0	0	0
33	Veerakali	0	0	60	60	254
34	Veettikundu	0	0	21	21	180
35	Vrindavan	0	0	56	56	192

Appendix 4.7						
Sholayur Pt Beneficiary Group wise - Usage of Water by the households under WSS						
Sl. No.	Name of BG	Total Families	No. of households using water for			
			Drinking	Washing & Cleaning	Cooking	All Purposes
1	Aiswarya	0	0	0	0	0
2	Akshara	0	0	0	0	0
3	Anaswara	73	62	62	62	12
4	Amruthadhara	0	0	0	0	0
5	Arogyamatha	School BG				
6	Brahmaputhra	25	0	0	0	25
7	Darsana	70	53	40	44	20
8	Durga	49	49	48	49	0
9	Ganga	0	0	0	0	0
10	Greenvalley	60	60	60	60	0
11	Indiaraji	0	0	0	0	0
12	Indiranadhi	17	13	8	8	4
13	Jaladhara	0	0	0	0	0
14	Jeevandhara	0	0	0	0	0
15	Kalaivani	74	74	74	74	0
16	Kananvahini	0	0	0	0	0
17	Karunya	0	0	0	0	0
18	Kripa	0	0	0	0	0
19	Mariyamman	67	4	10	8	63
20	Maithri	66	0	0	0	66
21	Minerva	0	0	0	0	0
22	Navajeevan	0	0	0	0	0
23	Santhinagar	43	13	13	13	30
24	Sreeja	19	19	6	19	0
25	Sreekrishna	91	91	90	90	0
26	Subash	31	29	29	29	2
27	Thainadhi	49	40	49	49	0
28	Thekkekadampara	90	85	90	90	15
29	Thusharam	0	0	0	0	0
30	Udaya	55	55	55	55	0
31	Ushas	21	21	6	20	0
32	Vanadurga	0	0	0	0	0
33	Veerakali	61	0	0	0	61
34	Veetikundu	21	21	21	21	0
35	Vrindavan	56	56	56	56	0
	<b>Total</b>	<b>1038</b>	<b>745</b>	<b>717</b>	<b>747</b>	<b>298</b>

**Appendix 4.8**  
**Sjolayur Pt:- Beneficiary Group wise opinion of level of satisfaction with respect to**  
**Time, Quality and Quantity**

Sl. No.	Name of BG	Total Families	Time		Quantity		Quality		KWA Scheme,if any	
			Y	N	Y	N	Y	N	Y	N
1	Aiswarya	0	0	0	0	0	0	0	0	0
2	Akshara	0	0	0	0	0	0	0	0	0
3	Anaswara	73	70	0	70	0	70	0	72	0
4	Amruthadhara	0	0	0	0	0	0	0	0	0
5	Arogyamatha	School BG								
6	Brahmaputhra	25	25	0	25	0	25	0	25	0
7	Darsana	70	70	0	70	0	70	0	67	0
8	Durga	49	49	0	49	0	49	0	0	49
9	Ganga	0	0	0	0	0	0	0	0	0
10	Greenvalley	60	60	0	60	0	60	0	0	60
11	Indiaraji	0	0	0	0	0	0	0	0	0
12	Indiranadhi	17	17	0	17	0	17	0	0	16
13	Jaladhara	0	0	0	0	0	0	0	0	0
14	Jeevandhara	0	0	0	0	0	0	0	0	0
15	Kalaivani	74	70	0	70	0	70	0	0	70
16	Kananvahini	0	0	0	0	0	0	0	0	0
17	Karunya	0	0	0	0	0	0	0	0	0
18	Kripa	0	0	0	0	0	0	0	0	0
19	Mariyamman	67	60	0	62	0	63	0	95	0
20	Maithri	66	66	1	61	1	61	1	61	1
21	Minerva	0	0	0	0	0	0	0	0	0
22	Navajeevan	0	0	0	0	0	0	0	0	0
23	Santhinagar	43	43	0	43	0	43	0	0	43
24	Sreeja	19	19	0	19	0	19	0	0	19
25	Sreekrishna	91	91	0	91	0	91	0	0	91
26	Subash	31	31	0	31	0	31	0	0	31
27	Thainadhi	49	45	0	46	0	45	0	0	45
28	Thekkekadampara	90	90	0	90	0	89	0	90	0
29	Thusharam	0	0	0	0	0	0	0	0	0
30	Udaya	55	55	0	55	0	55	0	0	55
31	Ushas	21	21	0	21	0	21	0	0	21
32	Vanadurga	0	0	0	0	0	0	0	0	0
33	Veerakali	61	61	0	61	0	61	0	61	0
34	Veetikundu	21	21	0	21	0	21	0	0	21
35	Vrindavan	56	56	0	56	0	56	0	56	0
	<b>Total</b>	<b>1038</b>	<b>1020</b>	<b>1</b>	<b>1018</b>	<b>1</b>	<b>1017</b>	<b>1</b>	<b>527</b>	<b>522</b>

Y = Yes

N = No

**Table - 5.1**  
**Beneficiary Group wise No. of Families and Population**

Sl.No	Name of BG	No. of families	Categorywise Families				Totalpopulation	Remarks
			SC	ST	General	Total		
1	Anugraha	15	3	-	12	15	77	
2	Anugraha	15	-	-	15	15	97	
3	Jaladhara	11	-	-	11	11	58	
4	Janakeeyam	15	1	-	14	15	83	
5	Jeevanasree	13	-	-	13	13	86	
6	Kaveri	15	8	-	7	15	72	
7	Mahul Hayath	15	2	-	13	15	94	
8	Mahul Muthalaq	10	-	-	10	10	53	
9	Nabah	14	-	-	14	14	75	
10	Narmada	15	6	-	9	15	63	
11	Nehar	16	1	-	15	16	77	
12	Nila	16	-	-	15	15	304	1School bg
13	Nile	15	-	-	15	15	106	
14	Nithyodaya	14	-	-	14	14	92	
15	Nayagra	16	10	-	6	16	94	
16	Pariyapuram	17	-	-	16	16	95	1Anganwadi
17	Priyadarshini	15	-	-	15	15	94	
18	Samridhi	15	1	-	14	15	78	
19	Sarovar	15	2	-	13	15	78	
20	Sarvodaya	15	-	-	15	15	72	
21	Varsha	9	5	-	4	9	37	
22	Yamuna	15	5	-	10	15	81	
	<b>Total</b>	316	44		270	314	1966	

**Table -5. 2**  
**Beneficiary Group wise Economic Status**

Sl.No	Name of BG	No of APL families				No of BPL families				Remarks
		SC	ST	General	Total	SC	ST	General	Total	
1	Anugraha	-	-	10	10	3	-	2	5	
2	Anugraha	-	-	10	10	-	-	5	5	
3	Jaladhara	-	-	9	9	-	-	2	2	
4	Janakeeyam	-	-	12	12	1	-	2	3	
5	Jeevanasree	-	-	6	6	-	-	7	7	
6	Kaveri	-	-	4	4	8	-	3	11	
7	Mahul Hayath	-	-	11	11	2	-	2	4	
8	Mahul Muthalaq	-	-	8	8	-	-	2	2	
9	Nabah	-	-	9	9	-	-	5	5	
10	Narmada	2	-	5	7	4	-	4	8	
11	Nehar	-	-	11	11	1	-	4	5	
12	Nila	-	-	9	9	-	-	6	6	1School bg
13	Nile	-	-	12	12	-	-	3	3	
14	Nithyodaya	-	-	10	10	-	-	4	4	
15	Nayagra	3	-	4	7	7	-	2	9	
16	Pariyapuram	-	-	12	12	-	-	4	4	1Anganwadi
17	Priyadarshini	-	-	9	9	-	-	6	6	
18	Samridhi	-	-	9	9	1	-	5	6	
19	Sarovar	-	-	9	9	2	-	4	6	
20	Sarvodaya	-	-	10	10	-	-	5	5	
21	Varsha	1	-	3	4	4	-	1	5	
22	Yamuna	-	-	8	8	5	-	2	7	
	<b>Total</b>	6		190	196	38		80	118	

**Table-5.3**  
**Beneficiary Group wise Classification of families on the basis of land holdings**

Sl.No	Name of BG	Total families						100 & above
			Below 20	20-40	40-60	60-80	80-100	
1	Anugraha	15	9	5	-	1	-	-
2	Anugraha	15	2	2	5	2	2	2
3	Jaladhara	11	9	2	-	-	-	-
4	Janakeeyam	15	8	3	1	-	3	-
5	Jeevanasree	13	8	4	-	-	-	1
6	Kaveri	15	13	-	-	2	-	-
7	Mahul Hayath	15	12	3	-	-	-	-
8	Mahul Muthalaq	10	6	-	-	4	-	-
9	Nabah	14	9	3	2	-	-	-
10	Narmada	15	7	8	-	-	-	-
11	Nehar	16	10	2	-	3	-	1
12	Nila	16	4	5	5	2	-	-
13	Nile	15	10	-	4	-	-	1
14	Nithyodaya	14	14	-	-	-	-	-
15	Nayagra	16	11	1	4	-	-	-
16	Pariyapuram	17	8	8	-	-	-	-
17	Priyadarshini	15	4	9	1	-	-	1
18	Samridhi	15	4	2	-	6	-	3
19	Sarovar	15	5	7	-	2	-	1
20	Sarvodaya	15	10	5	-	-	-	-
21	Varsha	9	4	2	1	1	-	1
22	Yamuna	15	10	1	2	2	-	-
	<b>Total</b>	316	177	72	25	25	5	11

**Table -5. 4**  
**Beneficiary Group wise No. of Households on the basis of nature of Houses**

Sl. No	Name of BG	No of Families	No. of families having				Total
			Concrete	Tile	Thatched	Others	
1	Anugraha	15	4	11			15
2	Anugraha	15	5	10			15
3	Jaladhara	11	2	9			11
4	Janakeeyam	15	5	10			15
5	Jeevanasree	13	1	12			13
6	Kaveri	15	3	11	1		15
7	Mahul Hayath	15	5	10			15
8	Mahul Muthalaq	10	4	5	1		10
9	Nabah	14	6	7	1		14
10	Narmada	15	4	10	1		15
11	Nehar	16	7	9			16
12	Nila	16	2	14			16
13	Nile	15	7	8			15
14	Nithyodaya	14	2	11	1		14
15	Nayagra	16	1	15			16
16	Pariyapuram	17	6	9	2		17
17	Priyadarshini	15	5	10			15
18	Samridhi	15	6	9			15
19	Sarovar	15	8	7			15
20	Sarvodaya	15	6	9			15
21	Varsha	9		9			9
22	Yamuna	15	1	14			15
	<b>Total</b>	316	90	219	7		316

**Table-5.5**  
**Beneficiary Group wise Occupational Classification of Households**

Sl.No.	Name of BG	No of Families	Occupational Classification (in Nos)			
			Coolie	Agriculture	Others	Total
1	Anugraha	15	14		1	15
2	Anugraha	15	3	11	1	15
3	Jaladhara	11	9		2	11
4	Janakeeyam	15	15			15
5	Jeevanasree	13	8	3	2	13
6	Kaveri	15	13	1	1	15
7	Mahul Hayath	15	11	3	1	15
8	Mahul Muthalaq	10	3	1	6	10
9	Nabah	14	13		1	14
10	Narmada	15	11		4	15
11	Nehar	16	7	3	6	16
12	Nila	16	8	4	4	16

13	Nile	15	14		1	15
14	Nithyodaya	14	14			14
15	Nayagra	16	16			16
16	Pariyapuram	17	12		5	17
17	Priyadarshini	15	14		1	15
18	Samridhi	15	9	2	4	15
19	Sarovar	15	9	1	5	15
20	Sarvodaya	15	13		2	15
21	Varsha	9	5	2	2	9
22	Yamuna	15	12	2	1	15
<b>Total</b>		316	233	33	50	316

**Table-5.6**  
**Beneficiary Group wise No. of Schemes benefited**

Sl. No.	Name of BG	No. of Schemes benefited						
		WSS	RWH	Latrine	LC	GWR	Soak Pits	Compost Pit
1	Anugraha	15	-	-	-	-	-	-
2	Anugraha	15	-	-	-	-	15	15
3	Jaladhara	11	-	-	-	-	9	9
4	Janakeeyam	15	-	-	-	-	-	-
5	Jeevanasree	13	-	-	-	-	13	13
6	Kaveri	15	-	-	-	-	-	-
7	Mahul Hayath	15	-	-	-	-	-	-
8	Mahul Muthalaq	10	-	-	-	-	9	9
9	Nabah	14	-	-	-	-	14	14
10	Narmada	15	-	-	-	-	15	15
11	Nehar	16	-	-	-	-	15	15
12	Nila	16	-	-	-	-	16	16
13	Nile	15	-	-	-	-	-	-
14	Nithyodaya	14	-	-	-	-	-	-
15	Nayagra	16	-	-	-	-	-	-
16	Pariyapuram	17	-	-	-	-	16	16
17	Priyadarshini	15	-	-	-	-	15	15
18	Samridhi	15	-	-	-	-	14	14
19	Sarovar	15	-	-	-	-	14	14
20	Sarvodaya	15	-	-	-	-	-	-
21	Varsha	9	-	-	-	-	9	9
22	Yamuna	15	-	-	-	-	-	-
<b>Total</b>		316					174	174



**Table-5.7**  
**Beneficiary Group wise-Other Source for drinking purpose under WSS**

Sl.No	Name of BG	Total families	No. of households collecting water		
			Own well	Neighbours Well	Other Source
1	Anugraha	15	1	-	-
2	Anugraha	15	7	-	1
3	Jaladhara	11	3	-	6
4	Janakeeyam	15	-	-	-
5	Jeevanasree	13	3	2	-
6	Kaveri	15	-	-	-
7	Mahul Hayath	15	2	-	-
8	Mahul Muthalaq	10	4	2	3
9	Nabah	14	1	3	-
10	Narmada	15	3	-	-
11	Nehar	16	9	2	-
12	Nila	16	7	3	2
13	Nile	15	-	-	-
14	Nithyodaya	14	2	-	-
15	Nayagra	16	-	-	-
16	Pariyapuram	17	3	-	6
17	Priyadarshini	15	5	-	8
18	Samridhi	15	9	2	-
19	Sarovar	15	5	-	-
20	Sarvodaya	15	1	-	-
21	Varsha	9	3	2	2
22	Yamuna	15	-	-	-
	<b>Total</b>	316	68	16	28

**Table-5.8**  
**Beneficiary Group wise details of Storing of Water**

Sl. No	Name of BG	No of Families	Storing of Water				
			Tank	Bucket	Vessel	Others	
1	Anugraha	15	14	-	-	1	
2	Anugraha	15	14	1	-	-	
3	Jaladhara	11	11	-	-	-	
4	Janakeeyam	15	15	-	-	-	
5	Jeevanasree	13	8	4	-	-	
6	Kaveri	15	15	-	-	-	
7	Mahul Hayath	15	15	-	-	-	
8	Mahul Muthalaq	10	8	-	-	-	
9	Nabah	14	10	4	-	-	
10	Narmada	15	8	6	5	3	
11	Nehar	16	15	1	-	-	
12	Nila	16	10	5	1	1	
13	Nile	15	14	-	-	-	
14	Nithyodaya	14	12	-	-	1	
15	Nayagra	16	8	-	-	8	
16	Pariyapuram	17	13	3	-	-	
17	Priyadarshini	15	12	2	-	-	
18	Samridhi	15	6	8	8	-	
19	Sarovar	15	8	6	3	-	
20	Sarvodaya	15	15	-	-	-	
21	Varsha	9	7	2	1	1	
22	Yamuna	15	15	-	-	-	
	<b>Total</b>		316	253	42	18	15

**Table-5.9**  
**Beneficiary Group wise details of Quality Assessment of Water Supply Schemes**

Sl.No	Name of BG	No of Families	Quality Assessment (Opinion with respect to No. of families)			
			Poor	Average	Good	Very Good
1	Anugraha	15	-	1	14	
2	Anugraha	15	-	3	12	-
3	Jaladhara	11	-	-	11	-
4	Janakeeyam	15	-	-	15	-
5	Jeevanasree	13	-	4	9	-
6	Kaveri	15	-	-	15	-
7	Mahul Hayath	15	-	4	11	-
8	Mahul Muthalaq	10	1	-	9	-
9	Nabah	15	-	-	14	-
10	Narmada	15	1	2	12	-
11	Nehar	16	-	2	14	-
12	Nila	16	1	2	13	-
13	Nile	15	-	-	15	-
14	Nithyodaya	14	-	-	14	-
15	Nayagra	16	-	-	16	-
16	Pariyapuram	17	-	-	17	-
17	Priyadarshini	15	-	-	15	-
18	Samridhi	15	-	-	15	-
19	Sarovar	15	1	2	12	-
20	Sarvodaya	15	-	-	15	-
21	Varsha	9	-	1	8	-
22	Yamuna	15	-	-	15	-
	<b>Total</b>	<b>317</b>	<b>4</b>	<b>21</b>	<b>291</b>	

**Table-5.10**  
**Beneficiary Group wise details of Quantity and Availability of Water**

Sl.No	Name of BG	Total Families	Availability of Water (per day) (with respect to No. of families)					Average Quantity (in Ltrs)/day
			1 Hour	1 1/2 Hour	2 Hour	3 Hour	Total	
1	Anugraha	15			15	-	15	460
2	Anugraha	15	15		-	-	15	350
3	Jaladhara	11	11		-	-	11	490
4	Janakeeyam	15			-	-	-	473
5	Jeevanasree	13	9		4	-	13	379
6	Kaveri	15	-		15	-	15	500
7	Mahul Hayath	15	-		15	-	15	500
8	Mahul Muthalaq	10	10		-	-	10	580
9	Nabah	15	14		-	-	14	611

10	Narmada	15	14	1	-	15	553
11	Nehar	16	16	-	-	16	380
12	Nila	16	13	1	2	16	634
13	Nile	15	9	5	-	14	400
14	Nithyodaya	14	-	14	-	14	442
15	Nayagra	16	-	16	-	16	381
16	Pariyapuram	17	-	17	-	17	506
17	Priyadarshini	15	14	1	-	15	483
18	Samridhi	15	11	2	-	13	350
19	Sarovar	15	14	1	-	15	305
20	Sarvodaya	15	-	15	-	15	453
21	Varsha	9	9	-	-	9	633
22	Yamuna	15	-	15	-	15	500
	<b>Total</b>	317	159	137	2	298	10363

**Table-5.11**  
**Beneficiary Group wise Monthly Subscription and Storage Capacity of the WS Tank**

Sl. No	Name of BG	Monthly subscription(in Rs)	Capacity of the Tank (in Ltrs)	Remarks
1	Anugraha	50		
2	Anugraha	50		
3	Jaladhara	50		
4	Janakeeyam	50		
5	Jeevanasree	50		
6	Kaveri	50		
7	Mahul Hayath	50		
8	Mahul Muthalaq	50		
9	Nabah	50		
10	Narmada	50		
11	Nehar	50		
12	Nila	50		
13	Nile	50		
14	Nithyodaya	50		
15	Nayagra	50	10000	
16	Pariyapuram	50		
17	Priyadarshini	50		
18	Samridhi	50		
19	Sarovar	50		
20	Sarvodaya	50		
21	Varsha	50		
22	Yamuna	50		

**Table-5.12**  
**Beneficiary Group wise - Usage of Water by the households under WSS**

Sl.No	Name of BG	Total Families	No. of households using water for			
			Drinking	Washing & Cleaning	Cooking	All purposes
1	Anugraha	15	14	1	-	-
2	Anugraha	15	5	9	-	-
3	Jaladhara	11	2	6	1	5
4	Janakeeyam	15	15	-	-	-
5	Jeevanasree	13	-	3	3	6
6	Kaveri	15	15	-	-	-
7	Mahul Hayath	15	11	3	-	-
8	Mahul Muthalaq	10	-	8	-	1
9	Nabah	14	1	1	12	-
10	Narmada	15	1	5	-	10
11	Nehar	16	-	7	-	8
12	Nila	16	1	3	-	13
13	Nile	15	15	-	-	-
14	Nithyodaya	14	14	-	-	-
15	Nayagra	16	16	-	-	-
16	Pariyapuram	17	2	9	9	7
17	Priyadarshini	15	-	1	-	13
18	Samridhi	15	4	11	-	-
19	Sarovar	15	-	4	1	10
20	Sarvodaya	15	14	1	-	-
21	Varsha	9	-	8	-	2
22	Yamuna	15	15	-	-	-
	<b>Total</b>	316	145	80	26	75

**Table-5.13**  
**Major Deficiencies in the functioning of Water Supply Schemes**

Sl.No	Name of BG/WSS	No of families	Opinion on					
			Inadequate Source	Poor maintenance	Lack of Coordination	Freq. break down of machinery	Freq. Electricity failure	Poor quality of pipes
1	Anugraha	15	-	-	-	-	-	-
2	Anugraha	15	-	-	-	-	-	-
3	Jaladhara	11	-	-	-	-	-	-
4	Janakeeyam	15	-	-	-	-	-	-
5	Jeevanasree	13	-	-	-	-	-	-
6	Kaveri	15	-	-	-	-	-	-
7	Mahul Hayath	15	-	-	-	-	-	-

8	Mahul Muthalaq	10	-	-	-	-	-	-
9	Nabah	14	1	-	6	-	-	-
10	Narmada	15	1	2	1	1	1	1
11	Nehar	16	-	-	3	-	-	1
12	Nila	16	6	1	1	-	-	-
13	Nile	15	-	-	-	-	-	-
14	Nithyodaya	14	-	-	-	-	-	-
15	Nayagra	16	-	-	-	-	-	-
16	Pariyapuram	17	2	-	-	-	-	-
17	Priyadarshini	15	-	-	15	-	1	-
18	Samridhi	15	-	-	-	-	-	-
19	Sarovar	15	1	-	-	-	-	-
20	Sarvodaya	15	-	-	-	-	-	-
21	Varsha	9	-	-	-	-	-	-
22	Yamuna	15	-	-	-	-	-	-
	<b>Total</b>	316	11	3	26	1	2	2

**Table-5.14**  
**Beneficiary Group wise opinion of level of satisfaction with respect to Time, Quality and Quantity**

Sl.No	Name of BG	No of families	Time		Quantity		Quality	
			Y	N	Y	N	Y	N
1	Anugraha	15	15	-	15	-	15	-
2	Anugraha	15	13	2	9	6	10	5
3	Jaladhara	11	10	1	10	1	10	1
4	Janakeeyam	15	-	15	-	15	15	-
5	Jeevanasree	13	12	1	12	1	11	2
6	Kaveri	15	15	-	15	-	15	-
7	Mahul Hayath	15	-	15	-	15	14	1-
8	Mahul Muthalaq	10	10	-	10	-	9	1
9	Nabah	14	13	1	13	1	14	0
10	Narmada	15	13	2	13	2	12	3
11	Nehar	16	12	4	15	1	16	-
12	Nila	16	16	-	16	-	16	-
13	Nile	15	-	15	-	15	15	-
14	Nithyodaya	14	2	12	2	12	13	1
15	Nayagra	16	1	15	1	15	14	2
16	Pariyapuram	17	15	2	15	2	15	2
17	Priyadarshini	15	15	-	15	-	15	-
18	Samridhi	15	14	1	13	2	14	1
19	Sarovar	15	11	4	13	2	14	1
20	Sarvodaya	15	14	1	14	1	14	1
21	Varsha	9	9	-	9	-	9	-
22	Yamuna	15	13	2	13	2	15	-
	<b>Total</b>	316	223	93	223	93	295	21

**Table-5.15**  
**Beneficiary Group wise Remarks about the functioning of the water supply schemes**

Sl.No	Name of BG	No. of families	Opinion on Functioning			
			Poor	Average	Good	Very Good
1	Anugraha	15	-	-	15	-
2	Anugraha	15	1	4	10	-
3	Jaladhara	11	-	-	11	-
4	Janakeeyam	15	-	-	15	-
5	Jeevanasree	13	-	-	13	-
6	Kaveri	15	-	-	15	-
7	Mahul Hayath	15	-	1	14	-
8	Mahul Muthalaq	10	1	-	9	-
9	Nabah	14	-	-	14	-
10	Narmada	15	4	2	9	-
11	Nehar	16	-	3	13	-
12	Nila	16	-	6	9	1
13	Nile	15	-	-	15	-
14	Nithyodaya	14	-	-	14	-
15	Nayagra	16	-	-	16	-
16	Pariyapuram	17	-	-	17	-
17	Priyadarshini	15	-	-	15	-
18	Samridhi	15	1	2	12	-
19	Sarovar	15	1	1	12	1
20	Sarvodaya	15	-	-	15	-
21	Varsha	9	-	1	8	-
22	Yamuna	15	-	-	15	-
	<b>Total</b>	316	8	20	286	2

**Table-5.16**  
**Beneficiary Group wise Opinion on the Outcome of Water Supply Schemes**

Sl.No	Name of BG/WSS	No of families	Opinion on Outcome(Deduced)			Remarks
			Success	Partial Success	Failure	
1	Anugraha	15	x			
2	Anugraha	15	x	x		
3	Jaladhara	11	x			
4	Janakeeyam	15	x			
5	Jeevanasree	13	x			
6	Kaveri	15	x			
7	Mahul Hayath	15	x			
8	Mahul Muthalaq	10	x			
9	Nabah	15	x			
10	Narmada	15		x		
11	Nehar	16	x			
12	Nila	16		x		
13	Nile	15	x			
14	Nithyodaya	14	x			
15	Nayagra	16	x			
16	Pariyapuram	17	x			
17	Priyadarshini	15	x			
18	Samridhi	15	x			
19	Sarovar	15	x			
20	Sarvodaya	15	x			
21	Varsha	9	x			



**Table-5.17**  
**Beneficiary Group wise details of Pits Construction**

Sl. No	Name of BG	No of families	No. of Soak Pits Constructed	KRWS A Share	Total beneficiaries	No. of Compost Pits Constructed	KRWS A Share	Total
1	Anugraha	15						
2	Anugraha	15	15	5250	5250	15	5250	5250
3	Jaladhara	11	9	3150	3150	9	3150	3150
4	Janakeeyam	15						
5	Jeevanasree	13	13	4550	4550	13	4550	4550
6	Kaveri	15						
7	Mahul Hayath	15						
8	Mahul Muthalaq	10	9	3150	3150	9	3150	3150
9	Nabah	14	14	4900	4900	14	4900	4900
10	Narmada	15	15	5250	5250	15	5250	5250
11	Nehar	16	15	5250	5250	15	5250	5250
12	Nila	16	16	5600	5600	16	5600	5600
13	Nile	15						
14	Nithyodaya	14						
15	Nayagra	16						
16	Pariyapuram	17	16	5600	5600	16	5600	5600
17	Priyadarshini	15	15	5250	5250	15	5250	5250
18	Samridhi	15	14	4900	4900	14	4900	4900
19	Sarovar	15	14	4900	4900	14	4900	4900
20	Sarvodaya	15						
21	Varsha	9	9	3150	3150	9	3150	3150
22	Yamuna	15						
	<b>Total</b>	316	174	60900	60900	174	60900	60900

**Appendix 6.1**  
**Muthedam Pt. Beneficiary Group wise Economic Status**

Sl.No	Name of BG	Total families	No of APL families			No of BPL families				Total	Remarks
			SC	ST	General	Total	SC	ST	General		
1	Akshaya	78	-	-	55	55	-	1	22	23	1 Society
2	Amrithavahini	60	-	-	24	24	4	-	32	36	1 Anganwadi
3	Athulya	56	-	-	22	22	9	-	25	34	1 Church
4	Chettiyarangadi	40	-	-	12	12	4	4	20	28	1 Anganwadi
5	Dhara	135	-	-	44	44	21	1	69	91	
6	Friends	48	-	-	16	16	-	-	32	32	
7	Kalpana	41	-	-	25	25	2	-	14	16	
8	Karimpuzha	143	-	-	57	57	1	2	83	86	1 Mosque, 1 church, 1 Madrassa
9	Kottamala	162	-	1	37	38	1	8	115	124	1 Mosque, 1 church
10	Kuzhipankulam	46	-	-	25	25	-	-	21	21	
11	Marrathikadavu	36	-	-	9	9	-	-	27	27	
12	Navadhara	42	-	-	15	15	-	-	27	27	
13	Oruma	150	3	4	51	58	25	26	41	92	
14	Pranavam SC	30	-	-	-	-	24	5	1	30	
15	Pravahini	208	-	-	79	79	8	-	121	129	1 Anganvadi
16	Punnapuzha	37	-	-	30	30	2	-	5	7	1 Madrassa
17	Poovandankunnu	84	-	-	19	19	16	-	49	65	
18	Saphalyam	88	1	-	15	16	8	-	64	72	2 Mosque
19	Shrothus	38	-	-	41	41	1	-	39	40	
20	Swapna	81			19	19	2	3	14	19	
21	Tagore RWH	13	-	-	13	13	-	-	-		
22	Thavakkal	39	-	5	23	28	-	4	7	11	
23	Vijay	60	-	-	46	46	-	1	13	14	1 Society
24	St. Marys School										School BG
25	PMMUP School										School BG
26	UMALP School										School BG
	<b>Total</b>	<b>1715</b>	<b>4</b>	<b>10</b>	<b>677</b>	<b>691</b>	<b>128</b>	<b>55</b>	<b>841</b>	<b>1024</b>	

**Appendix 6.2**

**Muthedam Pt. Beneficiary Group wise Classification of families on the basis of land holdings**

Sl.No	Name of BG	Total Families	No of families with respect to Land Holdings (Area in Cents)					
			Below 20	20-40	40-60	60-80	80-100	100 & above
1	Akshaya	78	13	12	12	2	2	37
2	Amrithavahini	60	36	11	4	3	-	6
3	Athulya	56	29	2	1	3	-	21
4	Chettiyarangadi	40	33	0	3	-	-	4
5	Dhara	135	89	18	5	6	-	17
6	Friends	48	37	7	4	-	-	-
7	Kalpana	41	10	14	15	0	0	2
8	Karimpuzha	143	98	7	12	6	5	15
9	Kottamala	162	99	17	8	6	2	30
10	Kuzhipankulam	46	26	7	4	1	-	8
11	Marathinkadavu	36	28	3	4	0	0	1
12	Navadhara	42	24	8	4	2	1	3
13	Oruma	150	92	16	6	8	4	24
14	Pranavam - SC	30	12	1	6	6	-	5
16	Poovandankunnu	208	65	3	1	9	-	6
16	Pravahini	37	125	28	12	7	-	36
17	Punnapuzha	84	7	5	8	2	2	13
18	Saphalyam	88	66	5	1	0	0	16
19	Shrothus	38	37	23	10	2	1	8
20	Swapna	81	23	4	8	0	0	3
21	Tagore RWH	13	0	2	9	0	0	2
22	Thavakkal	39	10	10	7	2	-	10
23	Vijay	60	26	13	5	3	2	11
24	St. Marys School							
25	PMMUP School							
26	UMALP School							
	<b>Total</b>	<b>1715</b>	<b>985</b>	<b>216</b>	<b>149</b>	<b>68</b>	<b>19</b>	<b>278</b>

**Appendix 6.3**  
**Muthemam Pt. Beneficiary Group wise No. of Households on the basis of nature of Houses**

Sl. No	Name of BG	No of Families	No. of families having				Total
			Concrete	Tile	Thatched	Others	
1	Akshaya	78	27	48	1	2	78
2	Amrithavahini	60	15	41	-	4	60
3	Athulya	56	14	41	-	1	56
4	Chettiyarangadi	40	9	30	1	-	40
5	Dhara	135	16	118	1	-	135
6	Friends	48	5	43	-	-	48
7	Kalpana	41	14	26	-	1	41
8	Karimpuzha	143	69	70	3	3	143
9	Kottamala	162	19	138	4	1	162
10	Kuzhipankulam	46	10	35	-	1	46
11	Marrathikadavu	36	5	30	-	1	36
12	Navadhara	42	3	38	-	1	42
13	Oruma	150	44	99	4	3	150
14	Pranavam	30	2	25	2	1	30
15	Pravahini	208	78	117	0	11	208
16	Punnapuzha	37	24	13	-	-	37
17	Poovandankunnu	84	66	15	1	2	84
18	Saphalam	88	15	72	-	1	88
19	Swapna	38	7	29	0	2	38
20	Shrothus	81	13	68	-	-	81
21	Tagore	13	11	2	-	-	13
22	Thavakkal	39	20	19	-	-	39
23	Vijay	60	26	31	2	1	60
24	St. Marys School		School BG				
25	PMMUP School		School BG				
26	UMALP School		School BG				
	<b>Total</b>	<b>1715</b>	<b>512</b>	<b>1148</b>	<b>19</b>	<b>36</b>	<b>1715</b>

**Appendix 6.4**  
**Muthedam Pt. Beneficiary Group wise Occupational Classification of Households**

Sl.No.	Name of BG	Occupational Classification (in Nos)				Total
		No of Families	Coolie	Agriculture	Others	
1	Akshaya	78	30	45	3	78
2	Amrithavahini	60	37	20	3	60
3	Athulya	56	33	21	2	56
4	Chettiyarangadi	40	32	2	6	40
5	Dhara	135	99	31	5	135
6	Friends	48	43	4	1	48
7	Kalpana	41	25	15	1	41
8	Karimpuzha	143	100	32	11	143
9	Kottamala	162	110	42	10	162
10	Kuzhipankulam	46	28	17	1	46
11	Marrathikadavu	36	30	4	2	36
12	Navadhara	42	30	11	1	42
13	Oruma	150	96	39	15	150
14	Pranavam	30	30	-	-	30
15	Pravahini	208	126	52	30	208
16	Punnapuzha	37	17	19	1	37
17	Poovandankunnu	84	61	20	3	84
18	Saphalam	88	65	20	5	88
19	Swapna	38	26	10	2	38
20	Shrothus	81	59	17	3	81
21	Tagore	13	2	10	1	13
22	Thavakkal	39	15	20	4	39
23	Vijay	60	26	25	9	60
24	St. Marys School			School BG		
25	PMMUP School			School BG		
26	UMALP School			School BG		
	<b>Total</b>	<b>1715</b>	<b>1120</b>	<b>476</b>	<b>119</b>	<b>1715</b>

**Appendix 6.5**  
**Muthedam Pt. Beneficiary Group wise Monthly**  
**Subscription and**  
**Storage Capacity of the WS Tank**

Sl. No	Name of BG	Monthly subscription(in Rs)	Capacity of the Tank (in Ltrs)	Remarks
1	Akshaya	50	36000	-
2	Amrithavahini	50	17500	-
3	Athulya	50	15600	-
4	Chettiyarangadi	50	18000	-
5	Dhara	50	36000	-
6	Friends	50	25000	-
7	Kalpana	40	10900	-
8	Karimpuzha	40	36000	-
9	Kottamala	50	45000	-
10	Kuzhipankulam	50	-	-
11	Marrathikadavu	50	20000	-
12	Navadhara	50	25000	-
13	Oruma	2000	45500	-
14	Pranavam	50	45000	-
15	Pravahini	2000	45000	-
16	Punnapuzha	40	10900	-
17	Poovandankunnu	50	24000	-
18	Saphalam	50	30000	-
19	Swapna	50	25000	-
20	Shrothus	50	36000	-
21	Tagore	-	10000	-
22	Thavakkal	50	25000	-
23	Vijay	50	20000	-
24	St. Marys School			
25	PMMUP School			
26	UMALP School			
	<b>Total</b>	<b>4970</b>	<b>601400</b>	

**Appendix 6.6**  
**Muthedam Pt. Beneficiary Group wise details of Quantity and Availability of Water**

Sl.No	Name of BG	Availability of Water (per day) (with respect to No. of families)					Total	Average Quantity (in Ltrs/day)
		1 Hour	1 1/2 Hour	2 Hour	3 Hour			
1	Akshaya	78	-	-	-	79	488	
2	Amrithavahini	60	-	-	-	60	388	
3	Athulya	56	-	-	-	56	500	
4	Chettiyarangadi	36	-	2	-	38	478	
5	Dhara	133	-	-	-	133	478	
6	Friends	48	-	-	-	48	500	
7	Kalpana	41	-	-	-	41	466	
8	Karimpuzha	125	-	1	-	126	1242	
9	Kottamala	160	-	2	-	162	485	
10	Kuzhipankulam	42	-	2	-	44	500	
11	Marrathikadavu	31	-	3	-	34	449	
12	Navadhara	42	-	-	-	42	500	
13	Oruma	114	-	36	-	150	2397	
14	Pranavam	29	-	1	-	30	475	
15	Pravahini	201	-	7	-	208	2509	
16	Punnapuzha	9	-	28	-	37	427	
17	Poovandankunnu	68	-	15	-	83	327	
18	Saphalam	79	-	9	-	88	488	
19	Swapna	31	0	5	0	36	348	
20	Shrothus	80	-	-	-	80	497	
21	Tagore	-	-	-	-	-	-	
22	Thavakkal	32	-	3	-	35	497	
23	Vijay	60	-	-	-	60	500	
24	St. Marys School							
25	PMMUP School							
26	UMALP School							
	<b>Total</b>	<b>1555</b>	<b>0</b>	<b>114</b>	<b>0</b>	<b>1670</b>	<b>14939</b>	

**Appendix 6.7**  
**Muthedam Pt. Beneficiary Group wise - Usage of Water by the households under WSS**

Sl.No	Name of BG	Total Families	No. of households using water for			
			Drinking	Washing & Cleaning	Cooking	All purposes
1	Akshaya	79	-	1	-	73
2	Amrithavahini	61	58	-	-	-
3	Athulya	57	-	56	-	-
4	Chettiyarangadi	41	38	-	-	-
5	Dhara	135	62	50	8	24
6	Friends	48	45	1	-	2
7	Kalpana	41	41	-	-	-
8	Karimpuzha	132	110	-	-	1
9	Kottamala	164	160	2	-	-
10	Kuzhipankulam	46	33	2	-	11
11	Marrathikadavu	36	34	-	-	-
12	Navadhara	42	-	-	-	42
13	Oruma	150	62	52	14	49
14	Pranavam	30	30	-	-	-
15	Pravahini	209	10	181	12	14
16	Punnapuzha	38	37	-	-	-
17	Poovandankunnu	84	84	-	-	-
18	Saphalam	90	82	2	1	2
19	Swapna	38	38	15	11	4
20	Shrothus	81	4	8	-	67
21	Tagore	13	-	-	-	-
22	Thavakkal	39	36	-	-	-
23	Vijay	61	58	1	1	-
24	St. Marys School					
25	PMMUP School					
26	UMALP School					
	<b>Total</b>	<b>1715</b>	<b>1022</b>	<b>371</b>	<b>47</b>	<b>289</b>



**Appendix 6 . 8**

**Muthedam Pt. Beneficiary Group wise opinion of level of satisfaction with respect to Time, Quality and Quantity**

Sl.No	Name of BG	No of families	Time		Quantity		Quality	
			Y	N	Y	N	Y	N
1	Akshaya	79	78	-	78	-	78	-
2	Amrithavahini	61	59	1	55	5	60	
3	Athulya	57	56	-	56	-	43	13
4	Chettiyarangadi	41	39	-	39	-	39	-
5	Dhara	135	134	-	134	-	134	-
6	Friends	48	48	-	48	-	48	-
7	Kalpana	41	41	-	41	-	41	-
8	Karimpuzha	132	31	106	45	93	127	5
9	Kottamala	164	161	1	161	1	162	-
10	Kuzhipankulam	46	46	-	46	-	46	-
11	Marrathikadavu	36	35	-	35	-	35	-
12	Navadhara	42	41	-	41	-	41	-
13	Oruma	150	57	76	106	42	104	44
14	Pranavam	30	30	-	30	-	30	-
15	Pravahini	209	197	5	197	5	157	42
16	Punnapuzha	38	37	-	37	-	37	-
17	Poovandankunnu	84	83	-	70	14	82	1
18	Saphalam	90	87	-	87	-	87	-
19	Swapna	38	25	11	26	10	26	5
20	Shrothus	81	79	-	79	-	79	-
21	Tagore	13	-	-	-	-	-	-
22	Thavakkal	39	38	-	38	-	38	-
23	Vijay	61	60	-	60	-	60	-
24	St. Marys School							
25	PMMUP School							
26	UMALP School							
	<b>Total</b>	<b>1715</b>	<b>1462</b>	<b>200</b>	<b>1509</b>	<b>170</b>	<b>1554</b>	<b>110</b>

**Appendix 7.I**  
**Koduvally Pt. Beneficiary Group wise Economic Status**

Sl.No	Name of BG	No of APL families				No of BPL families			
		SC	ST	General	Total	SC	ST	General	Total
1	Arakkambramala	-	-	26	26	8	-	34	42
2	Aiswarya	-	-	16	16	-	-	12	12
3	Bismi	-	-	5	5	-	-	12	12
4	Daya	-	-	18	18	5	-	32	37
5	Dhara	3	-	11	14	5	-	12	17
6	Golden	-	-	7	7	-	-	22	22
7	Haritha	-	-	20	20	-	-	1	1
8	Indira	-	-	17	17	-	-	20	20
9	Jaladhara	1	-	30	31	1	-	19	20
10	Janakeeyam	-	-	13	13	2	-	20	22
11	Janasakthi	-	-	22	22	1	-	14	15
12	Kanavu	2	-	27	29	4	-	15	19
13	Kannakothi	2	-	7	9	-	-	45	45
14	Kanakkanam Kunnu	-	1	16	17	-	1	41	42
15	Karunya	1	-	22	23	1	-	18	19
16	Mahatma	-	-	34	34	-	-	23	23
17	Megha	1	-	11	12	4	-	12	16
18	Mythri	-	-	26	26	2	-	22	24
19	Nedumala	1	-	8	9	4	1	13	18
20	Panangadukunnu	3	-	21	24	18	-	22	40
21	Pulari	-	-	15	15	-	-	35	35
22	Pravaham	-	-	17	17	3	-	29	32
23	Puthuma	-	-	14	14	6	-	23	29
24	Pulloramala	2	-	22	24	2	-	27	29
25	Pratheeksha	-	-	22	22	1	-	15	16
26	Porgottur	6	-	29	35	9	1	27	37
27	Rahatt	-	-	6	6	2	-	32	34
28	Samsam	-	-	16	16	1	-	23	24
29	Souharda	-	-	20	20	-	-	12	12
30	Snehanithi	-	-	12	12	1	-	9	10
31	Yuvasakthi	1	2	45	48	4	5	23	32
32	Souhrutha	1	-	29	30	2	-	9	11
33	Sabhalam	-	-	32	32	4	-	30	34
34	Sahakarana	-	-	20	20	-	-	14	14
35	Soubhagya	-	-	6	6	11	-	24	35
36	Unnikarankuzhi	-	-	14	14	1	-	12	13
37	Ponpara	-	-	14	14	8	-	20	28
38	Sreyas	-	-	28	28	-	-	27	27
39	Samniwaya	-	-	5	5	-	-	7	7
40	Sathyadhara	-	-	15	15	2	-	16	18
41	Sangamam	-	-	13	13	1	-	17	18

42	Sukrutham	-	-	32	32	1	-	7	8
43	Sneha	-	-	21	21	2	-	26	28
44	Thejas	1	-	18	19	4	-	23	27
45	Thanal	-	-	29	29	-	-	18	18
46	Thachatkunnu	-	-	7	7	-	-	22	22
47	Thusharam	2	-	22	24	2	-	18	20
48	Thanneer	-	-	35	35	-	-	23	23
49	TheLINEER	-	-	25	25	-	-	34	34
50	Puthukindikunnumel	1	1	2	4	6	2	9	17
	Total	28	4	942	974	128	10	1020	1158

### Appendix -7.2

#### Koduvally Pt. Beneficiary Group wise Classification of Families on the basis of Land Holdings

Sl.No	Name of BG	No of Families	No of families with respect to Land Holdings(Area in cents)				
			Below 20	20-49	50-69	70-99	100 and above
1	Arakkambramala	68	44	18	2	2	2
2	Aiswarya	28	14	8	2	3	1
3	Bismi	17	12	5	-	-	-
4	Daya	55	46	7	1	-	1
5	Dhara	31	19	7	4	-	1
6	Golden	29	21	5	1	1	1
7	Haritha	21	11	5	1	1	3
8	Indira	37	24	10	2	1	-
9	Jaladhara	51	34	14	1	-	2
10	Janakeeyam	35	21	10	1	2	1
11	Janasakthi	37	27	9	-	-	1
12	Kanavu	48	35	12	-	-	1
13	Kannakothi	54	37	14	3	-	-
14	Kanakkanam Kunnu	59	38	11	6	1	3
15	Karunya	42	31	7	3	-	1
16	Mahatma	57	41	11	2	1	2
17	Megha	28	18	7	3	-	-
18	Mythri	50	33	10	4	2	1
19	Nedumala	27	27	-	-	-	-
20	Panangadukunnu	64	54	6	2	2	-
21	Pulari	50	34	12	1	-	3
22	Pravaham	49	29	14	1	-	5
23	Puthuma	43	33	7	1	1	1
24	Pulloramala	53	27	20	6	-	-
25	Pratheeksha	38	27	8	1	1	1
26	Porgottur	72	54	12	3	2	1
27	Rahatt	40	22	15	2	1	-
28	Samsam	40	27	11	2	-	-
29	Souharda	32	28	4	-	-	-

30	Snehanithi	22	15	4	2	1	-
31	Yuvasakthi	80	43	27	5	3	2
32	Souhrutha	41	28	9	1	1	2
33	Sabhalam	66	39	17	2	3	5
34	Sahakarana	34	24	7	3	-	-
35	Soubhagya	41	40	1	-	-	-
36	Unnikarankuzhi	27	21	6	-	-	-
37	Ponpara	42	26	14	1	-	1
38	Sreyas	55	36	14	2	2	1
39	Samniwaya	12	7	4	-	1	-
40	Sathyadhara	33	27	6	-	-	-
41	Sangamam	31	26	2	2	-	1
42	Sukrutham	40	29	8	2	-	1
43	Sneha	49	28	14	4	3	-
44	Thejas	46	29	11	5	-	1
45	Thanal	47	23	17	3	2	2
46	Thachatkunnu	29	21	7	-	-	1
47	Thusharam	44	30	8	3	2	1
48	Thanneer	58	44	14	-	-	-
49	Thelineer	59	41	11	3	1	3
50	Puthukindikunnumel	21	20	-	1	-	-
	Total	2132	1465	480	94	40	53

### Appendix 7.3

#### Koduvally Pt. Beneficiary Group wise No. of Households on the basis of nature of Houses

Sl. No	Name of BG	No of Families	No. of families having				Total
			Concrete	Tile	Thatched	Others	
1	Arakkambaramala	68	7	56	1	4	68
2	Aiswarya	28	13	13	-	2	28
3	Bismi	17	6	10	-	1	17
4	Daya	55	11	26	9	9	55
5	Dhara	31	8	20	1	2	31
6	Golden	29	9	20	-	-	29
7	Haritha	21	14	6	-	1	21
8	Indira	37	14	21	-	2	37
9	Jaladhara	51	26	24	-	1	51
10	Janakeeyam	35	17	16	-	2	35
11	Janasakthi	37	19	16	1	1	37
12	Kanavu	48	22	26	-	-	48
13	Kannakothi	54	25	-	29	-	54
14	Kanakkanam Kunnu	59	12	29	14	4	59
15	Karunya	42	15	23	1	3	42
16	Mahatma	57	28	25	1	3	57
17	Megha	28	5	20	3	-	28

18	Mythri	50	25	25	-	-	50
19	Nedumala	27	3	4	12	8	27
20	Panangadukunnu	64	8	-	47	9	64
21	Pulari	50	7	34	4	5	50
22	Pravaham	49	17	30	-	2	49
23	Puthuma	43	9	23	3	8	43
24	Pulloramala	53	17	29	4	3	53
25	Pratheeksha	38	18	18	1	1	38
26	Porgottur	72	15	46	5	6	72
27	Rahatt	40	13	-	24	3	40
28	Samsam	40	28	7	4	1	40
29	Souharda	32	13	18	-	1	32
30	Snehanithi	22	10	11	-	1	22
31	Yuvasakthi	80	38	29	4	9	80
32	Souhrutha	41	17	18	4	2	41
33	Sabhalam	66	21	35	10	-	66
34	Sahakarana	34	8	26	-	-	34
35	Soubhagya	41	14	-	22	5	41
36	Unnikarankuzhi	27	14	10	1	2	27
37	Ponpara	42	21	-	21	-	42
38	Sreyas	55	33	19	-	3	55
39	Samniwaya	12	4	7	-	1	12
40	Sathyadhara	33	20	9	2	2	33
41	Sangamam	31	7	21	2	1	31
42	Sukrutham	40	33	6	-	1	40
43	Sneha	49	15	31	2	1	49
44	Thejas	46	22	24	-	-	46
45	Thanal	47	22	20	1	4	47
46	Thachatkunnu	29	6	19	3	1	29
47	Thusharam	44	14	21	-	9	44
48	Thanneer	58	39	15	-	4	58
49	Thelineer	59	44	-	12	3	59
50	Puthukindikunnumel	21	4	1	15	1	21
	Total	2132	830	907	263	132	2132

## Appendix 7.4

## Koduvally Pt. Beneficiary Group wise Occupational Classification of Households

Sl.No.	Name of BG	Occupational Classification (in Nos)					
		Coolie	Agriculture	Govt Employee	Business	Gulf	Others
1	Arakkambramala	43	5	2	1	6	11
2	Aiswarya	8	5	2	-	2	11
3	Bismi	5	-	-	-	4	8
4	Daya	25	-	-	4	8	18
5	Dhara	20	3	-	-	2	6
6	Golden	17	2	-	3	2	5
7	Haritha	3	2	3	4	3	6
8	Indira	18	3	-	5	2	9
9	Jaladhara	20	3	3	5	8	12
10	Janakeeyam	19	4	1	1	4	6
11	Janasakthi	22	3	-	3	3	6
12	Kanavu	25	6	2	1	-	14
13	Kannakothi	41	3	4	2	-	4
14	Kanakkanam Kunnu	22	1	-	2	9	25
15	Karunya	18	3	-	5	8	8
16	Mahatma	25	5	-	3	7	17
17	Megha	13	4	-	2	-	9
18	Mythri	17	2	-	5	17	9
19	Nedumala	27	-	-	-	-	-
20	Panangadukunnu	53	-	-	-	-	11
21	Pulari	26	-	-	-	8	16
22	Pravaham	24	9	-	2	5	9
23	Puthuma	19	1	-	-	7	16
24	Pulloramala	17	2	-	4	13	17
25	Pratheeksha	12	2	-	6	7	11
26	Porgottur	58	-	2	-	1	11
27	Rahatt	27	2	-	-	-	11
28	Samsam	16	-	-	3	2	19
29	Souharda	7	1	-	2	6	16
30	Snehanithi	10	-	1	1	6	4
31	Yuvasakthi	47	5	5	10	3	10
32	Souhrutha	12	10	-	2	5	12
33	Sabhalam	28	7	-	4	-	27
34	Sahakarana	14	1	-	-	10	9
35	Soubhagya	33	2	-	-	2	4
36	Unnikarankuzhi	10	-	-	2	4	11
37	Ponpara	32	3	-	3	2	2
38	Sreyas	12	9	-	5	10	19
39	Samniwaya	2	2	-	4	-	4
40	Sathyadhara	13	-	-	9	3	8

41	Sangamam	16	1	1	-	8	5
42	Sukrutham	7	22	-	10	-	1
43	Sneha	26	1	-	3	9	10
44	Thejas	19	7	6	-	6	8
45	Thanal	20	-	-	8	4	15
46	Thachatkunnu	12	-	2	-	-	15
47	Thusharam	15	9	4	4	2	10
48	Thanneer	18	3	3	12	12	10
49	TheLINEER	18	3	11	3	2	22
50	Puthukindikunnumel	19	-	-	-	-	2
		1030	156	52	143	222	529

**Appendix 7.5**  
**Koduvally Pt. Beneficiary Group wise monthly subscription and capacity of the water supply storage tank**

S/No	Name of BG	No of families	Monthly subscription (Rs)	Capacity of the storage tank in ltrs
1	Arakkambramala	68	60	22000
2	Aiswarya	28	50	2500
3	Bismi	17	30	5000
4	Daya	55	40	10000
5	Dhara	31	50	8000
6	Golden	29	40	14280
7	Haritha	21	50	40000
8	Indira	37	50	9500
9	Jaladhara	51	50	15865
10	Janakeeyam	35	50	18000
11	Janasakthi	37	55	8000
12	Kanava	48	50	12500
13	Kannakothi	54	50	10000
14	Kanakkanam Kunnu	59	40	12000
15	Karunya	42	50	15000
16	Mahatma	57	30	22000
17	Megha	28	40	34425
18	Mythri	50	50	14000
19	Nedumala	27	50	7000
20	Panangadukunnu	64	40	15000
21	Pulari	50	60	25000
22	Pravaham	49	50	10320
23	Puthuma	43	50	10000
24	Pulloramala	53	50	12000
25	Pratheeksha	38	40	8000
26	Porgottur	72	30	25000

27	Rahatt	40	50	8000
28	Samsam	40	40	7000
29	Souharda	32	50	6000
30	Snehanithi	22	50	12000
31	Yuvasakthi	80	50	15000
32	Souhrutha	41	50	12250
33	Sabhalam	66	50	12500
34	Sahakarana	34	50	10000
35	Soubhagya	41	50	10000
36	Unnikarankuzhi	27	50	22000
37	Ponpara	42	50	8000
38	Sreyas	55	50	12500
39	Samniwaya	12	50	5000
40	Sathyadhara	33	40	8000
41	Sangamam	31	40	2500
42	Sukrutham	40	50	22000
43	Sneha	49	50	18000
44	Thejas	46	50	16660
45	Thanal	47	50	10990
46	Thachatkunnu	29	50	8000
47	Thusharam	44	50	11520
48	Thanneer	58	40	12000
49	Thelineer	59	40	12000
50	Puthukindikunnumel	21	50	7000
	Total	2132	2355	654310



**Appendix 7.6**

**Koduvally Pt. Beneficiary Group wise details of Quantity and Availability of Water**

Sl.No	Name of BG	Availability of water (per day) (with respect to No. of families)				Average Quantity (in Ltrs)/day
		1 hour	2 Hours	3 Hours	24 Hours	
1	Arakkambramala	48	-	-	-	100
2	Aiswarya	27	-	-	-	300
3	Bismi	17	-	-	-	250
4	Daya	-	-	-	55	300
5	Dhara	31	-	-	-	220
6	Golden	29	-	-	-	100
7	Haritha	5	12	4	-	300
8	Indira	27	10	-	-	500
9	Jaladhara	33	14	4	-	500
10	Janakeeyam	32	-	-	-	100
11	Janasakthi	18	15	4	-	450
12	Kanavu	48	-	-	-	200
13	Kannakothi	54	-	-	-	500
14	Kanakkanam Kunnu	48	9	2	-	400
15	Karunya	24	4	14	-	250
16	Mahatma	56	-	-	-	250
17	Megha	26	2	-	-	400
18	Mythri	50	-	-	-	300
19	Nedumala	27	-	-	-	500
20	Panangadukunnu	64	-	-	-	500
21	Pulari	-	-	-	50	400
22	Pravaham	49	-	-	-	125
23	Puthuma	34	-	-	-	100
24	Pulloramala	51	2	-	-	300
25	Pratheeksha	32	5	-	-	350
26	Porgottur	69	3	-	-	150
27	Rahatt	39	1	-	-	400
28	Samsam	10	30	-	-	500
29	Souharda	27	5	-	-	400
30	Snehanithi	-	19	3	-	450
31	Yuvasakthi	-	80	-	-	300
32	Souhrutha	31	6	1	-	400
33	Sabhalam	65	-	-	-	300
34	Sahakarana	8	8	18	-	500
35	Soubhagya	27	10	3	-	400
36	Unnikarankuzhi	2	22	3	-	450
37	Ponpara	42	-	-	-	450
38	Sreyas	26	5	2	-	450
39	Samniwaya	12	-	-	-	400
40	Sathyadhara	20	12	-	-	400

41	Sangamam	31	-	-	-	400
42	Sukrutham	39	-	-	-	200
43	Sneha	45	3	1	-	450
44	Thejas	46	-	-	-	125
45	Thanal	-	-	-	47	450
46	Thachatkunnu	-	-	-	29	500
47	Thusharam	43	-	-	-	125
48	Thanneer	58	-	-	-	400
49	TheLINEER	33	18	8	-	500
50	Puthukindikunnumel	21	-	-	-	500
	Total	1524	295	67	181	

#### Appendix 7.7

#### Koduvally Pt. Beneficiary Group wise - Usage of Water by the households under WSS

Sl.No	Name of BG	Total Families	No. of households using water for			
			Drinking	Washing & Cleaning	Cooking	All purposes
1	Arakkambramala	68	-	52	-	2
2	Aiswarya	28	-	4	-	22
3	Bismi	17	-	2	-	15
4	Daya	55	-	26	-	31
5	Dhara	31	-	3	-	29
6	Golden	29	-	21	2	6
7	Haritha	21	-	-	-	21
8	Indira	37	7	8	-	29
9	Jaladhara	51	-	21	2	30
10	Janakeeyam	35	1	25	-	11
11	Janasakthi	37	-	5	1	32
12	Kanavu	48	7	28	-	14
13	Kannakothi	54	-	10	-	42
14	Kanakkanam Kunnu	59	-	-	-	59
15	Karunya	42	4	1	-	40
16	Mahatma	57	-	5	-	51
17	Megha	28	-	10	-	18
18	Mythri	50	1	-	49	-
19	Nedumala	27	4	3	1	23
20	Panangadukunnu	64	2	55	3	10
21	Pulari	50	-	-	-	50
22	Pravaham	49	6	22	-	24
23	Puthuma	43	-	9	-	34
24	Pulloramala	53	-	49	-	5
25	Pratheeksha	38	-	4	-	34
26	Porgottur	72	1	6	-	66
27	Rahatt	40	26	26	24	11

28	Samsam	40	34	40	31	1
29	Souharda	32	-	12	2	21
30	Snehanithi	22	-	-	-	22
31	Yuvasakthi	80	-	-	-	80
32	Souhrutha	41	-	1	4	32
33	Sabhalam	66	-	20	-	44
34	Sahakarana	34	-	-	-	34
35	Soubhagya	41	37	40	39	-
36	Unnikarankuzhi	27	-	3	-	24
37	Ponpara	42	1	24	2	18
38	Sreyas	55	1	18	1	36
39	Samniwaya	12	-	1	-	11
40	Sathyadhara	33	-	19	-	10
41	Sangamam	31	-	30	-	1
42	Sukrutham	40	1	14	1	24
43	Sneha	49	2	21	-	26
44	Thejas	46	-	12	-	34
45	Thanal	47	-	3	-	44
46	Thachatkunnu	29	1	3	-	26
47	Thusharam	44	6	14	-	27
48	Thanneer	58	7	22	1	36
49	TheLINEER	59	37	48	16	5
50	Puthukindikunnumel	21	20	21	17	3
	Total	2132	206	761	196	1268

**Appendix 7.8**  
**Koduvally Pt. Beneficiary Group wise opinion of level of satisfaction with respect to Time, Quality and Quantity**

Sl.No	Name of BG	No of families	Time		Quantity		Quality	
			Y	N	Y	N	Y	N
1	Arakkambramala	68	5	55	5	54	2	58
2	Aiswarya	28	25	1	19	7	21	4
3	Bismi	17	17	-	9	8	17	-
4	Daya	55	55	-	49	6	20	35
5	Dhara	31	21	9	17	13	26	4
6	Golden	29	9	19	3	25	7	21
7	Haritha	21	21	-	21	-	21	-
8	Indira	37	31	6	28	9	34	3
9	Jaladhara	51	50	-	50	-	50	-
10	Janakeeyam	35	24	11	11	22	17	17
11	Janasakthi	37	37	-	36	1	37	-
12	Kanavu	48	27	20	22	25	16	30
13	Kannakothi	54	54	-	54	-	52	2

14	Kanakkanam Kunnu	59	59	-	9	50	59	-
15	Karunya	42	39	3	27	15	39	3
16	Mahatma	57	57	-	19	37	54	3
17	Megha	28	27	1	19	9	20	8
18	Mythri	50	48	2	15	36	47	3
19	Nedumala	27	27	-	27	-	27	-
20	Panangadukunnu	64	64	-	64	-	64	-
21	Pulari	50	50	-	48	2	49	1
22	Pravaham	49	35	14	10	35	10	34
23	Puthuma	43	42	1	4	39	21	22
24	Pulloramala	53	40	11	15	38	1	50
25	Pratheeksha	38	38	-	27	11	35	2
26	Porgottur	72	68	5	54	18	70	2
27	Rahatt	40	37	1	35	3	37	1
28	Samsam	40	40	-	39	-	40	-
29	Souharda	32	32	-	29	3	28	4
30	Snehanithi	22	22	-	22	-	22	-
31	Yuvasakthi	80	80	-	80	-	80	-
32	Souhrutha	41	34	-	32	3	31	-
33	Sabhalam	66	50	16	44	22	52	14
34	Sahakarana	34	34	-	21	13	34	-
35	Soubhagya	41	40	-	40	-	40	-
36	Unnikarankuzhi	27	26	1	24	3	26	1
37	Ponpara	42	38	4	41	1	18	21
38	Sreyas	55	52	1	48	6	51	3
39	Samniwaya	12	5	6	3	9	4	8
40	Sathyadhara	33	31	2	22	7	28	1
41	Sangamam	31	24	6	4	27	1	30
42	Sukrutham	40	32	6	7	30	20	16
43	Sneha	49	48	1	10	39	27	22
44	Thejas	46	26	19	14	31	37	8
45	Thanal	47	47	-	47	1	46	1
46	Thachatkunnu	29	28	-	28	-	28	1
47	Thusharam	44	31	12	25	18	40	2
48	Thanneer	58	56	1	29	25	28	26
49	Thelineer	59	59	-	59	-	59	-
50	Puthukindikunnumel	21	21	-	21	-	21	-
	Total	2132	1863	234	1386	701	1614	461

**Appendix 8.1**  
**Narikuni Pt.Beneficiary Group wise Economic Status**

Sl.No	Name of BG	No of APL families				No of BPL families			
		SC	ST	General	Total	SC	ST	General	Total
1	Akshaya	-	-	2	2	14	-	4	18
2	Accord	-	-	28	28	3	-	20	23
3	Arpana	-	-	15	15	2	-	13	15
4	Himam	-	-	13	12	13	-	35	48
5	Jaladhara	-	-	6	6	7	-	27	34
6	Oduvankunnu	-	-	15	15	12	-	32	44
7	Oruma	-	-	11	11	5	-	21	26
8	Pravaham	1	-	11	12	17	-	22	39
9	Santhivanam	-	-	17	17	23	-	19	42
10	Snehatheeram	-	-	17	17	6	-	19	25
11	Souparnika	-	-	21	21	-	-	3	3
12	Thoovala Kunnu	-	-	25	25	2	-	31	33
13	Triveni	1	-	13	14	22	-	36	58
14	Veringilora	-	2	38	40	18	18	17	53
15	Vengidoramala	2	-	19	21	19	-	54	73
16	Sangamam	1	-	17	18	1	-	3	4
17	Tripthi	1	-	2	3	6	-	15	21
18	Kaveri	-	-	8	8	7	-	28	35
19	Janapriya	-	-	12	12	-	-	13	13
20	Yamuna	-	-	24	24	10	-	56	66
	Total	6	2	314	321	187	18	468	673

**Appendix 8.2**

**Narikuni Pt. Beneficiary Group wise Classification of Families on the basis of Land Holdings**

Sl.No	Name of BG	No of Families	No of families with respect to Land Holdings(Area in cents)			
			Below 20	20-49	50-69	70 and above
1	Akshaya	20	14	2	2	2
2	Accord	51	21	10	8	12
3	Arpana	30	21	1	4	4
4	Himam	60	24	16	6	14
5	Jaladhara	40	22	15	1	2
6	Oduvankunnu	59	29	18	2	10
7	Oruma	37	24	9	1	3
8	Pravaham	51	29	10	3	9
9	Santhivanam	59	38	12	6	3
10	Snehatheeram	42	19	14	6	3
11	Souparnika	24	10	8	4	2
12	Thoovala Kunnu	58	30	13	8	7
13	Triveni	72	45	15	5	7
14	Veringilora	93	45	30	12	6
15	Vengidoramala	94	56	19	5	14
16	Sangamam	22	4	9	6	3
17	Tripti	24	9	8	6	1
18	Kaveri	43	13	16	9	5
19	Janapriya	25	2	11	7	5
20	Yamuna	90	28	29	11	22
	<b>Total</b>	<b>994</b>	<b>483</b>	<b>265</b>	<b>112</b>	<b>134</b>

**Appendix 8.3**

**Narikuni Pt. Beneficiary Group wise No. of Households on the basis of nature of Houses**

Sl. No	Name of BG	No of Families	No. of families having				Total
			Concrete	Tile	Thatched	Others	
1	Akshaya	20	2	9	8	1	20
2	Accord	51	13	34	-	4	51
3	Arpana	30	9	6	2	13	30
4	Himam	60	10	41	4	5	60
5	Jaladhara	40	13	23	2	2	40
6	Oduvankunnu	59	13	33	7	6	59
7	Oruma	37	12	18	3	4	37
8	Pravaham	51	15	30	-	6	51
9	Santhivanam	59	21	27	3	8	59
10	Snehatheeram	42	11	19	4	8	42
11	Souparnika	24	12	8	-	4	24
12	Thoovala Kunnu	58	27	23	5	3	58
13	Triveni	72	11	47	6	8	72
14	Veringilora	93	26	58	4	5	93
15	Vengidoramala	94	20	57	6	11	94
16	Sangamam	22	6	13	-	3	22
17	Tripthi	24	5	18	-	1	24
18	Kaveri	43	12	31	-	-	43
19	Janapriya	25	11	12	1	1	25
20	Yamuna	90	39	51	-	-	90
	Total	994	288	558	55	93	994

**Appendix 8.4**

**Narikuni Pt.Beneficiary Group wise Occupational Classification of Households**

Sl.No.	Name of BG	No of Families	Occupational Classification (in Nos)					
			Coolie	Agriculture	Govt Employee	Business	Gulf	Others
1	Akshaya	20	16	-	-	-	2	2
2	Accord	51	33	12	-	-	-	6
3	Arpana	30	9	6	1	-	-	14
4	Himam	60	30	6	4	1	-	19
5	Jaladhara	40	22	3	4	-	-	11
6	Oduvankunnu	59	40	6	4	5	-	4
7	Oruma	37	29	4	1	1	-	2
8	Pravaham	51	25	3	1	2	2	18
9	Santhivanam	59	25	-	3	6	3	22
10	Snehatheeram	42	25	4	6	3	-	4
11	Souparnika	24	10	-	6	3	-	5
12	Thoovala Kunnu	58	21	1	6	2	6	22
13	Triveni	72	58	7	2	1	-	4
14	Veringilora	93	69	1	5	1	-	17
15	Vengidoramala	94	55	4	-	-	-	35
16	Sangamam	22	9	5	4	3	-	1
17	Tripthi	24	18	1	-	-	-	5
18	Kaveri	43	28	7	-	2	1	5
19	Janapriya	25	17	4	1	1	1	1
20	Yamuna	90	67	13	4	-	3	3
	Total	994	606	87	52	31	18	200



**Appendix 8.5**

**Narikuni Pt.Beneficiary Group wise Monthly Subscription and Storage Capacity of the WS Tank**

Sl.No	Name of BG	Monthly Subscription (In Rs)	Capacity of the Tank (in Ltrs)	Remarks
1	Akshaya	50.00	5000	
2	Accord	50.00	14000	
3	Arpana	50.00	6500	
4	Himam	40.00	12000	
5	Jaladhara	40.00	6500	
6	Oduvankunnu	55.00	25000	
7	Oruma	40.00	800	
8	Pravaham	40.00	24000	
9	Santhivanam	35.00	26700	
10	Snehatheeram	50.00	10000	
11	Souparnika	50.00	6000	
12	Thoovala Kunnu	70.00	24000	
13	Triveni	75.00	31000	
14	Veringilora	50.00	55000	
15	Vengidoramala	50.00	40000	
16	Sangamam	40.00	5000	
17	Tripthi	40.00	10000	
18	Kaveri	40.00	15000	
19	Janapriya	50.00	7500	
20	Yamuna	50.00	3500	

**Appendix 8.6**

**Narikuni Pt. Beneficiary Group wise details of Quantity and Availability of Water**

Sl.No	Name of BG	Availability of water (per day) (with respect to No. of families)			Average Quantity (in Ltrs)/day
		1 hour	3 Hours	24 Hours	
1	Akshaya	-	-	20	250
2	Accord	51	-	-	200
3	Arpana	6	6	-	300
4	Himam	-	-	-	225
5	Jaladhara	-	-	40	250
6	Oduvankunnu	4	3	-	200
7	Oruma	-	22	-	250
8	Pravaham	-	-	44	300
9	Santhivanam	-	42	-	200
10	Snehatheeram	-	-	-	75
11	Souparnika	3	1	-	200
12	Thoovala Kunnu	44	-	-	125
13	Triveni	2	7	-	300
14	Veringilora	10	4	-	300
15	Vengidoramala	-	32	-	250
16	Sangamam	-	10	-	300
17	Tripthi	-	-	24	350
18	Kaveri	-	-	43	300
19	Janapriya	-	-	23	350
20	Yamuna	19	-	81	300
	Total	139	127	275	5025

**Appendix 8.7**  
**Narikuni Pt. Beneficiary Group wise - Usage of Water by the households**  
**under WSS**

Sl.No	Name of BG	No. of households using water for			
		Drinking	Washing & Cleaning	Cooking	All purposes
1	Akshaya	-	-	-	20
2	Accord	-	2	-	47
3	Arpana	-	19	-	10
4	Himam	3	5	-	50
5	Jaladhara	-	-	-	37
6	Oduvankunnu	-	22	-	36
7	Oruma	-	-	-	36
8	Pravaham	17	-	32	5
9	Santhivanam	-	13	-	42
10	Snehatheeram	-	33	-	5
11	Souparnika	-	13	-	10
12	Thoovala Kunnu	-	5	-	44
13	Triveni	-	1	-	61
14	Veringilora	-	17	-	74
15	Vengidoramala	-	11	-	76
16	Sangamam	-	5	-	16
17	Tripthi	-	-	-	24
18	Kaveri	-	-	-	43
19	Janapriya	20	-	-	16
20	Yamuna	15	-	-	68
	Total	55	146	32	720

**Appendix 8.8**  
**Narikuni Pt. Beneficiary Group wise opinion of level of satisfaction with respect to Time, Quality and Quantity**

Sl.No	Name of BG	No of families	Time		Quantity		Quality	
			Y	N	Y	N	Y	N
1	Akshaya	20	19	-	19	-	19	-
2	Accord	51	48	3	21	25	33	12
3	Arpana	30	30	-	22	8	15	12
4	Himam	60	56	-	57	-	58	-
5	Jaladhara	40	40	-	40	-	40	-
6	Oduvankunnu	59	54	4	30	28	15	43
7	Oruma	37	36	-	36	-	36	-
8	Pravaham	51	49	1	40	6	33	12
9	Santhivanam	59	56	-	56	-	56	-
10	Snehatheeram	42	38	4	26	16	6	30
11	Souparnika	24	23	-	20	-	17	6
12	Thoovala Kunnu	58	17	29	25	22	46	-
13	Triveni	72	62	-	58	4	61	1
14	Veringilora	93	80	5	70	14	83	3
15	Vengidoramala	94	66	20	71	15	80	7
16	Sangamam	22	21	-	20	-	21	-
17	Tripthi	24	24	-	24	-	24	-
18	Kaveri	43	43	-	43	-	43	-
19	Janapriya	25	24	-	24	-	24	-
20	Yamuna	90	90	-	90	-	90	-
	Total	994	876	66	792	138	800	126