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IEC Material for Makueni County – Sustainable Water & Waste Management

Improving services, protecting the environment, and empowering communities

Quick Snapshot



Demographics (respondents): Youth 18–35 yrs: 51%.



Gender: More men than women engaged in water & waste; the sector is male dominated.



Occupation: Majority business; others employed/unemployed (survey targeted actors in the value chain).



Main drinking water sources: Piped 27.78%, Lake/River/Dam 27.78%, Borehole 25.00%, Rainwater 13.89%, Protected well 5.56%, Unprotected well 2.78%.



Household water treatment: Do not treat 56.76%; treat 43.24%. Among those who treat: Boiling 65%, Chlorine 12.5%, Filtering 10%, Purification tablets 10%.



Community initiatives: 32.43% report community led water initiatives; 67.57% do not.



Rainwater & reuse: 80% of households harvest rainwater; 40% recycle/reuse water (e.g., irrigation/cleaning). *(Note: rainwater is often a supplementary source; only 13.89% cite it as their main drinking source.)*



Waste systems: No formal sewerage in urban areas; one operational public dumpsite; no MRF; illegal dumping/open burning reported.



Municipal capacity (Wote): 39 undesignated transfer stations (with 11 skip bins); 1 skip loader; 158 casual market cleaners; active private collectors (scrap, plastics, paper); organized groups segregate at dumpsite.



Policy frameworks: Makueni Water Policy (2019); Environment & Climate Change Policy (2020); Makueni Climate Change Act (2020); Wote Municipality Solid Waste Policy (2024).

I) Situational Analysis – Key Statistics, Trends & Context

- Water access & safety: Urban centres rely on boreholes and water trucking amid low pressure/rationing; Kaiti River contamination (pesticides, human waste, industrial/hospital effluent) raises risk. Despite risks, 56.76% do not treat water.
- Adoption vs main source: Rainwater harvesting is widely adopted (80%), yet is the main drinking source for only 13.89% , households use it largely to supplement piped/borehole/river sources.
- Waste management: Absence of sewerage, limited collection coverage, one dumpsite, no MRF; illegal dumping and open burning remain common; hospitals/industries implicated in improper disposal.
- Institutions & capacity: Policies exist but implementation lags due to budget and infrastructural gaps; Wote policy (2024) identifies persistent gaps (land, infrastructure, transfer stations/MRF, sensitization, monitoring/enforcement, fee framework, source segregation/receptacles).

II) Challenges and Opportunities



Key Challenges

- **Water:** Contaminated sources; low treatment uptake (56.76% don't treat); outdated infrastructure; rationing; high rise shortfalls.
- **Waste:** No sewerage; single dumpsite; no MRF; illegal dumping/open burning; inadequate collection schedules and receptacles; sanitary waste blockages; weak enforcement/monitoring; limited public sensitization.
- **Governance & inclusion:** Male dominated WASH; informal actors not fully recognized; budget/land/technology constraints.

Opportunities

- **Policy base:** Water Policy (2019), Climate Acts/Policies (2020), Wote Solid Waste Policy (2024).
- **Community practice:** 80% rainwater harvesting; 40% water recycling/reuse.
- **Municipal operations:** 39 transfer stations (11 with skips), 158 cleaners, skip loader; private collectors and organized groups already segregating for sale.
- **Civil society:** Scope to scale advocacy, gender equity, and climate smart practices.

III) Policy Recommendations

Water sector

1. Protect water sources (Kaiti & groundwater): enforce pollution controls; implement watershed management; afforestation/reforestation in catchments.
2. Modernize & expand distribution to reduce leakages and rationing; ensure equitable access to high rises and growing towns.
3. Establish sewer systems in major towns/municipalities; develop safe factory waste disposal systems.
4. Strengthen water quality monitoring & treatment; scale household treatment via behaviour change and affordable options (chlorine/UV).
5. Scale rainwater harvesting (household/institutional tanks) and promote reuse of grey water.

Waste sector

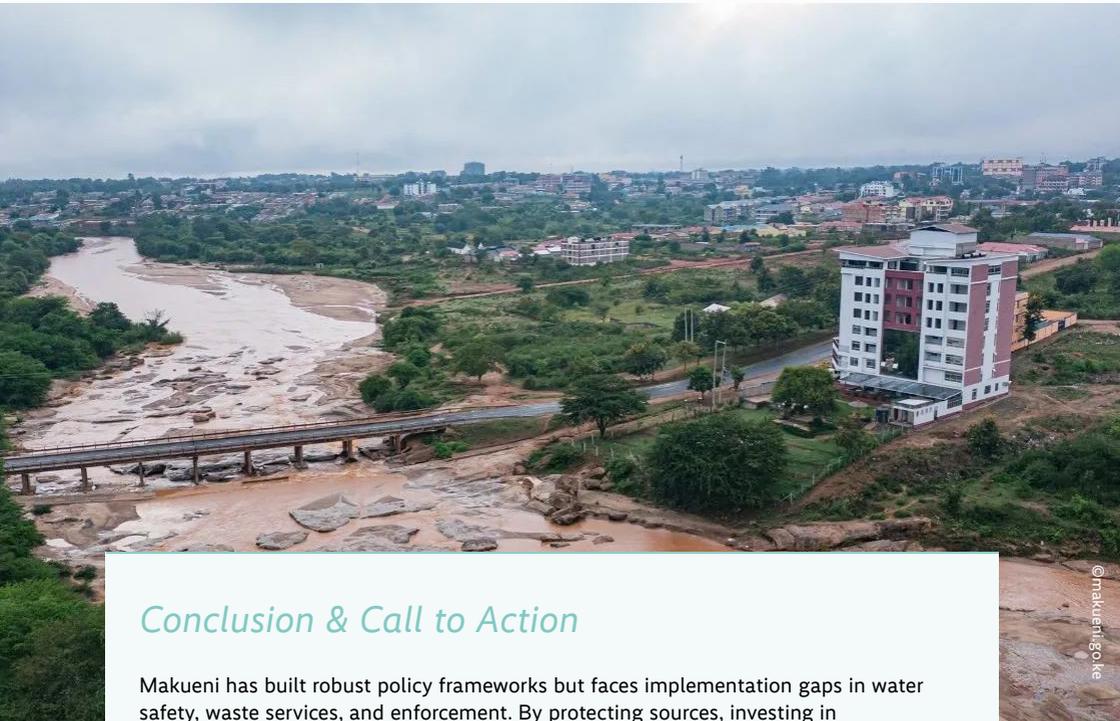
- Implement Wote Solid Waste Policy (2024) with clear enforcement; domesticate SWM 2022 provisions.
- Develop MRFs and additional designated dumpsites; improve transfer logistics; standardize private collector fees and licensing.
- Segregation at source (organic/recyclable/hazardous) with bins, collection schedules, and civic education; expand monitoring of establishments.
- Upgrade landfill engineering to prevent pollution and open burning.

Governance, inclusion & capacity

- Institutionalize actor tiers (high/mid/low capacity) to match roles with resources; formalize informal actors via training & registration.
- Advance civil society advocacy for rights, gender equity, and accountability; promote genuine county consultations from design to delivery.
- Promote gender equity in WASH leadership and enterprises; target women/youth for skills and financing.

Financing & partnerships

- Expand PPPs to bridge budget gaps in water/waste infrastructure (e.g., boreholes, tanks, MRFs, trucks).
- Mobilize climate/adaptation funds, carbon/plastic credits, and donor support; ensure adequate county budget lines.
- Support CSO/community networks with matching grants for awareness and service co implementation.



Conclusion & Call to Action

Makueni has built robust policy frameworks but faces implementation gaps in water safety, waste services, and enforcement. By protecting sources, investing in infrastructure, formalizing actors, and scaling inclusive community engagement and financing, Makueni can shift from scarcity and unmanaged waste to a climate resilient, inclusive service model aligned with county policies and national law.