

FLOOD CONTROL IN OWERRI METROPOLIS RECENT PROGRESS AND PROBLEMS
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ABSTRACT

The flood problems in Owerri Municipal requires both human and engineering solutions. In every rainfall event, large volumes of water is generated which covers the entire channels thereby rendering the structures incapable for the evacuation of the excess water. This paper identifies the recent progress made to check the menace of flood in Owerri urban and suggested other ways the floods can be controlled or eradicated.

Key words: Floods, channels, engineering solutions, rainfall event.

INTRODUCTION

Most of the African countries suffer devastating floods annually and this is accompanied with destruction of lives and property as well as farmlands. Floods that occur in this region of the world is due to the location of most of the African countries in tropics with attendant high temperatures and rainfall events. Flooding can also occur due to dam failures (Gambrel, 2010), river over flowing its banks (Njanji, 2010), Indiscriminate opening of the flood gates of dams (UNEP, 2008) which sent flood waters across croplands, pasture lands and settlements. It also tends to displace residents, destroy crops and thereafter food security (Mbeie, 1999). Similarly, heavy rains which occur in most countries in sub-Saharan Africa occur in the months of July, August and September leading to

flooding and loss of lives and extensive displacement of families across the region (Akaedu & Duru 2003). In Nigeria, the nine most seriously affected states were Lagos, Ogun, Plateau Nasarrawa, Bauchi, Sokoto and Yobe where most of the people lost their lives and more than 2,500 families displaced (Oyekola, 2010). The flood waters destroyed a number of homes, contaminated farmlands and crops and depleted livestock and other household assets. (Oyekola, (2010) reported that most of the flood victims are usually, sheltered in camps and other temporary site located in schools, mosques and other public buildings. Torrential remains curses flooding which forces the rivers to overflow their banks and dams to collapse hence villages and hamlets are submerged (Nwachukwu, 1999). Others causes include developmental activities (UNDP 1995), lack of investment in infrastural projects that can check excess water flow. Studies show that more than two billion people, representing one-third of the world's population, have been subjected to natural disasters to the last decade; with floods and drought accounting for 86 percent of all such catastrophes. According to (Nelson et al, 2010) although earthquakes, volcanic eruptions and landslides may be more dramatic with high toll on human lives, floods have longer testing and more for reaching effects on the health of ordinary people. Flooding in Owerri is as a result of intensive and prolonged rainfall event that occur during peak periods of the year.

Table I

Recent floods disaster in Imo State

S/No	Location	Local Government	Causes of flood	Effect
1.	Obeama	Ezinhitte Mbaise	Rain storms	Residential houses and farms submerged
2.	Egbu	Owerri North	Rain storms	Residential areas submerged
3.	Akwakuma	Owerri North	Rain storms	Residential & Commercial areas affected
4.	Nzerem	Ehime Mbano	Rain storms	Residential & farm lands submerged
5.	Onicha Uboma	Ihitte Uboma	Rain storm/ river overflow	Farm lands destroyed.

FLOOD PROBLEMS IN OWERRI METROPOLIS

Owerri municipal is centrally located in the south-eastern part of Nigeria. It is connected with five intercity roads viz Owerri-Orlu, Owerri-Okigwe, Owerri-Umuahia, Owerri-Aba and Owerri-Port Harcourt roads. These roads were constructed with channels at the sides and culverts in order to intercept and evacuate excess water during and after rainfall events. The channels collect the runoffs generated from the rainfall events and push the water to the centrally located underground sedimentation or holding tanks located along Wetheral, Douglas and Amakohia roads. The excess water collected is later moved into the Nworie river which serves as the most safest outlet. The water generated carry domestic waste materials, garbages and farm nutrients from the adjoining areas to the river thereby polluting the entire water courses (Onyekakeya, 2009, Duru et al 2003). Similarly, the channel network at Owerri is heavily silted and blocked with materials immediately after the rainfall events. The result is that the capacity of the channels is reduced hence the flood overflow the banks of the channel and reduce the volume of water heading towards Nworie river. The Owerri Metropolis is flooded after a heavy down power resulting traffic and vehicular movement problems, destruction of structures, loss of personal effects, pollution of the environment, increase in water borne disease and the spread of mosquito. Flooding is also encourage "whenever the urban garbage generated from homes are dumped in and around the city with the evacuation before an advent of rainfall (Onyekakeyan, 2009, Akaedu, et al 2004, Ekwonu, 1996;).

FLOOD IN OWERRI AND THE RECENT EFFORTS

There is recent efforts made by the government to control the flood problems at Owerri. One of the efforts include the desilting of the channels before the advent of the rainy season. Dislting of channels helps to create more spaces for water on the channel and increase the capacity for excess water evacuations. Government has banned the sale and use of satchet water which tends to block the drainage lives. Structures constructed along the drainage lines have all been removed to encourage a free-flow of water during the peak period of the rainy season. Finally, the current dredging of Nworie will provide an adequate capacity required for the surplus water since all the channels empty into the river.

THE WAY FORWARD:-

- (a) Government should flush out materials at all the sedimentation tanks located at specific points in Owerri metropolis. This will increase

the capacity of such tanks and provide space for excess water.

- (b) The size of the trapezoidal channels used should be increased in order to receive large volumes of water.
- (c) Indiscriminate erection of buildings/structures along the natural and artificial drainage lines should be discouraged.
- (d) The indiscriminate dumping of urban garbages or refuse in and around Owerri metropolis should be stopped rather specific dump sites should be provided.
- (e) Regular desilting of the existing drains and sedimentation tanks should be carryout regularly.
- (f) The ban on satchet water materials should continue as they tend to block the lines and do not decay easily.

CONCLUSION:

The flood problems in Owerri can be controlled if adequate maintenance of the existing structures are adhered to. The on-going dredging of Nworie river will provide the best natural outlet and space for the evacuation of the surplus water that do result from heavy rainfall events in Owerri.

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