Water Tank Cleaning Supplies Checklist

A Simple Guide for Safe and Effective Water Tank Maintenance.

All KSh cost estimates are based on the Kenyan market as of 2025 and may vary based on location and supplier.

PHASE 1: BEFORE TANK CLEANING (Preparation & Safety)

1. Mandatory PPE & Safety Gear Checklist

Status (☐)	Item	Purpose	Estimated 2025 KSh Cost	Critical Safety Notes
☐	**Chemical-Resistant Rubber Gloves**	Hand protection from chemicals & bacteria.	**KSh 400 - 650**	Must be mid-arm length.
☐	**Safety Goggles**	Eye protection from splash and debris.	**KSh 250 - 350**	Must fully seal around the eyes.
☐	**N95 Dust Mask / Respirator**	Protect lungs from dust, mold, and chlorine fumes.	**KSh 50 - 300** (Mask)	Essential for ventilation safety.
☐	**Rubber/Wellington Boots**	Foot protection and non-slip grip.	**KSh 800 - 2,500**	Non-slip sole recommended.
☐	**Sturdy Ladder**	Safe access to and from the tank opening.	**KSh 3,500 - 8,000+**	Must be securely placed.
☐	**Personal Rescue Rope**	Emergency extraction from the tank.	**KSh 1,000 - 2,000+**	
☐	**MANDATORY Spotter/Assistant**	To monitor and assist in an emergency.	**N/A (Human Resource)**	**NEVER enter the tank alone.**

2. Tools & Cleaning Agents Checklist

Status (☐)	Item	Purpose	Estimated 2025 KSh Cost	Specifications / Avoid
☐	**Heavy-Duty Scrub Brush**	To dislodge grime, algae, and sediment.	**KSh 300 - 800**	**MUST be non-metallic (plastic bristles). AVOID wire brushes.**
☐	**Hose with Strong Nozzle**	Initial and final rinsing.	**KSh 1,000 - 2,500**	For high-pressure flushing.
☐	**Buckets (2-3) & Scoop**	To remove sludge and mix solutions.	**KSh 200 - 450** (per bucket)	
☐	**Submersible Pump/Siphon**	To drain residual water quickly.	**KSh 300 - 6,000+**	Optional, but helpful for larger tanks.
☐	**Mild Household Detergent**	General scrubbing solution.	**KSh 300 - 700** (1L)	**AVOID highly scented/foaming soaps.**
☐	**Unscented Bleach (Sodium Hypochlorite)**	For mandatory disinfection.	**KSh 400 - 1,000** (5L)	Use 50 ml per 1,000L capacity for 50 ppm dose.

3. Critical Preparation Steps

Status (☐)	Step	Notes
☐	**Turn Off Main Water Inlet**	Stop water from entering the tank.
☐	**Turn Off Power to Booster Pump**	Prevent accidental electrocution or damage.
☐	**Drain Tank (Leave 6-12 inches)**	Drain water until only enough is left for the initial sludge removal.
☐	**Ventilate Tank**	Open the lid and allow for fresh air exchange for at least 30 minutes.

PHASE 2: DURING TANK CLEANING (Action & Scrubbing)

Status (☐)	Action Step	Detail
☐	**Enter Tank Safely**	Spotter must be stationed outside, rope secured.
☐	**Remove Sludge**	Use buckets and a scoop to manually remove sediment and debris from the floor.
☐	**Scrub Interior Walls & Floor**	Use the non-metallic brush with the mild detergent solution (or baking soda paste) to scrub all surfaces, paying attention to corners and joints.
☐	**Initial Rinse**	Use the hose to spray down all surfaces, flushing the cleaning solution and loosened debris toward the outlet.

☐	**Siphon/Vacuum Residue**	Remove as much of the initial rinse water and remaining residue as possible using the pump or wet vacuum.
☐	**Final Scrub (Clean Water)**	Perform a final light scrub using only clean water to ensure all detergent/dirt film is gone.

PHASE 3: AFTER TANK CLEANING (Disinfection & Completion)

1. Disinfection & Rinsing

Status (☐)	Action Step	Detail
☐	**Disinfect Tank Interior**	*Method:* Apply a 1:10 bleach/water solution directly to all surfaces using a sprayer/cloth, **OR** refill the tank with clean water and add the calculated amount of bleach (**50 ml per 1,000L**).
☐	**Allow Contact Time**	Allow the disinfection solution to sit for **4-6 hours (minimum)**, or ideally overnight, to kill all bacteria and pathogens.
☐	**Drain Disinfectant**	Drain the chlorinated water completely. *Run water briefly through household taps to clear lines.*
☐	**Final Rinse (Minimum 2 times)**	Refill the tank with clean water, slosh it around, and drain completely. **Repeat this rinse process 2-3 times.** (This is the most crucial step for safety).
☐	**Check for Residual Chlorine**	If you can still smell a strong chlorine odour, perform an additional rinse.

2. Tank Recommissioning

Status (☐)	Action Step	Detail
☐	**Refill Tank**	Turn the main water inlet back on to fill the tank with fresh water.
☐	**Turn On Pump/System**	Restore power to the booster pump and re-engage the water supply system.
☐	**Record Date**	Note the cleaning date. Residential tanks should be cleaned every **6-12 months**.

🛑 Critical Safety Reminders

1. **NEVER Work Alone:** Always have a spotter/assistant outside the tank access point who can monitor your well-being and pull you out using the rescue rope in case of emergency. **Confined Space Entry is dangerous.**
2. **Ventilation is Key:** Ensure the tank lid is open for at least **30 minutes before entry**. Use a small fan to blow fresh air inside if possible to prevent a buildup of chemical fumes or low oxygen.
3. **No Mixing: NEVER** mix chlorine (bleach) with any acidic cleaner (like vinegar, toilet cleaner, or descaler). This generates highly **toxic Chlorine Gas** which can be fatal.
4. **Avoid Scratches:** Do not use metallic brushes or abrasive tools on the plastic surface. Scratches create grooves where bacteria and algae thrive, accelerating future contamination.
5. **Secure Power:** Always turn off the main water inlet and the electrical power to the pump before cleaning.

2. How to Clean Your Plastic Water Tank Safely (DIY)

1. **Preparation (Phase 1):** Gather all **PPE, Tools, and Agents**. **Turn off the water supply and pump power**. Drain the tank, leaving only the bottom 6-12 inches of sludge/water. Ventilate the tank.
2. **Sludge Removal & Initial Scrub (Phase 2):** Put on **all mandatory PPE**. Have your spotter secure the rope. Carefully enter the tank.
    - Use the scoop and buckets to remove the bulk of the sludge and sediment.
    - Apply a mild detergent solution (or baking soda paste) to the walls.
    - Use the **non-metallic scrub brush** to vigorously scrub the walls, roof, and floor, dislodging algae and slime.
3. **Rinsing (Phase 2):** Use the hose to rinse the scrubbing solution and debris towards the outlet. Use the pump/wet vacuum to remove all residual water and silt. **Repeat rinsing until the water runs clear.**
4. **Disinfection (Phase 3):** Prepare the disinfection solution: **50 ml of household bleach per 1,000L of tank capacity**.
    - Apply this solution to all interior surfaces or refill the tank with this solution.
    - Allow the solution to sit for **4 to 6 hours**.
5. **Final Rinsing (Phase 3):** Drain the disinfectant solution completely. **Refill the tank with clean water and drain it again.** Repeat this final rinse 2-3 times to ensure no chlorine residue remains.
6. **Recommissioning (Phase 3):** Seal the tank lid tightly, turn the water inlet back on, and restore power to the pump.

🚫 When to Skip the DIY and Call for Professional Water Tank Cleaning Services

You should immediately abandon the DIY attempt and contact a professional service when any of the following conditions are met:

1. **Tank Depth is Excessive:** The tank is underground or is so deep (generally **over 1.5 meters**) that it requires specialized confined space entry and retrieval gear.
2. **Visible Biohazard:** You observe **dead animals** (birds, rodents, lizards) floating in the water or discover a thick, noxious layer of sludge that indicates severe biological contamination.
3. **Contamination or Illness:** The water has a **severe foul odour** (rotten eggs/sewage), unusual colour, or if there are unexplained, recurring **stomach illnesses** or rashes in the household.
4. **Structural Integrity:** You find **large cracks, severe rust, or holes** during the cleaning process that require immediate repair or welding.
5. **Commercial/Industrial Use:** The tank supplies a business, school, hospital, or any large multi-unit residential property, which often requires **certified cleaning protocols and documentation.**