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The August 2011 Flood in Ibadan, Nigeria: Anthropogenic Causes and Consequences

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Abstract Determining when and where flood strikes can be a daunting task. Apart from heavy and prolonged rainfalls and river overflows, there are anthropogenic causal factors of flooding. These anthropogenic factors are significantly variable and exacerbate floods, but may be difficult to measure. This study aims to unravel some of the anthropogenic factors, particularly with respect to their contributions to the flood in Ibadan City on 26 August 2011. Data were collected through structured questionnaire and key informant interviews. The August 2011 Ibadan flood was perhaps the worst in the history of this ancient city. Twelve anthropogenic factors are broadly identified as having contributed to the flood and the flood had five major consequences. Some policy implications that can help prevent future flood occurrence are outlined.

Keywords floodplain management, Ibadan, Nigeria, urban flooding, waste management

1 Introduction

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Table 1. Rainfall induced floods in the city of Ibadan, Nigeria, between 1951 and 2011

Date	Rainfall (mm)	Estimated Damage to Properties (naira)	Estimated Loss of Lives

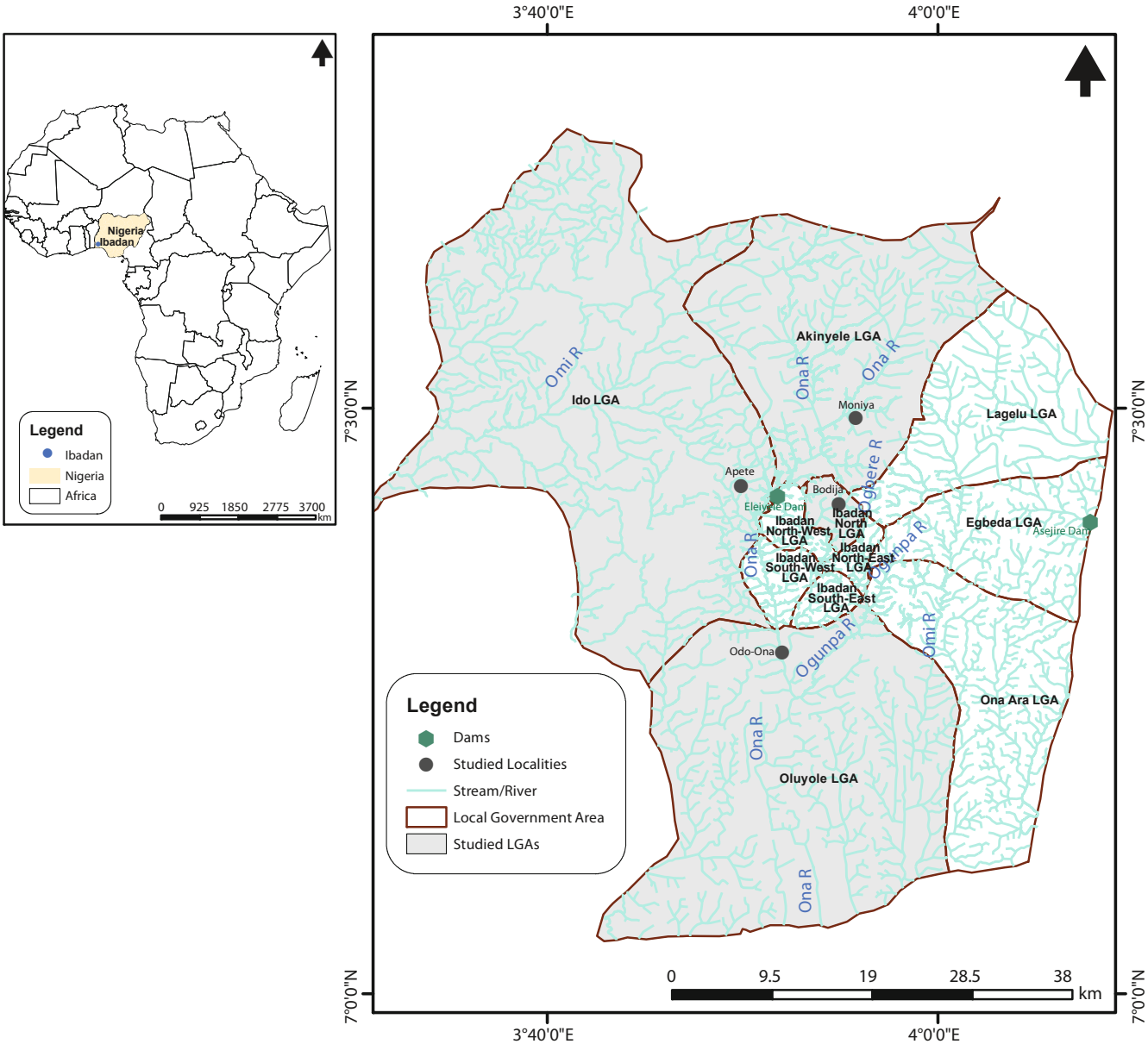

Figure 1. Map of the Ibadan metropolitan area, Nigeria, showing the studied localities
Source: Administrative map provided by the Office of Surveyor General, Oyo State, Nigeria, 2011; drainage network extracted from Google image; and contours derived from Shuttle Radar Topographical Mapping (SRTM) data.

4 Perceived Causes of the Flood

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Table 2. Perceived anthropogenic causes of the 26 August 2011 flood in Ibadan, Nigeria

Factors	Agree		Disagree		Don't Know	
	Count	Percent	Count	Percent	Count	Percent

Source: 2011 fieldwork by the authors; questionnaires administered to 600 respondents in Apete, Moniya, Bodija, and Odo-Ona in the Ibadan metropolitan area.

4.1 Hydrological Factors

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4.2 Waste Management Factor

4.3 Institutional Factors

Table 3. Approved setbacks for major rivers in the Ibadan metropolitan area, Nigeria

No.	River Name	Setback (m)

Source: Oyo State of Nigeria 2005.

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%) (%) (%) (

Igbo

Agala

) (

%) (%) ((*X* $P \leq$

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4.4 Awareness Factor

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5 Consequences of the 2011 Urban Flood in Ibadan City

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6 Conclusion: Policy Implications

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