

# ALX Smart Drainage Solution



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**PROBLEM:** Insufficient drainage systems result in severe flooding during heavy rainfall or storms, causing extensive damage to roads, buildings, and infrastructure.

**GCGO: Infrastructure.**

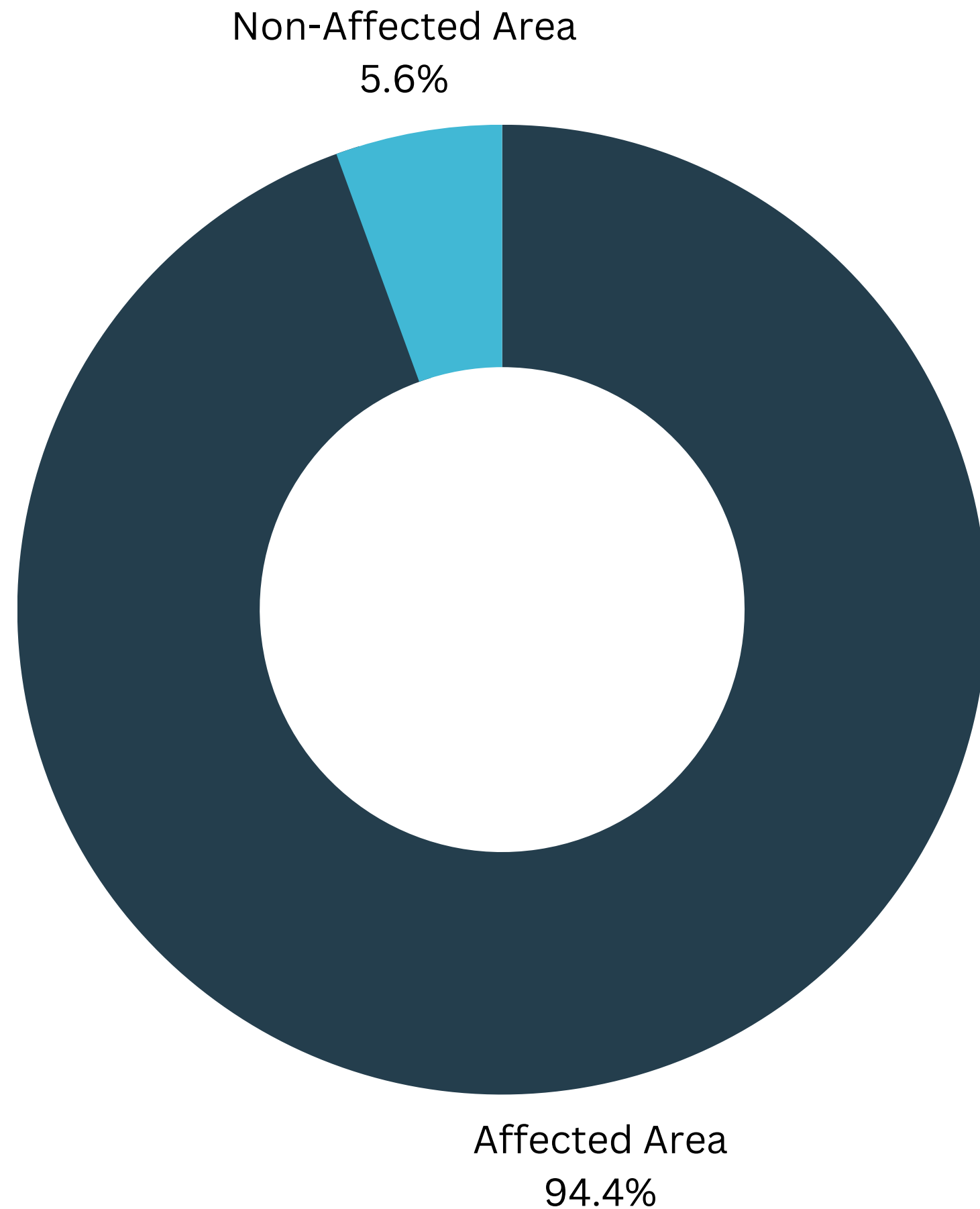
**WHY**

Insufficient drainage systems are significant because they result in substantial economic loss, damage to critical infrastructure and pose a risk to human lives.



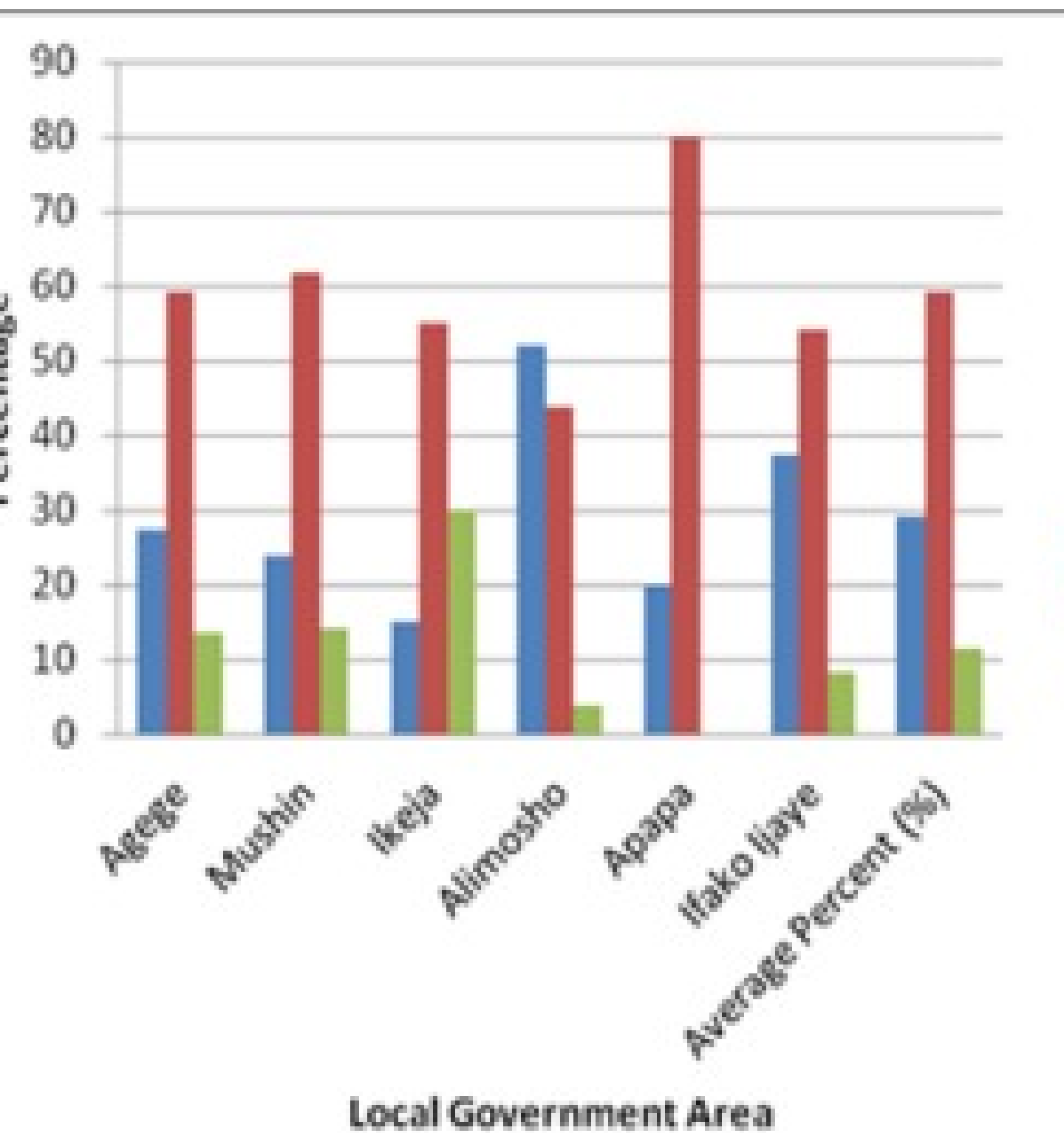
# Affected person/group

Insufficient drainage systems directly impact Mr. Chukwudi Nwosu, a 42-year-old business owner, as his goods get damaged during floods, leading to substantial financial losses and hampering the progress of his business.



**34 out of 36 states in Nigeria  
experiences flooding**

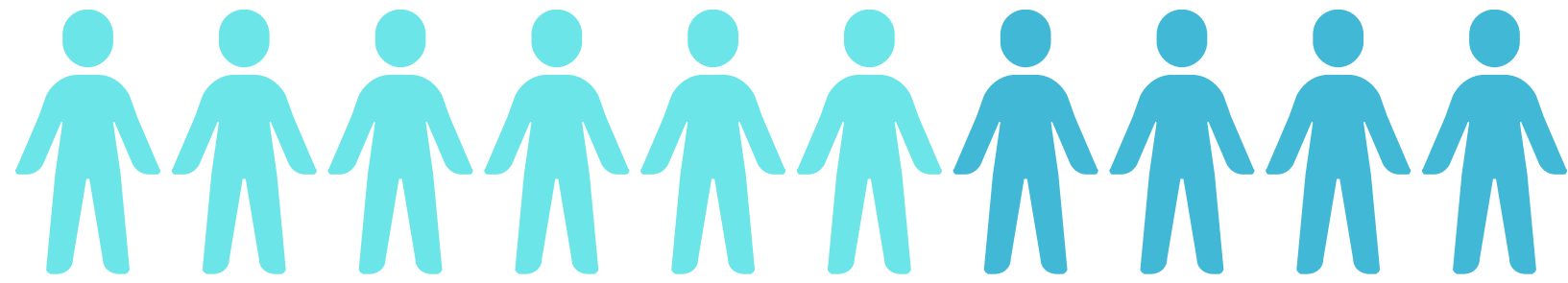
UNICEF



Poorly constructed Drainage  
Abuse of drainage systems

are the leading causes of flooding

International Journal of Emerging  
technology and Advanced  
engineering



1.4m displaced

603 Deaths

2,400 + injured



82,035 houses damaged,  
and 332,327 hectares of land affected

## Solution

THE PROPOSED DRAINAGE SOLUTION UTILIZES AI, CLOUD COMPUTING, AND IOT TO PRIORITIZE AREAS FOR INFRASTRUCTURE INTERVENTION, MANAGE DRAINAGE SYSTEMS, ALLOCATE RESOURCES, AND OBTAIN REAL-TIME DATA THROUGH MAPPING TICKETS.

## Reason for Choosing the Solution:

- ENGAGES END USERS,
- PROVIDE TIMELY DATA-DRIVEN INSIGHTS,
- FACILITATE PROACTIVE MAINTENANCE,
- MANAGE FINANCES AND ALLOCATION

## & Likely Effectiveness of the Solution:

- Cost effective
- mid-level of tech know how
- ability to save lives and properties







https://alxnigeriasmartdrainagesolutions.com



find a solution

# WELCOME TO THE ALX NIGERIA SMART DRAINAGE SOLUTIONS

*The first of its kind drainage planning and maintenance system in Nigeria*

No. of Drainage issue Solved  
No. of Drainage issue working on  
No. of issues pending

[CLICK HERE TO SEE ISSUE STATUS](#)

ADMINISTRATIVE



[CLICK HERE TO ACCESS ADMIN VIEW](#)

REPORT FLOODING AND  
FAULTY DRAINAGE

[CLICK HERE TO SUBMIT A REPORT](#)



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## REPORT AND SITUATION AWARENESS

*Raise complaints and help give feedback on the drainage  
around you for our team to work on*

### LOCATION

🔍 Select state

🔍 L.G.A

🔍 Area/Region

### IMAGES\*

Drag and drop files, paste screenshots, or browse

Browse



### COMMENTS

Add text

### PLAUSIBLE CAUSES

### CAUSALITIES

☐ YES

☐ NO

☐ Add text

### CONTACT PERSON

+234

Redo

*By clicking submit, you consent  
to the use of data you provided*

SUBMIT



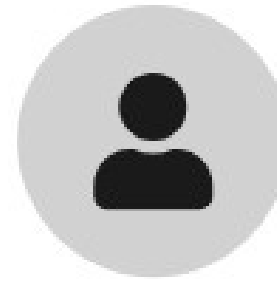
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ALX  
SMART  
DRAINAGE  
SOLUTIONS



*SIGN IN TO ACCESS ADMIN VIEW*

## ADMIN LOGIN



STAFF ID



EMAIL



PASSWORD

SIGN IN



back to landing page





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Welcome Staff xxxx

Access the ALX Smart Drainage Solutions Dashboard

Search

ANALYSIS



PRIORITY



MAINTENANCE & MANAGEMENT



FINANCING AND PLANING



## NOTIFICATION PANEL

Region

Time range

Projects



# Funding  
Budget allocation



# Blockage  
Detected at Costain Axix



# Drainage Online  
Lekki terminal online





# ANALYSIS

*predict, compute and react using AI. Compute and Cloud computing*



**AI analysis**

Secondary text



**Historical data**

Secondary text



**Real-time data**

Secondary text



**Climate change and se...**

Secondary text



**Floodplain mapping an...**

Secondary text

Intellectual  
property of  
Drainage guys  
2023. All rights



# USERS NEEDS & PAINPOINTS

1. Lack of real time update on submission issues.



2. Absence of help or support feature or an FAQ tab

3. The maintenance and management frame needs to be friendly.

# RECOMMENDATIONS

We plan to take action and implement a status update via email or SMS notification

we plan to take action and create such a provision of a chatbot or customer support

we plan to add more details on the maintenance and management tab.

# FUNDING



## USD 500,000

- train our AI model accurately,
- conduct research and create databases where non-existent.
- Train staff on the use of the product and embark on campaigns to familiarise the public with the reporting feature of the app

# RESTATING THE "WHY"

Insufficient drainage systems are significant because they result in substantial economic loss, damage to critical infrastructure and pose a risk to human lives.

Our Solution uses existing technologies, manages and allocates scarce resources, engages end users, analyses and prioritizes infrastructural creation in areas of need thus curbing the destruction of properties, loss of lives and resulting economic loss