

Flood Early Warning Saves Crops and Lives in Kenya

How IoT sensors and SMS alerts helped a community evacuate before flash floods hit farmlands

Flooding has become one of the most damaging climate threats in Kenya, often striking with little warning. Eco Metering Africa's flood early warning systems are helping vulnerable communities stay ahead of danger through real-time monitoring and fast communication.

In one flood-prone area, IoT water-level sensors installed along rivers and drainage channels detected a rapid rise in water levels after heavy upstream rainfall. The system automatically sent SMS alerts to households, local leaders, and community disaster teams. Within minutes, families evacuated to higher ground and farmers moved livestock and equipment to safe areas.

Hours later, flash floods swept through the fields and homesteads, but no lives were lost. Damage was significantly lower, and the community credited the early alerts for preventing what could have been a major tragedy.

The system works by collecting continuous data on rainfall, river levels, soil saturation, and flow rates. AI models predict potential overflow, while dashboards help county teams coordinate response efforts. The approach is simple, affordable, and effective even in remote rural settings.

Eco Metering Africa is working with county governments and local partners to expand these solutions to more communities. The goal is to protect lives, safeguard farms, and help Kenya adapt to more frequent climate-driven disasters.