



# STUDY ON PERCEPTION OF SEWER SYSTEMS V/S SEPTIC TANK SYSTEMS IN MARADU MUNICIPALITY, KERALA

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## **AIM**

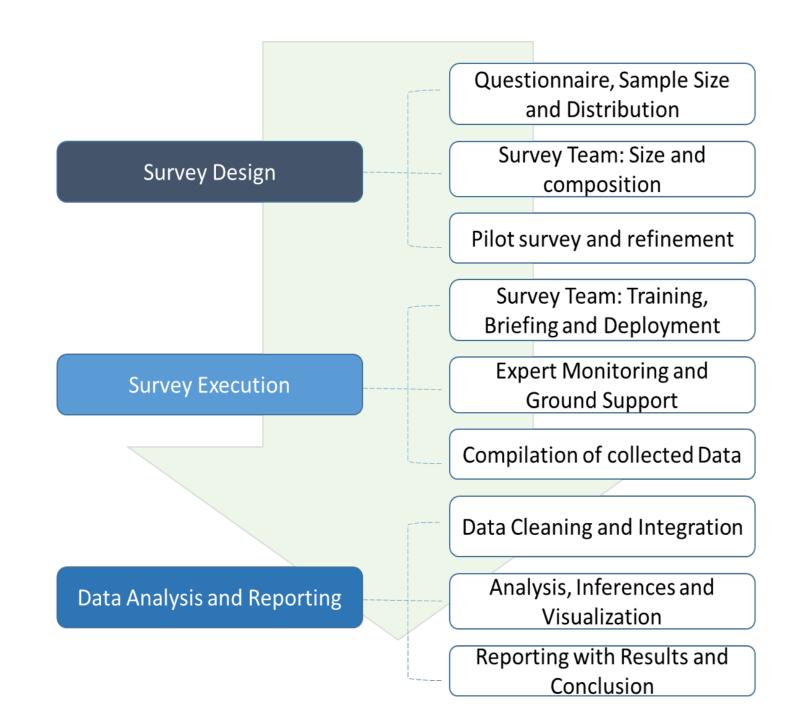
To map the willingness to transition to sewerage and STP system from the existing infrastructure for used water management in the residential, commercial and institutional properties of Maradu Municipality

- i. To map the perception about the current scenario of the used water management: especially the pathways, issues and gaps
- ii. To map the perception on
  - 1. septic tank systems,
  - 2. usage of storm water drains, and
  - 3. sewerage network and STP system.

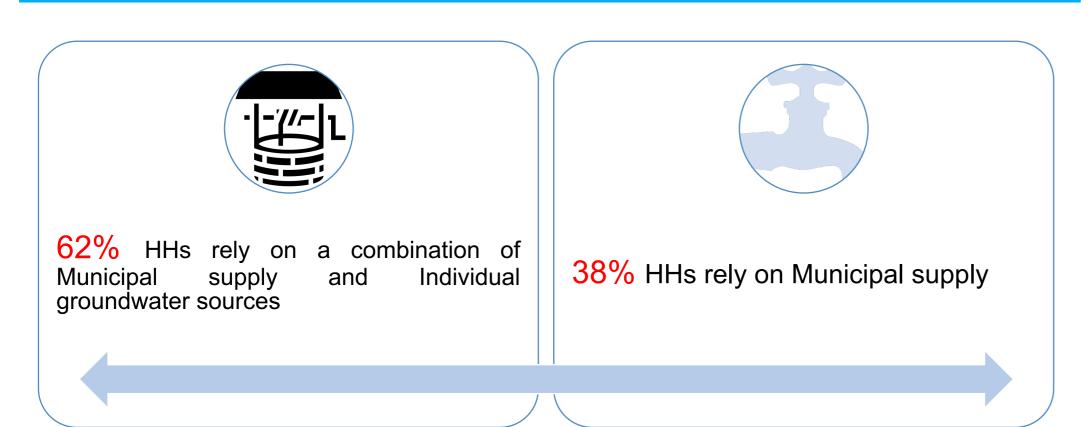
# **OBJECTIVES**

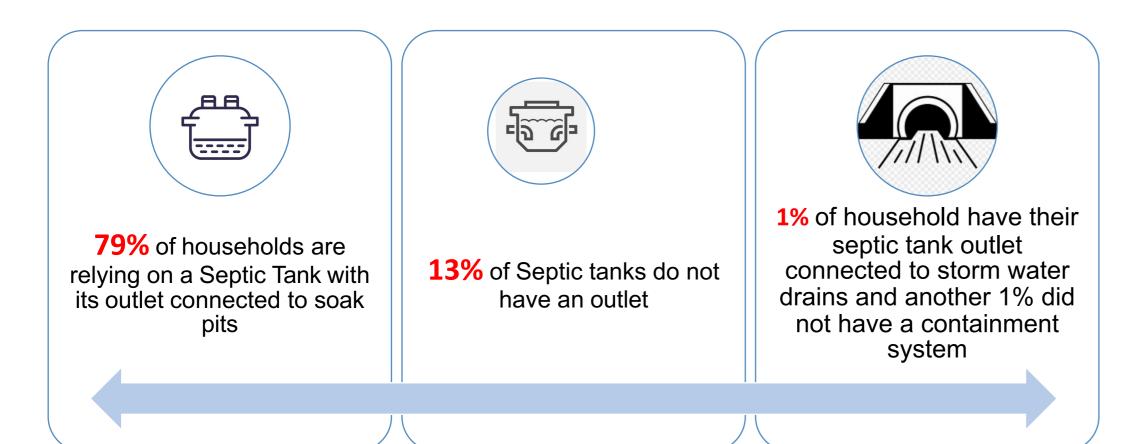
- Map perception on current Used water Management Scenario
- Map perception on septic tank systems and sewer network systems
- Derive inferences that help quantify a representative
  - 'Willingness to pay" range for a potential sewer system

# METHODOLOGY



# **OBSERVATIONS AND INFERENCES**





# Survey Sample: 217 Households 905 persons out of 44,704 population (Census 2011) Confidence Level of 95% with Margin of Error at 3.2 %

# **Outcome of the Survey**

Septic Tank
Systems:
Advantages

Self- manageable-non reliance on ULB for O&M-HH level decision making; Cost effective/Affordable; Easy to use and maintain; Traditional; Gets the job done; Safe; Low maintenance; Long term solution

Septic Tank
Systems:
Disadvantages

Smell; Mosquitoes; Expensive; Causes drains, canals, waterbodies to smell; Pollution of surface and groundwater; Short term solution; Flooding, leakage and overflow during heavy rainfall; space requirement; Repairs and maintenance has to be outsourced;

Sewer network and STP:
Advantages

Cost –effective; Easy to use and maintain; No smell-no overflowno mosquitoes; Pollution reduction-cleaner waterbodies, canals and drains; Possible reuse of treated water; Low space requirement; Good solution if administration implements and maintains well - takes responsibility- and makes it affordable

Sewer network and STP:
Disadvantages

Low Confidence on administration for implementing, operating and maintaining it well; No control if not maintained well, one issue affects many other households; Not a good solution if expensive, Suitability for Maradu is questionable; Low confident on public clogging risks due to solid waste

# **KEY TAKEWAYS**

- Pilot projects in areas with residents willing to pay for improved sewerage systems can demonstrate the benefits and encourage wider adoption
- Success in these initial projects could then persuade other communities and local governments to consider similar solutions

