Title: How Poor Town Planning Aggravates Bayelsa Flooding

Highlight: Unplanned Development, Lack of proper drainage system leads to flooding.

Location: Yenagoa and Environs.

GPS Coordinate: Elev 40m N04°56.241’ E006°19.120’ [around Otiotio Road], Elev: 16m N04°53.087’ E006°21.336’ [Imiringi/Elebele road bridge], Elev: 27m N04°54.463’ E006°21.366’ [Edepie/Imiringi road bridge], Elev: 4m N04°53.127’ E006°20.343’ [bridge along Elebele road], Elev: 9m N04°51.596’ E006°20.700’ [bridge in Elebele community], Elev: 8m N04°53.460’ E006°20.325’ [Bridge along AIT/Bayelsa palm road], Elev: 5m N04°53.948’ E006°18.268’ [Only bridge along Gen.Sani Abacha Road], Elev: 1m N04°54.000’ E006°18.365’ [Culvert far behind Bolex], Elev: 11m N04°55.667’ E006°19.276’ [Isaac Boro road culvert, close to Thermocool showroom Yenezua –Gene ], Elev: -4m N04°55.888’ E006°19.576’ [Yenezua Gene culvert but links to Biogbolo and effects Barracks and Ebis road, opposite investment house], Elev: -7m N04°55.953’ E006°19.654’ [Culvert Biogbolo at the right hand side of Kabowei Plaza], Elev: 10m N04°56.331’ E006°20.187’ [A blocked Culvert close to Opolo roundabout ,Opolo Yenagoa], Elev: 11m N04°55.243’ E006°20.328’ [Presently blocked at Kpansia 2, but ERA was told there was a bridge here in the past, along Opolo/Elebele Road].


Report by: Akpotu Monday Ziworitin and Alagoa Morris
INTRODUCTION

Bayelsa State presents one of the most deltaic scenarios in the Niger Delta in terms of geology or geography. There are no high grounds, which makes communities in the state susceptible to sea level rise and other Climate Change fallouts. It has a topography that is low-lying, with several natural water channels, swamps, creeks and rivers that empty into the Atlantic Ocean. Experts in the field of Survey have observed that the gradient of the environment remains the same even for distances running into kilometers. Experts document that some of the communities are below sea level, predisposing them to flooding whenever it rains.

The impacts of the floods in June 2017 necessitated a visit by ERA/FoEN field monitors to Epie/Atissa and communities around Yenagoa that suffer flooding as a result of physical structures conceived without Environmental Impact Assessment [EIA] or recourse to safety.

The ERA/FoEN team, while observing some natural water channels within the communities, documented the testimonies of the locals.

Excerts:

TESTIMONIES

Chief Ishie Wilcox, Immediate past paramount ruler of Opolo-Epie community

If you are heading towards Isaac Boro Road from Opolo junction (before you get to the former JTF Headquarters) there used to be a natural water channel there. That water channel used to take water away from this Opolo environment to Isidigita creek at Biogbolo and finally emptied into the Epie creek.

But today if you go through that environment and try to trace the original water course, you will see that everywhere blocked; buildings all around. So the water does not flow anymore.

When rain falls, the water will gather behind the former JTF quarters and spread to surrounding buildings; flooding the whole of Opolo 2 environment. That is the
main area in Opolo affected by the flood. That is because the Isidigita which used to take water away from the environment has been blocked. If you try to trace it you will see that water does not flow in it anymore; because of blockages

When asked as to what actually led to the first blockade of the Isidigita creek, he said:

Well, you see this road [pointing at the Opolo-Elebele Road] caused the first blockade when the government constructed it. The water channel came from the other side of Opolo, from Senator Emmanuel Paulker’s environment. When they constructed this road across, they failed to consider the fact that a culvert ought to be provided to take care of the natural water course. That led to the separation of the water channel, leading to flooding on both ways.

Drainages provided in the streets within the environment also flows toward this same natural water channel. But because the natural water path could no longer carry water away to the bigger channel at Biogbolo and empty into the Epie Creek; water remain stagnant here and hence, any additional volume from rain leads to flooding of the environment.

This is the area most affected in Opolo-Epie; the old settlement does not have much problem. In short, there is no flooding in most of the old settlement. Before the construction of Isaac Boro Road there used to be another creek that connected Opolo and Abeneghe creek at Okutukutu which also emptied into the Epie creek.

If you go and check the environment close to Udeme Hotel along Alamieyeseigha Road [at Opolo], you will still see a water path which looks like a drainage; it is the natural water channel I am talking about. It is because that Abeneghe creek is no longer flowing that is why the Commissioners quarter gets flooded whenever there is heavy rain. That was a natural creek, but has been blocked. It no longer funtions as it used to in the past. These are the two major creeks that I know has been blocked and causing flooding in Opolo
Madam Happiness Odigum, Indigene of Opolo-Epie

Initially when we built our house, there was nothing like flooding. That was in 2004. After that time, when an in-law of the then Governor [Chief DSP Alamieyeseigha] bought the land where the JTF Headquarters was and built houses there; problem started, as he blocked the natural water channel.

I personally had a quarrel with him then because of that act of his. I protested against the act because it was obvious it would lead to flooding in the environment. He referred to me as a small rat. I responded by saying that, yes he could call me a small rat, as I do not have money. But he who is a big man, will have his corpse buried in the atmosphere above; but I, the small rat would be buried in the ground. We had a tough quarrel that day.

Right from that time we have been experiencing flooding till now; when it rains water gets into our house and damage our property. For a real, lasting solution, government should consult those who have knowledge of how the environment was; those who knows the environment so as to properly inform government for necessary action.

Government should help us to open up the blocked places and allow water to flow freely in our environment. Even by the side of the road, there was provision for culvert but that one too has been blocked. That is why I suggested that government should look for those who know such things to guide them.

Blessing Francis, Indigene

Before the creation of Bayelsa State, we were not experiencing the type of flooding that we see these days. Before the state was created, we normally look unto the rainy season and related annual floods, but they never flooded our houses. Due to the increase in population and demand for land, even certain areas that people ought not to acquire and build houses; they began to sell/buy and build, even natural water channels.

The major canal we have in our community is called Obene, it linked us with Okutukutu, Elebele and Agbura river, but covered with grasses now. This canal
used to be free in those days and it was a communication route by canoe. Related to that is the unprecedented production of household waste; with no place to properly dispose them. Dumping of refuse in the natural water paths have also contributed greatly to this problem. I am a fisherman and farmer.

There are times when rowing on this canal, I come across heavy heaps of dead grasses that prevents thoroughfare. One has to battle the obstacle until he/she is able to get a narrow way to pass with canoe. While fresh grasses are growing on the surface the dead ones are under. Under such conditions; how can water flow freely?

Even when the government awards contract to clear the water courses; the contractors won’t do thorough job as some abandon the job half way. But before the creation of the state, we only had big trees on both sides of the canal as we make use of it and; it was far deeper than now. In those days, we used more of the creeks than roads; we were paddling from Azikoro to Swali and Ovom for market purposes.

That was how we were accessing parts of Ekeki and Okaka communities [using bicycle to get to areas where the canoe could not take us] before the state was created. So I plead with government and the entire people of Epie/Atissa; let us put heads together and find solution to this issue of perennial flooding. Identification of the natural water channels and freeing them of things causing blockage will help us a lot in this quest”.

Godson Jim-Dorgu

I did an internship in Yenagoa in 1993. I stayed with a friend then teaching in a secondary school where the Law school is located now. There was only one almost like a track road into Yenagoa then. About 75% of the houses were mud houses with thatch roofs.

The block houses were as low as the mud houses. No elevation. I mean high foundations. Incidentally it was during the rainy season but ironically there was no experience of flooding. I observed that there were natural canals and water channels criss-crossing the entire town.
All of these canals connected to bigger rivers and creeks. As soon as the rain is over, you won't find water except in lakes, ponds and hollows excavated by Man.

That was how nature controlled flooding in Yenagoa before its creation as headquarters of Bayelsa State. What went wrong? No urban and town planning. All the canals and channels have been blocked either by government or individuals. No drainage system. The existing canals are blocked with waste deposits due to the poor waste management of the state. People now live with reptiles such as snakes in their houses due to flooding.

The constructed roads, though poorly done but wears away to flood, septic tanks over flow into the water and people who have to swim through such floods had to do so and die of water borne diseases, mosquito breeding/malaria infestation and deaths all around coupled with the abject poverty people face, most farms are flooded before harvest time and farmers had to harvest premature crops, etc.

The flood is connected to the environment and the environment is our life. We will continue to suffer from it if immediate action is not taken to address it now. Government help us, communities help us, individuals help us; we all have a role to play. Do not block the canals.

Blessing Akpoebi Patrick, Resident of state capital

I started living here in the Otiotio road environment about 2015. Very recently we started experiencing flooding in our environment. However, from my investigation and interaction with those who were living here before us; I was made to understand that during the great floods of 2012; this environment did not experience anything like flood. To our greatest surprise we started experiencing flood recently because this place was closed [pointing at a drainage]. If you had come here about two weeks ago, here was so tight; the water was everywhere and neighbours waded through the water which got up to their knee level. But as on Monday, we saw the commissioners of environment and urban development/planning or so and some other persons here and work was done on the drainage. The rain which fell after that did not cause any flooding again.
There is need for town planners to prioritise effective drainage systems in Yenagoa and environs. I think if bigger and well maintained drainages are provided, we not experience anything like flood. I want to commend the government for what it has done, but a lot more still needs to be done.

If we have an effective drainage system in place, water channals would take water away from the city to nearby bigger creeks and river. More channels needs to be opened up. Due to the fact that Yenagoa was not properly planned, a lot of people have built on natural water channels.

Some of the streets and roads in Yenagoa do not have gutter. Gutters need to be provided for every street and such should be linked to bigger drainages for better and effective flow of water in the environment. And again, the gutters/drainages needs to be cleared weekly. Unfortunately, due to inadequate refuse receptacles in the city, some residents are in the negative habit of dumping household refuse into the drainages close to them. This should be discouraged. The Government should consult widely in an inclusive way with a view to getting this flooding issue solved holistically

Emma Eze, Indigene of Okaka Community

There is no doubt that the perennial flooding in Yenagoa is posing real threats to residents. That is one of the reasons we have several monkey bridges [improvised wooden walkway] within Yenagoa, even within the premises of the Nigerian Union of Journalists [NUJ] at Ekeki.

Many residents of Yenagoa can only access their homes through these monkey bridges owing to the flood or waterlogged environment. The reason is because we do not have well planned effective drainage system where water from any part would flow freely from smaller drains to larger ones that eventually sends water far away into the rivers or creeks.

I am aware of several natural water channels around the state capital and environs that have been blocked owing to developmental activities of government, companies and individuals. The construction of Isaac Boro Road, Opolo/Elebele Road also led to the blocking of some of the natural water channels and, even
when culverts are provided at some points along the roads, some individuals intentionally blocked the water courses.

Some of the blocked water channels used to be where our people used to paddle with canoe to farm and fishing in the swamps or other communities before the creation of Bayelsa State. Few days ago when we had a heavy rain, many residents were lamenting about how the flood which ensued impacted them.

It is gratifying to see that the government swung into action and cleared some of the water channels and; that has helped a lot, some sort of respite. I am optimistic that if the natural water channels are always free and we have more gutters constructed strategically to link them; the situation will change and we won’t be experiencing flooding as we have now and in the past years, unless exceptionally unexpected and unavoidable occurrence like that of 2012

**OBSERVATION/CONCLUSION**

While ERA/FoEN observed some very recent intervention by government in the field [clearing of some natural water channels] which is commendable, this could be seen as a cosmetic, first aid or fire brigade approach which cannot engender lasting solution.

What is actually required to bring about lasting solution is going back to the drawing board and coming up with implemenable design for an effective drainage system in Yenagoa and environs. This has to go beyond the annual ritual of First aid to real surgical operation after proper identification of all natural water channels, environmentally speaking. And, in getting this done in a holistic way, all critical stakeholders should be consulted; including Epie/Atissa communities and other professionals.

There is no dispute over the fact that flood could be as a result of natural phenomenon such as rain and, human activity have also played an active part in causing the floods or aggravating the impacts. Water, as the saying goes; finds its level and so, it can only flow from higher to lower levels in any environment.
ERA/FoEN’s investigation revealed that with proper planning and commitment by all stakeholders the issue of flooding in Yenagoa would become either a thing of the past or become drastically reduced to minimal levels. This would be realised if the government, corporate bodies and individuals imbide sound environmental culture and practice same.

Our observation from Igbogene to St.Peters down Town Yenagoa [along Chief Melford Okilo Road], showed there are about 10 bridges across natural water courses which empty into the Epie Creek. In addition to these are culverts serving same purpose. However, there are other natural water channels which are taking water in the opposite direction and, towards the Elebele Creek [meandering all the way to Otuoke and Ogbia Town] and that of Azikoro community [which empties into the Ekole River or Yenagoa River around Agbura community environment]. Some of these water courses are currently either blocked/obstructed by government during road construction or by corporate bodies and individual property developers; at the expense of the general public.

This is the case, even when culverts were provided in some cases to enable water flow across some sections of our major roads and streets, like Isaac Boro Road, Opolo/Elebele Road, Gen.Sani Abacha Road, etc, etc. In certain areas, private developers adjusted the size of the water courses, making them narrower and hence, reducing the volume of water passing that spot and speed. This action would inevitably cause the flow to be slower and lead to flooded areas retaining water longer than necessary. In some other places, the water courses are completely blocked, especially along Isaac Boro Road. And, it is pertinent to mention just three such examples.

At Okutukutu, along Isaac Boro Road, Timikon Liquified Petroleum Gas Plant built its factory on a water path for which culvert was originally provided, across the road. [on the left side if one is approaching Opolo Roundabout from Edepie axis]. On the same side of the road, but very close to Opolo Roundabout [at Opolo]; a new petrol station is being built and this structure also is on a water course for which Culvert was provided for. And, ERA was informed that an immediate past leader of Yenagoa local government area is the owner of the
petrol station. However, this person must have been encouraged because others have built on the same water course behind his property, earlier. That water course ought to link the environment where the old Commissioners quarter is situated.

Along the same Isaac Boro Road, the owner of Kabowei Plaza has also greatly reduced the natural water course which ought to take water across the road. Some of these private developers have gone ahead to do some civil engineering work and redesigned and reduced the width of the natural water courses; far smaller than what the Contractors who constructed the Road provided as Culvert. This should not be allowed.

ERA/FoEN also observed that enough consideration was not accorded the environment in terms of drainage in the construction and upgrade of the Opolo/Elebele Road by the State government. This was the case on the sections of the road between Chief Melford Okilo Road and Isaac Boro Road and beyond; towards Elebele. It is interesting to note that, besides the state government’s failure to carry out EIA in related projects; most of the culprits are Very Important Personalities [VIPs], some who have been in government, currently in government or have people in government.

Some of the natural water channels that are relatively free are not properly utilised and hence; even rain in June has led to serious flooding; causing panic, damage to property, discomfomfort and lamentation in Yenagoa.

Unfortunately, ERA/FoEN could not find any single signpost placed by government warning private and corporate developers not to encroach on any environment because such places are natural water paths or reserved for such purposes. Considering the uniqueness of the environment [being flat/low and deltaic]; drainage should have been a top priority in the government’s agenda - state and local. As the Oil companies marked out their pipeline Right of Way, the Bayelsa State Government should have done something similar to portray proper concerns and importance attached to the issue of effective drainage system. There are no signs that government has shown any significant interest in the natural water channels and to prepare them for maximum service delivery.
PICTURES OF ENVIRONMENTAL HOTSPOTS

Just cleared...a water course with houses bordering it

Blessing pointing at a polluted waterway
ERA/FoEN DEMANDS:

1. The Bayelsa State Government make EIA a MUST and top PRIORITY in developmental projects, especially construction of roads, housing estates, dredging, markets, etc.

2. The State Government collaborate with the Yenagoa LGA and critical stakeholders (including community folks) to take proper inventory of all natural water channels with a view to ensure residents and visitors benefit maximally from these natural endowments in the environment.

3. The State government build more drainages in Yenagoa, linking each with the other to form an effective drainage system. All roads, streets and estate drainage to take water away from the immediate environment to identified and intended destinations.

4. The State Government not only ensure the Epie Creek which runs through the entire length of Yenagoa is cleared of all debries, but also made deeper and
navigable along with the upgrade of other natural water channels and major drainages or trunk lines emptying into the Epie Creek.

5. The Government provide more refuse receptacles in neighbourhoods to prevent residents from emptying refuse into natural water channels. Also, efforts be made to regularly sensitize residents using the mass media about the negative environmental impacts of making water courses refuse dumps.

6. The Ministries of Environment, Survey and Urban Development be properly funded and equipped to meet statutory responsibilities.

7. Individuals/groups found guilty of obstructing natural water channels be penalised as a deterrent to others who may want to do same.