

# THE DEVASTATING EFFECT OF FLOODING IN NIGERIA

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## INTRODUCTION

- ▶ Nigeria is the most populous country in Africa with about 140 million people (2006 census figure)
- ▶ Nigeria is located between latitude 4° N to 14° N; and longitude 3° E to 15° E. It has a land extent of about 923,769 km<sup>2</sup>; a north-south length of about 1,450-km and a west-east breadth of about 800 km. It is a country with diverse biophysical characteristics ethnic nationalities, agro-ecological zones and socio-economy. The country has 36 states with 774 LGAs.



Map of Nigeria  
Showing the 36 States including the Federal Capital Territory.

## INTRODUCTION 2

- ▶ Nigeria's climate is characterized by strong latitudinal zones which become progressively drier as one moves northwards from the coast. Rainfall is the key climatic variable and there is a marked difference between wet and dry seasons in most areas. The annual rainfall total decreases from over 3,800 mm at Forcados on the coast to under 650 mm at Maiduguri in the extreme north-east of the country. The length of the rainy season also shows decrease from nearly 12 months in the south to less than 5 months in the north.
- ▶ Across the globe, floods have posed tremendous danger to people's lives and properties. Floods cause about one third of all deaths, one third of all injuries and one third of all damage from natural disasters (Askew, 1999).
- ▶ In Nigeria, the pattern is similar with the rest of world. Flooding in various parts of Nigeria have forced millions of people from their homes, destroyed businesses, polluted water resources and increased the risk of diseases

## MAJOR HAZARDS IN NIGERIA

- ▶ Flooding
- ▶ Erosion
- ▶ Land Degradation
- ▶ Deforestation
- ▶ Desertation
- ▶ Climatic Drought

## FLOODING IN NIGERIA

- ▶ Flooding occurs throughout Nigeria in following forms:
  - Coastal flooding
  - River flooding
  - Flash floods
  - Urban flooding
  - Dam burst levee failures
  - Dam spills.

## FLOODING IN NIGERIA 2

- ▶ Coastal Flooding: occurs in the low-lying belt of mangrove and fresh water swamps along the coast.
- ▶ River flooding: occurs in the flood plains of the larger rivers.
- ▶ Flash floods are associated with rivers in the inland areas where sudden heavy rains can change them into destructive torrents within a short period.
- ▶ Urban flooding occur in towns located on flat or low lying terrain especially where
  - little or no provision has been made for surface drainage
  - existing drainage has been blocked with municipal waste, refuse and eroded soil sediments.Extensive urban flooding is a phenomenon of every rainy season in some part of the country e.g. Lagos, Maiduguri, Aba, Warri, Benin and Ibadan.

## AREAS AFFECTED BY FLOODS

- ▶ KAGARA (SOKOTO STATE, NORTHERN NIGERIA)

This is a small village near Goronyo town in Sokoto State. The inhabitants of the village had had their village, all their homes, all their crops and all their storage of food completely destroyed. The reason for the flood was that people had opened the gates on the dam to release the pressure so that the dam didn't fail, but the spillway from the dam had completely failed and so the consequences of was that;

  - Tens of thousands of people were displaced
  - Roads, trees, buildings etc were submerged
  - Farmland in 11 local Government areas of the State were affected.
  - Reports put the death toll at 49, while about 50 villages were submerged and more than 130,000 people displaced.



Sokoto flood



Trees submerged

## AREAS AFFECTED BY FLOODS 2

### ▶ KOGI STATE

While Sokoto residents were still bemoaning their fate, the fury of flooding was spreading swiftly across other parts of the country.

In what seems like wildfire, Kogi State became the next casualty. About 90 communities were affected, and about 500,000 people were displaced. In some areas, only farmlands were affected while in others, both homes and farmlands were all swept away.



Kogi flood  
Flood in Panda



Kogi flood  
Houses submerged





Kogi flood



Farmlands submerged in Lokoja

### AREAS AFFECTED BY FLOODS 3

#### ▶ LAGOS STATE

For residents of Lagos and most Nigerian towns and villages, the rainy season is undoubtedly not the best time of the year.

This period comes with the perennial problems of flooding which leaves many homes swamped with the resultant loss of property and sometimes human lives. Property estimated at several millions of Naira was destroyed in many communities in the Ikorodu axis of the State.



Lagos Floods



Ajgunle –Ikorodu Express Road at Ajgunle



Lagos flood



Ajgunle-Ikorodu flood in Lagos.





## Floods



Even the chickens were not spared

### THE DEVASTATING EFFECTS OF FLOODS IN NIGERIA

S/NO	STATE	DISASTER	ASSOCIATED HAZARD	NO OF PEOPLE AFFECTED	DATE & YEAR
1	Abia	Rainstorm	Houses	500	July 2001
2	Adamawa	Flood	Houses & Farmlands destroyed	500	April 2001
3	Akwa - Ibom	Flood & Rainstorm	367 houses washed away	4000	March 2001
4	Bauchi	Flood	750 Houses washed away, Farmlands destroyed	Not available	August 1988
5	Bayelsa	Flood	Houses, Schools, Markets & Farmlands submerged	2/3 of the population	1999 & March 2001
6	Borno	Flood	Houses & Farmlands destroyed	Not available	August 1988, June/July 2001
7	Delta	Flood & Rainstorm	Houses, Schools, Markets & Farmlands submerged	Half of the population	1999, March/April 2001, March, 2009
8	Edo	Flood & Rainstorm	560 Houses destroyed	820	March 2001

## THE DEVASTATING EFFECTS OF FLOODS IN NIGERIA

S/NO	STATE	DISASTER	ASSOCIATED HAZARD	NO OF PEOPLE AFFECTED	DATE & YEAR
9	Ekiti	Flood & Rainstorm	Public Schools & 890 houses destroyed	2100	April 2001
10	Imo	Rain & Windstorm	1000 houses, 150 electric poles & 40,000 oil palm destroyed	Over 10,000 displaced	April 2001
11	Jigawa	Flood & Windstorm	Houses, farmlands & animals destroyed	35,500 displaced in 1988; 450,150 displaced in 2001, and 17,000 in 2010.	1988, March, April & August 2001, Sept. 2010
12	Kano	Flood & Windstorm	Schools, Houses, Farmlands & animals destroyed	300,000 displaced in 1988, 20,445 in 2001	1988, 2001
13	Kogi	Flood & Rainstorm	Houses, Schools & Farmland destroyed	1500 displaced in 2001, 500,000 displaced in 2010	March, May 2001, Sept. 2010
14	Lagos	Flood	Buildings collapsed, markets submerged, properties destroyed.	Over 1,000,000 affected	Early 1970's Till Date
15	Niger	Flood & Rainstorm	Houses, Schools, animals & farmland	200,000 displaced	1999 & 2000

## THE DEVASTATING EFFECTS OF FLOODS IN NIGERIA

S/NO	STATE	DISASTER	ASSOCIATED HAZARD	NO OF PEOPLE AFFECTED	DATE & YEAR
16	Ondo	Rainstorm	Houses & schools destroyed	800 affected	April 2001
17	Osun	Rainstorm	Houses & schools destroyed	1700 affected	April 2001
18	Oyo	Ogunpa Flood	500 Houses demolished, properties destroyed & bridges collapsed.	50,000 affected	1948, 1963, 1978, 1980, 1985, 1987 & 1990
19	Taraba	Flood	80 Houses totally swept off. 410 houses extensively destroyed	More than 50,000 displaced	August 2005
20	Sokoto	Flood, Fire, Windstorm	Houses & Farmlands destroyed	16,000 were affected in 2001, 130,000 in 2010	July 2001 / Sept. 2010
21	Yobe	Flood, Fire & Drought	Houses & Farmlands submerged, Houses razed, animals affected	100,000 affected	April & September, 2001
22	Zamfara	Flood	Building submerged, Farmlands destroyed, properties damaged	12,398 affected	July 2001

## BENEFITS OF FLOOD

- ▶ From the above table, it is obvious that irreparable havocs have been sustained by the citizen of Nigeria due to what has become perennial natural disasters in our cities.
- ▶ As many residents in Nigeria are displaced as a result of flooding, hunters, fishermen and hawkers are cashing in on the disaster to make money. The flood had a positive effect on their business.
- ▶ Hunters: they claim that their traps caught more animals than it used to. Reason was that animals chased by the floods, were relocating to dry land, all they need to do is to relocate their traps, and concentrate on the limited areas that had not been affected by the floods.
- ▶ Fishermen: they claim that they do not need to paddle their canoes to the far end of the river before cashing fishes. According to them, when the water level of a river increased more fishes tried to swim ashore. They said this natural phenomenon explained why fishes were always abundant during the rainy season.

## PREVENTIVE AND MITIGATING MEASURES

- ▶ As a responsible citizen,
  - Help in every way to construct drains and ditches or embankments, to protect buildings, constructions, utilities etc.
  - Never put refuse or solid materials in drains, and discourage others from doing so.
  - Always help to desilt or clean gutters or drains and encourage others to do the same.
  - Know that no amount of sympathy and relief can make up for the pain, grief and the losses you will suffer from flood disaster.
  - Educate yourself and others about floods, know the signals and behave as you are directed.
  - Don't remove plants or trees unnecessarily, help to replant burnt or cleared forests.

## PREVENTIVE AND MITIGATING MEASURES 2

### ▶ Measures to be taken by the State and Federal Government

Constantly monitor the risk of flooding; or find a means of measuring or checking water levels of rivers, streams and dams.

Set up effective information or warning systems and centers for the population, especially against dam burst.

Issue and strictly enforce regulations banning building and residing in flood prone zones or areas

Build and develop infrastructure which will prevent or limit floods and protect the population.

Systematically spill off water (after due warnings) to control the level of water in dams.

Identify cause and plan to prevent its recurrence

Check for related water – borne diseases and immunize residents or offer preventive and curative treatments if need be.

Desilt drains; or construct drains where needed.

Remove or demolish all structures obstructing drainage

Enact or enforce regulations, laws or bye laws to prevent/mitigate flooding in the area.

## CONCLUSION / RECOMMENDATION

- ▶ It is evident in the study that floods had forced millions of people from their homes while thousands of people lost their lives to flooding at different time and locations of the Federation.
- ▶ In conclusion, there is an urgent need for a collaborative effort of both government and stakeholders to support town planning, engineering and other professional agencies to combat flooding in Nigeria to avoid its long-range consequences. For every individual, develop your plot with deep or wide drainage system, and don't dump wastes in the waterways (it's perilous to you in your living domain. The media should also assist in educating the public on flood consequences.

“The environment remains our most valued possession and legacy which we must all strive to protect. Let us all join hands in protecting our common interest,”

Thank you