

# FIELD NOTES



# 2025

# Mokwa Flood

Numbers, Insights and Impact...

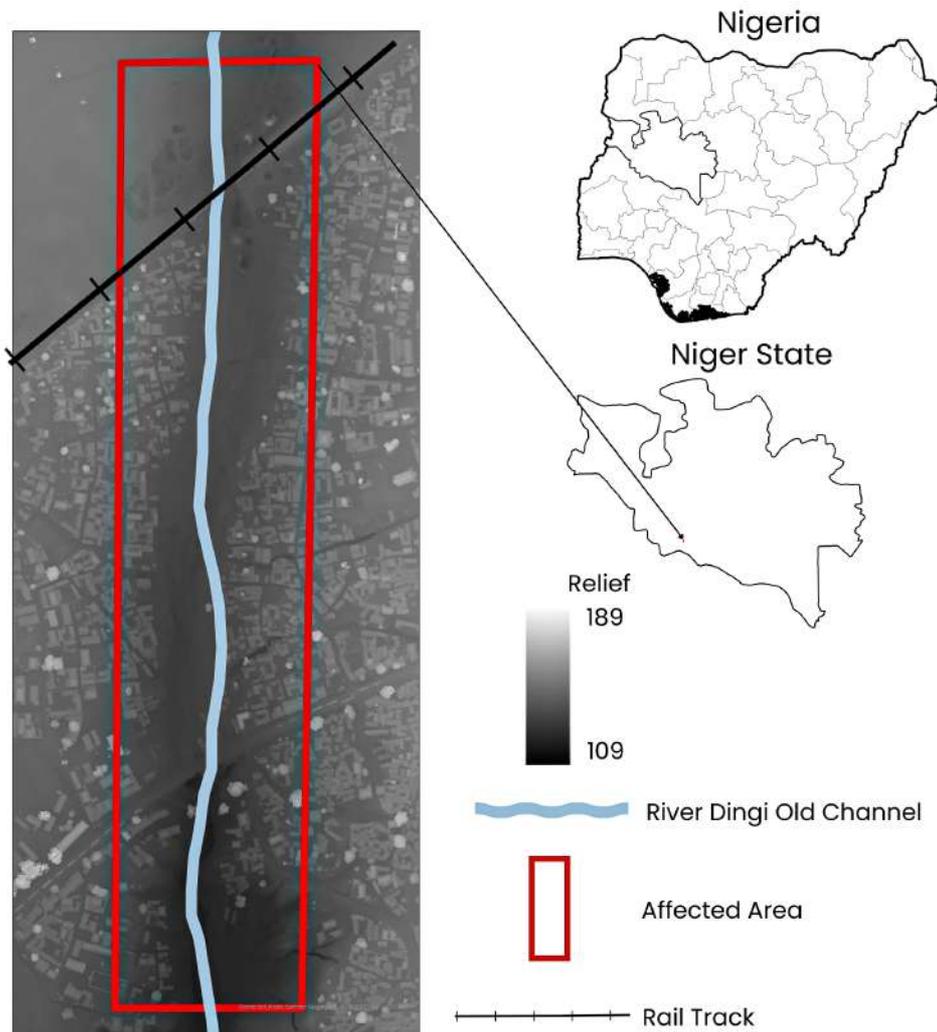


**Quintessence  
Environmental  
Consult**

People. Environment. Development.

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## Geographic Settings of the Affected Area

- The affected area sits on a low-lying floodplain, between River Niger (to the south) and River Dingi's old channel (to the north).
- Field observations show flat terrain with poor natural drainage.

# The Failed Embankment



Built in 1898, the embankment that supported the railway was never meant to hold back water—it was just earth and stone straddling a natural drainage channel. Culverts installed decades later gave the water a path through. But residents blocked these culverts to claim land and build houses along the old channel.

What should have flowed freely became a trapped pool on the other side of the embankment. Over the years, this makeshift reservoir saturated the unfortified earthwork until the soil could no longer hold. When it gave way, the water took everything with it. Many lives were lost—not to nature, but to the weight of accumulated choices.



# Before & After



Before Flooding



After Flooding

Remote sensing data and field evidence confirm that the 2025 Mokwa flood followed the course of river dingi.



# Counting The Cost



**3**

**MAJOR INFRASTRUCTURE DESTROYED  
INCLUDING A SCHOOL, RAILWAY  
EMBANKMENT AND MAJOR CULVERT**



**150+**

**HOMES DESTROYED ESTIMATED AT  
OVER 450 MILLION NAIRA**



**3000+**

**PERSONS DISPLACED (NIGER STATE  
EMERGENCY MANAGEMENT AGENCY)**



# Call to Action



## Enforce Construction Codes

The government should legislate a requirement for concrete cores or reinforced retaining walls in all railway and road embankments that intersect natural drainage paths.



## Enforce "Right-of-Way" Drainage Laws

Strict enforcement of the Land Use Act and flood zoning to prevent the illegal reclamation of historic river channels.



## Flood Early Warning Systems

Disaster early warning systems should be operationalized and mandated for all sub-national emergency management agencies



## Continuous Advocacy

Continuous advocacy to communities living in disaster risk zones should be maintained to foster civic action and cooperation with regulatory authorities to mitigate the impact of disasters.



# Photo Gallery



1. Quintessence Engineer at Ground Zero of the Flood Incidence



2. Coordinating operations on site with Lead Engineering Consultant



3. Photo-op with resilient Red-Cross Team



4. Setting up RTK Module for Aerial Mapping of Flood Site

# About Us

Quintessence Environmental Consult tackles the defining environmental challenges of our time.

From climate adaptation and pollution mitigation to ecosystem restoration, we provide the expertise needed to navigate a world in transformation.

