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Seeing environmental AMR: evidence, surveillance & research



Youth-Led AMR Surveillance & Water Point Protection in Ateker Pastoralist Borderlands

Presenter: Ekaale Epakan | Borderlands Pastoralists Network | Location: Borderlands of Turkana (Kenya)- Karamoja (Uganda) - Kapoeta (South Sudan)

1. INTRODUCTION (Context & Problem)

- Shared water points (lagas & pans) in Ateker borderlands serve as critical convergence nodes for humans, livestock, and wildlife.
- Sparse healthcare, diagnostic gaps, and absent waste management lead to direct antibiotic and chemical runoff into surface water.
- Mobilized Indigenous pastoralist youth to bridge UNEA Resolution 7/11 with frontline environmental action.

BADGE: 15 HOTSPOTS GEOTAGGED

Mobile GPS data collected at borders of Turkana - Karamoja & Kapoeta migration corridors via KoBo Collect



Photo 1: water pan convergence

3. LINK TO ENVIRONMENTAL AMR SOLUTIONS

- Targeted Contamination Interruption: Halts active buildup of antibiotic residues in shared surface water reservoirs.
- Evidence-Based One Health Policy: Fed community surveillance data directly into county budget dialogues to fund rural waste systems.
- Behavioral Transition: Transformed 5 livestock crush centers from open dumping to structured containment.

2. MATERIALS & METHODS (What Has Been Done)

- Deployed mobile digital mapping (KoBo Collect & ODK) with 50 trained youth monitors across transhumance corridors.
- Constructed physical non-chemical buffer zones and cleared invasive Prosopis juliflora thickets around 10 primary water pans.
- Installed structured waste disposal pits at 5 high-traffic livestock crush sites to eliminate open drug dumping.

BADGE: 3,000+ HOUSEHOLDS PROTECTED

Zero-chemical physical barriers & buffer zones preventing livestock dip runoff into shallow wells



PHOTO 2: Riverbed water Extraction.

4. DEMONSTRATED IMPACT & CONCLUSIONS

- Secured clean surface water access for 3,000+ pastoralist households across cross-border grazing corridors.
- Established an operational digital surveillance network of 50 trained pastoralist youth champions.
- Integrated youth monitors into village water management committees for long-term community ownership.

GLOBAL POLICY ALIGNMENT: Translating UNEA Resolution 7/11 (Environmental Dimensions of Antimicrobial Resistance) into frontline Indigenous pastoralist action & community-led rangeland stewardship in Ateker borderlands.