# EU – ASIA PRO ECO PROGRAMME

## Capacity building for enhancing local participation in water supply and sanitation interventions in poor urban areas

# BAGANBARI SLUM, MIRPUR, DHAKA

*Joint Initiatives*
*Development Research Institute (IVO), Tilburg University, Netherlands*
*Institut de Ciencia i Tecnologia Ambientals (ICTA). Autonomous University of Barcelona. Spain*
*ITN-Bangladesh, BUET, Bangladesh*
*Central Department of Economics (CEDECON), Tribhuvan University,.Nepal*

# Introduction

- Poor (low income group) are always neglected from receiving basic services contrast with upper income group people.
- Poor people cannot pay for the living cost for renting houses.
- People live in unauthorized places illegally.
- NGOs take initiatives to provide basic facilities in the slum areas.
- NGOs are implementing different approaches to provide WSS services into slum areas.
- There are also some government initiatives to provide WSS services –extremely limited.
- There are many good WSS practices in the urban areas in Bangladesh.

- Under the project, ITN-BUET with partner organizations have taken initiative to conduct case studies in urban poor areas to comprehend the process of different WSS approaches to enhance the knowledge level on water supply and sanitation practices in Bangladesh.

# Objectives of the study

- To draw lessons by means of assessing 20 case studies of projects that have involved local communities in WSS interventions in poor urban areas in Bangladesh and Nepal.
- To develop curriculum (tailor-made courses) based on collected information and training materials on how and to what extend local community involvement may aid to meet the millennium development goals (MDG) for WSS in poor urban areas in Asia.
- To build local capacity among policy makers, members of grassroots organizations and NGOs on how to design and implement projects encompassing community participation in WSS interpenetrations in poor urban areas.

# Selection of Urban poor areas

- Low income group peoples
- Community managed WSS activities in urban poor areas
- Variations on WSS approaches
- Duration of implementing WSS interventions
- Nature of supporting agencies: Government, Donor, NGOs etc.
- Geographical coverage

Case Study # 1

## Baganbari Slum

# A overview of Baganbari Slum

- Established: 1980
- Location: Ward no. 4 of DCC under Mirpur 14.
- Previously known: Karim Mia's slum.
- Area of the slum: One acre.
- Actual Owner of Land: Ministry of Housing and Public Works and DWASA.
- Total population: 1250.
- Total Families: 277
- Average family members: 5.5

# Specific Objectives

The assessments of the case studies are involved with following activities:

- Estimating the financial contribution of community involvement.
- Describing community participation: contributions, enlistment (recruitment), cooperation, consultation (information sharing) and utilization.
- Identifying lessons learned of the project in relation to:
- Institutional arrangements
- Public awareness and training (hygiene, WSS technologies)
- Partnerships (public-private-community)
- Contributions to long-term project's sustainability
- Gender issues
- Empowerment of beneficiaries
- Contributions to accountability
- Financial tools and constraints.
- Technological options and process of selection
- Procurement and contracting practices
- Cost recovery
- Contributions to operation, maintenance and management
- Replicable situation
- Legal framework
- Availability and access to resources such as land and water

# Methodology

- Sampling Design
- The main reason of considering household survey was to learn about the perceptions of the people of the communities, their attitude and pattern of behavior change and level of acceptance of WSS interventions.
- Crosscheck the collected information with the key informants and vis-à-vis.
- Supplement with secondary information.
- 10% sample size was considered during the household survey.
- Sampling Methods
- In the case of Baganbari slum, it applied ***simple random sampling method*** in the slum areas as the houses were situated almost in a systematic ways.

# Methodology

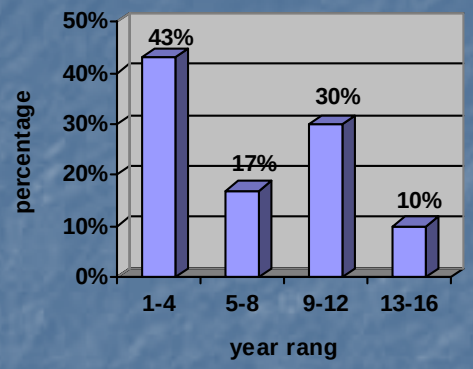
- Process
- Field Survey
- Used Questionnaire
- Selection of Enumerators
- Orientation
- Pre-test the questionnaire
- Collection of Data
- Supervision
- Back-check
- Observation
- Analysis of data through SPSS

# Methodology

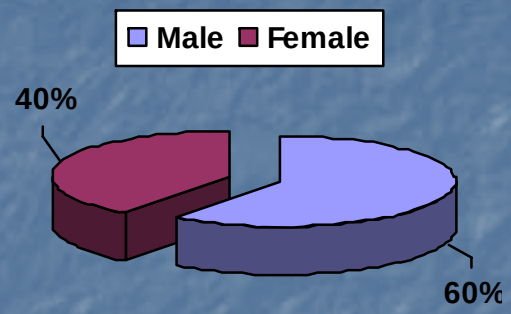
- Process
- Key informants interview
- Develop checklists
- Identify the key informants
- Interviewed the key informants.
- *DWASA zonal officers*
- *Ward Commissioners*
- *Ward Secretary*
- *Different Committee members*
- *Community people*
- *NGO officials*

# Research Findings

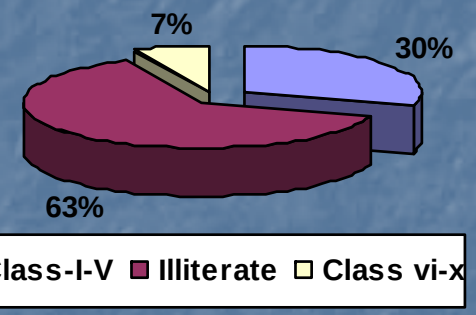
## Household Information



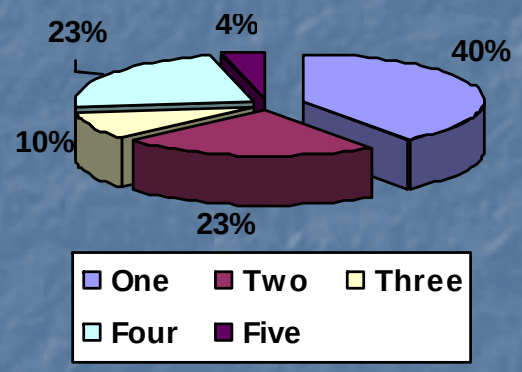

Period of Living in Baganbari Slum



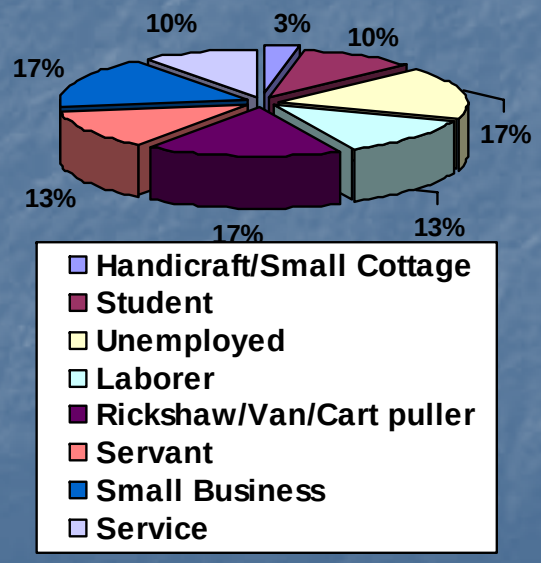

Gender based head of HH




Literacy rate




No. of Earners

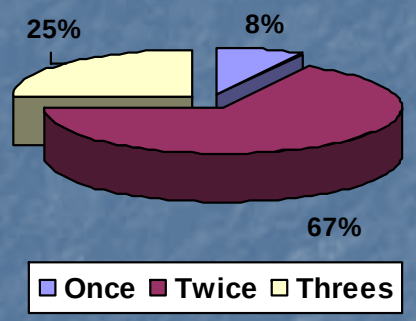



Occupation of the Head of HH

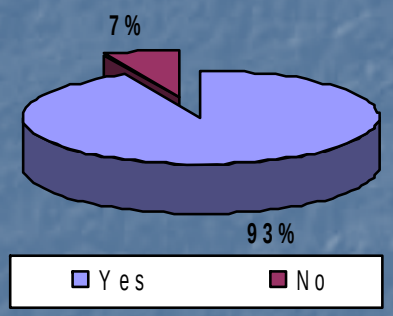
47% of HHs have no monthly savings.

# Research Findings

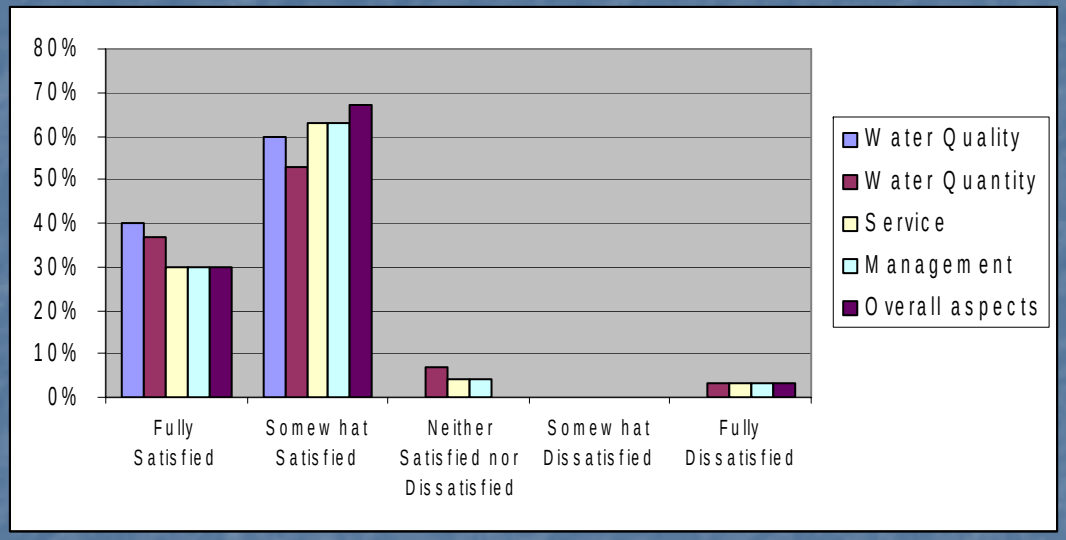
## Water Supply

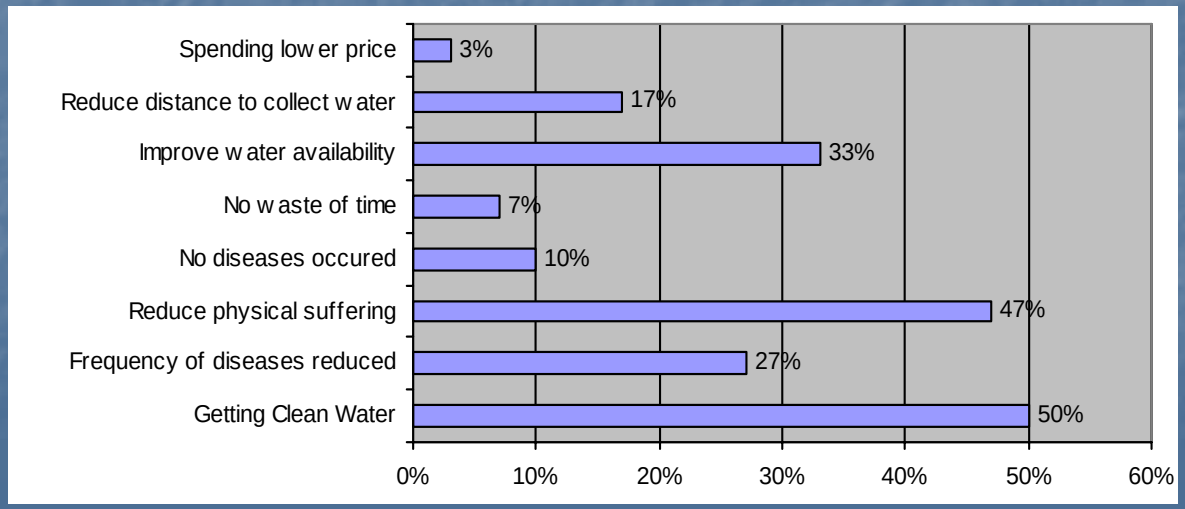



Frequency of water used



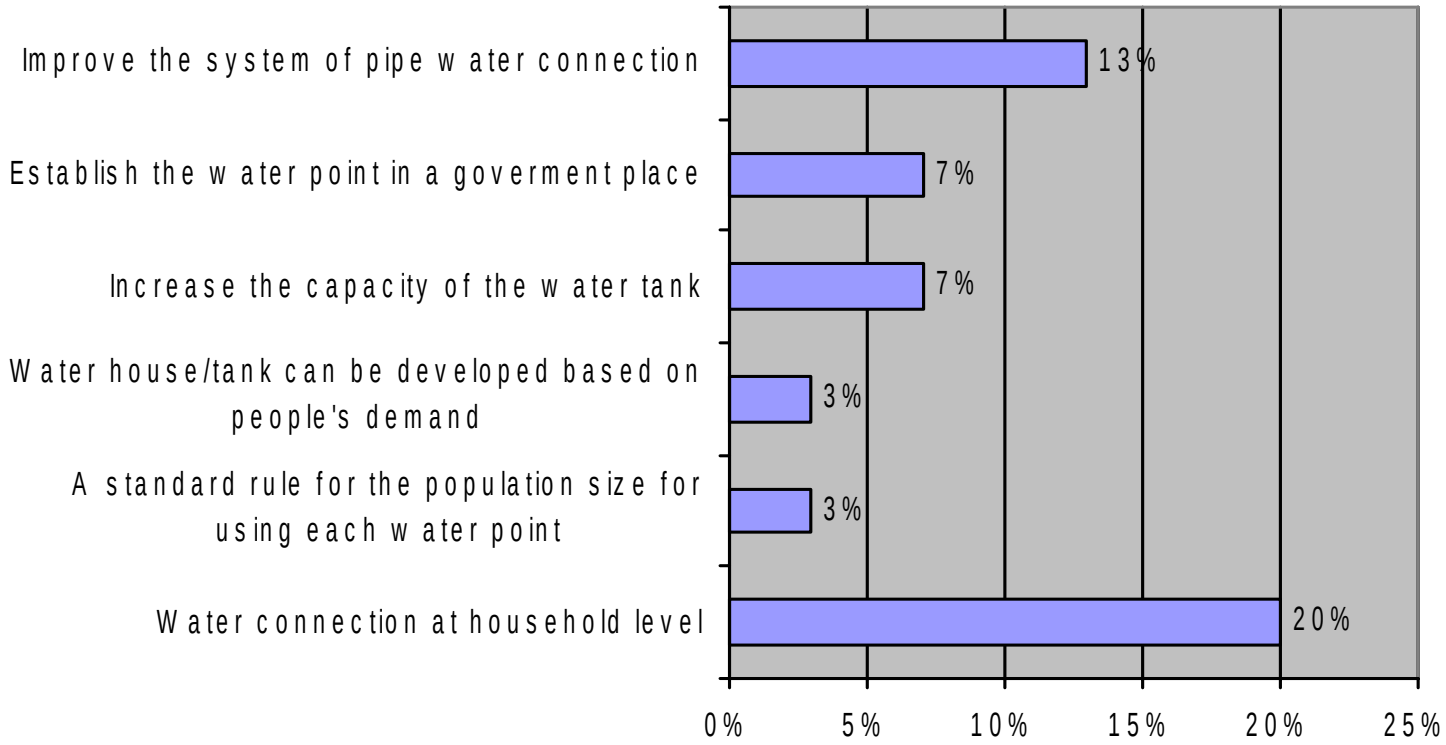

Positive impacts on daily life



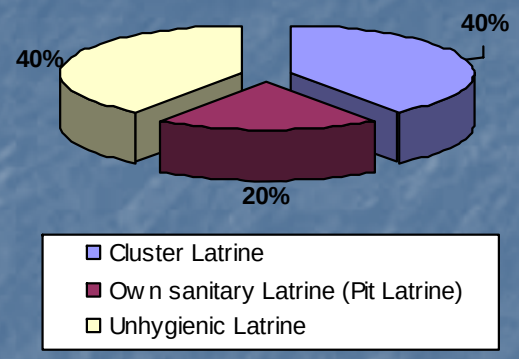
# Research Findings

## Water Supply

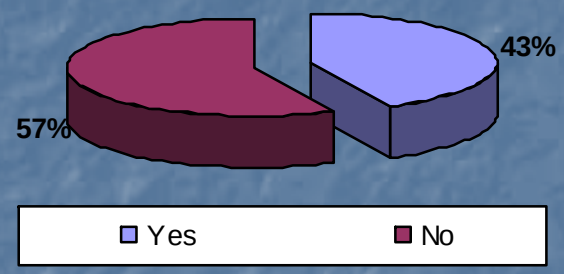


# Research Findings

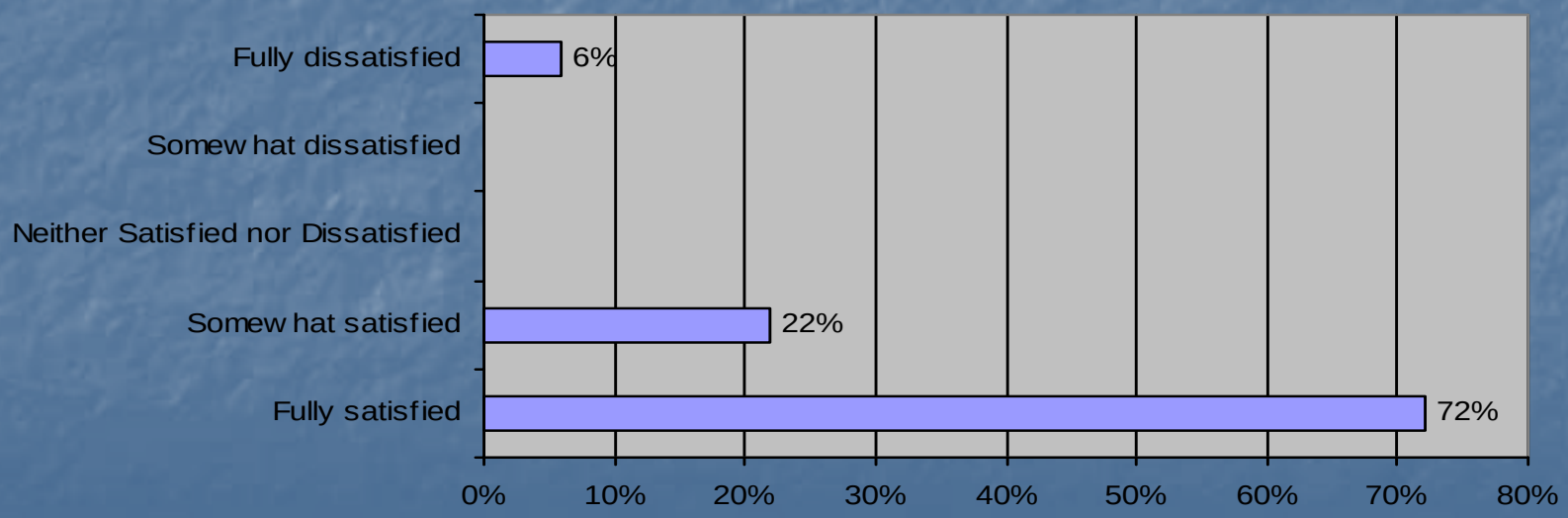
## Sanitation




Defecation Practice




Regular payment of Monthly Installment




Level of satisfaction with present latrine facility

# Organizational and Institutional Aspects

- **Project Initiation**

- Rapport building with the slum dwellers.
- Organized Participatory Rapid Appraisal (PRA) to collect detail information to analyze economical and social conditions and livelihood patterns of the area. PRA tools as follows:

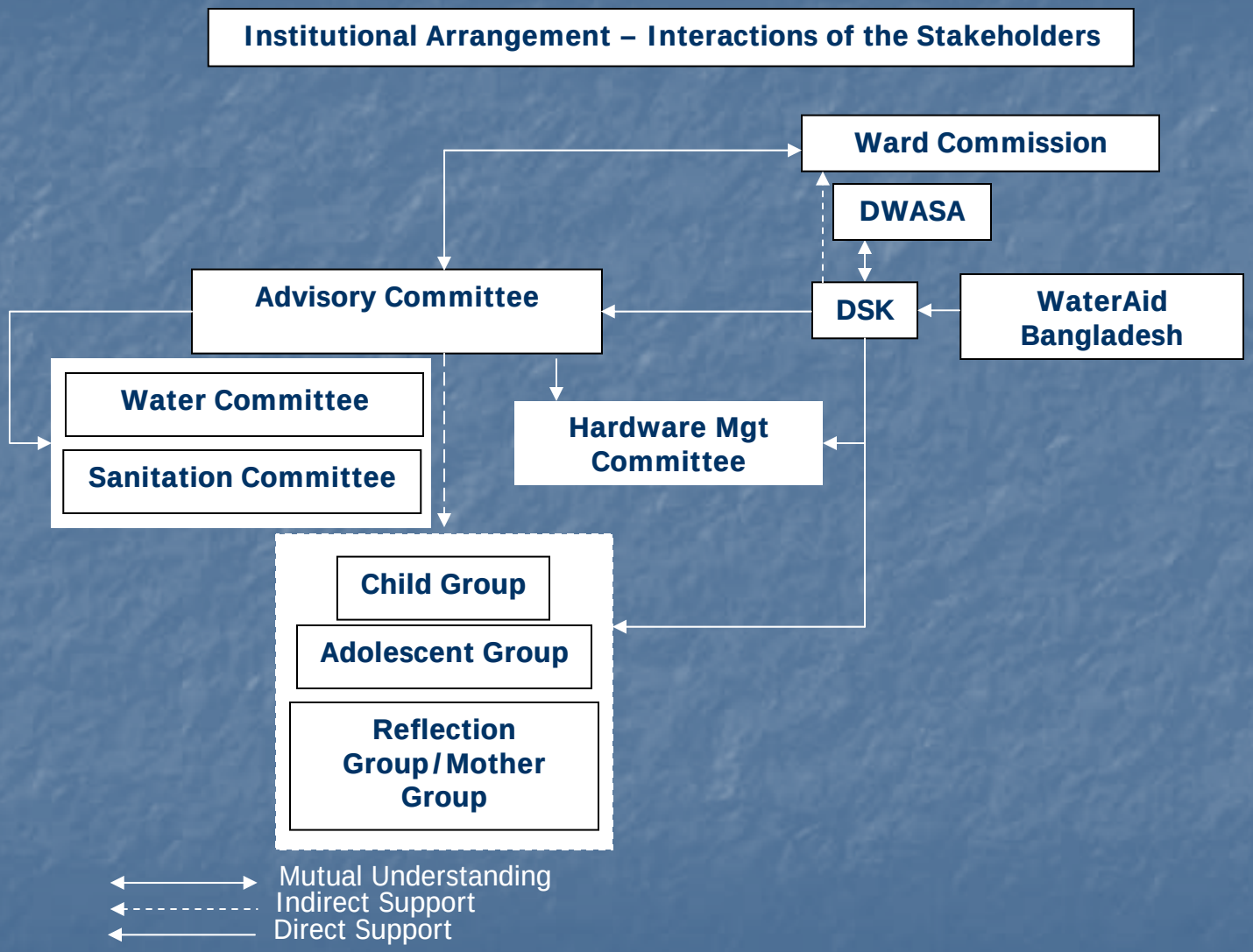
  - Health walk/Transact:
  - Social mapping:
  - Focus Group Discussion (FGD):
  - Key informant interview:
  - Body mapping:
  - Venn diagram:
  - Poverty mapping:
  - Major problems:
  - Prioritizing  WatSan facilities
  - Matrix: On problems and solution regarding Water sanitation.
  - Considering different options of WatSan services

# Organizational and Institutional Aspects

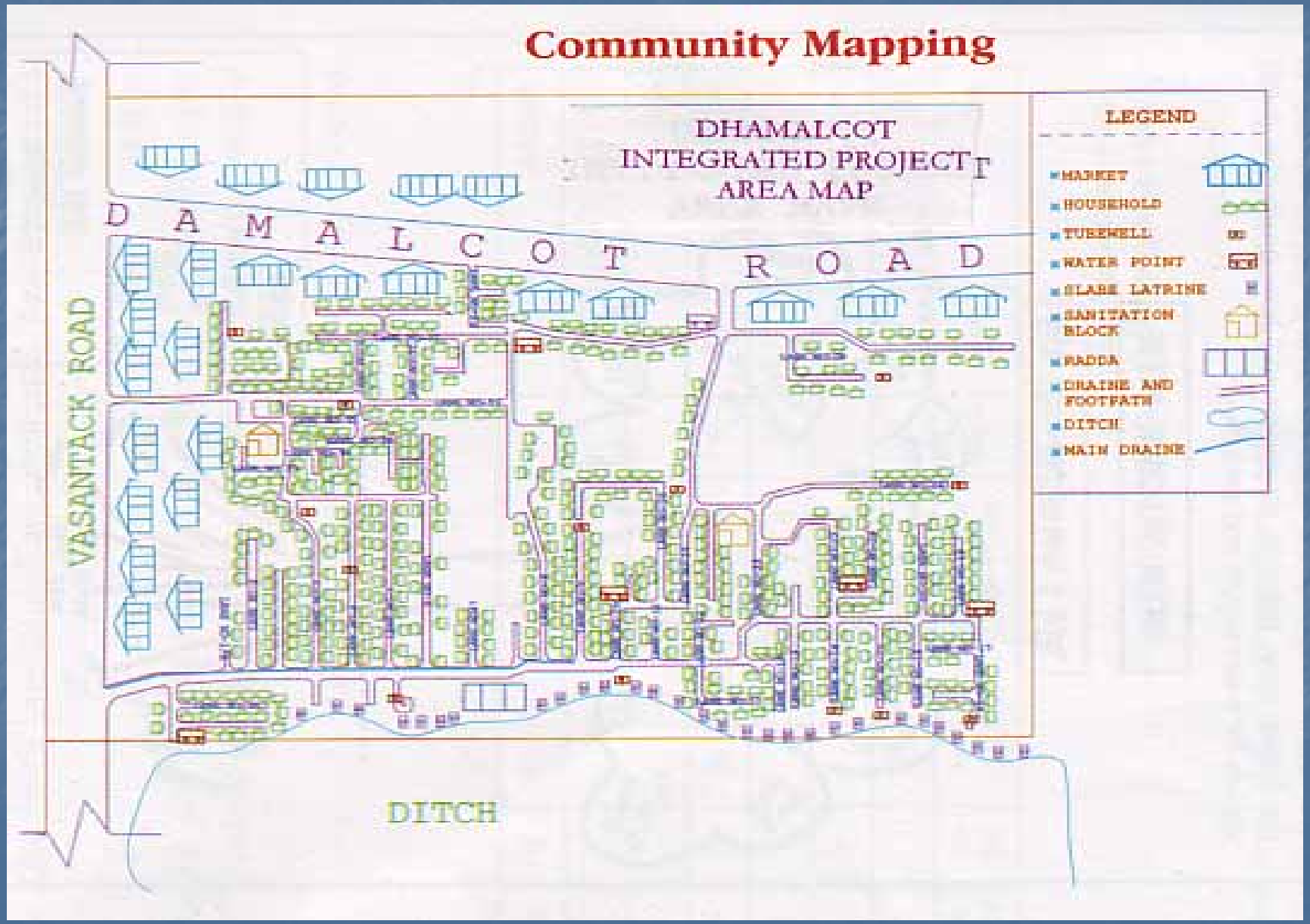
- **Project Initiation**
- **Collect Baseline Information**
  - The objective of conducting the baseline survey was to collect detail and descriptive information about individual household

- **Organizational setting**
- Advisory Committee: 05 Members (Male); 01 Year
- Hardware Committee: Five Members (During construction)
- Water Committee: 10 Members (Women); 01 year
- Sanitation Committee: 10 Members (Women); 01 Year

# Participation of stakeholders



# Community Mapping
# Baganbari Slum, Mirpur-14, Dhaka



# Financial Aspects

- DSK follows Capital-Cost-Sharing Strategy among slum dwellers to promote the sense of Ownership.
- The households were divided according to the Poverty Category.
- There are five categories to analyze the “ability to Pay” of the slum dwellers

# Financial Aspects

| Category | | Description |
|---|---|---|
| A | **Not poor** | Comparatively better-off family. Have ability to pay for water and sanitation services without subsidy. |
| B | **Poor but relatively better off household** | Through average monthly income it is possible to fulfill the basic needs; |
| C | **Moderate Poor household** | A single earning member, remain jobless at least one third of the year, half of the year does not have three square meals, female headed families- Widows etc. |
| D | **Hard Core poor** | The main earning person/head of house hold has no fix source of income and not having even two square meals a day. Those who earn USD 0.50 to 1.00 a day and consumes less than <1800kcal (BBS)]. |
| E | **Vulnerable / extreme poor** | Who are worse than those in Category D e.g. earns less than USD 0.50 a day. These could be the physically handicapped, aged, orphans, etc. |

## Poverty categories and indicators

# Financial Aspects

| Description | | HH | % |
|---|---|---|---|
| A | Pay 100% | 51 | 18.41% |
| B | Pay 50% | 124 | 44.77% |
| C | Pay 25% | 23 | 8.30% |
| D | Pay 10% | 11 | 3.97% |
| E | | 68 | 24.59% |
| | | **277** | |

***Economical Status of the Slum Dwellers***

***Showing yearly expenditure for water supply and sanitation facilities***

| Category | Total Yearly Income TK. | Total Yearly Exp. | Yearly Exp. against capital cost for Water | Yearly Exp. against O&M cost for Water | % expend against yearly income for water | | | % expend against yearly expenditure for water | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Capital cost (%) | O&M cost (%) | (Cap.+ O&M cost) (%) | Capital cost (%) | O&M cost (%) | (Cap.+ O&M cost) (%) |
| **A** | **66,000** | **60,000** | **624** | **300** | **0.95%** | **0.45%** | **1.40%** | **1.04%** | **0.50%** | **1.54%** |
| **B** | **36,000** | **34,000** | **312** | **300** | **0.87%** | **0.83%** | **1.70%** | **0.92%** | **0.88%** | **1.80%** |
| **C** | **9,600** | **10,000** | **156** | **300** | **1.63%** | **3.13%** | **4.75%** | **1.56%** | **3.00%** | **4.56%** |
| **D** | **9,600** | **10,000** | **72** | **300** | **0.75%** | **3.13%** | **3.88%** | **0.72%** | **3.00%** | **3.72%** |

*Source: Reaching the Poorest and Vulnerable, WaterAid*

# Social inclusion and Cultural issues

**Power structure and relations**

- **Political and social Leaders**
- **Local Government Organizations**
- **Musclemen / Mastans**

**Social relation**

- **Social problems**
- **Religious occasions**
- **Social gatherings**
- **House level programs**

**Role of Gender in the functioning of the WSS system**

- **Play Proactive role in the community**
- **100% Women members in the Water and Sanitation Committees**

# Effectiveness and sustainability

- WSS approach found effective
  - Ownership established
  - Community of the slum is mobilized
  - Women are empowered
  - Water borne diseases are reduced
  - Legal access to water from public utility service agency (DWAS)
  - Regular water supply ensured
  - Community are used Sanitary latrines
  - Hygiene practices take place.
  - Established community based O&M
  - Increased consciousness among the people to help each other
  - Life style becomes more comfortable
  - Improve socio-economic status of the slum dwellers

# Effectiveness and sustainability

- Sustainability is still a question:
  - Illegal settlement
  - Eviction risk is high
  - No legal status of different committees
  - Outside power influences

# **Lessons learned**: Achievements

- Access to water supply and sanitation facilities were ensured for the disadvantage people.
- The WSS project was a Demand Driven approach that ensures successful implantation of the initiative in Baganbari slum.
- The slum dwellers identified major problems and setting priority according to their needs through social mapping and acquiring information regarding the common diseases and types of treatment by body mapping.
- Community people actively participated in the decision making process and developed action plan by their own.
- The contributions of the women were highly recognized by the slum dwellers. Women were highly encouraged in the decision making process.

# **Lessons learned:** Achievements

- 100% members of the water and sanitation committees were considered women.
- Formation of different committees (Advisory committee, purchase committee, water committee, sanitation committee) encouraged the slum dwellers to adopt management system and to achieve leadership quality in Baganbari slum.
- Financial contribution of the slum dwellers were determined based on affordability (Poverty category) of the people.
- The slum dwellers were allowed to repay the construction costs of establishing water point/stand and sanitation facility by installment.
- Social status of the slum dwellers have increased and indirectly recognized by the local government organizations. There are representatives at the ward level WatSan committee of Baganbari slum.

# SWOT Matrix

| | Social | Institutional | Economic | Technical | Environmental |
|---|---|---|---|---|---|
| **Strengths** | Access to water and sanitation services by the disadvantage people<br>Active participation of the slum dwellers in the decision making process<br>Demand Driven Approach | DWASA provides legal water connection into the slum areas<br>DSK provides institutional support to the slum dwellers and actively working as the catalyst to ensure WSS services for low income people | Financial contribution of the slum dwellers according to their affordability to establish the physical structure of WSS facilities<br>Ability to pay monthly water bill and O&M | Introduce user friendly technology to operate and maintain water point/stand and sanitary latrine/sanitation block/community latrine | Increased health situation<br>Adopted hygiene practices |
| **Weakness** | Water stands and sanitary latrines constructed on illegal locations<br>Support from NGO (DSK) on a temporary basis to WSS services | Lack of involvement of the government organizations<br>No office of the community based committees | Insecure investment | Service during rainy season of sanitary latrines | Soil erosion |
| **Opportunities** | Participation of women in the decision making process<br>Absolute priority to women to form Water and sanitation committees | Development of legal institution<br>Establish formal and legal relations with the local government organizations | Revolving fund for O&M<br>Prepare water bills in favor of the slum dwellers | Water connection at the household (HH) level | Ensure quality of life |
| **Threats** | Increasing Demand<br>Presence of Mastans / outside power influence<br>Long-term sustainability of the systems | No legal status of the community based committees<br>Regular coordination and cooperation between local government bodies and community based committees | Primary investment of the installation costs | Appropriate options to serve all seasons | Improper drainage and sewerage system |

# Suggestion for enhancing the existing WSS systems in slum areas

- Community level committees require legal recognition by the government. NGO can take the initiative to develop an acceptable institutional mechanism that can provide legal status to such committees.
- Supportive agencies will have to take initiative to develop an acceptable mechanism to form a community based legal forum. In future, such forum will be the Focal Point to ensure WSS services in sustainable ways in the slum areas.
- Require tri-parties understanding (GO-NGO-Poor Community) is required to ensure sustainability of WSS initiative. NGO can play the key role.
- There has a need to develop a comprehensive and transparent process to select members for various committees for a certain period/term. Community and NGO, both can take the initiative to develop such document.
- The supporting agencies, mainly NGO can arrange various training programs on a regular basis in the slum areas.
- There has a need to incorporate more basic services under the same package; solid waste management is one of such issue that is highly recommended for inclusion with WSS approaches.

# Thank you

Case Study 2

# TA Block

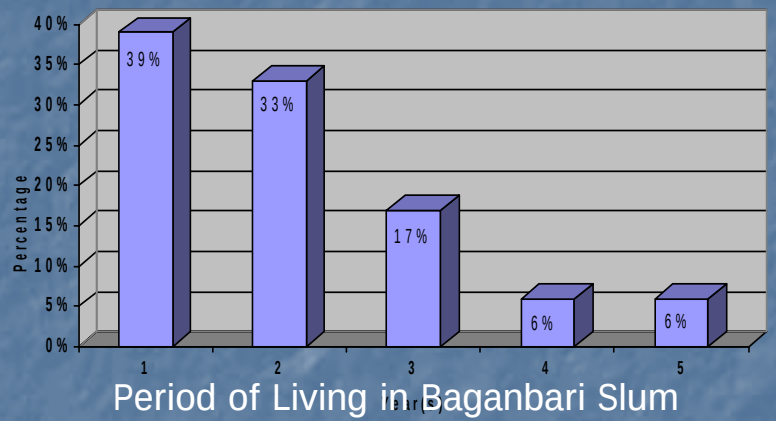
**Section 6, Ward 6, Mirpur, Dhaka 1216**

# A overview of TA Block Slum

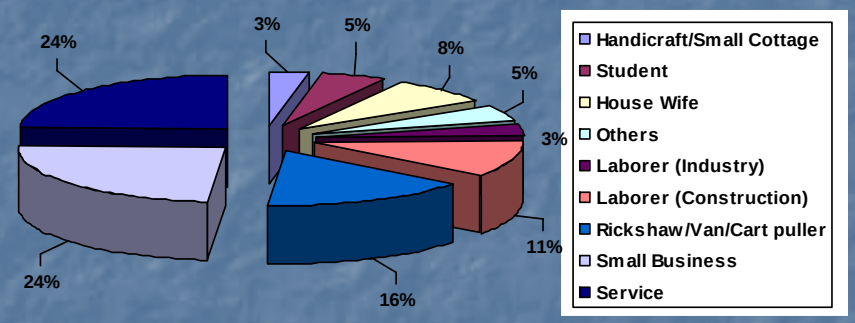
- Location: Section 6, Ward 6, Mirpur, Dhaka 1216.
- Area of the slum: One and half acre.
- Under DWASA Zone 4
- Total population: 1542.
- Total Families: 400
- Average family members: 3.86
- Project initiation: October 2003

# Research Findings

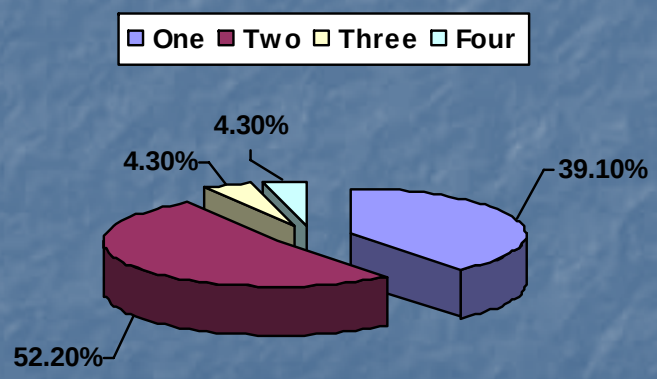
## Household Information



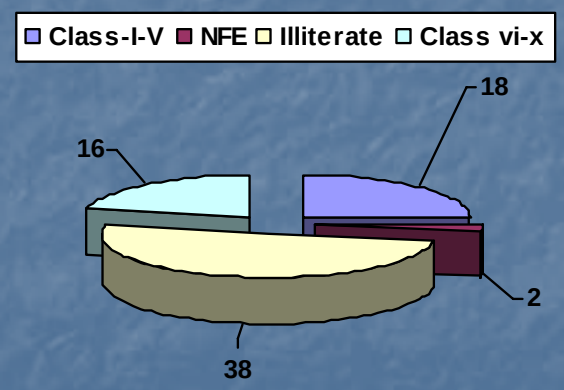

Period of Living in Baganbari Slum




Occupation of the Head of HH



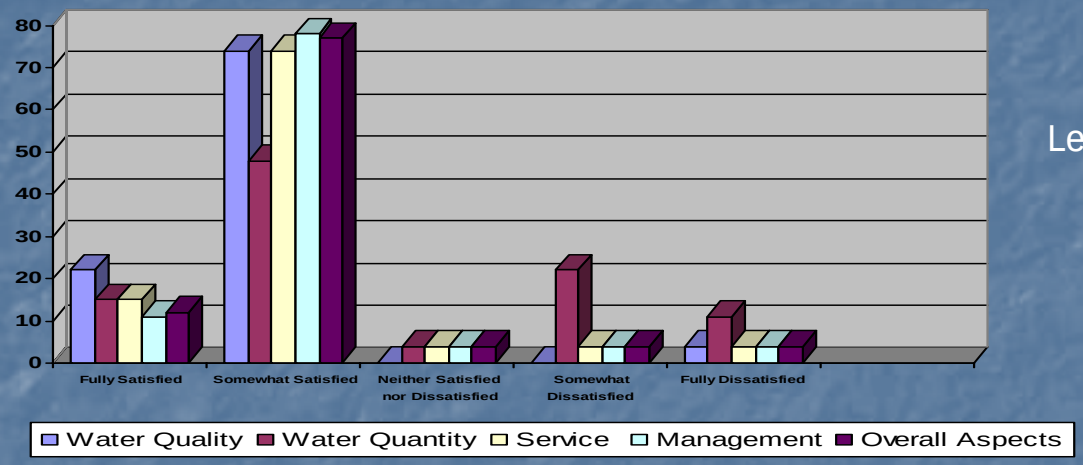

Frequency of water used



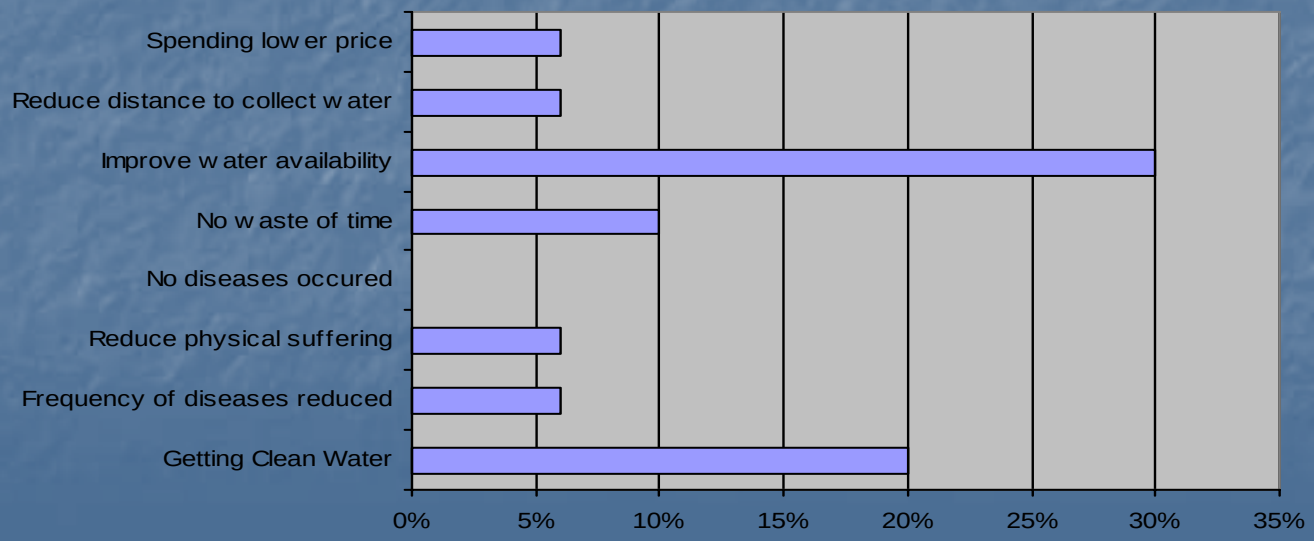

Literacy rate

# Research Findings

## Water Supply

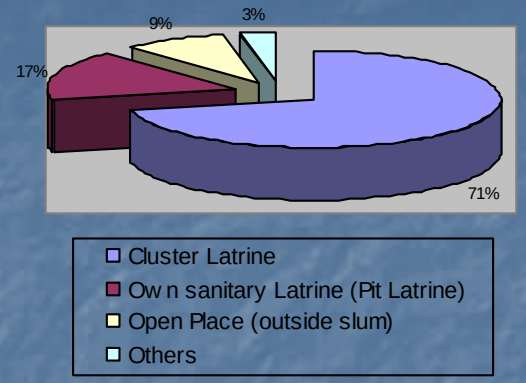



Level of Satisfaction

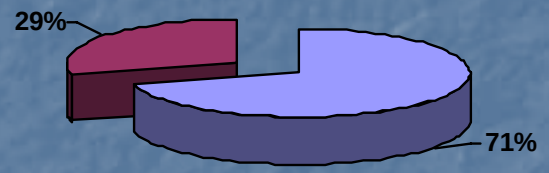



How people benefited from water stand/point

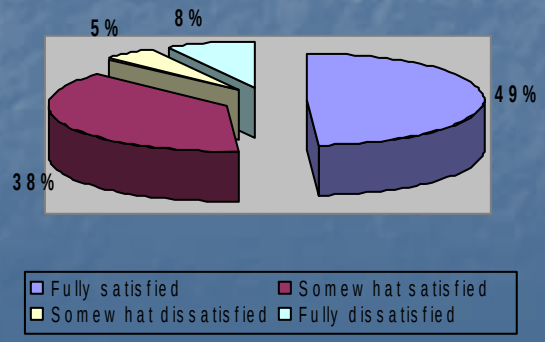
# Research Findings



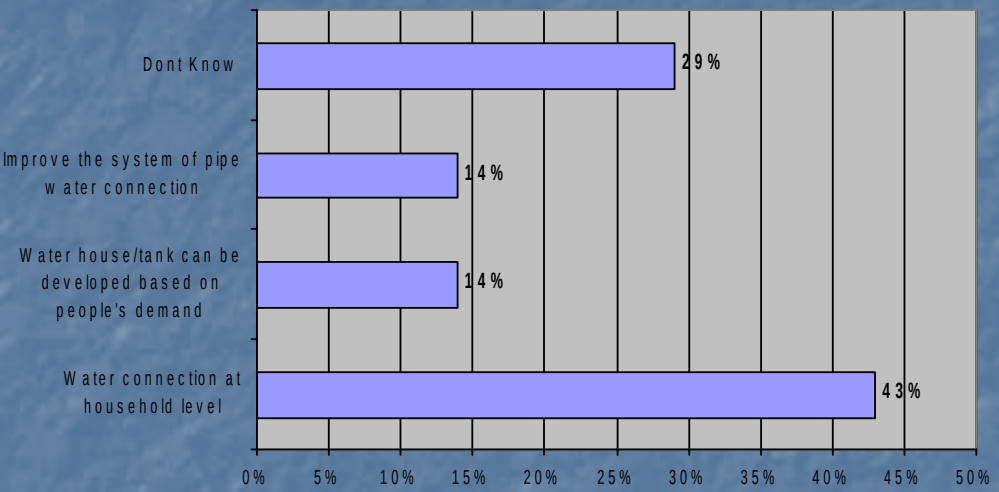

Defecation Practice

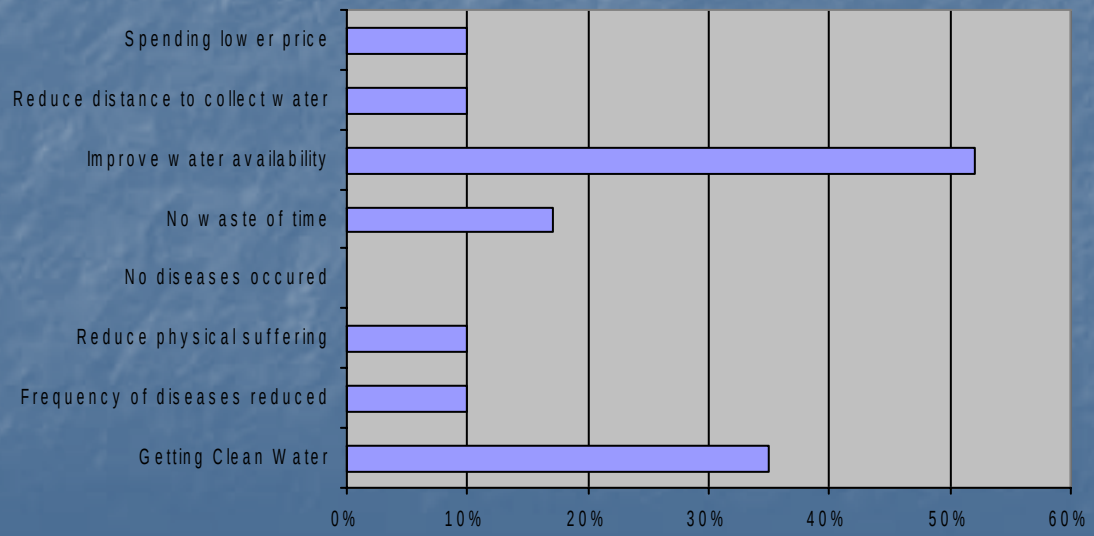



Positive impacts on daily life




## Sanitation



**Major activities**

- Water Point Construction
- Tubewell Installation
- Sanitation Block Construction
- Cluster & Pit Latrine Construction
- Basic Hygiene Training
- Hygiene session
- Awareness Campaigning activities on WSS
- others

**Organizational set up**

- Community Base Organization – CBO
- Community Development Organization _CDC
- Hardware Management Committee – HMC
- Management Committee