

**Government of Andhra Pradesh**

**Andhra Pradesh Urban Finance Infrastructure Development**

**Corporation Limited**

**ANDHRA PRADESH URBAN WATER SUPPLY & SEPTAGE MANAGEMENT IMPROVEMENT PROJECT**

**The Asian Infrastructure Investment Bank assisted**

SOCIAL IMPACT ASSESSMENT & SOCIAL MANAGEMENT PLAN FOR

Nellimarla ULB

Final Report

Submitted by

Samaj Vikas Development Support Organisation

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**List of Acronyms**

|  |  |
| --- | --- |
| AE | Assistant Engineer |
| AEE | Assistant Executive Engineer |
| AFs | Affected Families |
| AIIB | Asian Infrastructure Investment Bank |
| APs | Affected Persons |
| APUFIDC | Andhra Pradesh Urban Finance and Infrastructure Development Corporation |
| APUWSSIP | Andhra Pradesh Urban Water Supply & Septage Management Improvement project |
| CDMA | Commissioner and Director of Municipal Administration |
| CMU | City Management Unit |
| DPR | Detailed Project Report |
| EIA | Environmental Impact Assessment |
| ESHS | Environmental, Social, Health and Safety |
| ESMPF | Environmental and Social Management Planning Framework |
| ESP | Environmental and Social Policy |
| ESS | Environmental and Social Standard |
| ELSR | Elevated Level Service Reservoirs |
| FGD | Focus group discussion |
| GoAP | Govenment of Andhra Pradesh |
| GRC | Grievance Redress Committee |
| GRP | Grievance Redressal Panel |
| IGA | Income Generation Assets |
| LPCD | Litres Per Capita per Day |
| MLD | Million Litres per Day |
| MRO | Mandal Revenue Officer |
| O&M | Operation and Maintenance |
| PAPs | Project Affected Persons |
| PHMED | Public Health & Municipal Engineering Department |
| PMC | Project Management Consultant |
| RAP | Resettlement Action Plan |
| RFCTLARR | Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement |
| RPF | Resettlement Policy Framework |
| SHGs | Self Help Groups |
| SIA | Social Impact Assessment |
| TPP | Tribal People Plans |
| ULB | Urban Local Body |

# Introduction

## Background

In 2015, around 88 percent of the population in India had access to basic water supply services (93 percent in urban and 85 percent in rural areas), compared with 80 percent in 2000 (92 percent access in urban and 76 percent in rural areas)[[1]](#footnote-2). Achieving universal coverage of water supply and sanitation in a sustainable manner in all urban areas, is a key priority of the Government of India (GoI). In Andhra Pradesh, around 71 percent of urban households have access to improved water supply. Out of the remaining 29 percent, 19 percent of the households do not have access to treated water supply.

The Government of Andhra Pradesh (GoAP) is aiming to achieve universal coverage in water supply, septage management and sewerage in line with the national priorities by rolling out infrastructure in a phased manner in urban areas. Therefore, GoAP has launched the [Andhra](https://www.aiib.org/en/projects/details/2018/approved/India-Andhra-Pradesh-Urban-Water-Supply-and-Septage-Management-Improvement.html) Pradesh Urban Water Supply &Septage Management Improvement projec[t](https://www.aiib.org/en/projects/details/2018/approved/India-Andhra-Pradesh-Urban-Water-Supply-and-Septage-Management-Improvement.html)(APUWSSIP; the Project), funded by the [Asian Infrastructure Investment Bank](https://www.aiib.org/en/index.html)(AIIB). The Project aims to provide water supply to 50 Urban Local Bodies (ULBs) with a population of less than 100,000 and supplement it with investments in grey water management infrastructure in 5 pilot ULBs.

## Project Components

The project has three components:

**Component 1:** Investment in Water Supply Infrastructure will include construction of intakes at raw water source, raw water transmission mains, water treatment plants, clear water transmission mains, treated water storages, distribution networks and household service connections. In some project ULBs, the partial existing infrastructure will be rehabilitated and augmented to be used with the newly created infrastructure. Installation of consumer meters at each household is included in the project scope allowing GoAP to implement the new water policy on moving from fixed household-based tariffs to volumetric tariffs. Installation of bulk flow meters, SCADA for automated flow and level control at service reservoirs, including online water quality monitoring, will ensure, equitable distribution of water, water and energy auditing and web-based service delivery monitoring (quantity and quality).

**Component 2: Sanitation and Drainage Infrastructure Pilots.** Recognizing the increase in grey water generated due to the increase of water supply from the current 35 - 50 lpcd to a target level of 135 lpcd, it has been agreed to include targeted rehabilitation and construction of side drains in the five Pilot ULBs to safely carry gray water. Pilot projects shall be implemented in five ULBs: Allagadda, Nandikotkor, Sullurupeta, Kanigiri and Madakasira. Septage management and treatment will be implemented under the Clean India Mission.

**Component 3:** Technical Assistance, Institutional Development and Municipal Capacity Enhancement and Implementation Support. The component will provide technical assistance and implementation support to the Andhra Pradesh Urban Finance and Infrastructure Development Corporation (APUFIDC), under which the Project Management Unit (PMU) is located, the Public Health and Municipal Engineering Department (PHMED), which is the project implementing entity, and ULBs to successfully implement the above three project components. City Management Units (CMU) have been established in each of the 50 Project ULBS, headed by the Municipal Commissioner and staffed with one PHMED engineer, one ULB-level Resident Engineer from the Project Management Consultant (PMC), technical staff of the ULB, one public representative and one community member. The PMU and CMUs will be supported by a PMC to undertake the following: a) review the DPRs for the Phase 2 water supply infrastructure; b) assist in implementation of septage management, septage treatment plants, drainage infrastructure, standard operating procedures and O&M manuals; c) assist the implementation of the findings of the ESMPF and d) undertake monitoring and supervision of the construction works.

Component 1 of the project is divided into Phase 1, covering 21 ULBs, and Phase 2, covering 29 ULBs. In addition, source abstraction and distribution works packages are assigned to separate contractors within each ULB. In addition, 11 of the Phase 2 ULBs have recently been proposed to supply a total of 90 en-route villages via designated off-take points with distribution managed by the Rural Water Supply and Sanitation Department (RWSSD).

## Implementation Arrangements

The Andhra Pradesh Urban Finance and Infrastructure Development Corporation (APUFIDC) is the nodal agency and AIIB’s official counterpart, which has established a PMU for project preparation. The Managing Director of APUFIDC is the de-facto Project Director. The PMU is staffed with full-time Project Additional Director and personnel with specialization in requisite disciplines. The PMU is responsible for:

* 1. Execution of the Implementation Partnership Agreement with the APUFIDC, Public Health Engineering Department (PHMED) and respective ULBs.
  2. Preparation of phased implementation as per the project delivery strategy.
  3. Selection of PMC, E&S consultant and any other consultants or individual experts.
  4. Oversight of project preparation activities, including but not limited to tendering, contract management, construction monitoring and supervision and safeguards implementation.
  5. Financial and Accounting Management of the project, i.e. preparation of budget, releases, bills preparation, pre-audit, establishment charges, accounts maintenance etc., as per the financial rules/procedures of GoAP through Nodal Agency.

PMU’s E&S Development specialists are responsible for all matters pertaining to environment and social management under the project, including implementing the ESMPF. The PHMED, reporting to APUFIDC, is the Project Implementing Agency responsible for the technical implementation of the project in coordination with the respective ULBs. The CMU shall coordinate project activities at the ULB level, support PMU in implementing the [Environmental and Social Management Planning Framework (ESMPF),](https://www.aiib.org/en/projects/details/2018/approved/_download/India/AIIB-APUWSSMIP-ESMPF-Final-Report-September-2018-Version-2-2.pdf) partake in monitoring of implementation of works, build technical capacity within ULBs, strengthen systems for revenue collection and business practices for effective delivery of municipal services and continuously engage with the communities to spread awareness of the long-term benefits of the project. The PMC (reporting to the PMU) will support PHMED and CMU in project management from planning, revision, quality check, preparation of the Detailed Project Reports (DPR), where not prepared, preparation of tender documents, supporting for the tendering process, supervising contract execution including oversight of construction monitoring and quality control checks of the works, preparation of monitoring and action taken reports, and ensure full compliance of safe-guards implementation.

The Project has been assigned to Category ‘A’ according to the [Environmental and SocialPolicy](https://www.aiib.org/en/policies-strategies/_download/environment-framework/Final-ESF-Mar-14-2019-Final-P.pdf)(ESP) of the AIIB. The Project will require application of Environmental and Social Standard (ESS) 1 Environmental and Social Assessment and Management, ESS 2 Involuntary Resettlement and ESS 3 Indigenous People. A determination would be made in the context of each of the activities as to whether the provisions of ESS 2 and ESS 3 would apply.

As required by the ESP, an ESMPF has been prepared to set out the policies and procedures to assess and address (a) environmental and social risks and impacts of the activities; (b) involuntary resettlement, temporary or permanent livelihood loss; and (c) impacts on tribal peoples. The ESMPF includes a generic Environmental and Social Management Plan, which will be followed in the preparation of sub-project specific Environmental Management Plan (EMP)[[2]](#footnote-3). Based on a comprehensive social (including direct and indirect) impacts assessment mitigation measures will be included in the EMP, Abbreviated /Resettlement Plans (A/RP) and Tribal People Plans (TPP) (if applicable). The E&S Specialists of the PMU are responsible for overall Project activities’ adherence to these E&S mitigation plans, after their approval. The PHMED, supported by the PMC, are responsible for the on-the-ground monitoring and supervision of the implementation of these plans and contractors’ work. The contractors are obligated to retain an Environmental, Social, Health and Safety (ESHS) quality assurance personnel to implement the required EMP.

## Present Report

As required by the ESMPF, a Social Impact Assessment is conducted for each of the ULB to assess the social risks and impacts and to prepare RAP/ SMP providing mitigation measures for implementation. These mitigation measures are to be implemented and monitored by the PHMED, the concerned Contractors and the ULB.

The SIA draft report of Nellimarla is submitted includes baseline assessment of social status by conducting review of secondary source information, detailed field socioeconomic surveys and community consultations.

# Methodology

## Introduction

SIA methodology includes collection of data from both primary and secondary sources. Secondary data/information has been collected from the District Commissioner Patiala, published reports and census data. The main sources of primary data are the stakeholders (potential project affected persons) –direct and indirect both, Apart from them SIA team has also carried out discussions with local officials, group discussions and will conduct public hearing as per provision of RFCTLARR Act 2013 etc.

## Data Source

The following section highlights data sources and activities that are being carried out for the preparation of SIA report. Data from Secondary Sources

The following information has been collected from the published documents to appreciate the project background, land ownership status, and statistical information required for the baseline information.

* The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013,
* Primary Census Abstract, District Census Handbook 2011,
* Statistical Abstract Nellimarla,
* District wise Socio-Economic Indicators (Directorate of Economics & Statistics, GoAP),
* Acts and Policies of Government of India and Government of Andhra Pradesh related to R&R and Land acquisition.
* ESS of AIIB

Data and information from Primary Sources

• Structured Survey - Baseline and Census survey in a prescribed format

• Public Consultation

• Focused Group Discussions

• Consultation with key informants

• Interviews with important secondary stakeholders

Method used for conducting study

|  |  |  |
| --- | --- | --- |
| Level | Method/tools used | Output |
| Community level | Transect walk (in selected field sites – along the alignment) | To witness the landscape, terrain, present conditions of the area in the proposed alignment, capture the opinions and perceptions of the local people etc. |
|  | Focus group discussion (FGD) | To collect the opinions and perspectives of the local men and women, about the project objectives loss and compensation, needs and priorities of the community members, and to understand the issues related to project implementation |
|  | Household  Survey | The survey was conducted to understand the socio economic conditions of the water users/Project Affected Persons / families in the project area. A household questionnaire was used to conduct the survey with questions related to multiple topics such as socio-economic status of the families, present water supply, satisfaction level, willingness, livelihoods, nature of loss, their perception about the project, perceptions about the loss, opinions and problems they may encounter etc. |
| Department level | Office visits and meetings /semi structured interviews with the officials | To get understanding about the scheme and its objectives, alignment, implementation process, problems and issues fore see etc. and the interdepartmental coordination. |

The field team made several field visits, during the month of January 2021 during the visit had meetings with the different stakeholders discussed and collected the details about the project, conducted the transect walk along the alignment and followed by the team members conducted FGDs and house hold survey.

## Sample

For the undertaking the SIA, the sample selection for conducting survey and FGDs was decided in consultation with APUFIDC. The selection of the sample is proportionate to ULB population; approximately between 1-2% of the ULB households; with a minimum of 200 Households to a maximum of 300 households. Minimum 3 to maximum 5 FGDs cum Consultations will be conducted with all stakeholders in each ULB.

Based on above criteria 217 households were randomly selected for baseline study and 4 FGD cum consultation were conducted with stakeholder at ULB

# Nellimarla Water Supply Scheme

## Components of Water Supply

The components of the Improvement of Water Supply Scheme are proposed, designed and estimated for the prospective and ultimate years of 2033 & 2048 respectively. It was found that the only reliable and sustainable source of water for Nellimarla town is Champavathi River. It is proposed to draw Clear water directly from the reservoir by constructing one intake well. The pump house is proposed to be constructed over the well. Vertical turbine pump is proposed to be used for drawl of water.

In present water is drawn from champavathi River not sufficient for complete residents. It is proposed two no of infiltration galleries in champavathi river. The raw water is being filtered in infiltration galleries the clear water is directly pumped to ELSR’s.

Yield Tests of Infiltration wells and galleries: yield tests are conducted at two locations in Champavathi River. There is sufficient thickness of coarse sand formation – more than 10m at jarajapupeta site and about 10 m thickness coarse sand at kondapeta site. Collection –cum –Infiltration well is proposed at both the sites. It is proposed the depth of gallery at 6.0 m from the present bed level at both the sites

Pump house for motors and pumps for raw water and clear water:

It is proposed to construct pump house of size 10.50x7.50m size for fixing pumps and motors as derailed below

1. Supply and erection of 2# of 13KW VT Pump sets Each with a duty of 18 LPS and a total head of 52m (One simultaneously working and one stand bye) for pumping of Clear water from proposed Collection Well @ Gallary-1 to Proposed 600KL ElSR Zone-I at High School Road at Champavathi River for intermediate requirement 2034
2. Supply and erection of 2# of 7KW VT Pump sets Each with a duty of 9 LPS and a total head of 50m ( One simultaneously working and one stand bye) for pumping of Clear water from proposed Collection Well @ Gallary-2 to Proposed 200KL ElSR Zone-IIA at Kondapeta at Champavathi River for intermediate requirement 2034
3. Supply and erection of 2# of 3KW VT Pump sets Each with a duty of 9 LPS and a total head of 50m ( One simultaneously working and one stand bye) for pumping of Clear water from proposed Collection Well @ Gallary-2 to Proposed 200KL ElSR Zone-IIA at chandra babu naidu colony at Champavathi River for intermediate requirement 2034

Clear water pumping mains: Laying of 200mm dia.D.I.K9 Clear Water Pumping main 1600m from collection well at Gallery – I champavathi river to proposed 600 kl ELSR at Jarajapupeta High school Road in Zone – I. Laying of 150mm dia.D.I.K9 Clear Water Pumping main 600m from collection well at Gallay – II Champavathi river to proposed 200 kl ELSR at Kondapeta in Zone – II A. Laying of 150mm dia.D.I.K9 Clear Water Pumping main 3350m from collection well at Gallay – II Champavathi river to proposed 200 kl ELSR at Chandra Babu Naidu colony Zone – IV

ELSR’s: The zonal requirement and requirement of ELSR’s are 600 KL at Zone I, 200 KL at Zone IIA and 200 KL at Zone IV are proposed which will suffice the prospective year 2034requirements.

Distribution System: The existing distribution system is old and consists of GI, MS, AC and UPVC pipes. These pipes have already completed their useful life. The leakage in the system is very high. Therefore, it is proposed for total revamping of the system by HDPE Pipes.

# Applicable Legal and Policy Framework

## Introduction

The applicable acts, notifications and policies relevant in the context of the project are discussed in the Environment and Social Management Framework (ESMPF). The project authority will ensure the project activities implemented are consistent with the national, state, local regulatory/ legal framework. The list of Acts and Policies, that are applicable to the project are available in the ESMFP. The ESMPF is available at the APUFIDC website. However, some of the key legislation is given below:

## Social Policy and Regulatory Framework

This deals with various policies, acts, rules and regulations promulgated by the central government related to social issues and relevant to present project.

### The Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Act 2013

LandAcquisition(LA)Actof1984commonlyusedforacquisitionoflandforany publicpurposehasbeenannulledwiththeenactmentofthe RFCTLARAR Act 2013.The RFCTLARRAismentionedheretoprovideaperspectiveonthechanginglegalcontextwithregardtolandacquisitioninthecountry. ThenewActemphasizeselaboratesocialassessmentandresettlementplanningeven priortoissuanceofthepreliminary notification andproposestoprovidearangeofR&R benefitsalongwiththecompensationpackage.Someofthehighlightsareasfollows:

* Offerscompensationsupto4timesthemarketvalueinruralareasand2timesthe marketvalueinurbanareas.
* TheActappliesretrospectivelytocaseswherelandacquisitionawardhasnotbeen made.
* LAinScheduledAreaswillrequireconsentofthelocalgeneralassembly(Gram Sabhas).
* No displacementordispossessionuntilfullpaymentofcompensationand RR benefits aremadeandalternativesitesfortheresettlement andrehabilitation havebeen prepared.
* Billrequirestheconsentofnolessthan70percentand80percentrespectively(in bothcases)ofthosewhose landissoughttobeacquired incaseofPPPorprivate projects.
* Tosafeguardfoodsecurityand to preventarbitraryacquisition,the Bill directsStates toimposelimitsontheareaunderagriculturalcultivationthatcanbeacquired.
* Incaselandremainsunutilisedafteracquisition,thenewBillempowersstatesto returnthelandeithertotheownerortotheStateLandBank.
* Noincometaxshallbeleviedandnostampdutyshallbechargedonanyamount thataccruestoanindividualasaresultoftheprovisionsofthenewlaw.
* In everyprojectthoselosinglandandbelongingtotheSC orSTwillbeprovidedland equivalenttolandacquiredortwoandaone-halfacres,whichever islower(thisis higherthaninthecaseofnon-SC/ST affectedfamilies)-Wheretheaffectedfamilies belongingtotheSCandtheSTarerelocatedoutsideofthedistrictthentheyshallbe paidanadditional25%rehabilitationandresettlementbenefitstowhichtheyare entitledinmonetarytermsalongwithaone-timeentitlementof50,000rupees.
* There are specific provisions for SCs, STs and Landless.
* The Act also specifies minimum Resettlement and Rehabilitation entitlements.

### The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014

Government of India (GoI) recently enacted the Act that specifically aims to protect the rights of urban street vendors and to regulate street vending activities. It provides for survey of street vendors and protection from eviction or relocation; issuance of certificate for vending; provides for rights and obligations of street vendors; development of street vending plans; organizing of capacity building programs to enable the street vendors to exercise the rights contemplated under this Act; undertake research, education and training programs to advance knowledge and understanding of the role of the informal sector in the economy, in general and the street vendors, in particular and to raise awareness. This Act requires that no street vendor shall be evicted or relocated till a survey is conducted and a Certificate of vending is issued by Town Vending Committee formed under Section 22 of the Act. According to Section 18 of the Act, the local authority may, on the recommendations of the Town Vending Committee, declare a zone or part of it to be a no-vending zone for any public purpose and relocate the street vendors vending in that area. No street vendor shall be relocated or evicted by the local authority from the place specified in the certificate of vending unless he has been given thirty days’ notice. However, every street vendor, who possesses a certificate of vending, shall, in case of his relocation under section 18, be entitled for new site or area, as the case may be, for carrying out his vending activities as may be determined by the local authority, in consultation with the Town Vending Committee.

### Some Key Legal Provision Related to Women

* The Dowry Prohibition Act, 1961 (28 of 1961) (Amended in 1986)
* The Indecent Representation of Women (Prohibition) Act, 1986
* The Commission of Sati (Prevention) Act, 1987 (3 of 1988)
* Protection of Women from Domestic Violence Act, 2005
* The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redress) Act, 2013
* The Criminal Law (Amendment) Act, 2013
* The Immoral Traffic (Prevention) Act, 1956

### Other Applicable Acts

The following acts are applicable for the sub-projects to be taken up under the present project:

* Minimum Wages Act, 1948
* Contract Labour Act, 1970
* The Bonded Labour System (Abolition) Act, 1976
* Child Labour (Prohibition and Regulation) Act 1996 along with Rules, 1988
* Children (Pledging of Labour) Act, 1933 (as amended in 2002)
* The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
* The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996
* Untouchability Offences Act, 1955
* The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989
* The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Rules, 1995
* Disaster Management Act 2005: specifies that while providing compensation and relief to victims of disasters there shall be no discrimination on the grounds of sex, caste, community, descent or religion.

### Other Legislation Applicable for APUWSSMP

Socialissuesduringconstructionstagegenerallyinvolveequity,safetyand publichealth issues. TheAPUFIDCrequire complying with lawsofthe land,which include inter alia, the following

Table 4‑1: Other Relevant Legislations and their Provisions

| **Act** | **Year** | **Provisions** |
| --- | --- | --- |
| **Workmen'sCompensationAct** | 1923 | TheActprovidesforcompensationincaseofinjury by accidentarisingout ofand duringthecourseof employment |
| **PaymentofWagesAct** | 1936 | Itlaysdownastobywhatdatethewagesaretobepaid,whenit will'bepaidand what deductions can bemade from thewages of theworkers |
| **Equal Remuneration Act** | 1979 | TheActprovidesforpaymentofequalwagesforworkofequal natureto Maleand Female workersand not formakingdiscrimination againstFemale employees |
| **Inter-StateMigrantWorkmen’s(RegulationofEmploymentandConditionsofService) Act** | 1979 | Theinter-statemigrantworkers,inanestablishmenttowhichthisActbecomesapplicable, are requiredtobeprovidedcertainfacilitiessuchashousing,medicalaid,travellingexpensesfrom home to the establishment and back, etc |
| **The BuildingandOtherConstructionWorkers(Regulationof EmploymentandConditionsof Service)Act andtheCessAct** | 1996 | Alltheestablishmentswhocarry onany buildingor otherconstructionworkandemploys10ormoreworkers are coveredunderthisAct;the employer oftheestablishmentisrequiredtoprovidesafety measuresatthebuildingor constructionworkand otherwelfaremeasures,suchascanteens,first-aidfacilities, ambulance,housingaccommodation forWorkers near theworkplace, etc. |
| **The Factories Act** | 1948 | TheAct lays down theprocedure for approval ofplans beforesetting up a factory,healthandsafety provisions,welfareprovisions,workinghoursandrendering information- regarding accidents or dangerous occurrences to designated authorities |

# Socio-Economic Profile

## Profile of Andhra Pradesh State

Andhra Pradesh is the [eighth-largest state](https://en.wikipedia.org/wiki/List_of_states_and_union_territories_of_India_by_area) in [India](https://en.wikipedia.org/wiki/India) with 13 districts, covering an area of 162,970 square kilometres. As per the [2011 census](https://en.wikipedia.org/wiki/2011_Census_of_India), it is the [tenth most populous](https://en.wikipedia.org/wiki/List_of_states_and_union_territories_of_India_by_population) state, with 49,386,799 inhabitants. The largest city in Andhra Pradesh is [Visakhapatnam](https://en.wikipedia.org/wiki/Visakhapatnam). The state is made up of the two major regions of [Rayalaseema](https://en.wikipedia.org/wiki/Rayalaseema), in the inland south-western part of the state, and [Coastal Andhra](https://en.wikipedia.org/wiki/Coastal_Andhra) to the east and northeast, bordering the Bay of Bengal. Andhra Pradesh has a [coastline](https://en.wikipedia.org/wiki/Coastline) of 974 km (605 mi) – the second longest coastline among the states of [India](https://en.wikipedia.org/wiki/India), after [Gujarat](https://en.wikipedia.org/wiki/Gujarat). The demographic profile of Nellimarla in comparison with the district and state is given below:

Table 5.1:Demographic Profile of Nellimarla ULB, District, and Andhra Pradesh

| **S.No** | **Demographic Information ( 2011 Census)** | **Parvathipuram, ULB** | **District**  **Vizianagaram** | **A.P State,**  **2011** |
| --- | --- | --- | --- | --- |
| 1 | Total Population | 24673 | 2,344,474 | 8,45,80,777 |
| 2 | Total Households | 6514 | 587149 | 2,10,24,534 |
| 3 | Total BPL Households | - | - | 49,05,685 |
| 4 | Density of Population (persons per Sq.Km.) | 1305 | 359 | 308 |
| 5 | Male population | 11843 | 1,182,997 | 42442146 |
| 5 | Female population | 12829 | 587,149 | 42138631 |
| 6 | Sex ratio (females per ‘000 males) | 1084 | 1,019 | 993 |
| 7 | Literacy rate  (Males) | 79.5% | 60.91% | 74.88% |
| 8 | Literacy rate ( Females) | 66.6% | 44.88% | 59.15% |
| 9 | Total Literacy Rate | 62% | 58.89% | 67.02% |
| 10 | % workers to total | 34.7% | 49.4% | 31.52% |
| 11 | Percentage of agricultural workers to total workers | 11.6% | 53.2% | 47.89% |
| 12 | Work participation rate  male  % | 54.9% | 58.5% | 55.1% |
| 13 | Work participation rate female % | 16.6% | 40.5% | 16% |
| 14 | % Main workers to total workers | 84.4% | 82.3% | 36.75% |
| 15 | % Marginal workers to total workers | 15.6% | 17.7% | 2.58% |
|  | **SC and ST Related** |  |  |  |
| 16 | SC Population | 3145 | 247728 | 84,69,278 |
| 17 | SC Households | 650 | 63569 | 22,22,255 |
| 18 | SC Male Population | 1269 | 121493 | 42,19,920 |
| 19 | SC Female Population | 1876 | 126235 | 42,49,358 |
| 20 | SC Literacy Rate Total | 66.1% | 52.7% | 64.47% |
| 21 | SC Literacy Rate (Male) | 67.1% | 60.0% | 71.66% |
| 22 | SC Literacy Rate (Female) | 65.4% | 45.5% | 57.38% |
| 23 | ST Population | 458 | 235556 | 27,40,133 |
| 24 | ST Households | 89 | 54680 | 7,19,312 |
| 25 | ST Male Population | 222 | 114687 | 13,61,706 |
| 26 | ST Female Population | 236 | 120869 | 13,78,427 |
| 27 | ST Literacy Rate Total | 70.3% | 41.1% | 48.83% |
| 28 | ST Literacy Rate (Male) | 79.3% | 48.5% | 56.91% |
| 29 | ST Literacy Rate (Female) | 61.9% | 34.0% | 40.89% |
|  | **Health Related** |  |  |  |
| 31 | Infant Mortality Rate | NA | NA | 11 |
| 32 | Maternal Mortality Rate | NA | NA | 63 |
| 33 | Prevalence/ Incidence of Water Related Diseases (Diseases and Numbers during last 3 or 5 years) | NA | NA |  |

Source 1: <https://www.censusindia.co.in/towns/nellimarla-population-vizianagaram-andhra-pradesh-583164>

Source 2: <https://www.censusindia.co.in/district/vizianagaram-district-andhra-pradesh-543>

Source: <https://censusindia.gov.in/2011census/dchb/2813_PART_B_DCHB_VIZIANAGARAM.pdf>

Nellimarla is a panchayat in Vizianagaram Dist. and located in Nellimarlamandal of Vizianagaram revenue division. The town is geographically situated in between the latitudes of 180 -66’-67’’north and Longitudes of 830-43’-33’’East. The Nellimarlanagarapanchayat has been constituted by merging Nellimarla and Jarajapupeta Gram Panchayats and up graded as nellimarlaNagaraPanchayat under GO Ms No. 100 MA & UD DeptDt: 20.3.2013, The total extent of the town is 18.90 sq. Kms. The town is split into 20 wards. Total road network of the Town is about 48 Km. The climate of Nellimarla Town is usually pleasant except in the summer months from March to May when town gets hot. It cools down as soon as the south – west monsoon breaks out in the month of June – September. The North – East monsoon sets during October-December. April and May are the hottest months with mean daily max temperature up to 450 Celsius and the minimum temperature in December will be 190 Celsius. The average rain fall is about 79.52 cm. South west monsoon constitutes as much as 40% of annual normal rain fall. Whereas North east monsoon constitutes 50% of normal rain fall.

**Table 5.2: NellimarlaNagaraPanchayathi at a Glance**

|  |  |
| --- | --- |
| **Item** | **Details** |
| Area | 18.90Sq. km. |
| Population | 24673in 2011 |
| Distance of State Capital | 407 Kms |
| Distance of District head Quarters | 10 Kms |
| No. of Municipal Wards | 20 |
| No. of HSCs | 6841 |
| No. of PSPs | - |
| No. of Bore wells | 120 |

**Source:** [**As**](https://addanki.cdma.ap.gov.in/en/municipality-profile) **per DPR**

# Existing Water Supply

## Present water supply system

Water supply is being provided to all the wards for about 30 minutes , however due to public demand to rise the distribution hours from 30 minutes to 1 Hour , parts of the wards are divided and the supply of distribution was extended to 1 Hour i.e part of the ward are supplied today , and remaining parts of the ward are supplied on alternate day 120 Bore wells are existed in the NagaraPanchayat , maintaining regularly, however due to hard strata and other soil conditions nearly 30 bore wells are coming for maintenance regularly

## Coverage (quantity, quality, timings)

The transmission mains from Bore wells to service reservoirs are mild steel. These pipes are not in use. These having been damaged and are in bad condition. These mains cannot be utilized in the new scheme under preparation. There is a network of pipeline for distribution of water in the town. Total length of the distribution system is about 65 Km. The distribution system covers about 70% of the town. There are 5 no’s ELSRs within town. Water is supplied to the consumers either through house service connection or through the street stand posts. There are 6841 house service connections.

## Tariff structure

There are no metered connections at Nellimarla town. The entire supply of water is through ferrule connection. A flat rate of Rs 60/- per month per connection is charged as water tariff from domestic as well as commercial connections.

Communication material in use: The existing communication system in Nellimarla is wall posters, distribution of pamphlets, hoardings, public announcements, broadcasting in local channels etc.

## Present Municipal Governance at Nellimarla

Present council: The municipality has recently constituted and there is no elected body. Hence the special officer on behalf of the Council lays down legislative policies, budgetary sanctions etc. The executive wing of the municipality carries out day – to – day function of the municipality like O&M, engineering works, administration, revenue collection, finance & accounts etc.

## Functions of Administrative set-up by position

**Municipal Commissioner:** To conduct a review meeting on the work of all sections and all functionaries are working in the Municipality once in a month by devising suitable format for each activity/functionary. To issue minutes of the review meeting as soon as the meeting is over and ensure follow up action on the said minutes.

**Manager:** Supervision over the work of ministerial employees as provided in the Manual and verification of chitta collection daily and its remittance in the bank / treasury through accountant. Receipt of cash in the municipal treasury, maintenance of chitta and remittance of cash in the bank/treasury.

**Revenue Manager**: Timely and proper assessment of all buildings and lands to property tax without any leakages and ensure collection / collection of taxes and non-taxes as per the targets / timelines fixed from time to time.

**Revenue Inspector**: Initiating timely action on assessment of all buildings and lands to property tax without any leakages and ensure collection / collection of taxes and non-taxes as per the targets / timelines fixed from time to time.

**Bill Collector:** Submission of proposals for timely assessment of all new buildings and lands to property tax, detection of un-assessed/under assessed properties and ensure collection / collection of taxes and non-taxes as per the targets fixed from time to time.

**Accountant:** Preparation of accounts, budget estimates, maintenance of cash book, cheque book, pass book and ensure that payments from municipal funds are to be made as per principles of Municipal Accounts Code and existing rules on the subject.

**Municipal Health Officer:** To keep the city / town clean and to ensure proper implementation of public health activities including implementation of all statues relating to public health, food adulteration, registration of births and deaths and solid waste management.

**Sanitary Supervisor:** Supervision of the work of the staff working under his control, and to ensure that all public health materials are procured properly and supplied to the PH staff within the stipulated timeline.

**Sanitary Inspector**: To maintain proper sanitation in the division allotted and to take prompt action in respect of all public health activities in the division.

**Health Assistant / Birth and Death Sub-Registrar:** Proper maintenance of vital statistics of public health section.

Grade – III Municipalities a. **Municipal Engineer Grade – III** (Asst. Executive Engineer / Asst. Engineer) Formulation of proposals for developmental works and their proper and timely execution and proper maintenance of all urban infrastructure.

b.**Work Inspector** Assistance to Assistant Engineer in technical and non-technical matters relating to execution of developmental works.

**Town Planning Officer** – Sel. / Spl. / Ord. Grade Planning the integrated development of the town and implementation of all rules relating to building constructions, layouts, zoning regulations and town planning.

**Town Planning Supervisor**- Preparation and implementation of general town planning schemes and enforcement of regulations relating to layouts, installations and advertisements.

## Present O&M arrangements:

Existing ULB staffs are taking care of O&M services in Nellimarla ULB.In order to provide water supply service, ULBs incur several costs relating to Operation and Maintenance (O&M). NellimarlaULB is depended upon revenue from sources like property tax, water tax, trade licenses etc., and upon loan/grant support fromCentral government, for meeting the expenditure incurred on service provision.

From the ULB’s general fund all the Operation and Maintenance of water supply, solid waste, sanitation etc. expenditure is being used by the municipality.

## Present Grievance Redress System

The Grievances received through physically or posted in ULB Portal and AP states “Spandana” app shall be forwarded to the concerned Department/Section of the respective ULB depending on the nature of Grievance for further action. The Corresponding sections staff will attend the complaints in given time period and send a reply back to the citizen helpdesk. The reply sent from the corresponding department/Section to the Integrated Citizen helpdesk will be sent to the complainant. The complainant who uses internet can also check the status of his grievance through the web. This proposed system provides periodical reports on status-wise complaint list, department-wise pending complaints, etc. to the higher authorities for monitoring the efficiency and progress of grievance redressal.

# Project Impacts

## Land Requirement

The following tables gives summarizes land requirement for the proposed water supply for is given below:

Table 7‑1: Land Requirement

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.no.** | **Capacity of ELSR in KL** | **LOCATION** | **Area in Sqm** | **Land Belongs to** | **Remarks** |
| 1 | 600 | Jarajapupeta High school Ground  E 757838.61m  N 2011617.90m | 625 | Govt. Land (ZillaPrajaParishat) | SE(PH), Vsp, vide Lr. No.13014 /AIIB/2019-20/TS-T2/05/ Dt. 14-07-2020 addressed to Chief Executive Officer,Vizianagaram. |
| 2 | 200 | Kondapeta  E 759771.71m  N 2010733.75m | 225 | Govt. Land (Nellimarla Jute Mills) | SE(PH), Vsp, vide Lr. No.13014 /AIIB/2019-20/TS-T2/06/ Dt. 14-07-2020 addressed to Manager,Nellimarla jute mill. |
| 3 | 200 | Chandra Babu Naidu Colony  E 758378.93m  N 2008670.88m | 400 | Govt. Land (Revenue Dept./Forest Dept.) | SE(PH), Vsp, vide Lr. No.13014 /AIIB/2019-20/TS-T2/07/ Dt. 14-07-2020 addressed to Thahasildar, Nellimarlamandal. |

# Socio-Economic Baseline

## Introduction

The objective of this primary survey is to a) understand present water supply status and related issues and the perceptions of the beneficiary communities, b) assess to impacts of the proposed project on the beneficiary population, c) factor these issues and impacts into the design, implementation and maintenance of the project and d) thus enhance the sustainability of project. To this end a quantitative and qualitative research among the beneficiary communities was conducted on sample basis. For quantitative research, a household questionnaire was developed, tested and administered to the sampled beneficiary community households to collect the information on relevant aspects. Also, qualitative research through Focus Group Discussions (FGDs) with beneficiaries including women was conducted to assess the impacts and capture their perceptions and aspirations regarding better water supply.

The household survey and FGDs were conducted during January 2021. The data collected was entered and processed in a customized database after scrutiny. The data was coded for qualitative information as well and processed in the database. The entered raw data is cleaned and data analysis was done using a statistical package (SPSS). The findings of the primary survey are presented in following sections.

## Sample Selection

Sample Households from Nellimarla were selected using a multi-stage stratified random sampling in terms of settlement, house connection users, stand post users, public hand pump users, geography, socio-economic groups (upper income, middle income, low income, poor households, slum dwellers etc.). 217 households were surveyed during the study. Details of sampling are presented :

Table 8‑1: Distribution of Sample Households Surveyed

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CATEGORY** | | | | |
| **LOCATION** | **WARD** | **NON-SLUM** | **SLUM** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 19 | -- | 19 |
| 14 | 28 | -- | 28 |
| **JARAJAPUPETA** | 1 | -- | 19 | 19 |
| 19 | -- | 29 | 29 |
| 20 | -- | 22 | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 1 | 9 | 10 |
| **NAIDU COLONY** | 10 | 16 | 15 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 42 | -- | 42 |
| **YATHA VEEDHI** | 10 | 2 | 7 | 9 |
| **Grand Total** | **NO.** | **116** | **101** | **217** |
| **%** | **53.5%** | **46.5%** | **100%** |

Distribution of sample population covered during socio-economic assessment is provided in . 52.6% people belong to non-slum area of different wards of the town while 47.4% people reside in the slum areas.

Table 8‑2: Distribution of Sample Population

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CATEGORY** | | | | |
| **LOCATION** | **WARD** | **NON-SLUM** | **SLUM** | **Grand Total** |
| **ALABANA STREET** | 8 | 7 | -- | 7 |
| **GANDHI NAGAR COLONY** | 13 | 66 | -- | 66 |
| 14 | 96 | -- | 96 |
| **JARAJAPUPETA** | 1 | -- | 65 | 65 |
| 19 | -- | 106 | 106 |
| 20 | -- | 78 | 78 |
| **KARUKONDA STREET** | 8 | 6 | -- | 6 |
| **KEERTHI STREET** | 8 | 12 | -- | 12 |
| **KOLUSU VEEDHI** | 10 | 3 | 24 | 27 |
| **NAIDU COLONY** | 10 | 54 | 43 | 97 |
| **SRI RAM NAGAR COLONY** | 8 | 124 | -- | 124 |
| **YATHA VEEDHI** | 10 | 6 | 21 | 27 |
| **Grand Total** | **NO.** | **374** | **337** | **711** |
| **%** | **52.6%** | **47.4%** | **100%** |

## Population Covered

The 217 households covered during the survey accounted for a sample population of around 711 members in different wards of the town. The detailed distribution of sampled population is presented in

Table 8‑3: Sample Households and Population

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Distribution on basis of Gender** | | | | | |
| **WARD** | **LOCATION** | **FEMALE** | **MALE** | **Grand Total** | **SEX-RATIO** |
| **ALABANA STREET** | 8 | 3 | 4 | 7 | 750 |
| **GANDHI NAGAR COLONY** | 13 | 32 | 34 | 66 | 941 |
| 14 | 49 | 47 | 96 | 1043 |
| **JARAJAPUPETA** | 1 | 34 | 31 | 65 | 1097 |
| 19 | 54 | 52 | 106 | 1038 |
| 20 | 40 | 38 | 78 | 1053 |
| **KARUKONDA STREET** | 8 | 3 | 3 | 6 | 1000 |
| **KEERTHI STREET** | 8 | 5 | 7 | 12 | 714 |
| **KOLUSU VEEDHI** | 10 | 14 | 13 | 27 | 1077 |
| **NAIDU COLONY** | 10 | 50 | 47 | 97 | 1064 |
| **SRI RAM NAGAR COLONY** | 8 | 64 | 60 | 124 | 1067 |
| **YATHA VEEDHI** | 10 | 13 | 14 | 27 | 929 |
| **Grand Total** | **NO.** | **361** | **350** | **711** | 1031 |
| **%** | **51.80%** | **49.20%** | **100%** |  |

## Demographic Profile of Households

### 

### Distribution by Age Group

provides the distribution of sampled population. From the table it is evident that around 10.5% of the members of sampled household are below 5 years of age while around 71.2% are in the age group of 18-60 i.e. they are in the working age group. 6.3% are retired or old and 12% are in the age group of school going children.

Table 8‑4: Distribution of Sample Population based on Age Group

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **AGE\_GROUP** | | | | | | | | |
| **LOCATION** | **WARD** | **NSGA** | **06-18** | **18-30** | **30-45** | **45-60** | **OLD RETIRED** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | -- | 2 | 2 | 1 | 2 | 7 |
| **GANDHI NAGAR COLONY** | 13 | 5 | 10 | 16 | 17 | 18 | -- | 66 |
| 14 | 8 | 7 | 25 | 31 | 24 | 1 | 96 |
| **JARAJAPUPETA** | 1 | 7 | 10 | 17 | 21 | 8 | 2 | 65 |
| 19 | 14 | 16 | 21 | 34 | 17 | 4 | 106 |
| 20 | 4 | 11 | 21 | 27 | 13 | 2 | 78 |
| **KARUKONDA STREET** | 8 | -- | -- | 1 | 2 | 3 | -- | 6 |
| **KEERTHI STREET** | 8 | 2 | 1 | -- | 5 | 2 | 2 | 12 |
| **KOLUSU VEEDHI** | 10 | 2 | 4 | 1 | 15 | 5 | -- | 27 |
| **NAIDU COLONY** | 10 | 11 | 14 | 12 | 21 | 27 | 12 | 97 |
| **SRI RAM NAGAR COLONY** | 8 | 19 | 12 | 17 | 36 | 24 | 16 | 124 |
| **YATHA VEEDHI** | 10 | 3 | -- | 3 | 7 | 10 | 4 | 27 |
| **Grand Total** | **NO.** | **75** | **85** | **136** | **218** | **152** | **45** | **711** |
| **%** | **10.5%** | **12.0%** | **19.1%** | **30.7%** | **21.4%** | **6.3%** | **100%** |

### Religious Composition

98.2% the sampled households were of Hindu religion 1.4% are Christians and 0.5% are Muslims as is evident from .

Table 8‑5: Distribution of HH by Religion

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **RELIGION** | | | | | |
| **LOCATION** | **WARD** | **HINDU** | **CHRISTIAN** | **MUSLIM** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 19 | -- | -- | 19 |
| 14 | 28 | -- | -- | 28 |
| **JARAJAPUPETA** | 1 | 19 | -- | -- | 19 |
| 19 | 26 | 3 | -- | 29 |
| 20 | 22 | -- | -- | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | -- | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 10 | -- | -- | 10 |
| **NAIDU COLONY** | 10 | 31 | -- | -- | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 41 | -- | 1 | 42 |
| **YATHA VEEDHI** | 10 | 9 | -- | -- | 9 |
| **Grand Total** | **NO.** | **213** | **3** | **1** | **217** |
| **%** | **98.2%** | **1.4%** | **0.5%** | **100%** |

### Social Category (Caste)

Caste wise distribution of the sampled households reveals that the Backward Class people constitute 74.2% of the surveyed Households. General category formed 9.7% and Scheduled Castes 15.2% and Scheduled Tribes are 0.9%. The details are given in the below:

Table 8‑6: Households by Social Category

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **LOCATION** | **WARD** | **GEN** | **SC** | **ST** | **BC** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | -- | -- | 2 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 4 | -- | -- | 15 | 19 |
| 14 | 6 | 9 | -- | 13 | 28 |
| **JARAJAPUPETA** | 1 | -- | 12 | -- | 7 | 19 |
| 19 | -- | -- | -- | 29 | 29 |
| 20 | -- | -- | -- | 22 | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 3 | -- | -- | 1 | 4 |
| **KOLUSU VEEDHI** | 10 | -- | -- | -- | 10 | 10 |
| **NAIDU COLONY** | 10 | 1 | -- | 1 | 29 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 4 | 12 | 1 | 25 | 42 |
| **YATHA VEEDHI** | 10 | 1 | -- | -- | 8 | 9 |
| **Grand Total** | **NO.** | **21** | **33** | **2** | **161** | **217** |
| **%** | **9.7%** | **15.2%** | **0.9%** | **74.2%** | **100%** |

### 

### Household size

The family size of the sampled households surveyed was found to be around 3.3. The state has average household size 4. 82.9% of the families are nuclear and small with a size of 1-3 persons, 17.1% with a size of 4-6 persons. Distribution of households on the basis of family size is presented in details in

Table 8‑7: Size of Family

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **FAMILY SIZE** | | | | | | |
| **LOCATION** | **WARD** | **1-3** | **4-6** | **Grand Total** | **HH MEMBERS** | **FAMILY SIZE** |
| **ALABANA STREET** | 8 | 2 | -- | 2 | 7 | 3.5 |
| **GANDHI NAGAR COLONY** | 13 | 17 | 2 | 19 | 66 | 3.5 |
| 14 | 25 | 3 | 28 | 96 | 3.4 |
| **JARAJAPUPETA** | 1 | 13 | 6 | 19 | 65 | 3.4 |
| 19 | 20 | 9 | 29 | 106 | 3.7 |
| 20 | 6 | 16 | 22 | 78 | 3.5 |
| **KARUKONDA STREET** | 8 | 2 | -- | 2 | 6 | 3.0 |
| **KEERTHI STREET** | 8 | 4 | -- | 4 | 12 | 3.0 |
| **KOLUSU VEEDHI** | 10 | 10 | -- | 10 | 27 | 2.7 |
| **NAIDU COLONY** | 10 | 30 | 1 | 31 | 97 | 3.1 |
| **SRI RAM NAGAR COLONY** | 8 | 42 | -- | 42 | 124 | 3.0 |
| **YATHA VEEDHI** | 10 | 9 | -- | 9 | 27 | 3.0 |
| **Grand Total** | **NO.** | **180** | **37** | **217** | **711** | **3.3** |
| **%** | **82.9%** | **17.1%** | **100%** |

84.3% HH surveyed are Nuclear Family Households and 3.7% are living in joint family structure. 12% are either single member households/families living alone. During discussion it was revealed that these HH are HH whos’ children are living in other towns for economic pursuits. The details are presented in .

Table 8‑8: Family Type

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **FAMILY TYPE** | | | | | |
| **LOCATION** | **WARD** | **NUCLEAR** | **JOINT** | **OTHERS** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 18 | -- | 1 | 19 |
| 14 | 25 | -- | 3 | 28 |
| **JARAJAPUPETA** | 1 | 18 | -- | 1 | 19 |
| 19 | 22 | -- | 7 | 29 |
| 20 | 19 | -- | 3 | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | -- | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 8 | -- | 2 | 10 |
| **NAIDU COLONY** | 10 | 23 | 2 | 6 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 34 | 6 | 2 | 42 |
| **YATHA VEEDHI** | 10 | 8 | -- | 1 | 9 |
| **Grand Total** | **NO.** | **183** | **8** | **26** | **217** |
| **%** | **84.3%** | **3.7%** | **12.0%** | **100%** |

### Literacy Rate

Overall literacy rate is found to be 68.4% among the sampled population. The details of literacy rates among sampled population is provided in

Table 8‑9: Literacy Rate of Sample Population

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **LITERACY** | | | | | | |
| **LOCATION** | **WARD** | **NSGA** | **LITERATE** | **ILLITERATE** | **Grand Total** | **LITERACY RATE** |
| **ALABANA STREET** | 8 | -- | 4 | 3 | 7 | 57.1% |
| **GANDHI NAGAR COLONY** | 13 | 5 | 55 | 6 | 66 | 90.2% |
| 14 | 8 | 65 | 23 | 96 | 73.9% |
| **JARAJAPUPETA** | 1 | 7 | 41 | 17 | 65 | 70.7% |
| 19 | 14 | 72 | 20 | 106 | 78.3% |
| 20 | 4 | 60 | 14 | 78 | 81.1% |
| **KARUKONDA STREET** | 8 | -- | 4 | 2 | 6 | 66.7% |
| **KEERTHI STREET** | 8 | 2 | 6 | 4 | 12 | 60.0% |
| **KOLUSU VEEDHI** | 10 | 2 | 6 | 19 | 27 | 24.0% |
| **NAIDU COLONY** | 10 | 11 | 52 | 34 | 97 | 60.5% |
| **SRI RAM NAGAR COLONY** | 8 | 19 | 60 | 45 | 124 | 57.1% |
| **YATHA VEEDHI** | 10 | 3 | 10 | 14 | 27 | 41.7% |
| **Grand Total** | **NO.** | **75** | **405** | **201** | **711** | **68.4%** |
| **%** | **10.5%** | **57.0%** | **28.3%** | **100%** |

From the sample survey, the educational qualifications of household heads indicate that 59.4% are literates and 40.6% are illiterates. Out of total sampled households, 30% have education up to Secondary level, 6.9% with SSC and 7.4% with some kind of a college degree and higher education

Table 8‑10: Educational Qualification of Household Head

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EDUCATION** | | | | | | | | | | |
| **LOCATION** | **WARD** | **PRIMARY** | **MIDDLE** | **MATRICULATION** | **INTERNEDIATE** | **GRADUATE** | **PG** | **INFORMAL** | **ILLITERATE** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | 1 | -- | -- | -- | -- | -- | 1 | 2 |
| **GANDHI NAGAR COLONY** | 13 | -- | -- | 4 | 4 | 2 | -- | 8 | 1 | 19 |
| 14 | 1 | 5 | 4 | 2 | 2 | -- | 12 | 2 | 28 |
| **JARAJAPUPETA** | 1 | -- | 1 | 4 | 2 | 1 | -- | -- | 11 | 19 |
| 19 | -- | 8 | 5 | 2 | 3 | -- | 4 | 7 | 29 |
| 20 | -- | 4 | 5 | 3 | 1 | -- | 1 | 8 | 22 |
| **KARUKONDA STREET** | 8 | -- | -- | 1 | -- | -- | -- | -- | 1 | 2 |
| **KEERTHI STREET** | 8 | 1 | 1 | 1 | -- | -- | -- | -- | 1 | 4 |
| **KOLUSU VEEDHI** | 10 | -- | -- | -- | -- | 1 | -- | 1 | 8 | 10 |
| **NAIDU COLONY** | 10 | 2 | 2 | 6 | 1 | 1 | -- | 2 | 17 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 1 | 3 | 4 | 1 | 3 | 2 | 4 | 24 | 42 |
| **YATHA VEEDHI** | 10 | -- | -- | 1 | -- | -- | -- | 1 | 7 | 9 |
| **Grand Total** | **NO.** | **5** | **25** | **35** | **15** | **14** | **2** | **33** | **88** | **217** |
| **%** | **2.3%** | **11.5%** | **16.1%** | **6.9%** | **6.5%** | **0.9%** | **15.2%** | **40.6%** | **100%** |

From the sample survey, the educational qualifications of household members indicate that 68.4% are literates and 28.3% are illiterates. Out of total sampled households, 24.5% have education up to Secondary Education, 15.8% with SSC and 9.1% with some kind of a college degree and higher education. The details are given in the 1 below:

Table 8‑11: Educational Qualification of Household Members

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Education** | | | | | | | | | | | | |
| **LOCATION** | **WARD** | **NSGA** | **PRIMARY** | **MIDDLE** | **SECONDARY** | **SSC** | **GRADUATE** | **PG** | **PROFESSIONAL** | **INFORMAL** | **ILLITERATE** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | -- | 2 | 2 | -- | -- | -- | -- | -- | 3 | 7 |
| **GANDHI NAGAR COLONY** | 13 | 5 | 2 | 7 | 9 | 19 | -- | -- | 1 | 17 | 6 | 66 |
| 14 | 8 | -- | 7 | 9 | 17 | 12 | -- | -- | 20 | 23 | 96 |
| **JARAJAPUPETA** | 1 | 7 | 2 | 9 | 7 | 15 | 4 | -- | -- | 4 | 17 | 65 |
| 19 | 14 | 3 | 13 | 8 | 23 | 8 | 3 | 5 | 9 | 20 | 106 |
| 20 | 4 | 2 | 4 | 18 | 24 | 4 | -- | -- | 8 | 14 | 78 |
| **KARUKONDA STREET** | 8 | -- | 1 | -- | 2 | -- | 1 | -- | -- | -- | 2 | 6 |
| **KEERTHI STREET** | 8 | 2 | 2 | 2 | -- | -- | -- | 2 | -- | -- | 4 | 12 |
| **KOLUSU VEEDHI** | 10 | 2 | -- | -- | -- | -- | 2 | -- | -- | 4 | 19 | 27 |
| **NAIDU COLONY** | 10 | 11 | 5 | 11 | 13 | 9 | 8 | -- | -- | 6 | 34 | 97 |
| **SRI RAM NAGAR COLONY** | 8 | 19 | 7 | 8 | 13 | 5 | 12 | 2 | -- | 13 | 45 | 124 |
| **YATHA VEEDHI** | 10 | 3 | -- | 2 | 4 | -- | 1 | -- | -- | 3 | 14 | 27 |
| **Grand Total** | **NO.** | **75** | **24** | **65** | **85** | **112** | **52** | **7** | **6** | **84** | **201** | **711** |
| **%** | **10.5%** | **3.4%** | **9.1%** | **12.0%** | **15.8%** | **7.3%** | **1.0%** | **0.8%** | **11.8%** | **28.3%** | **100%** |

### Occupational Details

The primary occupation of sampled household heads indicates that 43.8% are labourers engaged in both agriculture and non-agriculture activities and 1.4% are farmers. While 11.5% are skilled workers and 29% are unskilled workers and 10.1% are engaged in Private Service. Primary occupations of the household heads are presented below.

Table 8‑12: Primary Occupation of Head of Household

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MAIN OCCIPATION** | | | | | | | | | | | |
| **LOCATION** | **WARD** | **Housewife** | **AGRICULTURE** | **AL** | **SKILLED LABOUR** | **UNSKILLED LABOUR** | **Private service** | **OTHERS** | **UNEMPLOYED** | **OLD** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | -- | -- | -- | -- | -- | -- | 2 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 9 | -- | 2 | -- | -- | 6 | -- | -- | 2 | 19 |
| 14 | 11 | 3 | -- | 2 | 1 | 2 | -- | -- | 9 | 28 |
| **JARAJAPUPETA** | 1 | 1 | -- | -- | -- | 15 | 2 | -- | -- | 1 | 19 |
| 19 | 5 | -- | 1 | 3 | 9 | 3 | 1 | -- | 7 | 29 |
| 20 | 2 | -- | -- | 7 | 5 | 6 | 1 | -- | 1 | 22 |
| **KARUKONDA STREET** | 8 | -- | -- | -- | -- | 1 | -- | -- | 1 | -- | 2 |
| **KEERTHI STREET** | 8 | -- | -- | -- | -- | 2 | -- | 1 | 1 | -- | 4 |
| **KOLUSU VEEDHI** | 10 | -- | -- | -- | 7 | 1 | 2 | -- | -- | -- | 10 |
| **NAIDU COLONY** | 10 | -- | -- | 3 | 5 | 12 | 1 | 1 | 6 | 3 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 1 | -- | -- | 1 | 14 | -- | -- | 25 | 1 | 42 |
| **YATHA VEEDHI** | 10 | 3 | -- | 1 | -- | 3 | -- | -- | 2 | -- | 9 |
| **Grand Total** | **NO.** | **32** | **3** | **7** | **25** | **63** | **22** | **4** | **37** | **24** | **217** |
| **%** | **14.7%** | **1.4%** | **3.2%** | **11.5%** | **29.0%** | **10.1%** | **1.8%** | **17.1%** | **11.1%** | **100%** |

provides the details of occupation of household members of the sample surveyed. From the table it is evident that around 60.2% of total members are engaged in some economic activity (excluding students, young children in non-school going age, house wives and old and retired). Around 9.6% people are unemployed.

Table 8‑13: Main Occupation of Sampled Population

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Main Occupation** | | | | | | | | | | | | | |
| **LOCATION** | **WARD** | **NSGA** | **STUDENT** | **HOUSEWIFE** | **AAA** | **AL** | **SKILLED LABOR** | **UNSKILLED LABOR** | **PVT. SER.** | **OTHERS** | **OLD/RETIRED** | **UNEMPLOYED** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | -- | -- | -- | -- | 1 | -- | -- | 6 | -- | -- | 7 |
| **GANDHI NAGAR COLONY** | 13 | 5 | 12 | 15 | -- | 7 | 1 | 5 | 11 | 1 | 2 | 7 | 66 |
| 14 | 8 | 12 | 21 | 6 | 1 | 6 | 11 | 9 | 7 | 4 | 11 | 96 |
| **JARAJAPUPETA** | 1 | 7 | 10 | 11 | -- | -- | 6 | 9 | 8 | 1 | 8 | 5 | 65 |
| 19 | 14 | 16 | 18 | -- | 7 | 8 | 9 | 10 | 9 | 8 | 7 | 106 |
| 20 | 4 | 13 | 12 | -- | 6 | 4 | 17 | 9 | 4 | -- | 9 | 78 |
| **KARUKONDA STREET** | 8 | -- | -- | 2 | -- | -- | -- | -- | -- | 4 | -- | -- | 6 |
| **KEERTHI STREET** | 8 | 2 | -- | -- | -- | -- | -- | -- | -- | 8 | -- | 2 | 12 |
| **KOLUSU VEEDHI** | 10 | 2 | -- | 5 | -- | 8 | 2 | 3 | 2 | -- | -- | 5 | 27 |
| **NAIDU COLONY** | 10 | 11 | 4 | 11 | -- | 13 | 9 | 15 | 7 | 19 | -- | 8 | 97 |
| **SRI RAM NAGAR COLONY** | 8 | 19 | -- | 3 | -- | 1 | 2 | 29 | 1 | 57 | -- | 12 | 124 |
| **YATHA VEEDHI** | 10 | 3 | -- | 4 | -- | -- | -- | 8 | -- | 10 | -- | 2 | 27 |
| **Grand Total** | **NO.** | **75** | **67** | **102** | **6** | **43** | **39** | **106** | **57** | **126** | **22** | **68** | **711** |
| **%** | **10.5%** | **9.4%** | **14.3%** | **0.8%** | **6.0%** | **5.5%** | **14.9%** | **8.0%** | **17.7%** | **3.1%** | **9.6%** | **100%** |

### Housing Pattern

The study has captured data on house ownership of the sampled households. The table shows that more than 62.2% of the households are self- owned. And about 37.8% are rented house.

Table 8‑14: Ownership of House

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **HOUSE OWNERSHIP** | | | | |
| **LOCATION** | **WARD** | **OWNED** | **RENTED** | **Grand Total** |
| **ALABANA STREET** | 8 | 1 | 1 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 12 | 7 | 19 |
| 14 | 22 | 6 | 28 |
| **JARAJAPUPETA** | 1 | 5 | 14 | 19 |
| 19 | 20 | 9 | 29 |
| 20 | 12 | 10 | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | 2 |
| **KEERTHI STREET** | 8 | 2 | 2 | 4 |
| **KOLUSU VEEDHI** | 10 | 8 | 2 | 10 |
| **NAIDU COLONY** | 10 | 16 | 15 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 28 | 14 | 42 |
| **YATHA VEEDHI** | 10 | 7 | 2 | 9 |
| **Grand Total** | **NO.** | **135** | **82** | **217** |
| **%** | **62.2%** | **37.8%** | **100%** |

About 53.5% of the total sampled households had pucca structure and 46.5% are in semi-pucca structure. In ULBs which were upgraded from Nagar Panchayat to Municipality, existence of multi-storied apartments is creeping in.

Table 8‑15: Type of House Structure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TYPE OF HOUSE** | | | | |
| **LOCATION** | **WARD** | **SEMI-PUCCA** | **PUCCA** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | 2 | 2 |
| **GANDHI NAGAR COLONY** | 13 | -- | 19 | 19 |
| 14 | -- | 28 | 28 |
| **JARAJAPUPETA** | 1 | 19 | -- | 19 |
| 19 | 29 | -- | 29 |
| 20 | 22 | -- | 22 |
| **KARUKONDA STREET** | 8 | -- | 2 | 2 |
| **KEERTHI STREET** | 8 | -- | 4 | 4 |
| **KOLUSU VEEDHI** | 10 | 9 | 1 | 10 |
| **NAIDU COLONY** | 10 | 15 | 16 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | -- | 42 | 42 |
| **YATHA VEEDHI** | 10 | 7 | 2 | 9 |
| **Grand Total** | **NO.** | **101** | **116** | **217** |
| **%** | **46.5%** | **53.5%** | **100%** |

### Household Assets Details

There are 70.5% of households owning bicycles, 72.4% own television sets and 39.2% own refrigerators. 52.1% have two wheelers, 0.9% have 4 wheelers and 9.2% have Water Purifiers installed in their homes.

Table 8‑16: Household Assets Details

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOCATION** | **WARD** | **CYCLE** | **2 WHEELER** | **4 WHEELER** | **TV** | **FRIDGE** | **WASHING MACHINE** | **WATER PURIFIERS** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | 1 | -- | 2 | 2 | -- | 1 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 16 | 10 | -- | 14 | 11 | 1 | 4 | 19 |
| 14 | 21 | 11 | -- | 21 | 12 | -- | 3 | 28 |
| **JARAJAPUPETA** | 1 | 11 | 10 | -- | 10 | 4 | -- | -- | 19 |
| 19 | 16 | 17 | -- | 18 | 8 | -- | -- | 29 |
| 20 | 15 | 12 | 2 | 16 | 5 | 2 | 2 | 22 |
| **KARUKONDA STREET** | 8 | 2 | 1 | -- | 1 | 1 | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | 2 | -- | 2 | 2 | -- | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 5 | 6 | -- | 5 | 3 | -- | -- | 10 |
| **NAIDU COLONY** | 10 | 21 | 14 | -- | 25 | 11 | -- | 5 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 34 | 24 | -- | 35 | 24 | -- | 5 | 42 |
| **YATHA VEEDHI** | 10 | 6 | 5 | -- | 8 | 2 | -- | -- | 9 |
| **Grand Total** | **NO.** | **153** | **113** | **2** | **157** | **85** | **3** | **20** | **217** |
| **%** | **70.5%** | **52.1%** | **0.9%** | **72.4%** | **39.2%** | **1.4%** | **9.2%** | **100%** |

### Availability of Mobile Phones

Around 84.8% households surveyed had at least 1 mobile phone available within the family and 15.2% HH had more than 1 mobile as is indicated in .

Table 8‑17: Availability of Mobile Phones

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MOBILES** | | | | |
| **LOCATION** | **WARD** | **1** | **2** | **Grand Total** |
| **ALABANA STREET** | 8 | 1 | 1 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 13 | 6 | 19 |
| 14 | 23 | 5 | 28 |
| **JARAJAPUPETA** | 1 | 19 | -- | 19 |
| 19 | 29 | -- | 29 |
| 20 | 22 | -- | 22 |
| **KARUKONDA STREET** | 8 | 1 | 1 | 2 |
| **KEERTHI STREET** | 8 | 4 | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 9 | 1 | 10 |
| **NAIDU COLONY** | 10 | 22 | 9 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 33 | 9 | 42 |
| **YATHA VEEDHI** | 10 | 8 | 1 | 9 |
| **Grand Total** | **NO.** | **184** | **33** | **217** |
| **%** | **84.8%** | **15.2%** | **100%** |

### Mobile Bill

Average expenditure incurred by families surveyed on payment of Mobile bills / recharge is around Rs 81 per month. Distribution of Mobile bill range of different families is presented in

Table 8‑18: Average Monthly Expenditure on Mobile Phones

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MOBILE BILL RANGE** | | | | |
| **LOCATION** | **WARD** | **0-100** | **100-200** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 13 | 6 | 19 |
| 14 | 20 | 8 | 28 |
| **JARAJAPUPETA** | 1 | 13 | 6 | 19 |
| 19 | 24 | 5 | 29 |
| 20 | 19 | 3 | 22 |
| **KARUKONDA STREET** | 8 | 1 | 1 | 2 |
| **KEERTHI STREET** | 8 | 3 | 1 | 4 |
| **KOLUSU VEEDHI** | 10 | 7 | 3 | 10 |
| **NAIDU COLONY** | 10 | 17 | 14 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 24 | 18 | 42 |
| **YATHA VEEDHI** | 10 | 6 | 3 | 9 |
| **Grand Total** | **NO.** | **149** | **68** | **217** |
| **%** | **68.7%** | **31.3%** | **100%** |

## Income

Income and asset ownership are indicators which would, to some extent, indicate the households’ capacity to pay. The study has captured the economic and asset profile of the sampled households. There are 57.6% households having average monthly incomes of less than Rs. 5000 per month. There are about 40.6% households having monthly incomes of Rs 5,000 – 10000. About 1.8% have monthly incomes above Rs. 10,000.

Table 8‑19: Income Group of Surveyed Households

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **INCOME\_GROUP** | | | | | | |
| **LOCATION** | **WARD** | **BELOW 5000** | **5001-10000** | **10001-20000** | **ABOVE 50000** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | 2 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 11 | 6 | 2 | -- | 19 |
| 14 | 22 | 6 | -- | -- | 28 |
| **JARAJAPUPETA** | 1 | 11 | 8 | -- | -- | 19 |
| 19 | 23 | 6 | -- | -- | 29 |
| 20 | 11 | 9 | -- | 2 | 22 |
| **KARUKONDA STREET** | 8 | 1 | 1 | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | -- | -- | -- | 4 |
| **KOLUSU VEEDHI** | 10 | -- | 10 | -- | -- | 10 |
| **NAIDU COLONY** | 10 | 6 | 25 | -- | -- | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 31 | 11 | -- | -- | 42 |
| **YATHA VEEDHI** | 10 | 5 | 4 | -- | -- | 9 |
| **Grand Total** | **NO.** | **125** | **88** | **2** | **2** | **217** |
| **%** | **57.6%** | **40.6%** | **0.9%** | **0.9%** | **100%** |

## Self Help Groups

Women are the most important stakeholder groups for water supply across ULBs. The study has captured the SHG membership of households. The data in the table below indicates that overall, 87.6% households have SHG membership.

Table 8‑20: Members of Household who are SHG Members

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **WHETHER SHG MEMBER** | | | | |
| **LOCATION** | **WARD** | **YES** | **NO** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 18 | 1 | 19 |
| 14 | 23 | 5 | 28 |
| **JARAJAPUPETA** | 1 | 17 | 2 | 19 |
| 19 | 27 | 2 | 29 |
| 20 | 16 | 6 | 22 |
| **KARUKONDA STREET** | 8 | 1 | 1 | 2 |
| **KEERTHI STREET** | 8 | 3 | 1 | 4 |
| **KOLUSU VEEDHI** | 10 | 10 | -- | 10 |
| **NAIDU COLONY** | 10 | 31 | -- | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 33 | 9 | 42 |
| **YATHA VEEDHI** | 10 | 9 | -- | 9 |
| **Grand Total** | **NO.** | **190** | **27** | **217** |
| **%** | **87.6%** | **12.4%** | **100%** |

### SHG Members

67.7% households which have SHG members in the family stated that 1 member of the family is engaged in the SHG activities while in 18.4% HH 2 family members are the members of SHG as is evident from

Table 8‑21: SHG Members

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SHG MEMBERS** | | | | | | |
| **LOCATION** | **WARD** | **1** | **2** | **4** | **NA** | **Grand Total** |
| **ALABANA STREET** | 8 | 1 | 1 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 18 | -- | -- | 1 | 19 |
| 14 | 23 | -- | -- | 5 | 28 |
| **JARAJAPUPETA** | 1 | 12 | 5 | -- | 2 | 19 |
| 19 | 22 | 5 | -- | 2 | 29 |
| 20 | 10 | 3 | 3 | 6 | 22 |
| **KARUKONDA STREET** | 8 | -- | 1 | -- | 1 | 2 |
| **KEERTHI STREET** | 8 | 2 | 1 | -- | 1 | 4 |
| **KOLUSU VEEDHI** | 10 | 10 | -- | -- | -- | 10 |
| **NAIDU COLONY** | 10 | 25 | 6 | -- | -- | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 19 | 14 | -- | 9 | 42 |
| **YATHA VEEDHI** | 10 | 5 | 4 | -- | -- | 9 |
| **Grand Total** | **NO.** | **147** | **40** | **3** | **27** | **217** |
| **%** | **67.7%** | **18.4%** | **1.4%** | **12.4%** | **100%** |

## Water Supply Related

### Source of Water

49.8% HH have Municipal water connection out of which 44.4% depend on Municipal Stand post and Public Hand Pumps as additional sources to fulfil their daily requirements of water. 11.1% households depend on Municipal Stand Post alone and 35.9% HH depend on Municipal Stand Post and Public Hand Pumps and 3.2% have Own Hand Pumps also.

Table 8‑22: Sources of Water

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Source of Water** | | | | | | | | |
| **LOCATION** | **WARD** | **MSC** | **MSC / MSP /**  **PHP / WT** | **MSP** | **MSP /**  **PHP** | **MSP / PHP /**  **OHP** | **OHP** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | 1 | 1 | -- | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 5 | 3 | 5 | 6 | -- | -- | 19 |
| 14 | 7 | 9 | 3 | 9 | -- | -- | 28 |
| **JARAJAPUPETA** | 1 | 2 | 3 | 2 | 10 | 2 | -- | 19 |
| 19 | 3 | -- | 5 | 18 | -- | 3 | 29 |
| 20 | 7 | 2 | 2 | 10 | 1 | -- | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | -- | -- | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 2 | -- | -- | 2 | -- | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 5 | 2 | 1 | 2 | -- | -- | 10 |
| **NAIDU COLONY** | 10 | 14 | 15 | -- | 1 | 1 | -- | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 16 | 2 | 5 | 19 | -- | -- | 42 |
| **YATHA VEEDHI** | 10 | 5 | 3 | -- | 1 | -- | -- | 9 |
| **Grand Total** | **NO.** | **68** | **40** | **24** | **78** | **4** | **3** | **217** |
| **%** | **31.3%** | **18.4%** | **11.1%** | **35.9%** | **1.8%** | **1.4%** | **100%** |

*MSC: Municipal Service Connection*

*MSP: Municipal Stand Post*

*PHP: Public Hand Pump*

*OHP: Own Hand Pump*

*WT: Water Tanker*

## Municipal House Service Connection

### Frequency of Water Supply

In urban areas, the households expect an assured water supply at convenient timings. Households with house service connections reported that they receive water once in day for around 1 hour daily from the municipality water supply connections however they added that the supply is irregular, low pressure and sometimes delayed. 68.7% HH depending on Municipal Water Supply – service connection and stand post stated that water is supplied for 1 hour in a day while 20.6% stated that water supply is irregular and is usually supplied for 0.5 hours in a day as is evident in .

Table 8‑23: Hours of Water Supply

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Municipal Water Supply Hours** | | | | | |
| **LOCATION** | **WARD** | **0.5** | **1** | **2** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 8 | 11 | -- | 19 |
| 14 | 6 | 20 | 2 | 28 |
| **JARAJAPUPETA** | 1 | 2 | 15 | 2 | 19 |
| 19 | 5 | 19 | 2 | 26 |
| 20 | 5 | 17 | -- | 22 |
| **KARUKONDA STREET** | 8 | -- | 1 | 1 | 2 |
| **KEERTHI STREET** | 8 | -- | 3 | 1 | 4 |
| **KOLUSU VEEDHI** | 10 | 2 | 5 | 3 | 10 |
| **NAIDU COLONY** | 10 | 4 | 23 | 4 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 6 | 29 | 7 | 42 |
| **YATHA VEEDHI** | 10 | 4 | 4 | 1 | 9 |
| **Grand Total** | **NO.** | **44** | **147** | **23** | **214** |
| **%** | **20.6%** | **68.7%** | **10.7%** | **100%** |

### Timing of Supply

64% respondents dependent on Municipal water stated that they receive water on daily basis while 34% stated that water is supplied every alternate day. The respondents stated that water is supplied for 1 hour on daily basis and is not sufficient to cater to all the needs of every member of the household.

Table 8‑24: Frequency of Water Supply

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PWS\_FREQ.** | | | | |
| **LOCATION** | **WARD** | **DAILY** | **ONCE IN 2 DAYS** | **Grand Total** |
| **ALABANA STREET** | 8 | 1 | 1 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 9 | 10 | 19 |
| 14 | 13 | 15 | 28 |
| **JARAJAPUPETA** | 1 | 12 | 7 | 19 |
| 19 | 21 | 5 | 26 |
| 20 | 13 | 9 | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | 2 |
| **KEERTHI STREET** | 8 | 2 | 2 | 4 |
| **KOLUSU VEEDHI** | 10 | 6 | 4 | 10 |
| **NAIDU COLONY** | 10 | 25 | 6 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 26 | 16 | 42 |
| **YATHA VEEDHI** | 10 | 7 | 2 | 9 |
| **Grand Total** | **NO.** | **137** | **77** | **214** |
| **%** | **64.0%** | **36.0%** | **100%** |

53.3% Houses particularly those who depend on Municipal Water Supply stated that they receive water supply during the morning hours while 9.3% receive water during Evening hours and 26.6% respondents stated that there is no fixed timing for water supply. The details are presented in .

Table 8‑25: Timing of Water Supply

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PWS\_TIMING** | | | | | | |
| **LOCATION** | **WARD** | **MORNING** | **EVENING** | **BOTH** | **NO SPECIFIC TIME** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 8 | 2 | -- | 9 | 19 |
| 14 | 21 | 2 | 2 | 3 | 28 |
| **JARAJAPUPETA** | 1 | 8 | 2 | 2 | 7 | 19 |
| 19 | 12 | 1 | 2 | 11 | 26 |
| 20 | 17 | 2 | -- | 3 | 22 |
| **KARUKONDA STREET** | 8 | -- | 1 | 1 | -- | 2 |
| **KEERTHI STREET** | 8 | 2 | -- | 1 | 1 | 4 |
| **KOLUSU VEEDHI** | 10 | 3 | 2 | 3 | 2 | 10 |
| **NAIDU COLONY** | 10 | 17 | 4 | 4 | 6 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 20 | 2 | 7 | 13 | 42 |
| **YATHA VEEDHI** | 10 | 4 | 2 | 1 | 2 | 9 |
| **Grand Total** | **NO.** | **114** | **20** | **23** | **57** | **214** |
| **%** | **53.3%** | **9.3%** | **10.7%** | **26.6%** | **100%** |

Most of the households depend on Municipal Standpost and Public Hand Pumps for their daily water requirements.

### Billing and Payments

At present, the sampled municipality is charging a fixed rate for house service connections. When asked about the billing and payment for house service connections, 35% households affirmed paying the water bills. The households having municipal water connection are charged a flat rate of water tariff of Rs. 100 per month.

Among those who reported HAVING Municipal Service connection, 20% pay the water tariff at municipal office, 5% pay at MeeSeva and 10% use Puruseva for bill payments. From the it can be inferred that the online payment modes may be promoted to ensure ease in payments for the consumers and higher billing and collection efficiency for the service providers.

Table 8‑26: Mode of Payment of Water Bills

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PWS\_BILL PAYMENT** | | | | | | |
| **LOCATION** | **WARD** | **MEESEVA** | **MUNICIPAL OFFICE** | **ONLINE** | **NOT PAYING** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | 1 | -- | -- | 1 |
| **GANDHI NAGAR COLONY** | 13 | 1 | 2 | 3 | 2 | 8 |
| 14 | 5 | 7 | 4 | -- | 16 |
| **JARAJAPUPETA** | 1 | -- | -- | -- | 5 | 5 |
| 19 | -- | -- | -- | 3 | 3 |
| 20 | -- | -- | -- | 9 | 9 |
| **KARUKONDA STREET** | 8 | -- | 1 | 1 | -- | 2 |
| **KEERTHI STREET** | 8 | -- | 1 | 1 | -- | 2 |
| **KOLUSU VEEDHI** | 10 | 4 | 1 | 1 | 1 | 7 |
| **NAIDU COLONY** | 10 | 7 | 11 | 11 | -- | 29 |
| **SRI RAM NAGAR COLONY** | 8 | 5 | 3 | 3 | 7 | 18 |
| **YATHA VEEDHI** | 10 | 1 | 5 | 2 | -- | 8 |
| **Grand Total** | **NO.** | **23** | **32** | **26** | **27** | **108** |
| **%** | **21.3%** | **29.6%** | **24.1%** | **25.0%** | **100%** |

### Reasons for not having Service Connections

Respondents of 39.4% of those households which did not have municipal service connection stated that they are not able to afford the cost of getting the connection while 6.4% respondents felt that the pressure of water supply is too low that even if they take the connection it would not fulfil their daily requirements of water. 14.7% respondents stated that there is no distribution in their area hence they have not applied or taken the connection. 36.7% respondents are residing in the rented accommodation. Details of reasons presented by the respondents are presented in

Table 8‑27: Reason for Not Having Service Connection

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **REASON\_NO PWS** | | | | | | | |
| **LOCATION** | **WARD** | **Can’t Afford** | **RENTED** | **Lengthy process getting one** | **No distribution in the area** | **No Pressure/ technically not possible** | **Grand Total** |
| **ALABANA STREET** | 8 | 1 | -- | -- | -- | -- | 1 |
| **GANDHI NAGAR COLONY** | 13 | 7 | 4 | -- | -- | -- | 11 |
| 14 | 9 | 3 | -- | -- | -- | 12 |
| **JARAJAPUPETA** | 1 | -- | 9 | 3 | 1 | 1 | 14 |
| 19 | 3 | 8 | -- | 9 | 6 | 26 |
| 20 | 4 | 3 | -- | 6 | -- | 13 |
| **KEERTHI STREET** | 8 | 1 | 1 | -- | -- | -- | 2 |
| **KOLUSU VEEDHI** | 10 | 2 | 1 | -- | -- | -- | 3 |
| **NAIDU COLONY** | 10 | 2 | -- | -- | -- | -- | 2 |
| **SRI RAM NAGAR COLONY** | 8 | 14 | 10 | -- | -- | -- | 24 |
| **YATHA VEEDHI** | 10 | -- | 1 | -- | -- | -- | 1 |
| **Grand Total** | **NO.** | **43** | **40** | **3** | **16** | **7** | **109** |
| **%** | **39.4%** | **36.7%** | **2.8%** | **14.7%** | **6.4%** | **100%** |

## Fetching Water – Municipal Public Stand Post

The study highlights that municipal stand post users who do not have house service connection, spends an average of about half an hour to one hour to fetch water from public stand post. This is primarily due to the fact that the frequency and duration of water supply is irregular in the ULB.

Table 8‑28: Distance between House and Municipal Public Stand Post

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **STANDPOST\_DISTANCE** | | | | | |
| **LOCATION** | **WARD** | **0-100 m** | **100-300 m** | **300-500 m** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 6 | 4 | 4 | 14 |
| 14 | 11 | 6 | 4 | 21 |
| **JARAJAPUPETA** | 1 | 9 | 3 | 5 | 17 |
| 19 | 12 | 5 | 9 | 26 |
| 20 | 8 | 4 | 3 | 15 |
| **KEERTHI STREET** | 8 | 2 | -- | -- | 2 |
| **KOLUSU VEEDHI** | 10 | 2 | 1 | 2 | 5 |
| **NAIDU COLONY** | 10 | 10 | 5 | 2 | 17 |
| **SRI RAM NAGAR COLONY** | 8 | 14 | 6 | 6 | 26 |
| **YATHA VEEDHI** | 10 | 3 | 1 | -- | 4 |
| **Grand Total** | **NO.** | **79** | **35** | **35** | **149** |
| **%** | **53.0%** | **23.5%** | **23.5%** | **100%** |

### Average Time taken in Collection

Members of 28.9% surveyed households who depend on stand post for their daily water requirements spend around ½ hour daily to collect water while 60.4% households spend around 1 hour on water collection and around 10.7% Households have to spend more than 1 hour to collect water from the stand post or public hand pumps.

Table 8‑29: Average Time Taken to Collect Water from Public Stand Post

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **STANDPOST\_TIME TAKEN\_COLLECTION** | | | | | |
| **LOCATION** | **WARD** | **Upto ½ hr** | **½ - 1 hr** | **1-2 hrs** | **Grand Total** |
| **ALABANA STREET** | 8 | 1 | 1 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 2 | 10 | 2 | 14 |
| 14 | 5 | 14 | 2 | 21 |
| **JARAJAPUPETA** | 1 | 5 | 11 | 1 | 17 |
| 19 | 6 | 14 | 6 | 26 |
| 20 | 7 | 7 | 1 | 15 |
| **KEERTHI STREET** | 8 | -- | 2 | -- | 2 |
| **KOLUSU VEEDHI** | 10 | 1 | 3 | 1 | 5 |
| **NAIDU COLONY** | 10 | 4 | 13 | -- | 17 |
| **SRI RAM NAGAR COLONY** | 8 | 10 | 13 | 3 | 26 |
| **YATHA VEEDHI** | 10 | 2 | 2 | -- | 4 |
| **Grand Total** | **NO.** | **43** | **90** | **16** | **149** |
| **%** | **28.9%** | **60.4%** | **10.7%** | **100%** |

### Members engaged in Water Collection

Women form the primary group who are engaged in fetching water. Water fetching responsibility is mainly shared by one or two members of the family in ULBs.

Table 8‑30: Family Member involved in fetching Water from Stand Post

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **STANDPOST\_MEMBERS ENGAGED IN WATER COLLECTION** | | | | | |
| **LOCATION** | **WARD** | **1** | **2** | **3** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | -- | 2 | 2 |
| **GANDHI NAGAR COLONY** | 13 | -- | 7 | 7 | 14 |
| 14 | 3 | 7 | 11 | 21 |
| **JARAJAPUPETA** | 1 | 1 | 10 | 6 | 17 |
| 19 | 5 | 9 | 12 | 26 |
| 20 | 2 | 6 | 7 | 15 |
| **KEERTHI STREET** | 8 | -- | 2 | -- | 2 |
| **KOLUSU VEEDHI** | 10 | 2 | 2 | 1 | 5 |
| **NAIDU COLONY** | 10 | 2 | 11 | 4 | 17 |
| **SRI RAM NAGAR COLONY** | 8 | 1 | 15 | 10 | 26 |
| **YATHA VEEDHI** | 10 | -- | 1 | 3 | 4 |
| **Grand Total** | **NO.** | **17** | **72** | **66** | **149** |
| **%** | **11.4%** | **48.3%** | **44.3%** | **100%** |

When asked about how water is transported to the house 87.9% said they physically carry. About 12.1% use cycles to fetch water to the house; this denotes that the distance from supply point is quite considerable and confirms that House Service Connections can reduce this drudgery.

### Difficulties Faced

The question on key difficulties faced in fetching water from stand post, 2.7% reported health related problems, 53% said that distance of travel and process of water collection is highly time-consuming resulting in extra burden of work and sometimes leading to absenteeism from schools of going school going children. The main difficulties faced by the respondents and their family members are presented in details in .

Table 8‑31: Difficulties Faced in Fetching water from Public Stand Post

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **STANDPOST\_DIFFICULTIES** | | | | | | | | | |
| **Location** | **Ward** | **Distance / time consuming** | **Time consuming** | **Extra burden / time consuming** | **Wastage / time consuming** | **Wastage** | **Health related problems** | **Fear of violence** | **Grand total** |
| **ALABANA STREET** | 8 | -- | -- | 1 | -- | 1 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 8 | 2 | 1 | 2 | 1 | -- | -- | 14 |
| 14 | 12 | 2 | 2 | 3 | 1 | 1 | -- | 21 |
| **JARAJAPUPETA** | 1 | 8 | 2 | 1 | 1 | 3 | 1 | 1 | 17 |
| 19 | 18 | 4 | 2 | 2 | -- | -- | -- | 26 |
| 20 | 8 | 3 | 1 | 2 | 1 | -- | -- | 15 |
| **KEERTHI STREET** | 8 | -- | -- | 2 | -- | -- | -- | -- | 2 |
| **KOLUSU VEEDHI** | 10 | 3 | 1 | -- | -- | -- | 1 | -- | 5 |
| **NAIDU COLONY** | 10 | 8 | 1 | 2 | 3 | 1 | 1 | 1 | 17 |
| **SRI RAM NAGAR COLONY** | 8 | 13 | 4 | 3 | 3 | 3 | -- | -- | 26 |
| **YATHA VEEDHI** | 10 | 1 | 1 | -- | 1 | 1 | -- | -- | 4 |
| **Grand Total** | **NO.** | **79** | **20** | **15** | **17** | **12** | **4** | **2** | **149** |
| **%** | **53.0%** | **13.4%** | **10.1%** | **11.4%** | **8.1%** | **2.7%** | **1.3%** | **100%** |

The respondents also expressed their agony regarding standing in a queue to collect water from the Public Stand Posts; about 90% respondents said that they have to stand themselves in queue to fetch water. In order to secure a comfortable position in the queue and to save time, sometimes children are made to stand in the queue, till the time the opportunity to collect water from the stand posts arrive.

## Coping Strategy

The supply with low Frequency has compelled the citizens to adopt coping mechanisms by creating household level storage. All types of households depend on storage facilities. It can be observed that 53% of households in the ULB use drums and vessels for storing the water. 28.1% uses overhead tanks or underground sumps as well for storage of water.

Table 8‑32: Type of Storage

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **STORAGE\_WATER** | | | | | |
| **LOCATION** | **WARD** | **Drums & Vessels** | **Sump** | **Sump & Roof / Loft tank** | **Grand Total** |
| **ALABANA STREET** | 8 | 1 | -- | 1 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 6 | 5 | 8 | 19 |
| 14 | 9 | 9 | 10 | 28 |
| **JARAJAPUPETA** | 1 | 13 | 4 | 2 | 19 |
| 19 | 26 | 3 | -- | 29 |
| 20 | 15 | 6 | 1 | 22 |
| **KARUKONDA STREET** | 8 | -- | -- | 2 | 2 |
| **KEERTHI STREET** | 8 | 2 | -- | 2 | 4 |
| **KOLUSU VEEDHI** | 10 | 5 | 3 | 2 | 10 |
| **NAIDU COLONY** | 10 | 12 | 7 | 12 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 20 | 3 | 19 | 42 |
| **YATHA VEEDHI** | 10 | 6 | 1 | 2 | 9 |
| **Grand Total** | **NO.** | **115** | **41** | **61** | **217** |
| **%** | **53.0%** | **18.9%** | **28.1%** | **100%** |

## Household Drinking Water Source

43.3% houses use municipality water for drinking purpose, while 32.3% rely on water collected from Municipal Stand post and 11.1% on Hand pump. Another source of drinking water of sampled households is local RO (Reverse Osmosis) plant. 10.1% depend on packaged/caned water for drinking. 2.8% household uses water from water tanker.

Municipality supplies Water tankers where there is a) no distribution, b) scarcity of water and c) during non-supplied days.

Table 8‑33: Sources of Drinking Water

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Source of Drinking Water** | | | | | | | |
| **Location** | **Ward** | **Municipal service connection** | **Municipal standpost** | **Water from hand pump** | **Local RO plant water** | **Water tanker** | **Grand total** |
| **ALABANA STREET** | 8 | 1 | 1 | -- | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 10 | 7 | 2 | -- | -- | 19 |
| 14 | 16 | 8 | 4 | -- | -- | 28 |
| **JARAJAPUPETA** | 1 | 3 | 8 | 7 | -- | 1 | 19 |
| 19 | 3 | 2 | 9 | 14 | 1 | 29 |
| 20 | 2 | 5 | 2 | 9 | 4 | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | -- | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 2 | 2 | -- | -- | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 6 | 4 | -- | -- | -- | 10 |
| **NAIDU COLONY** | 10 | 29 | 2 | -- | -- | -- | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 12 | 30 | -- | -- | -- | 42 |
| **YATHA VEEDHI** | 10 | 8 | 1 | -- | -- | -- | 9 |
| **Grand Total** | **NO.** | **94** | **70** | **24** | **23** | **6** | **217** |
| **%** | **43.3%** | **32.3%** | **11.1%** | **10.6%** | **2.8%** | **100%** |

### Household Level Water Treatment

Though water quality is perceived as a problem by users, more than 55.3% households do not take up any further treatment. Filtering by cloth is a common practice by more than 21.2% of the households. 15.2% HH boil water before using it for drinking purpose. 8.3% households use water purifiers. Households using RO water for drinking purpose these households are not going for further treatment.

Table 8‑34: Methods used by Household to Treat Water to make it Potable

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Drinking Water Treatment** | | | | | | |
| **LOCATION** | **WARD** | **BOILING** | **FILTERING BY CLOTH** | **WATER PURIFIER** | **NO FURTHER TREATMENT** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | 1 | 1 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 4 | 7 | 4 | 4 | 19 |
| 14 | 7 | 5 | 3 | 13 | 28 |
| **JARAJAPUPETA** | 1 | 3 | 3 | -- | 13 | 19 |
| 19 | 3 | 3 | -- | 23 | 29 |
| 20 | -- | 2 | -- | 20 | 22 |
| **KARUKONDA STREET** | 8 | 1 | 1 | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 1 | -- | -- | 3 | 4 |
| **KOLUSU VEEDHI** | 10 | 3 | 4 | -- | 3 | 10 |
| **NAIDU COLONY** | 10 | 3 | 11 | 5 | 12 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 6 | 7 | 5 | 24 | 42 |
| **YATHA VEEDHI** | 10 | 2 | 2 | -- | 5 | 9 |
| **Grand Total** | **NO.** | **33** | **46** | **18** | **120** | **217** |
| **%** | **15.2%** | **21.2%** | **8.3%** | **55.3%** | **100%** |

## Satisfaction Levels

The findings indicate half of the sampled user households are not satisfied with current water supply services. Households reported problems of irregular frequency and limited hours of supply and inconvenient timing of supply, apart from low response to grievances and delayed fault repair services, poor pressure of water supply and perceived low quality.

### Water Quality

Table 8‑35: Water Quality – Municipal Water

|  |  |  |
| --- | --- | --- |
| **Water Quality – Municipal Water** | | |
|  | **Freq** | **%** |
| Colour | 72 | 33.2% |
| Unpleasant Taste, Salty | 86 | 39.6% |
| Smell | 34 | 15.7% |
| Murky | 28 | 12.9% |
| Others | 27 | 12.4% |
| No Response | 9 | 4.1% |
| **Total** | **217** | **100%** |

*Multiple responses recorded*

The survey collected user’s perceptions regarding water quality. About 33.2% have reported objectionable colour as water quality problem. The next quality problem reported by 39.6% household is unpleasant taste reportedly salty. Around 15.7% HH reported foul smell was a problem. About 12.9% had reported turbidity (murky) as a problem. 9 Respondents gave no response to the query.

### Water Related Complaints

Responding to the query whether any member of the household has raised a complaint against the water quality or supply related issues; 41% respondents stated that they had raised the complaint against water related issues to municipality and / or the ward councillor.

Table 8‑36: Whether Complaint Raised

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **COMPLAINT\_RAISED** | | | | |
| **LOCATION** | **WARD** | **YES** | **NO** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | 2 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 14 | -- | 14 |
| 14 | 20 | 1 | 21 |
| **JARAJAPUPETA** | 1 | 14 | 3 | 17 |
| 19 | 20 | 3 | 23 |
| 20 | 10 | 5 | 15 |
| **KEERTHI STREET** | 8 | -- | 2 | 2 |
| **KOLUSU VEEDHI** | 10 | 1 | 4 | 5 |
| **NAIDU COLONY** | 10 | -- | 17 | 17 |
| **SRI RAM NAGAR COLONY** | 8 | 2 | 24 | 26 |
| **YATHA VEEDHI** | 10 | -- | 4 | 4 |
| **Grand Total** | **NO.** | **81** | **65** | **146** |
| **%** | **55.5%** | **44.5%** | **100%** |

Most of the complaints (98.2%) are lodged with the concerned ULB staff

Table 8‑37: Water related Complaints

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **COMPLAINT RAISED TO** | | | | |
| **LOCATION** | **WARD** | **ULB STAFF** | **WATER MAN** | **Grand Total** |
| **GANDHI NAGAR COLONY** | 13 | 14 | -- | 14 |
| 14 | 20 | -- | 20 |
| **JARAJAPUPETA** | 1 | 14 | -- | 14 |
| 19 | 20 | -- | 20 |
| 20 | 10 | -- | 10 |
| **KOLUSU VEEDHI** | 10 | 1 | -- | 1 |
| **SRI RAM NAGAR COLONY** | 8 | 1 | 1 | 2 |
| **Grand Total** | **NO.** | **81** | **1** | **82** |
| **%** | **98.2%** | **1.8%** | **100%** |

When asked about the nature of complaint, 16% of the complaints are related to Inadequate Water Supply. 22.2% complaints are regarding the timing of supply. 16.1% complaints are related to inadequate pressure. About 8.6% have reported for impurities in water and bursting of pipe lines while 19.8% complaints were related to billing.

Table 8‑38: Type of Complaints

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NATURE OF COMPLAINT** | | | | | | | | |
| **LOCATION** | **WARD** | **INADEQUATE WATER SUPPLY** | **PRESSURE** | **BILLING** | **BURSTING OF PIPELINE** | **IMPURITIES** | **TIMING** | **Grand Total** |
| **GANDHI NAGAR COLONY** | 13 | 1 | 3 | 2 | 1 | 1 | 6 | 14 |
| 14 | 2 | 3 | 5 | 3 | 1 | 6 | 20 |
| **JARAJAPUPETA** | 1 | 2 | 4 | 1 | 4 | 1 | 2 | 14 |
| 19 | 7 | 1 | 3 | 4 | 3 | 2 | 20 |
| 20 | -- | 2 | 4 | 2 | -- | 2 | 10 |
| **KOLUSU VEEDHI** | 10 | -- | -- | -- | 1 | -- | -- | 1 |
| **SRI RAM NAGAR COLONY** | 8 | -- | -- | -- | 1 | 1 | -- | 2 |
| **Grand Total** | **NO.** | **13** | **13** | **16** | **16** | **7** | **18** | **81** |
| **%** | **16.0%** | **16.1%** | **19.8%** | **19.8%** | **8.6%** | **22.2%** | **100%** |

7.6% complaints were resolved within 1 day and 18.7% complaints were resolved within 3 days of filing of complaint; while 15.1% complaints were resolved within 1 week, 32.5% within 1 month and 9.9% were never resolved

Table 8‑39: Time Taken to Solve Compliant

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **COMPLAINT\_REDRESSAL\_AVG TIME** | | | | | | | | | |
| **LOCATION** | **WARD** | **WITHIN 1 DAY** | **WITHIN 3 DAYS** | **WITHIN 1 WEEK** | **WITHIN 2 WEEKS** | **WITHIN 1 MONTH** | **MORE THAN A MONTH** | **NEVER** | **Grand Total** |
| **GANDHI NAGAR COLONY** | 13 | -- | 2 | 3 | 1 | 4 | 2 | 2 | 14 |
| 14 | 2 | 2 | 4 | 4 | 2 | 4 | 2 | 20 |
| **JARAJAPUPETA** | 1 | 2 | 3 | 4 | 3 | -- | 1 | 1 | 14 |
| 19 | 2 | 5 | 1 | 4 | 3 | 3 | 2 | 20 |
| 20 | -- | 2 | -- | 1 | 3 | 4 | -- | 10 |
| **KOLUSU VEEDHI** | 10 | -- | -- | -- | -- | -- | 1 | -- | 1 |
| **SRI RAM NAGAR COLONY** | 8 | -- | 1 | -- | -- | 1 | -- | -- | 2 |
| **Grand Total** | **NO.** | **6** | **15** | **12** | **13** | **13** | **15** | **8** | **81** |
| **%** | **7.6%** | **18.7%** | **15.1%** | **16.3%** | **16.2%** | **18.8%** | **9.9%** | **100%** |

## Expected Water Supply

To the question on at what level of water supply frequency households would be satisfied, 85.7% people responded with their expectations of improved frequency, timing and/or pressure of supply. The results are presented in the following table.

Table 8‑40: Households preferring improved Water Supply

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EXPECTATIONS\_BETTER SUPPLY** | | | | |
| **LOCATION** | **WARD** | **YES** | **NO** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 19 | -- | 19 |
| 14 | 28 | -- | 28 |
| **JARAJAPUPETA** | 1 | 19 | -- | 19 |
| 19 | 29 | -- | 29 |
| 20 | 22 | -- | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 5 | 5 | 10 |
| **NAIDU COLONY** | 10 | 7 | 24 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 42 | -- | 42 |
| **YATHA VEEDHI** | 10 | 7 | 2 | 9 |
| **Grand Total** | **NO.** | **186** | **31** | **217** |
| **%** | **85.7%** | **14.3%** | **100%** |

Residents wish to receive water supply every day and they will be content with the supply, if it is set to two hours daily. Almost 81.1% respondents expect that the supply timing should be increased to 2 hours – 1 hour in the morning and 1 hour in the evening and 87.1% believed that the water should be supplied daily.

Table 8‑41: Expectations of Improved Water Supply

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **LOCATION** | **WARD** | **EXPECTATIONS** | | | | **Grand Total** |
| **Time** | | **Days** | |
| **1 hr** | **2 hrs** | **Daily** | **Once in 2 Days** |
| **ALABANA STREET** | 8 | 1 | 1 | 2 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | -- | 19 | 19 | -- | 19 |
| 14 | -- | 28 | 28 | -- | 28 |
| **JARAJAPUPETA** | 1 | -- | 19 | 19 | -- | 19 |
| 19 | -- | 29 | 29 | -- | 29 |
| 20 | -- | 22 | 22 | -- | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | 2 | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | -- | 4 | -- | 4 |
| **KOLUSU VEEDHI** | 10 | -- | 10 | 6 | 4 | 10 |
| **NAIDU COLONY** | 10 | 6 | 25 | 9 | 22 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 21 | 21 | 42 | -- | 42 |
| **YATHA VEEDHI** | 10 | 7 | 2 | 7 | 2 | 9 |
| **Grand Total** | **NO.** | **41** | **176** | **189** | **28** | **217** |
| **%** | **18.9%** | **81.1%** | **87.1%** | **12.9%** | **100%** |

## Willingness to Pay for Expected Water Supply

Out of 217, a large majority of respondents are willing to pay for their expected water supply. Of which, 61.8% are willing to pay up to Rs 100 per month, for good quality services. Close to 19.4% are willing to pay Rs 150, 14.3% are willing to pay uptoRs 200 and around 4.6% are willing to pay up to Rs 300. This is fairly reasonable, considering the socio-economic profile of respondents.

Table 8‑42: Households Maximum Willingness to pay for expected Water Supply

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **WILLINGNESS TO PAY** | | | | | | |
| **LOCATION** | **WARD** | **Rs 300** | **Rs 200** | **Rs 150** | **Rs 100** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | 2 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | -- | 5 | 1 | 13 | 19 |
| 14 | -- | 4 | 2 | 22 | 28 |
| **JARAJAPUPETA** | 1 | 1 | 3 | 4 | 11 | 19 |
| 19 | 2 | 2 | 3 | 22 | 29 |
| 20 | 1 | 3 | 4 | 14 | 22 |
| **KARUKONDA STREET** | 8 | -- | -- | -- | 2 | 2 |
| **KEERTHI STREET** | 8 | -- | 1 | 2 | 1 | 4 |
| **KOLUSU VEEDHI** | 10 | 2 | 1 | 2 | 5 | 10 |
| **NAIDU COLONY** | 10 | 1 | 3 | 10 | 17 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 3 | 7 | 11 | 21 | 42 |
| **YATHA VEEDHI** | 10 | -- | -- | 3 | 6 | 9 |
| **Grand Total** | **NO.** | **10** | **31** | **42** | **134** | **217** |
| **%** | **4.6%** | **14.3%** | **19.4%** | **61.8%** | **100%** |

Around 96.7% of the people ready to pay Rs 200 pm as the water charges belong to the income group with income below Rs 10000 pm, this highlights the amount of trouble and burden these people have to face in getting water for their requirements.

Table 8‑43: Distribution of Monthly Household Income and Willingness to Pay for Improved Water Supply

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **INCOME\_GROUP** | **BELOW Rs. 5000** | | **Rs. 5001-10000** | | **Rs. 10001-20000** | | **ABOVE Rs. 50000** | | **Grand Total** |
| **WILLINGNESS\_PAY** | **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** |
| **Rs 300** | 4 | **3.2%** | 6 | **6.8%** | -- | **--** | -- | **--** | 10 |
| **Rs 200** | 20 | **16.0%** | 10 | **11.4%** | 1 | **50.0%** | -- | **--** | 31 |
| **Rs 150** | 27 | **21.6%** | 15 | **17.0%** | -- | **--** | -- | **--** | 42 |
| **Rs 100** | 74 | **59.2%** | 57 | **64.8%** | 1 | **50.0%** | 2 | **100%** | 134 |
| **Grand Total** | **125** | **100%** | **88** | **100%** | **2** | **100%** | **2** | **100%** | **217** |

## Health Related Information

To the question on having knowledge of water borne diseases, only 67.7% responded positively. This is an extremely alarming scenario, given that the awareness regarding the threat of contaminated water and related health impacts are not adequate.

Table 8‑44: Knowledge of Water Borne Disease

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **KNOWLEDGE OF WATER BORNE DISEASE** | | | | |
| **LOCATION** | **WARD** | **YES** | **NO** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 14 | 5 | 19 |
| 14 | 19 | 9 | 28 |
| **JARAJAPUPETA** | 1 | 14 | 5 | 19 |
| 19 | 17 | 12 | 29 |
| 20 | 11 | 11 | 22 |
| **KARUKONDA STREET** | 8 | 2 | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 10 | -- | 10 |
| **NAIDU COLONY** | 10 | 23 | 8 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 27 | 15 | 42 |
| **YATHA VEEDHI** | 10 | 4 | 5 | 9 |
| **Grand Total** | **NO.** | **147** | **70** | **217** |
| **%** | **67.7%** | **32.3%** | **100%** |

Out of sampled households during last one year, family members of 6.9% households have fallen ill due to typhoid, 7.8% due to diarrhoea/ gastroenteritis and 5.1% due cholera.

Table 8‑45: Member of Family Fallen ill during last One year

|  |  |  |
| --- | --- | --- |
|  | **Frequency** | **%** |
| Typhoid | 15 | 6.9% |
| Diarrhoea/ Gastroenteritis | 17 | 7.8% |
| Cholera | 11 | 5.1% |
| N=217 | | |

60.8% household reported that they had spent Rs 0-500 due to these diseases. 30% of them reported to spend up to Rs 1000, 6% spend around Rs 2000 while 2.8% households spend up to Rs 5000 per year and 0.5% spend above Rs 5000 on treatment and other medical expenses every year.

Table 8‑46: Expenses on Health and Treatment

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EXPENSE\_MED\_RANGE** | | | | | | | |
| **LOCATION** | **WARD** | **0-500** | **501-1000** | **1001-2000** | **2001-5000** | **ABOVE 5000** | **Grand Total** |
| **ALABANA STREET** | 8 | 1 | 1 | -- | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 7 | 9 | 3 | -- | -- | 19 |
| 14 | 11 | 16 | 1 | -- | -- | 28 |
| **JARAJAPUPETA** | 1 | 15 | 4 | -- | -- | -- | 19 |
| 19 | 16 | 7 | 4 | 2 | -- | 29 |
| 20 | 19 | 2 | -- | 1 | -- | 22 |
| **KARUKONDA STREET** | 8 | 1 | 1 | -- | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 3 | 1 | -- | -- | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 7 | 2 |  | 1 | -- | 10 |
| **NAIDU COLONY** | 10 | 21 | 5 | 4 | 1 | -- | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 24 | 15 | 1 | 1 | 1 | 42 |
| **YATHA VEEDHI** | 10 | 7 | 2 | -- | -- | -- | 9 |
| **Grand Total** | **NO.** | **132** | **65** | **13** | **6** | **1** | **217** |
| **%** | **60.8%** | **30.0%** | **6.0%** | **2.8%** | **0.5%** | **100%** |

## Project Impacts – Beneficiaries’ Perceptions

The proposed project will lead to several impacts on the environmental and socio-economic status of the project area. A good number of these impacts will be beneficial, especially the improvement of availability of potable water in the ULBs, reduction of water borne diseases, reduction in time spent (especially women and children) in accessing water, and the establishment of an environmentally sound, safe and sustainable water supply system.

However, any development intervention will also have some negative impacts. Keeping this in view the likely positive and negative impacts are listed below. The significance of these listed impacts would vary depending on the individual sub-project, its size and location. The environmental and social assessment has identified certain impacts (both positive and negative). Apart from these adverse impacts, there are some risks that could not be assessed at this stage. This chapter deals with identification of those risks and impacts.

### Perceived BENEFITS

Some of the expected benefits of the project are as under

* Improved Drinking Water Supply
* Improved Public Health
* Productive use of time, specially, for women and children
* Health and Environmental improvements
* Improvements in quality of life and human dignity
* Improved community participation and sense of ownership

During the social assessment surveys the perceived benefits of the improved water supply in the town will have a number of positive impacts as stated in . It is evident from the table that

* Around 79.3% respondents believed that the project will lead to Assured Drinking Water Supply
* 82.9% respondents believed that the water scarcity will become a thing of past
* More than 74.2% believed that improved water supply will bring health benefits as it will lead to improved hygiene as they will have access to safe drinking water.
* 80.2% believed that the access to water will improved once the project is completed and functional
* 78.3% believed that improved water supply situation in town shall reduce drudgery particularly for women and those members of household who are responsible for water collection who have to face a lot of hardships and difficulties in water collection from public sources.
* 75.6% believed that they will be able to keep their toilets and washrooms clean due to easy and sufficient quantity of water.
* 86.6% believed that the quality of water will also improve with the supply and they will get pure drinking water.
* 68.7% believed that the health situation in general of the members of their household will improve as they would be able to get the Service Connection and this will lead to better cleaning of their toilets and wash rooms.
* 72.8% stated that they will be able to get individual connections
* 65.9% believed that the easy access to water supply would save their time which they can effectively utilize for other social and economic activities.

Table 8‑47: Perceived Benefits of Improved Water Supply

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOCATION** | **WARD** | **Assured Drinking Water Supply** | **No Water Scarcity** | **Improved Hygiene** | **Easy Access to Water Supply** | **Reduces Drudgery** | **Toilets and wash rooms can be kept clean** | **Pure Drinking Water** | **Health Benefits** | **Able to get Individual water connections** | **More time for social and economic activities** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 15 | 13 | 16 | 14 | 12 | 8 | 16 | 12 | 11 | 8 | 19 |
| 14 | 21 | 18 | 17 | 22 | 19 | 16 | 27 | 18 | 17 | 15 | 28 |
| **JARAJAPUPETA** | 1 | 13 | 15 | 14 | 15 | 16 | 17 | 17 | 14 | 14 | 12 | 19 |
| 19 | 23 | 20 | 19 | 18 | 21 | 18 | 25 | 17 | 23 | 22 | 29 |
| 20 | 16 | 17 | 18 | 20 | 14 | 17 | 19 | 12 | 16 | 14 | 22 |
| **KARUKONDA STREET** | 8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |
| **KEERTHI STREET** | 8 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 |
| **KOLUSU VEEDHI** | 10 | 7 | 8 | 7 | 9 | 8 | 9 | 10 | 7 | 8 | 8 | 10 |
| **NAIDU COLONY** | 10 | 27 | 31 | 24 | 29 | 30 | 28 | 29 | 23 | 24 | 21 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 36 | 42 | 32 | 33 | 34 | 36 | 31 | 32 | 32 | 27 | 42 |
| **YATHA VEEDHI** | 10 | 6 | 9 | 7 | 6 | 8 | 7 | 6 | 7 | 7 | 8 | 9 |
| **Grand Total** | **NO.** | **172** | **180** | **161** | **174** | **170** | **164** | **188** | **149** | **158** | **143** | **217** |
| **%** | **79.3%** | **82.9%** | **74.2%** | **80.2%** | **78.3%** | **75.6%** | **86.6%** | **68.7%** | **72.8%** | **65.9%** | **100%** |

### Perceived Negative Impacts

Along with the perceived benefits stated by the respondents the project comes along with some of the negative impacts as detailed out in . The Table states that

* 56.2% respondents believed that improved water supply may lead to irresponsible usage and wastage of water by citizens.
* 62.2% respondents believed that they may have to incur additional expenditure in obtaining the connection
* 60.4% HH believed that with improved water supply most of the people would start using pumps and motors to fill their tanks and sumps which will lead to scarcity of water for those not using it.
* 63.6% believed that bursting of pipes may lead to contamination hence it is necessary that the distribution and service pipes are placed at adequate depth following all procedures.
* 59% reiterated that the process and time taken in obtaining the connection need to improve as at present it takes too long to take the connection.
* 64.5% respondents feared that this will lead to corruption and increased demand of bribes which they may have to pay to the ULB staff and staff deputed in laying the pipes for service connections
* 60.8% respondents believed that their property or structures may be affected by the construction of the project and laying of network pipes.

Table 8‑48: Perceived Negative Impacts of Improved Water Supply

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOCATION** | **WARD** | **Irresponsible usage of water** | **Additional expenditure** | **Increased Use of Motors and Pumps** | **Contamination due to bursting of pipes** | **Lengthy process to get connections** | **Corruption and increased Bribery in Getting Connection** | **Loss of lands and structures** | **Grand Total** |
| **ALABANA STREET** | 8 | -- | -- | -- | -- | -- | -- | 1 | 2 |
| **GANDHI NAGAR COLONY** | 13 | 10 | 8 | 11 | 13 | 10 | 10 | 11 | 19 |
| 14 | 11 | 18 | 8 | 15 | 17 | 16 | 14 | 28 |
| **JARAJAPUPETA** | 1 | 10 | 9 | 9 | 11 | 7 | 10 | 5 | 19 |
| 19 | 11 | 18 | 17 | 17 | 16 | 12 | 13 | 29 |
| 20 | 10 | 11 | 16 | 9 | 8 | 11 | 10 | 22 |
| **KARUKONDA STREET** | 8 | -- | -- | -- | 2 | 1 | 2 | 1 | 2 |
| **KEERTHI STREET** | 8 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 4 |
| **KOLUSU VEEDHI** | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 8 | 10 |
| **NAIDU COLONY** | 10 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 18 | 19 | 18 | 20 | 17 | 27 | 27 | 42 |
| **YATHA VEEDHI** | 10 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| **Grand Total** | **NO.** | **122** | **135** | **131** | **138** | **128** | **140** | **132** | **217** |
| **%** | **56.2%** | **62.2%** | **60.4%** | **63.6%** | **59.0%** | **64.5%** | **60.8%** | **100%** |

### Suggestions

In order to overcome the perceived negative impacts of the project the respondents suggested some measures which may be helpful. The details of suggestions offered by respondents are presented in ; which illustrates that

* 55.8% respondents stated that the procedure for obtaining the Water Service Connection should be simplified and may be made time bound so as to avoid delays and trouble to the local residents.
* 53.5% respondents stated that the project would be successful only if adequate and quality water is supplied.
* 66.8% respondents believed that the water must be supplied at timings that are convenient to the local residents
* 70% stated that the charges for obtaining the connection and monthly water usage tariffs should be fixed in a manner that is affordable for the citizens to obtain the connection.
* 42.4% believed that active leakage detection checks and measures should be put in place so that the leakages may be prevented and rectified as soon as they are detected to avoid contamination of water.
* 38.2% respondents stated that the water conservation and harvesting techniques should be promoted.
* 23.5% respondents believed that adequate and responsive Grievance Redressal Mechanism must be developed in order to timely and effectively address the complaints of the consumers.

Table 8‑49: Suggestions from the Respondents.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOCATION** | **WARD** | **Simplify Process for Getting Water Connections.** | **Provide Adequate Water** | **Convenient Water Supply Timing** | **Affordable Cost and Water Charges** | **Avoid Leakages and Contamination** | **Encourage Water Conservation** | **Grievance Redressal Mechanism** | **Grand Total** |
| **ALABANA STREET** | 8 | 2 | 1 | 2 | 2 | 1 | -- | -- | 2 |
| **GANDHI NAGAR COLONY** | 13 | 11 | 9 | 11 | 10 | 8 | 7 | 2 | 19 |
| 14 | 14 | 11 | 13 | 17 | 12 | 15 | 4 | 28 |
| **JARAJAPUPETA** | 1 | 2 | 7 | 11 | 10 | 8 | 7 | 8 | 19 |
| 19 | 13 | 15 | 13 | 21 | 11 | 9 | 12 | 29 |
| 20 | 12 | 11 | 13 | 15 | 10 | 4 | 5 | 22 |
| **KARUKONDA STREET** | 8 | 2 | 2 | 2 | 2 | 1 | -- | -- | 2 |
| **KEERTHI STREET** | 8 | 4 | 3 | 4 | 4 | 2 | 1 | -- | 4 |
| **KOLUSU VEEDHI** | 10 | 9 | 7 | 10 | 9 | 4 | 3 | 2 | 10 |
| **NAIDU COLONY** | 10 | 21 | 18 | 31 | 24 | 13 | 11 | 5 | 31 |
| **SRI RAM NAGAR COLONY** | 8 | 24 | 27 | 29 | 31 | 19 | 22 | 10 | 42 |
| **YATHA VEEDHI** | 10 | 7 | 5 | 6 | 7 | 3 | 4 | 3 | 9 |
| **Grand Total** | **NO.** | **121** | **116** | **145** | **152** | **92** | **83** | **51** | **217** |
| **%** | **55.8%** | **53.5%** | **66.8%** | **70.0%** | **42.4%** | **38.2%** | **23.5%** | **100%** |

# Resettlement Plan

The Resettlement Policy Framework (RPF) for the Andhra Pradesh Urban Water Supply and Septage Management Improvement Project(APUWS&SMIP) was prepared in accordance with The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR Act 2013),Andhra Pradesh Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2014 (APRFCTLARR Rules 2014), AIIB’s Environmental and Social Policy (ESP) and generally accepted practices and principles of resettlement and rehabilitation. The following non-negotiable principles will be followed for all the sub-projects implemented under the AIIB assistance.

* Compensation and Rehabilitation and Resettlement assistance will be paid before displacement or taking possession of land.
* All compensation will be at replacement cost and as per RFCTLARR Act 2013.
* No sub-project civil works will be initiated unless compensation for land and assets and rehabilitation and resettlement assistance is provided in full to all eligible AFs and APs.
* Livelihood Assistance will be given in form of Income Generation Assets (IGA) to be chosen by the AFs/ APs. The Project will provide information to the AFs/ APs on alternative income generation activities suitable for the area and help them in making choices.
* The Project will monitor the provision and performance of the IGA through appointed Consultants.
* Progress related to payment of land acquisition compensation and Rehabilitation and Resettlement entitlements will be thoroughly documented and quarterly reports will be sent to the AIIB.
* Under Negotiated Settlement the compensation cannot be below the compensation and other entitlements under RFCTLARR Act 2013.

Options for the Project

Option 1: Land acquisition using LA Act 2013

Option 2: Direct Purchase/ Negotiated Settlement

1. **Minimum R&R Entitlements under RTFCTLARR Act 2013**

The minimum R&R entitlements under this Act:

1. Subsistence allowance at Rs. 3000/- per month per family for 12 months.
2. The AFs/ APs shall be entitled to: (a) Where jobs are created through the project, mandatory employment for one member per affected family or (b) Rs. 5,00,000/- per family; or (c) Rs. 3,000/- per month per family as annuity for 20 years, with appropriate index for inflation; The option of availing (a) or (b) or (c) shall be that of the AF/ AP.
3. If a house is lost in rural areas, a constructed house shall be provided as per the Indira AwasYojana specifications. If a house is lost in urban areas, a constructed house shall be provided, which will be not less than 50 sq. m. in plinth area. In either case the equivalent cost of the house may also be provided in lieu of the house as per the preference of the project affected family
4. Rs. 50,000/- for transportation
5. A one-time Resettlement Allowance of Rs. 50,000/-.
6. The income loss for commercial activities shall be worked out based on daily profit found during census survey and the income loss shall be assessed for a minimum of 30 days disruption or more when required.

1. **Special Provisions for SCs and STs**

In addition to the R&R package, SC/ST families will be entitled to the following additional benefits:

1. One- time financial assistance of Rs. 50,000/- per family.
2. Families settled outside the district shall be entitled to an additional 25% R&R benefits.
3. Payment of one third of the compensation amount at very outset.
4. Preference in relocation and resettlement in area in same compact block.
5. Free land for community and social gatherings.
6. In case of displacement, a Development Plan is to be prepared.
7. Continuation of reservation and other Schedule V and Schedule VI area benefits from displaced area to resettlement area.

## Cost of Structures Damaged

Cost of Impacted structures will be utilized by the executing agency to restore the access of residential and commercial buildings and community resources like base of hand pump, boundary walls of temple or other community buildings, signage etc. immediate after the completion of project work. While preparing the budget, the R&R team laid special emphasis on arriving at an estimate of the market value of the assets based on govt. schedule rates and prevailing market rates.

## R&R Assistance

The R&R assistance amounts such as resettlement allowance and assistance for temporary impacted commercial structures and vendors taken from approved R&R policy as prescribed in the ESMPF for the project.

Though no vendors are affected, for any unforeseen impacts, a sum of Rs. 2,00,000/- is budgeted. This may be used for loss of livelihood (at the rate of Rs. 500 per day per person) and for any rectification of damages to any kiosks, encroached properties, etc. Proof of impact is necessary to spend this budget.

The budget for RAP implementation comes to Rs. 6.00 lakhs. Since the project is implemented at ULB level and that the land acquisition expenditure and implementation of RAP budget shall be borne by the respective ULB. The detailed budget is presented below in Table.

|  |  |  |
| --- | --- | --- |
| Estimated Costs for Resettlement Action Plan (RAP) as per Entitlement of Provisions of RPF under APUWS&SMIP | | |
| Sl. No. | Item Particulars | Amount (Rs) |
|  | R&R Assistance Cost for Temporary Impacted PAPs |  |
| 1 | Temporary loss of livelihoods/ Rectification of damages to structures | 2,00,000 |
| 2 | Citizen Engagement Plan | 3,00,000 |
| 3 | Tribal People Plan | 70,000 |
| 4 | Total (1 to 3) | 5,70,000 |
| 5 | Contingency @ 5-10 % of Total Cost | 30,000 |
| Grand Total | | 6,00,000 |

## Key Implementation and monitoring directions from PMU

* ULB will implement the RAP with the help of NGO hired under the project
* Commissioner and Director of Municipal Administration (CDMA) has given instructions to all ULBs that expenditure towards land compensation and R&R assistance shall be paid by respective ULBs with the General Funds of ULB.
* PMU along with PMC will monitor the RAP implementation and monitoring report will be submitted to AIIB.
* Land compensation and other entitlements will be paid from ULBs general funds and ULB commissioner will issue cheque to PAPs.

# Citizen Engagement Plan

## Introduction

The main purpose of the Citizen Engagement Plan (CEP) is to establish a systematic approach for stakeholder engagement, maintain a constructive relationship with them, consider stakeholders’ views, promote and provide means for effective and inclusive engagement with project-nearby communities throughout the project life-cycle, and ensure that appropriate project information is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner.

## Objectives

The CEP also aims to facilitate stakeholder feedback and engagement on project design and implementation, including on identification and mitigation of environmental and social risks and impacts. Other objectives of the CEP are: i) to ensure that stakeholders understand how the project is likely to affect them; maintain continuous engagement and manage stakeholders’ expectations; Ensure prior disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information in a timeframe that enables meaningful and gender sensitive consultations with stakeholders in a culturally appropriate format, in relevant local language(s) and is understandable to stakeholders; Consider and responds to feedback; Support active and inclusive engagement with communities; ensure that consultation(s) is/ are free of external manipulation, interference, coercion, discrimination, and intimidation; and ensure consultation(s) is/are documented and disclosed by the ULB.

The scope and details of the CEP have been customized to the moderate risk profile of the project, which will not cause any physical relocation or land acquisition, and the anticipated concerns of the project stakeholders who may be affected by or are interested in the project.

## Citizen Engagement Framework

To mainstream citizen engagement in the project, there is focus on two-way communication and engagement throughout the operational cycle, ensure social inclusion and completing the feedback loop. The Citizen Engagement framework below provides broad contours of how the project and communities interact with one another for different social processes and outcomes**.**

Table 10.1: Citizen Engagement Framework

|  |  |  |
| --- | --- | --- |
| 1. Principles | Roles and Expectations | |
| 1. **PMU/ PHMED/ ULB** | 1. **Communities (women and men)** |
| 1. Information Dissemination | * Develop a **Communication Strategy** * **Implement Communication Plan:** Launch IEC Campaigns, Facilitate Attitudinal Behaviour Change Campaigns, Review receptivity, impact and response | * Get informed * Become Aware regarding project and opportunities under project * Develop interest * Participate in activities |
| 1. Collaboration | * **Engage with stakeholders** (planning, site specific impacts mitigation, implementation) * Ensure the vulnerable are represented * Transparency and Accountability of project activities * Role allocation and capacity development * Facilitate village level activities as per project | * Role clarity as community * Express concerns and give suggestions as beneficiaries * Play a key role in planning and implementation that concerns community * Participate in implementation * Demand regular information and effective implementation * Consultation, agreement participate in project activities |
| 1. Engagement | * Administration of surveys for needs assessment * Institutionalise **Social Audit:** Adapt Social Audit, Conduct Pilots, Train facilitators, Roll Out, Analyse the Social Audit responses and implications on project, Complete the feedback loop by making systemic changes * Strengthen **GRM:** Disseminate information on GRM links, Ensure Effective Response and Redressal, Analyse the GRM data and implications on project, Completing the feedback loop by making systemic changes | * Respond to survey * Express opinions * Offer voluntary support * Provide feedback * Participate in monitoring * Participate in Social Audit * Use GRM services * Enhanced service and satisfaction impacting the willingness to participate in project activities |
| 1. Empowerment | * Issues of the last mile project workers and community members represented and addressed * Opportunities for project beneficiaries so they can improve skills, augment income, etc. | * Gender approach (particularly towards vulnerable groups) * Engagement and Feedback processes streamlined and citizens’ ownership towards the project |

The information dissemination and consultation with PAPs during SIA and RAP preparation included the following:

* Project Description and its Likely Impacts; both positive and negative
* Objective and Contents of the Surveys and seek permission for surveys
* General Provisions of Compensation Policy, where there is land acquisition
* Mechanisms and Procedures for Public Participation and Consultation
* Grievance Redress Procedures and its Effectiveness
* Tentative Implementation Schedule
* Roles and Responsibilities of Sub-Project Proponents and Local Authorities

## Details of Public Consultations Organized in the ULB

Consultations were conducted with the beneficiaries to regarding their perceptions and concerns of the project and to elicit suggestions from them, if any, on improvement to project design.

Further, consultation meetings were held with the community at different locations. Information was disseminated about the project, its benefits and possible impacts, if any. The concerns and suggestions given by community are annexed.

# Stakeholder Engagement Plan

The Stakeholder engagement plan is given below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Target stakeholders** | **Information to be disclosed** | **Engagement Methods** | **Frequency** | **Responsibilities** | **Cost** |
| Council, SHGs | Capacity-building workshops Meeting support (including transport, airtime for mobile phones, venue for meeting) | Through Council meetings and whatsapp | Twice in a year for two years | PMU/ULB | 60,000 |
| Slums &SHGs | Roadshows Staff training Public address system (for events) | ULB will communicate to all SHGs | Quarterly once for two years | PMU/ULB | 80,000 |
| Slums & SHGs | Training for community advisory group | Workshops & exposure visits | Once in year for two years | PMU/ULB | 1,00,000 |
| Local NGOs | Training and recruitment of community peer educators | Workshops | Once in a year for two years | ULB | 60,000 |
| Total |  |  |  |  | **3,00,000** |

## Information Disclosure

PMU and the CMUs shall disclose all Safeguards related documents and mitigation plans, viz., EIA, SIA, EMP, SMP, RAP/ ARAP, TPP, etc. at their website. These need to be translated into local language (Telugu) and placed on the website. PMU will also arrange to disclose the final versions of the ESMPF, EMP, SMP, TPPF and RPF along with Entitlement Matrix, in English and the Executive Summaries in Telugu and English, in all the Municipal Commissioner Offices, CMUs, PMU and the local offices of the implementing agencies.

The draft SIA and RAP shall be provided to key stakeholders and local NGOs and put in a public place. Feedback received from stakeholders shall be incorporated into the final documents. The executive summary of final set of RAP shall be translated in local language and made available at Project Authority’s state and project offices. The final documents in full will replace the draft documents in Project Authority’s websites. The list of eligible persons (PAPs) for disbursement of benefits shall be separately disclosed at concerned Panchayat Offices/ Urban Local Bodies to ensure transparency. A copy of the list of eligible PAPs shall be put up at notice boards of the District Collector Offices, Block Development Offices, project offices, and any other relevant offices, etc. The Resettlement Policy Framework, executive summary of the Social Assessment and Resettlement Action Plan of the relevant sub project shall also be placed in the District Collector’s Office. The following project specific information related to social safeguards will be disclosed on the website.

* Approved RPF including entitlement matrix;
* Approved SIAs and Resettlement Action Plan;
* Government and private land to be acquired;
* Cultural and religious property to be shifted and relocated;
* Disbursement status of compensation and assistance given to respective PAPs;
* Details of Grievance Redress Committee, its procedures and mechanism;
* Details of public consultation;
* Details of compensation given to land looser and PAP;

# Gender and Action Plan

A Gender Action Plan will be prepared during project implementation in line with the guidance provided in Annexure on Social Development

1. The Gender Action Plan will emerge from a Gender Engagement Analysis; Consultations (Focused Group Discussions) needs to be carried out with different Women’s groups, the Self-Help Groups (SHGs) and women who are not formally organized (neighborhood based peer groups) to understand their (1) understanding of the project and benefits accrued out of it, (2) aspirations relating to project benefits, (3) any concerns regarding the project, (4) willingness to contribute to project implementation, and (5) willingness to contribute to sanitation and hygiene, with particular reference to Solid Waste Management
2. Based on the above information, a Gender Action Plan will be prepared to address the (a) aspirations, (b) concerns and (c) scope for engagement of the women in different project components, particularly, (i) responsible consumption of water, (ii) protection of Wash assets, (iii) safe handling of water, (iv) monitoring of project benefits, with respect to adequacy and equity, (v) solid waste management

To achieve the above Tasks the Social Development Expert/Coordinator with approval of the APUWSSIP will engage a NGO in every Circle to discharge the above activities. Essentially, a Work Plan and a Responsibility Chart will be developed for the NGO indicating every activity, deliverable and timeframe for completion of the work. The Development Expert/Coordinator will engage heavily with the NGO and with the Community to discharge the above responsibilities.

As part of ESMPF, gender and vulnerable guidelines are developed to mitigate any potentially adverse gender specific impacts of the Project and to enhance the design of the Project to promote equality of opportunity and women’s socioeconomic empowerment, particularly with respect to provision of services and employment. The details of FGDs cum consultations conducted during SIA preparation is annexed.

Participation and engagement of women can be ensured specifically in the following ways:

* Allow and facilitate women to take part in the consultation process.
* Ensure that the women are consulted and invited to participate in group-based activities, to gain access and control over the resources. Guidelines for compensation for land and assets lost, being same for all the affected or displaced families, special care needs to be taken by the CMU for women groups, while implementing the process of acquisition and compensation as well.
* Ensure that women are actually taking part in issuance of identity cards, opening accounts in the bank, receiving compensation amounts through cheques in their name, etc. This will further widen the perspective of participation by the women in the project implementation. While registering properties make sure they are registered in both the spouses’ names.
* Provide separate trainings to women groups for upgrading the skill in the alternative livelihoods and assist throughout till the beneficiaries start up with production and business.
* Initiate women’s participation through Self-Help Group formation in each of the villages benefitted by the project. These groups can then be linked to special development schemes of the Government.
* Encourage women to evaluate the project outputs from their point of view and their useful suggestions should be noted for taking necessary actions for fur the modifications in the project creating better and congenial situation for increasing participation from women.
* Devise ways to make other vulnerable to participate in the project activities.
* Cases of compensation to vulnerable should be handled with care and concern considering their inhibited nature of interaction.
* All compensations and assistances would be paid in a joint account in the name of both the spouses; except in the case of women headed households and women wage earners.
* CMUs shall prepare a list of able bodied and willing women PAFs for constructional activities and hand over the same to contractors.
* Equal opportunities/subject to a minimum of one third of the PMU/ CMUs/ PMC staff and all other involved agencies (including consulting agencies) staff should be woman.
* When qualified/ skilled women are not available, women with lesser qualifications/ skills may be employed and trained. They may be encouraged and facilitated to obtain the necessary qualifications and/ or skills during the employment. The proposed women personnel shall be available to work at site for at least 50% of the duration of the contract. Women may be replaced during the period of contract, only with women persons of equivalent qualifications and experience.
* Same wage rate for men and women must be ensured.
* Scheduled tribe population identified should be given first preference in selection for any project benefit, viz., livelihoods, etc.
* The petty contracts arising out of the sub-project should considered entrusting to SHGs on community contract basis.
* While selecting community members for training at least half of them should be women and vulnerable.

# Behaviour Change Communication programme

A Behaviour Change Communication Action Plan will be prepared during project implementation in line with the guidance provided in Annexure on Social Development Component

1. Develop a Communication Strategy to identify different population groups within the user community inside the ULBs; the population groups should be homogenous within themselves.
2. Conduct a baseline survey to understand behaviour pattern of the population groups in terms of (a) access to basic amenities, (b) social status, (c) patterns of water consumptions, (d) propensity to pay for services, (e) sanitation habits, (f) personal hygiene habits, (g) domestic and environmental hygiene habits, (h) key influencers, (i) attitude towards solid waste management and general cleanliness, (j) public health security and vulnerability towards water borne diseases and (k) aspirations pertaining to clean environment and easy access to safe water and sanitation facilities
3. Based on the above information develop a Communication Strategy focusing on the Stakeholders with the primary objectives of (a) better use of the services provided under the project, (b) responsible use of the services provided under the project, (c) equitable distribution of project benefits, (d) address the concerns of people adversely impacted by the project or un served by the benefits of the project
4. One of the objectives of the Communication Strategy will be to involve all Stakeholders from the Social, Political and Religious realms of life and identify Champions within this groups to lead the projects in the ground

To achieve the above Tasks the Social Development Expert/Coordinator with approval of the APUWSSIP will engage a NGO in every Circle to discharge the above activities. Essentially, a Work Plan and a Responsibility Chart will be developed for the NGO indicating every activity, deliverable and timeframe for completion of the work. The Development Expert/Coordinator will engage heavily with the NGO and with the Community to discharge the above responsibilities.

# Tribal People Plan

The Nellimarla ULB has 1.9% of ST population. During project implementation, if any impacts is identified especially impact on ST families/PAPs the Tribal People Plan will help to mitigate, minimize or address the impacts properly. Therefore, the Tribal People Plan aims at wellbeing of the present and the future Scheduled Tribe.

## Objectives of the TPP

The principal objectives of TPP include the following:

* To ensure benefits and compensation, as received by tribal community is equal to mainstream population and also ensure the benefits that comes with project itself;
* To ensure that the project engages in free, prior and informed consultation to obtain consent of the tribal people;
* To avoid or minimize to the extent possible, any kind of adverse impact on the tribal community that arise from loss of land, income etc. due project implementation by appropriate mitigation measures.
* To identify the views of tribal people regarding the proposed project and ascertain broad community support for the project;
* To ensure participation of tribal community in the entire process of planning, implementation and monitoring of project

**The Following Policy Measures are Applicable for TPP Implementation**

* RFCTLARRA Act 2013
* Applicable State and Central Legal as well as Policy measures for STs
* Indian Constitutional Special Provisions for STs
* ESS3 of AIIB
* Tribal People Planning Framework of APUWS&SMIP

The social assessment study brought out that no negative impacts are envisaged on any section of the society, including ‘tribals’ from the project activity. Consultations revealed that the entire population including scheduled tribe population are aware of the issues of the existing water supply system in the town and willing to cooperate with the proposed subproject. Summary of the consultations with photographs and list of participants is provided as Annexure

**To mitigate the adversities on STs arise due to project implementation the following special measures proposed to be implemented…**

* Free house service connection for affected families,
* Priority shall be given in terms of providing house service connection as well as in water supply during peak summer supply period,
* Should reach water to all tail-end houses with same pressure, if they are residing separately or away from main town,
* If any trainings proposed by Govt. preference shall be given to these people
* If any committees is to be formed at ULB level, at least one representative shall be there from these ST families
* First priority shall be given to these families during restoration of Access affected structures
* If any LA required and land owner belongs to ST, additional assistance shall be given as per ESMPF and RPF.

**Tribal Action Plan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Actions** | **Frequency** | **Responsibility** | **Cost Calculations** | **Estimated Cost** |
| Free House Service Connection to be provided | Once | ULB | Budget included in the DPR | -- |
| Holding community consultations, including FPIC | Quarterly | ULB/NGO/SHGs | 5000 x 4 | 20000 |
| Dissemination of IEC material | Quarterly | PMU/CMU | 1000x 5 | 5000 |
| Training, Capacity building and Exposure visits of members of tribal communities, field staff, facilitators and representatives | Once in execution period | PMU/CMU | 25000 x 1 | 25000 |
| Provision of additional funds for meeting requirements to enhance participation and accrual of positive project impacts on tribal communities | Once in execution period | PMU/ULB | 20000 x 1 | 20000 |
| **Tota**l |  |  |  | **70,000** |

# Implementation Arrangements

At ULB level there will be City Management Unit (CMU) for each of 50 Project ULBs in the state. The project ULBs will be manned with technical experts comprising of an urban Infrastructure Expert and Urban Planner for each Project ULB. These CMUs will work for 4 years. The technical experts selected for the CMUs will be dedicated full time staff and will be stationed at respective ULBs. They will assist in implementation of the project at ULB level and also support the ULB Commissioner in preparation of various developmental and service improvement plans/ strategies/ reforms towards strengthening of respective ULB in water supply delivery and related infrastructure. The PMC will have staff for monitoring the ESMPF at the ULB level. Depending on the requirement, the PMC will commission the Environmental Experts to monitor a group of ULBs.

APUWSSMIP scope is divided into four broad components namely Planning, Design, Supervision and Project Management. To provide support in project execution in ensuring cost, time and quality compliances, Project Management Consultant (PMC) has been appointed.

PHMED is the Implementing Agency and will be responsible for the technical implementation of the project in coordination with the respective ULBs. The role of the PHMED will be to provide technical sanctions to DPRs and final design, procurement and tendering for works and goods, construction monitoring and supervision, ensuring quality controls, approval of payment certificates for works contracts, authorizations for payment supervision, MIS reporting through IT based interface and safeguards implementation.

## Environmental and Social Implementation Arrangements at PMU Level

Within the PMU, full time Environmental and Social Development Specialists are deployed to handle all matters pertaining to environment and social management under the project, including implementing the ESMPF. The Social Development Component will include Social Safeguard, and Community Engagement. The tasks of the Social Development Component will be managed by a Social Development Specialist with PMC specialist support within the PMU. The Social Development Specialist will be supported by a Communication Specialist at the PMU level.

These Environmental and Social Development Specialists of PMU will be available for the entire project duration. The key responsibilities of the Environment and Social Specialist include:

* Orientation and training of CMU Teams, PMC Team and the Contractors on environmental and social management; for mainstreaming the activities. All on site staff, in particular the engineering, safety, security staff will be oriented and trained. leading/ providing oversight on the EMP/ SMP process and its outputs,
* Review of monitoring reports submitted by the CMU and PMC on ESMPF/ EMP/ SMP/ RAP/ TPP implementation,
* Conducting regular visits to project sites to review ESMPF compliance during subproject planning, design and execution,
* Providing guidance and inputs to the CMU teams on environment and social management aspects.
* Orient, train, guide and support the Technical staff of the CMUs.

These Specialists will also deal with matters pertaining to integration of ESMPF into the subproject design and contract documents; preparation of Terms of References for studies (such as for EA/SA); reporting, documentation, monitoring and evaluation on environment and social aspects and will ensure overall coordination with the PMU and CMUs and PMC.

## Environmental and Social Implementation Arrangements at ULB Level

At the ULB level, the CMUs will support the Environmental and Social Development Specialists of PMU in carrying out the responsibilities listed above. The Environmental Experts will be trained in implementing EMPs.

## Project Management Consultants

Further to support the Environment and Social Specialists, the Project Management Consultants have engaged environmental and social experts that will implement and review the implementation of various EMP/ SMP/ RAP/ TPP activities for all the subprojects. In addition to providing regular inputs on improving the safeguard implementation practices in the project, the PMC will submit quarterly reports to PMU, which will be an important resource for Bank team’s assessment on safeguards management of the project.

## Roles and Responsibilities of NGOs

NGO will play a significant role in management, restoration and conservation of freshwater resources through public process based in local cultural belief. The NGO at the community level is responsible for community participation on various issues such as enhancing community awareness on water use and payment of tariff, Solid Waste Management, mobilizing women for effective program implementation & service delivery. The role of the NGOs has been designed to be the key interface between the community and the NGOs will be given the responsibility of propagating the project activities and functions at the grassroots.

NGOs will educate and build the capacity of the ULB/Consumers/Beneficiaries to educate about how to use the water bodies without polluting them. Capacity building of the local resident/Women groups/youth clubs in monitoring the water quality with the help of user-friendly field test kits. NGOs need to involve school, college, universities in mass awareness campaigns.

The NGOs will act as the link between the ULB and PMU. One of the tasks in this respect would be to collate the information regarding the project at ULB level, document the information and share the documents as part of the monthly report to the PMU. The NGOs will also keep a strict vigil on the issue of equitable distribution of benefits. In case the services are not distributed equitably and the issue is not captured by GRC documentation, the NGOs will report on such matters to the PMU. The NGO will facilitate the implementation of resettlement and rehabilitation of affected person due to project activities and inform PMU to ensure the entitlement reaches the affected persons before commencement of the construction activities.

## Monitoring Arrangements

The concurrent internal social monitoring will be done as part of the regular monitoring by the Project Monitoring Consultants (PMC) and CMUs. The PMU would review this, on periodical basis, through the Social Specialists. The monitoring will incorporate both qualitative and quantitative analysis and will also be used as a course correction if necessary. The Social Experts of the PMU will be primarily responsible for social monitoring and evaluation. Monitoring exercise will be undertaken internally by the project staff at different level. The Social Experts of PMU/PIU of ULB on monthly basis will carry out the project’s internal monitoring. An external agency will be appointed for evaluation of project activities related to RAP implementation and compliances. External agency will conduct midterm, annual and end term evaluation of the project. Indicators, which will be monitored/evaluated during the project, consist of two broad categories: Process and output indicators or internal monitoring Outcome/impact indicators.

To supervise the implementation of land acquisition and R&R activities, to oversee the recruited NGO/agency performance and to provide guidance, the PMU and other relevant agencies will undertake internal monitoring of physical and financial progress. The monthly internal monitoring reports based on the outcome of consultations and feedback with displaced people who have received assistance and compensation and review of progress of other implementation activities including complains/concerns/issues raised by the displaced persons, will be submitted by the end of 1st week of the subsequent calendar month. The following social parameters may be used for monitoring by the PMU

* Adequacy of entitlements (replacement cost, allowances, income generation grant, etc.)
* Payment of compensation and entitlements before replacement
* Time taken for land acquisition
* Displacements if any; category of households displaced, resettled and compensated
* Number of grievances registered and redressed
* Number of court cases
* Income patterns
* Changes in occupations
* Housing status (area, floor, walls, roof, etc.)
* Ownership of household assets
* Health Status

To ensure that the safeguards are implemented in a proper manner, provision for a half-yearly Independent External Social Audit (ISA) should be made. The audit will ensure and check a) the adequacy/correctness of Social Screening, b) adequacy of SIA and SMP, c) the compliance of the social aspects of projects, which are under implementation and completed, d) adequacy of SMP/ RAP implementation, e) assess the effectiveness of supervision and monitoring f) effectiveness of capacity building initiatives undertaken as part of SIA and SMP and g) review and comment on how the recommendations of the previous audits have been followed so far. The Audit is done from an external and third party perspective without any bias; keeping in mind all the monitoring and evaluation is done internally. The PMU will ensure that half-yearly independent external Social Audit, of the sub-projects is done on sample basis (say about of 10% works or minimum 5 sub-projects during every half year), to assess the level of compliance of the provisions laid under ESMPF, RPF SIA and SMP.

The external monitoring will include but not limited to: (I) reviewing and verifying the monitoring reports prepared; (ii) monitoring the work carried out by NGO/agency and providing training and guidance on implementation; (iii) reviewing the implementation of the grievance redressal mechanism and its working; (iv) impact assessment through sample surveys amongst displaced persons for midterm corrective action; (v) consultation with displaced persons, officials, community leaders for preparing review report; (vi) assessing the resettlement efficiency, effectiveness and efficiency, impact and sustainability, and drawing lessons for future resettlement policy formulation and planning. Some of the important tasks of external monitoring are taking feedback of the displaced persons who receives compensation and assistance, understanding concerns and risks, non-compliances and early warnings in implementation and so on.

The indicative monitoring indicators for monitoring of physical activities include the following:

* land acquired- private;
* land transferred - government;
* issue of ID cards;
* number of displaced persons received full R&R assistance (titleholders);
* number of displaced persons received full R&R assistance (non-titleholders);
* number of families provided alternative for relocation – house
* number of vulnerable people received additional support;
* number of CPRs relocated;
* number of grievances received and resolved.

The indicative monitoring indicators for financial monitoring include:

* amount paid for land compensation;
* amount paid for structure compensation;
* amount paid as R&R assistances; and
* amount spent on common property resources.

In addition to these, the following will also be tracked to judge social inclusion and gender mainstreaming in Resettlement Action Plan implementation:

* Proportion of women landowners who received compensation;
* number of women headed households who received R&R assistances;
* local female and scheduled caste labour force participation in skilled/ unskilled jobs under contractors/ consultants;
* number of vulnerable people who received R&R assistances;
* proportion of women as beneficiaries of house sites/houses offered in the resettlement site under R&R assistance; and
* proportion of women participation in consultation meetings during implementation.

# Grievance Redressal Mechanism

The project has a grievance redressal mechanism at the ULB level (Nellimarla) and at the state level. The ESMPF gives the objectives and processes with regard to grievance redressal. At the ULB level, Nellimarla has a Grievance Redress Committee (GRC) to register and redress the grievances and complaints of project stakeholders and project affected persons and resolve the same. This GRC has set up at the ULB level with Municipal Commissioner as head. Both State & ULB level committees has been formed, State level GRC on 12.11.2018 and Nellimarla02.06.2021 and the following are the details of the GRC:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Position** | **Name** | **Contact Details (Phone, Mobile, Email and Address, etc.)** | **Remarks** |
| 1 | The Municipal Commissioner, Nellimarla– Chairperson | Sri. P.Kirnakumar (FAC) | 9177687657 |  |
| 2 | Municipal Assistant Engineer– Convener | Sri K.Hariprasad | 7331131466 |  |
| 3 | DEE PH Division, Vizianagaram – member | Smt. B.Hari | 7799562645 |  |
| 4 | Eminent citizen Nellimarla – Member | Sri Ch. Sambhasiva Rao | 9440332276 |  |
|  | Sankalpa society member | Sri S. Sanyasi Naidu | 7780416563 |  |
| 5 | Woman representative from Women Groups/ TLF, Nellimarla – Member | Sri G Manga | 9182303199 |  |
| 6 | Woman representative from Women Groups/ SLF, Nellimarla – Member | Sri Ramadevi | 6305731413 |  |
| 7 | Any Other |  |  |  |

In case the grievances are not resolved at the ULB level, the aggrieved can approach the Grievance Redressal Panel (GRP) at state level. The following are the details of GRP at state level.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Position** | **Name** | **Contact Details (Phone, Mobile, Email and Address, etc.)** | **Remarks** |
| 1 | Project Director, APUWSSMIP -  Chairperson |  | 0863-2532833,  0863-2530833  apuwssmip@gmail.com |  |
| 2 | Project Additional Director - Member | Sri Nagendrakumar Biyani | 9395360369,  nagendra.iidc@gmail.com |  |
| 3 | Director (Technical) – Member | Sri K. Rajendraprasad | 7675836644 |  |
| 4 | Social Development Specialist – Convener | Sri Ch.Malleswara Rao | 7799042263, malliskl@gmail.com |  |
| 5 | Environment Specialist – Member | SmtDr.GantaRajani | 9618280045, esapuws@gmail.com |  |
| 6 | Special Invitee (Women), from NGO/ Civil Society) – Member | Smt B. Radhakumari, Social worker (Gurumandali NGO, Vijayawada) | 9701718978, radhacdc@gmail.com |  |

**The GRC and GRP contact details will be popularized in the ULB through hoardings, public information boards, wall writings and pamphlets.**

The GRC at the ULB level will endeavour to address all the complaints. If the GRC is not able to address the complaints or if the aggrieved is not satisfied with the redress, it will be escalated to the GRP at state level. Normally complaints lodged with the GRC will be resolved by the Committee within 15 days. In case the complaints are escalated to the GRP, the resolution will be made within 30 days.

## Functions of GRC

The broad functions of GRC shall be the following:

* Record the grievances of Complainants/ PAPs, if any, categorize and prioritize them and provide solution to their grievances related to any of the provisions set forth in SMP/ RPF. Grievances may be related to construction phase, land securing, removal of encroachers and subsequently related to water supply and sanitation services
* The GRC may undertake site visit, ask for relevant information from CMU (City Management Unit) and other government and non-government agencies, etc., in order to resolve the grievances.
* Fix a time frame for resolving the grievances within the stipulated time period of 15 days. If the Complaint is escalated upwards to the PMU, the Complaints will be resolved in 30 days
* Inform Complainants/ PAPs through CMU about the status of their case and their decision to PAPs for compliance.
* The GRC will maintain a Grievances Register and send monthly reports on the grievances received and redressed. This will be done by the AE/ AEE of CMU. The PMU will maintain records of all complaints registered, resolved or pending.

The Social Coordinator/Expert and Communication Specialist of PMU and AE/AEE of CMU shall provide all necessary help to complainants in presenting in his/her case before the GRC. The GRC shall respond to the grievance within 15 days. The GRC will normally meet once in a month and if the situation so demands, it shall meet more frequently. The decision of the GRC shall not be binding to PAPs. This means the decision of the GRC does not prevent PAPs taking recourse to court of law, if he/she so desires.

Adequate measures should be taken to ensure that the people in the ULB or the affected persons along the transmission alignment are aware of the GRC and can access the GRC at will. The NGO responsible for Community Participation activities will be responsible for reaching the people and informing them about the GRC, its functions and means of connecting to the GRC members. Firstly, pamphlets should be distributed containing information on the functions of the GRC and names of the Panel Members. Secondly, wall writing should be conducted in appropriate places indicating the names of the GRC members and their Cell phone numbers.

## Details of the Complaints

The Complaints Register should contain the name of the Complainant, address, nature of the complaints. The Register should also contain provision for date of resolution of the Complaint and the level at which the Complaint is resolved. The format/items for registering Complaints is listed in next section. At the end of every month, the data from the ULB level GRCs should be send to the PMU. The Social Development Specialist will maintain documentation on the proceedings of the GRC. This will be part of the 6-monthly monitoring report of the Bank funded project.

## Documentation of the GRM Processes

The GRCs at each level will maintain the following three Grievance Registers that would, among others, help with monitoring and evaluation of the functioning of GRCs but also to document the processes of GRCs. The Grievance Register will have the following details:

* Serial Number
* Case Number
* Name of Complainant
* Gender
* Name of Parent/Spouse
* Full Address of the Complainant
* Main complaint/grievance  List of documents attached
* History of Previous complaint/grievance, if any
* Date of receipt of complaint/grievance
* Date of acknowledgement of complaint/grievance
* Date of field investigation, if any
* Date of hearing
* Decision of GRC at that level
* Progress – redressed, pending or rejected
* Key agreements/commitments
* Decision/Response of the complainant/grieved person
* Date, Mode and Medium of communication to complainant/grieved person
* Date of closing of complaint/grievance
* Whether appealing to next level – yes or no
* Whether or not seeking legal redress.

The grievance redress process will be a continuous, transparent and participatory process that would be an integral part of the project’s accountability and governance agenda. The GRC at each level will maintain the above- mentioned Registers. The CMU will also prepare periodic reports on the grievance redress on the basis of reports received from the two levels of GRCs. The AIIB will continuously monitor the GRM reports sent by PMU.

## Responsibility of NGO with Particular Reference to GRC

The NGO at the community level is responsible for community participation on various issues such as Solid Waste Management, enhancing community awareness on water use and payment of tariff, mobilizing women for effective program implementation & service delivery. The role of the NGOs has been designed to be the key interface between the communities and the ULBs/Project proponents. Hence the NGOs will be given the responsibility of disseminating information regarding the functions of GRC at the grassroots.

The NGOs will identify the populations in the ULBs and have consultations with the people regarding the benefits and impacts of the project on them. The community members will be actively encouraged to contact the GRC in case they have any concerns or complaints. The process of registering the complaints will be clearly explained to community members and they will be encouraged to contact the GRC members as and when required. The NGOs will ensure that the names of the GRC members along with phone numbers are made public with wall writings in prominent places.

The NGOs will act as the link between the ULB and PMU. One of the tasks in this respect would be to collate the information regarding the GRC at ULB level, document the information and share the documents as part of the monthly report to the PMU. The NGOs will also keep a strict vigil on the issue of equitable distribution of benefits. In case the services are not distributed equitably, and the issue is not captured by GRC documentation, the NGOs will report on such matters to the PMU.

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# Annexure

# Consultation cum FGD

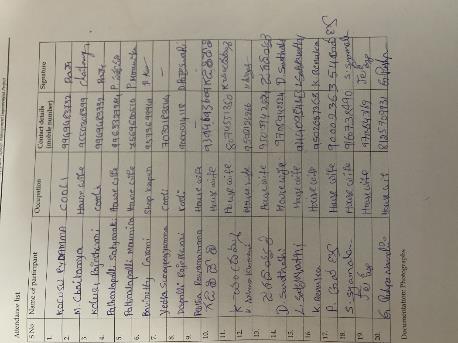
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| **Key outcomes of the Focus Group Discussions** | |
| A FGD was conducted with the households in ward no. 14 of **Gandhi Nagar colony**. There are around 848 families are living in the colony. All kinds of economic group class people and social category includes SC, BC and Muslim community are residing in the locality. 499 families are served by individual household connections. There are 29 stand posts and 15 hand pumps in the locality. About 28 individuals participated in the discussion and women participation is well represented. The discussion mainly focussed on present water supply and sanitation conditions and improvements in the  ULB. Topics and issues discussed and the feedback provided by participants are as follows: | |
| **Topics/Issues discussed in group** | **Feedback provided by participants** |
| **Sources, frequency and quality of water supply in the colony** | |
| Source of water supply | Champavathi river is the main pipe line for water supply in this locality. An aggregate of 499 houses have individual households. As an aggregate of 90% households are using stand post water and HH connections for drinking purpose. |
| Alternative HH water sources | Bore wells are not sufficient half of the bore wells not working. They purchase drinking water at the cost of 5 to 10 Rs. For 20 ltrs |
| Frequency and timing of supply | Water supply timing is only 30 min in alternate day. Every family got only 3to 4 pots of drinking water in this ward Where the pressure is very low. |
| Quality of water supply | Regular chlorination is processed since chlorine content is more in water.About 50% households are using filtering method for drinking purpose. |
| Water fetching and the difficulties faced | To fetch the water they walk for longer distance which leads them to health complications. Pressure of water is even less, which is not sufficient to store the water at least for two days. Two family members are involving for fetching water exclusively. |
| Women related issues | During the menstrual period especially women’s are having problem during carrying the water pots and buckets.  Due to uneven timings of water supply most of the women are forced to stay in homes, rather than going to other livelihood. Due to lack of drainage facility, stagnation of water leading to dispute among the local community. |
| Satisfaction level at the source and improvements suggested | Majority of people are not satisfied with the availability of the sources. They in need of individual house hold facility, for which they are even ready to pay the water tax of maximum 100rs. There should be an OHT and regular water supply. Connection should be provided throughout the colony. In case they are unable to provide water supply connections arrangement should be made for water supply through bore points and construction of community tanks in colonies for storing the bore water and supply. |
| **Sanitation and solid waste disposal** | |
| Sanitation facilities | An aggregate of 55% have Individual household latrines. Since there is only one public toilet in the locality most of the people going outside of the locality for open defecation. |
| Waste disposal | The proportion of households reporting removal of household waste by household members was very less in the locality since they have a facility of door step collection. |
| Health issues | Concern about problems of flies, mosquitoes and foul odour: Among these three, people reported their concern most frequently for mosquitoes. Drainage system to be improved which causing bad smell and mosquitos. Due to mosquitos they got malaria and dengue in rainy seasons |
| **Communication, Information, grievances and Community Engagement** | |
| Communication and information | An aggregate of 90% of people are interested to participate in the activities. They only required information through meetings or through volunteers. Approximately 10 days Will be the advance time needed for providing the information about the project. |
| Community engagement | All most all of them are agreed to have a positive impact regarding the project, where women are more beneficiaries |
| Grievances | Here people form in a group and discuss about the grievances and approach to the water man, ward councilor or report a complaint at municipal office. Even after multiple complaints and request, their grievance where not addressed. |
| **Local organisation/institutions in the locality** | Self Help Groups are the major organizations in the locality about 29 SHGs are presently working in the locality. But they are limited to saving activities. There is a need of an active organization apart from SHGs. There should be someone who can support community to raise their voices in case of any issues related to water issues. The NGOs can also help project authorities for better implementation of the project on behalf of community. |
| **Impact on proposed project in the locality** | There is a direct positive impact to all the households due to provision of potable drinking water. This saves time, improves health and reduces stress to women. Even There is no adverse impact on the livelihood of the people due to project. By potable and safe drinking water the life of the labours will be improved. An aggregate of 100% of people are agreed to have a positive impact regarding the project, where women are more beneficiaries. |

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| **Key outcomes of the Focus Group Discussions** | |
| A FGD was conducted with the households in ward no. 17, 18 and 19 of **Jarajapupeta**. There are around 1056 families are living in the colony. All kinds of economic group class people and social category includes SC, BC and Muslim community are residing in the locality. No families are served by individual household connections. There are 44 stand posts and 20 hand pumps in the locality. About 28 people participated in the discussion and women participation is well represented. The discussion mainly focussed on present water supply and sanitation conditions and improvements in the ULB. Topics and issues discussed and the feedback provided by participants are as follows: | |
| **Topics/Issues discussed in group** | **Feedback provided by participants** |
| **Sources, frequency and quality of water supply in the colony** | |
| Source of water supply | Only public stand posts are the main resource for water supply in this locality. There are no individual household connections in this locality. The 2nd source of water supply for this locality has individual bore wells. |
| Alternative HH water sources | Some people have borewell but still unable to fetch water. Several people invested in bore wells by borrowing loans from others. Many people purchase water cans for drinking purpose at a cost of 10rs per can |
| Frequency and timing of supply | The frequency of water supply is once in two or three days and even there is proper timing to the supply. Due to the improper timings (5.30am) women’s are not getting adequate sleep, which are main cause for health issues.Pressure of water is even less, which is not sufficient to store the water at least for two days. |
| Quality of water supply | Since the distribution pipelines are 25 year old initial 10 min water coming through pipes is rusty and muddy. The quality of water from borewells is not good and people are not using this water for drinking purpose. |
| Strategy for coping of irregular supply | Maximum of families store water in vessels and drums. Many people purchase water cans for drinking purpose at a cost of 10rs per can. Pressure of water from both the sources is even less, which is not sufficient to store the water at least for two days. |
| Women related issues | During menstrual period especially women’s are having problem during carrying the water pots and buckets. Due to the improper timings women’s are not getting adequate sleep, which are main cause for health issues. Sometimes there will be disputes while getting the water. |
| Satisfaction level at the source and improvements suggested | Regarding, pressure and frequency and timings they are not satisfied. They in need of individual house hold facility, for which they are even ready to pay the water tax of maximum 100rs. There should be an OHT and regular water supply. Connection should be provided throughout the colony. In case they are unable to provide water supply connections arrangement should be made for water supply through bore points and construction of community tanks in colonies for storing the bore water and supply. |
| **Sanitation and solid waste disposal** | |
| Sanitation facilities | Here maximum no of families (90%) have IHHL facility. Further most of the locality households reported using septic tank and. About 100 families did not have toilets at home they go open places for defecation. |
| Waste disposal | The proportion of households reporting removal of household waste by household members was much lesser in the areas. As, they have facility of door step collection. |
| **Communication, Information, grievances and Community Engagement** | |
| Communication and information | On an average 75% of people are interested to participate in the activities. They only required information through meetings or through volunteers. Approximately 10 days Will be the advance time needed for providing the information about the project. |
| Community engagement | All most all are agreed to have a positive impact regarding the project, where women are more beneficiaries. People in this locality are aware of the project. And as some of the families don’t have individual household facilities where they are required to have individually and volunteers are very helpful in giving them the information regarding the project |
| Grievances | Here people form in a group and discuss about the grievances and approach to the water man, ward councilor or report a complaint at municipal office. Even after multiple complaints and request, their grievance where not addressed. |
| **Local organisation/institutions in the locality** | Self Help Groups are the major organizations in the locality. Around 80 SHGs are presently working in the locality. But they are limited to saving activities. There is a need of an active organization apart from SHGs. There should be someone who can support community to raise their voices in case of any issues related to water issues. The NGOs can also help project authorities for better implementation of the project on behalf of community. |
| **Impact on proposed project in the locality** | There is a direct positive impact to all the households due to provision of potable drinking water. This saves time, improves health and reduces stress to women. Even There is no adverse impact on the livelihood of the people due to project. By potable and safe drinking water the life of the labours will be improved. Almost all the people are agreed to have a positive impact regarding the project, where women are more beneficiaries. |

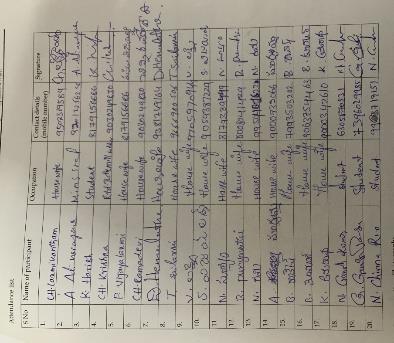
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| **Key outcomes of the Focus Group Discussions** | |
| A FGD was conducted with the households in ward no. 8 of **Sriram Nagar**. There are around 400 families are living in the colony. All kinds of economic group class people and social category includes SC, BC and Muslim community are residing in the locality. Around 150 families are served by individual household connections. There are only 10 stand posts and 8 hand pumps in the locality. About 35 people participated in the discussion and women participation is well represented. The discussion mainly focussed on present water supply and sanitation conditions and improvements in the ULB. Topics and issues discussed and the feedback provided by participants are as follows: | |
| **Topics/Issues discussed in group** | **Feedback provided by participants** |
| **Sources, frequency and quality of water supply in the colony** | |
| Source of water supply | Champavathi River is the main pipe line for water supply in this locality. An aggregate of 50% of households have an individually municipal water tap, and stand post are located at every street. Pipe line is connected with Naidu colony tankers. Locality has even public hand pumps, but 85% of hand pumps are damaged and some are under maintenance, even though the water from the hand pumps is not of good quality and not even good for health. |
| Frequency and timing of supply | Majority of people are in need of individual house hold facility, they even not satisfied by the timings of water supply as once in two days they get water from municipal stand post. |
| Quality of water supply | About 90% of households are using stand post water for drinking purpose. Quality of water is moderately satisfied, as from last 1year there were no cases of health issues |
| Water fetching and the difficulties faced | The average time taking for fetching water is 30 minutes, and the distance of public stand point is 300 metres from their home. Pressure of water is even less, which is not sufficient to store the water at least for two days. |
| Women related issues | During the menstrual period especially women’s are having problem during carrying the water pots and buckets.Due to uneven timings of water supply most of the women are forced to stay in homes, rather than going to other livelihood. Quarrels among their near families while fetch the water at stand post due to insufficient water supply. |
| Satisfaction level at the source and improvements suggested | Majority of people are not satisfied with the availability of the sources. They in need of individual house hold facility, for which they are even ready to pay. There should be an OHT and regular water supply. Connection should be provided throughout the colony. In case they are unable to provide water supply connections arrangement should be made for water supply through bore points and construction of community tanks in colonies for storing the bore water and supply. |
| **Sanitation and solid waste disposal** | |
| Sanitation facilities | At an aggregate of 85% of households have individual toilets, and 20% use open areas and public toilets. |
| Waste disposal | In this locality some of the areas don’t have drain system, which are under construction. Door to door collection is not there in the locality they dumping waste in open places. |
| **Health issues** | They are facing health related issues like throat infection due to color change in water mainly in rainy season as the water is sourced from river which is filtered and distributed through pipe lines. Water stagnation in the area during rainy seasons is causes mosquitoes problem. |
| **Communication, Information, grievances and Community Engagement** | |
| Communication and information | An aggregate of 90% of people are interested to participate in the activities. They only required information through meetings or through volunteers. Approximately 10 days Will be the advance time needed for providing the information about the project. |
| Community engagement | An aggregate of 80% of people are agreed to have a positive impact regarding the project, where women are more beneficiaries |
| Grievances | Here people form in a group and discuss about the grievances and approach to the water man, ward councilor or report a complaint at municipal office. Even after multiple complaints and request, their grievance where not addressed. |
| **Local organisation/institutions in the locality** | Self Help Groups are the major organizations in the locality. But they are limited to saving activities. There is a need of an active organization apart from SHGs. There should be someone who can support community to raise their voices in case of any issues related to water issues. The NGOs can also help project authorities for better implementation of the project on behalf of community. |
| **Impact on proposed project in the locality** | There is a direct positive impact to all the households due to provision of potable drinking water. This saves time, improves health and reduces stress to women. Even There is no adverse impact on the livelihood of the people due to project. By potable and safe drinking water the life of the labours will be improved. An aggregate of 80% of people are agreed to have a positive impact regarding the project, where women are more beneficiaries. |

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| **Key outcomes of the Focus Group Discussions** | |
| A FGD was conducted with the households in ward no. 10 of **Yathaveedhi**. There are around 300 families are living in the colony. All kinds of economic group class people are residing in the locality. 120 families are served by individual household connections in the colony. There are 20 stand posts and 2 hand pumps in the locality. About 45 individuals participated in the discussion and women participation is well represented. The discussion mainly focussed on present water supply and sanitation conditions and improvements in the ULB. Topics and issues discussed and the feedback provided by participants are as follows: | |
| **Topics/Issues discussed in group** | **Feedback provided by participants** |
| **Sources, frequency and quality of water supply in the colony** | |
| Source of water supply | An aggregate of 45% of households have an individually municipal water tap, and 2 stand posts are located at every street. Pipe line is connected with Jalajapet reservoir. Maximum no of people store water in vessels and small drums. |
| Alternative HH water sources | No other source of water in this ward, complete locality depends on individual connection and stand post. |
| Frequency and timing of supply | Frequency of supply is once in two day but the pressure of water flow is very low. Timing of supply is very improper. Water supply is 1 hr. to 1 ½ hr. during supply day |
| Quality of water supply | About 90% households are using stand post water for drinking purpose. Quality of water is moderately satisfied. About 70% households are using cloth for filtering the drinking water. |
| Water fetching and the difficulties faced | Due to less pressure at municipal stand post the water is not sufficient and which even leads to quarrels and arguments take place. |
| Women related issues | During the menstrual period especially women’s are having problem during carrying the water pots and buckets.  Due to uneven timings of water supply most of the women are forced to stay in homes, rather than going to other livelihood. Due to the improper timings women’s are not getting adequate sleep, which are main cause for health issues. |
| Satisfaction level at the source and improvements suggested | Majority of people are not satisfied with the availability of the sources. They in need of individual house hold facility, for which they are even ready to pay the water tax of maximum 100rs. There should be an OHT and regular water supply. Connection should be provided throughout the colony. In case they are unable to provide water supply connections arrangement should be made for water supply through bore points and construction of community tanks in colonies for storing the bore water and supply. |
| **Sanitation and solid waste disposal** | |
| Sanitation facilities | At an aggregate of 35% households don’t have individual toilets neither they have public toilets where they use hill area for defecation which further leads to unhygienic conditions and health issues. |
| Drainage and Waste disposal | Drainage system was not connected properly and drainage water is getting stagnated in low lying open areas. That leads to mosquito’s related diseases. The proportion of households reporting removal of household waste by household members was much more in urban areas. As, they don’t have facility of door step collection. |
| **Health issues** | Due to less number of individual toilets people are getting health issues especially women. |
| **Communication, Information, grievances and Community Engagement** | |
| Communication and information | An aggregate of 85% of people are interested to participate in the activities. They only required information through meetings or through volunteers. Approximately 10 days Will be the advance time needed for providing the information about the project. |
| Community engagement | An aggregate of 80% of people are agreed to have a positive impact regarding the project, where women are more beneficiaries |
| Grievances | Here people form in a group and discuss about the grievances and approach to the water man, ward councilor or report a complaint at municipal office. Even after multiple complaints and request, their grievance where not addressed. |
| **Local organisation/institutions in the locality** | Self Help Groups are the major organizations in the locality about 22 SHGs are active. But they are limited to saving activities. There is a need of an active organization apart from SHGs. There should be someone who can support community to raise their voices in case of any issues related to water issues. The NGOs can also help project authorities for better implementation of the project on behalf of community. |
| **Impact on proposed project in the locality** | There is a direct positive impact to all the households due to provision of potable drinking water. This saves time, improves health and reduces stress to women. Even There is no adverse impact on the livelihood of the people due to project. By potable and safe drinking water the life of the labours will be improved. An aggregate of 80% of people are agreed to have a positive impact regarding the project, where women are more beneficiaries. |

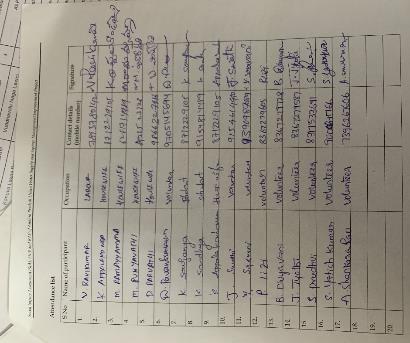
# Attendance Sheet



FGD at Yathaveedhi ward no 10



FGD at Sri RamnagarColonyWard no. 11



FGD at Near Old MRO Office, Gnadhi Nagar Colony



FGD at Jarajapetaa Ward no. 1

# Photographs

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| D:\Final Urban Water Report\nellimarla\IMG-20210129-WA0038.jpg | D:\Final Urban Water Report\nellimarla\IMG-20210129-WA0030.jpg |
| Consultation – Gandhi Nagar | Household interview – Gandhi Nagar |
| D:\Final Urban Water Report\nellimarla\IMG_20210127_163729.jpg | D:\Final Urban Water Report\nellimarla\IMG_20210127_163207.jpg |
| Consultation – Jarajapupeta | Household interview -Jarajapupeta |
| D:\Final Urban Water Report\nellimarla\IMG_20210127_125334.jpg | D:\Final Urban Water Report\nellimarla\IMG_20210127_131103.jpg |
| Consultation- Sriramnagar colony | Household interview- Sriramnagar colony |
| D:\Final Urban Water Report\nellimarla\IMG-20210129-WA0042.jpg | D:\Final Urban Water Report\nellimarla\IMG-20210129-WA0029.jpg |
| Consultation- YethaVeedhi | Household interview –YethaVeedhi |

1. WHO/UNICEF (2017): JMP Report Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines. [↑](#footnote-ref-2)
2. The EMP format for tender documents is annexed in Annexure 8 of the ESMPF. [↑](#footnote-ref-3)