# RAINWATER HARVESTING IN SCHOOLS TO DEMONSTRATE ADAPTATION TO CLIMATE CHANGE IN PERI-URBAN AREAS OF ILALA MUNICIPALITY

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# outline

- Background information
- Project objectives
- Project summary
- Proposed required resources
- Resource mobilization & sustainability potential

# Background information

- IMC is one of the three Municipalities forming DCC
- Ilala Municipality (district) is located between Long. $39^{o}$ and $40^{o}$ East and between Lat.$6^{0}$ and $7^{0}$ South of the Equator.
- Area of about 210 $km^{2}$.
- Population 1,220,611 (NPHC, 2012)
- Primary schools 134 and 85 secondary schools.

Commonly referred to as 'Downtown Dar'

# Project Objectives

## *Main Objective*

To raise community awareness on CC Adaptation and rainwater harvesting in 50 Primary school of Peri-Urban in Ilala Municipality.

## *Specific objectives*

1. To raise awareness to 2,500 community leaders of Ilala Municipality on CC impacts and adaptation methods by 2017

# *Specific Objectives…*

2. To install 100,000lts rainwater harnessing units in 50 peri-urban primary schools in the Municipality.

3. To educate15,000 school children on rainwater harvesting and management.

# Project location

- ***Location***

  The project will be implemented in 50 Peri-Urban schools in Chanika, Msongola, Majohe, Kitunda ,Pugu, Kinyerezi, Gongolamboto and Ukonga Wards in Ilala Municipality

- ***Themes***

  The project will address Health, sanitation, education and water themes

# Project duration

The project will be implemented through three phases.

Phase 1: Training and creation of community awareness and involvement/participation into the project.

Phase 2: Procurement, installation and testing of rainwater harvesting facilities.

Phase 3: Monitoring, evaluation and recording of lessons lent from the project.

This phase will be used to create environment allowing the community (beneficiaries) adopt the project for sustainability post project funding.

# Project rationale

- Ilala Municipality being located in coastal area is highly vulnerable to the CC and associated impacts (floods and water scarcity).
  - Flood is one of the adverse impacts of CC identified by NAPA in 2007.
- For several decades, Ilala Municipality is experiencing frequent floods and water scarcity due to erratic and unexpected rainfall associated with CC.
  - Floods have substantial social and economic impacts to the livelihood in the affected areas.

# Project rationale….

- Water scarcity in peri-urban
  - Inadequate water supply network, boreholes and wells
    - 76% pop. depends on deep/shallow wells

    (2,058Ltrs/pd ≈ 43% of actual needs (4,770ltrs)
    - 24% pop. depends on tap water system
    - Only 63 out of 134 schools with water
    - Hard/saline water

# Project rationale….

- Mismanagement of NRs
  - over pumping of water through boreholes (≈ 98 deep wells in IMC)
    - »results to seawater intrusion, deplete underground fresh water resource base.
    - »Weak control of oversight organ (Basin authority) over borehole extraction
- Deforestation and encroachment of catchment areas like Kazimzumbwi reserve forest.

# Project rationale….

- High water demand
  - Escalating population and urban sprawl
  - Increased economic and social development
    - » Relocation of people from city centre
- Bimodal type of rainfall.

  Long rainfall (Masika)received between mid-February and May

  Short rainfall (Vuli) between September and October.

# Project rationale…

- Potential large rooftop areas
  - Reduction of surface runoff
    - »Combating floods
    - »Reduction of erosion
  - Minimal demand for boreholes
    - »Reduction of salt water intrusion

# SUMMARY OF PROPOSED GOAL, PURPOSE, EXPECTED OUTCOMES, OUTPUTS AND FIRST YEAR ACTIVITIES

# Rationale for choosing project approach

- The approach helps to make the project understood by all stake holders which will help in owning the project.
- Students are susceptible to waterborne associated ailment like diarrhoea, skin diseases etc.
- Easy for students to disseminate knowledge to their families.

# National/Municipal/City development strategies and key partner priorities

- Project is in line with Municipal strategy on environmental management and conservation e.g. tree planting each year, environmental greening programs; school health and sanitation e.tc.

# Country/Municipal/City strategy and links to existing projects or programmes

Fit with

- Tanzania Five years Development Plan (2011/12-2015/16) Human Capital Development and Social Services.
- MDG (No: 7) Ensure Environmental sustainability-Proportion of people with access to improved sanitation (Rural/Urban)

# Programme assumptions

- Enough rainfall that will lead to plenty water for harvesting
- Cheap  in terms of  operational cost
- Community will prefer to use rainwater than borehole water (hard water)

# Cross-cutting issues

Gender,

HIV/AIDs,

Disability,

Environmental issues

# Geographical project area and rationale for selecting this area

The selected area (peri- urban)

- have no reliable water supply from water supply authority
  - Average distance to water source 1000m
- Have limited fresh water supply from available boreholes and wells
  - 14 boreholes with pumps
  - 79 boreholes without pumps

# Activities that will be carried out to address the objectives of the project

- Consultants
  - Architectural designing & survey
- Seminars and training
- Identify training needs and material
- Travel/transportation
- Equipment and materials (Construction of rainwater facilities)

# Activities that will be carried out to address the objectives of the project

- Others(administration/operational costs)
  - Procurement process
  - Tendering process
  - Site meetings with parties and contractor

# Project Proposal Development & Required Resources

- ***Financial and technical resource requirements***
  - *1st year it cost $ usd 320,000*
  - *2nd year it cost $ usd 150,000*
  - *3rd year it cost $ usd 50,000*
- ***Partner resources available***

*Municipal education officer, Municipal water engineer, Head teachers, Local leaders , Environmental management officers, Public relation officer, Community and social welfare officers*

# Resource Mobilisation & Sustainability Potential

- ***Potential to raise funds for this project***
  - EU
  - BTC
  - Plan International
  - Korea International Cooperation Agency
  - USAID
  - World Bank
  - **others**

# Resource Mobilisation & Sustainability Potential…..

- ***Technical resources required for successful implementation***
  - Project Team
  - Economist
  - Planning officers
  - Accountants
  - Architecture
  - Water engineers

- ***Planning for sustainability***
  - Preparation as built report  for operation and maintenance
  - Train artisan
  - Selling water to meet maintenance cost
  - Develop ownership attitude

Thank you for listening