



IUFMP News

...say no to flood!



A Quarterly Newsletter of the Ibadan Urban Flood Management Project (IUFMP)

To Combat
Flooding...

Oyo Govt. Rehabilitates Eleyele Dam

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Brief On IBADAN URBAN FLOOD MANAGEMENT PROJECT (IUFMP)

The Ibadan Urban Flood Management Project (IUFMP) was set up by the Oyo State Government, with the funding support of the World Bank, in response to the devastating flood of 26th August, 2011 which claimed about 200 lives and destroyed properties valued at tens of billions of Naira.

This initiative of the Oyo State Government, under its Executive Governor, Senator Abiola Ajimobi, was borne out of the fact that Ibadan has witnessed several disastrous flooding incidents since 1933, with successive governments engaging in measures which turned out to be more palliative than curative. It was in view of this that the IUFMP mandate was aimed at providing fundamental and far-reaching solutions to the perennial and incessant flooding that has become characteristic of Ibadan.

With its broad-based Project Development Objectives couched as

“ to improve the capacity of Oyo State to effectively manage flood risk in the city of Ibadan ”

the IUFMP mandate covers

primarily, reconstruction of hydraulic devices (bridges, culverts, etc) that were destroyed by the 2011 flood incident, as well as a number of related issues which impact adversely on the predisposition of Ibadan to flooding. Such issues include the need to design a workable Solid Waste Management Masterplan, the imperative of a Flood Risk Management and Drainage Masterplan, and the essentiality of a comprehensive Ibadan City Masterplan. All of these are geared towards relieving Ibadan of the menace of incessant flooding and upgrading the city to its deserved status of a 21st Century mega city.

By its design, there are three (3) major components of the IUFMP mandate, which are:

- ◎ **Component 1:** Flood Risk Identification, Planning and Preparedness.
- ◎ **Component 2:** Flood Risk Reduction.
- ◎ **Component 3:** Project Administration.

Each of the above 3 components has its implementational sub-components.

Therein lies the mandate of the IUFMP; and it is gratifying that the task is already being faithfully accomplished.



Newly reconstructed Ola-Adua Culvert and Road, in Ido LGA

Oyo Govt./IUFMP Flags Off Eleyele Dam Rehabilitation

The Oyo State Government of Senator Abiola Ajimobi has flagged off the major rehabilitation of Eleyele Dam, located in the heart of Ibadan.

Built in 1942, the dam was designed for the dual purposes of:

- i. supplying raw water to the Eleyele Waterworks, which in turn supplies treated water for the city of Ibadan,
- ii. helping flood control during high-flow periods through its reservoir's holding capacity.

Speaking at the flag-off ceremony, the Executive Governor of Oyo State, Senator Abiola Ajimobi, who was represented by the Oyo State Honourable Commissioner for Environment and Water Resources, Chief Isaac Ishola, explained that the legendary dam had earlier been hit by devastating flood incidents in 1963 and 1980, before the one of 2011 which happened at the onset of his tenure. He, however, maintained that his administration was propelled by the determination to find a lasting and sustainable

solution to the challenge of perennial flooding in Ibadan.

Governor Ajimobi recounted the many benefits of rehabilitating the Eleyele Dam, among which was the need to improve the dam's capacity to hold more water and prevent flooding. He attributed the importance of this to the fact that the dam is now located upstream of some densely populated and fully developed parts of the

property such an incident can cause. ”

Earlier, the Oyo State Honourable Commissioner for Finance & Budget, Mr. Abimbola Adekanmbi, in his Welcome Address, had also attributed the headway made on the task to what he called “large-hearted, courageous, committed and people-oriented governance”, which is enabled by the foresighted and purposeful leadership of



The Oyo State Commissioner for Environment & Water Resources, Chief Isaac Ishola (Right) handing over the Eleyele Dam Site to the representative of the contractors, Messrs CGC-CHWE JV, Mr. Lee (Left). With them are the Permanent Secretary of the Ministry, Mr. Gabriel Oguntola and the IUFMP Project Coordinator, Mr. Dayo Ayorinde.

city, adding that “ a responsible and responsive government would, therefore, see every reason to have the dam in good shape, with a view to preventing dam failure or overflow, thereby averting the colossal loss of lives and

Senator Ajimobi. He also solicited the cooperation and understanding of all stakeholders to ensure a hitch-free execution of the project.

Also, the representative of Messrs Tractabel, the Supervising Consultants on the Eleyele Dam rehabilitation

works, Engr. Akintewe recounted the arduous challenges encountered in the process of arriving at the best rehabilitation model for the dam. Among others, he pinpointed the absence of records, because the dam was built by the Colonial Government under what was then known as the Public Works Department (PWD). He saluted the can-do spirit of the Oyo State Governor, Senator Ajimobi, which was a singular motivation for the team of engineers and consultants to find a bespoke engineering solution to the challenge.

The highlights of the rehabilitation works of Eleyele Dam are

- ◎ The Dam Embankment crest will be raised from the existing height of 183.6m to 185.5m (1.8m higher).
- ◎ Erection of 1.0m high concrete Parapet Wall on the embankment to prevent waves from overtopping the embankment.
- ◎ Increase the discharge capacity of the Spillway from 367.9m³/s to 1269m³/s.
- ◎ Increase the width of the Spillway channel to enhance its discharge capacity.
- ◎ Rehabilitation of Intake Tower in order to fully restore its capacity to supply raw water from the reservoir to the treatment plant.
- ◎ Replacement of all

hydro-mechanical equipment (pipes, valves) inside the intake tower.

- ◎ Rehabilitation of the Scour Tunnel so that it can freely discharge water through the Scour Channel back to the spillway return channel.
- ◎ Improvement of access road within the Waterworks premises.

The rehabilitation work is expected to last a period of two (2) years.

TEN (10) FACTS YOU MUST KNOW ABOUT ELEYELE DAM

1. Eleyele Dam is an earth dam.
2. The dam was constructed in 1942 by what was then called Public Works Department of the Colonial Government.
3. That means the dam is in its 76th year of existence!
4. The capacity of the dam is 7 million cubic meters.

5. Eleyele Dam is on River Ona, a river that traverses the city of Ibadan.

6. One of the major reasons for constructing the dam was to supply raw water for treatment at the Eleyele Waterworks for the city of Ibadan.

7. Another reason was for flood control during high flow period in order to safeguard lives and property downstream of the dam.

8. Over the years, the dam has become heavily silted as a result of urbanization and encroachment of the flood plain at the upstream side of the reservoir.

9. The current rehabilitation works will help desilt the floor of the dam and improve its capacity for water supply and flood control.

10. The works will last 24 months i.e. 2 years.



Officials of World Bank, IUFMP, IAG Members, Contractors & External Consultants @ Eleyele Dam



UI M.Sc. Geography Students, Faculty Visit IUFMP

Thursday 8th February, 2018 was a fulfilling day for the Faculty and Masters Degree Students of the Department of Geography, University of Ibadan. And this was because the day afforded them the opportunity of visiting the Ibadan Urban Flood Management Project (IUFMP) for a first-hand experience of how it (IUFMP) is handling the mandate of controlling the perennial Ibadan flood and the attendant risks.

According to the 7-man team made up of two Lecturers and five Masters Students, the visit was a part requirement for one of their courses titled River Basin Studies. It was, therefore, a field studies/learning experience for them, as a back-up to their classroom learning.

While welcoming them, the Project Coordinator of IUFMP, Mr. Dayo Ayorinde, gave a historical rundown of the Project. He emphasized the fact that requisite masterplans are being developed

to guide the entire process, as well as the importance of the Early Warning Signs system, concluding that it was all in an attempt to holistically address the menace of flooding in Ibadan.

Thereafter, the Project's Hydraulic Engineer, Engr. Stephen Adeniji, made a presentation to the visitors on the topic, River Basins and Flood Management, with highlights covering river basins in Nigeria, purposes of river basins, the hydrological basins of Nigeria, a g e n c i e s responsible for b a s i n management, and was rounded off with slides on managing flood in Oyo State.

The visiting team, led by Dr. Olutoyin Fashae and Mr. Olusola Adeyemi, both lecturers in the department,

enthusiastically asked questions bordering on the kind of Early Warning Signs deployed by IUFMP in flooding situations, the issue of synergy among multi-lateral agencies, the challenges faced by IUFMP in controlling flood risks in Ibadan, and how the products of their department fit into the IUFMP operations. All the questions were convincingly answered by the IUFMP team of engineers and other operatives, and the visiting team departed in very high spirit.



IUFMP Staff in a Session with UI MSc. Geography Students & Faculty

IUFMP Tours IITA, Strikes New Partnership

In continuation of its giant strides towards fulfilling its Project development Objectives of **"improving the capacity of Oyo State to effectively manage flood risk in the city of Ibadan"**, the Ibadan Urban Flood Management Project (IUFMP) and officials of the World Bank recently embarked on a learning tour of the Dam of the International Institute of Tropical Agriculture (IITA) Ibadan.

The centre of attraction was the massive dam of the globally renowned institute, and the engagement centred on how the over 50-year-old dam has contributed to mitigating flooding in Ibadan and how it can be further leveraged, especially to curtail the downstream flooding on the corridors of the River Ona which feeds the dam.

Additionally, the IITA Dam was also fingered as a reference or model for institutional interventions

in the critical areas of attenuation, water supply and so on.

On the World Bank team that made the engagement were Salim Rouhana, Ivan Bruce, Toshiro Toshida, Robert Reid, Joseph Akpokodje, and Funke Olufon. The IUFMP team was led by the Project Coordinator, Mr. Dayo Ayorinde, while those on hand for IITA were Mrs. Hilde Koper-Limbourg, the institute's Deputy Director-General, Corporate Services, and Mr. Waheed Quader, the Head (Int.) FMS.

The entire team then

embarked on a perimeter touring of the IITA facility, criss-crossing its length and breadth, which afforded them an opportunity to view how the dammed body of water traverses the premises and how it is being utilized for water supply, irrigation and other utilities.

Also in attendance were officials of the relevant Ministries, Departments and Agencies (MDAs), the Independent Advisory Group (IAG) on the Project, as well as the external consultants on drainage masterplan and social & environmental sustainability.



Joint Session of IITA, World Bank and IUFMP Officials & Consultants

...STAGES 3-DAY MEDIA WORKSHOP

The Ibadan Urban Flood Management Project (IUFMP) recently held a 3-day workshop for journalists in Oyo State, emphasizing the crucial role of the media in mitigating flood risk in Ibadan.

The workshop, held at the Prince Ajibola Afonja Hall of Plaza De Haruna, Oyo Town, was targeted at empowering media participants on their roles in mitigating flood risks in Ibadan, including dissemination of information on early warning signs and educating the populace before disaster occurrence in Ibadan, the Oyo State capital.

According to IUFMP, **"the media has been identified as a major stakeholder in the all important mandate of curtailing the perennial incessant flooding for which Ibadan has become notorious and checkmating the attendant colossal loses of lives and properties".**

Also, the workshop among other objectives aims to forge a robust, mutually rewarding working relationship with the media and IUFMP and open the vista of participants to their invaluable roles in mitigating flood risks in Ibadan.

While declaring the workshop open, the Oyo State Commissioner for Information, Culture and Tourism, Mr Toye Arulogun advocated synergy as the only way to stir growth and development in the state, just as he acknowledged the need for governments at all levels and the media to always collaborate especially where the issue of mitigation of flood risk is involved.

Other resource persons who facilitated the workshop included Dr. Adeyinka Laninhun, a Senior Lecturer in Communication & Language Arts, University of Ibadan; Mr. Bolaji Oladepo, a veteran journalist from the Nigerian Television Authority (NTA) stable;

and Mr. Lekan Otufodunrin, Managing Editor (Online), The Nation Newspapers.

The workshop was made up of two days of lectures, group work, experience sharing, and questions & answers, while the third day was devoted strictly to visiting the completed and yet-to-be-executed IUFMP sites.

The participants, who were drawn from across the mainstream media of Prints, Radio and Television houses as well as the Online/Digital Media arm, testified to the robustness and usefulness of the workshop, not only to their ability to report flooding-related issues, but also to their general reportorial functions.



Group Photo of Participants kitted in IUFMP Colours



OYOWMA Unveils One House, One Waste Bin Policy

The Oyo State Government, acting through its Ministry of Environment & Water Resources, and the Oyo State Waste Management Authority (OYOWMA), has recently announced a new policy direction towards ensuring effective waste disposal in Ibadan and other major cities of the state.

Tagged One House, One Waste Bin, the new policy requires that every household or family unit in a house should have its own dedicated waste drum or dustbin, and should be registered with a government-accredited waste disposal contractor, who in turn, would be carting away the refuse on a regular basis, in line with the service contract, and would be discharging same at any of the four government-approved dumpsites at Aba-Eku,

Ajakanga, Awotan and Lapite, all in Ibadan.

While announcing the takeoff of the initiative at a Community Stakeholders Workshop which was held at the House of Chiefs located within the State Government Secretariat, the Honourable Commissioner for Environment & Water Resources, Chief Isaac Ishola, underscored the connection between poor waste disposal and a number of environmental problems like flooding, spread of diseases and infections, among others. He solicited the cooperation of all stakeholders to ensure all-round success of the initiative.

Other speakers at the workshop include the Project Coordinator of the Ibadan Urban Flood Management Project (IUFMP), Mr. Dayo Ayorinde.

IUFMP 4 PRIORITY SITES: A WONDER TO BEHOLD!

In an effort to eliminate or reduce the long term risk to human life and properties from flood hazards and their effects, IUFMP has been embarking on both Structural and Non-Structural measures of flood control management. Structural measures involve engineering approach to flood risk management,

while the Non-Structural measures include preparation of three (3) Masterplans (Ibadan City Masterplan, Integrated Flood Risk & Drainage Masterplan, and Solid Waste Management Masterplan); Flood Early Warning and Response System for Ibadan to improve flood forecasting to communities and government for prompt response; dredging of rivers and clearing of blocked drains to improve their capacity to channel rainwater runoff; and mounting of sensitization and

engagement campaigns aimed at disseminating flood-risk information and inculcating positive behavioural change as regards the human factors that predispose Ibadan to flooding.

Upon the assumption of its mandate, IUFMP's first major task was the reconstruction of what is tagged the Four (4) Priority Sites, which were 4 hydraulic structures that were damaged during the August 26, 2011 flooding. Details and pictorial depictions of the works are below:

Construction of 2 Cells Box Culvert with approach road at Shasa Osajin-Ido LGA



Before



After



Before



After

Construction of 3 Cells Box Culvert with approach road at Ola Adua, Apete, I do LGA



Before



After

Construction of 3 Cells Box Culvert with approach road at Cele-Rainbow, Oluoyole LGA



Before



After

Construction of 2-span Bridge of 15m each at Ogbere Pegba with approach road and side drain.





The Oyo State Governor, Senator Abiola Ajimobi, testing the structures at one of the sites



The Oyo State Governor, Senator Abiola Ajimobi, making comments at one of the sites



The Oyo State Governor, Senator Abiola Ajimobi, in a group photograph with school pupils during the inspection



Ivan Bruce, Dayo Ayorinde and some Independent Advisory Group (IAG) members at Eleyele Dam



Hon. Commissioner for Information, Culture and Tourism, Mr. Toye Arulogun addressing participants at the IUFMP Media Workshop



Children having fun with their MC at the IUFMP 2018 Children's Day Fiesta

SPEAKS



The Project Coordinator, Mr. Dayo Ayorinde, welcoming participants to the 2-day Community Stakeholders Workshop in Oyo Town



Oyo State Comm. for Environment & Water Resources, Chief Isaac Ishola (centre), Comm. for Finance & Budget, Mr. Abimbola Adekanmbi and other dignitaries at the Flag-Off Ceremony of Eleyele Dam Rehabilitation



Participants listening with rapt attention at the 2-day Community Stakeholders Workshop in Oyo Town



The Project Coordinator, Mr. Dayo Ayorinde, presenting compensation cheque to a Project-Affected Person from Alaro Poly in Ibadan



Beneficiaries of an Abbreviated Resettlement Action Plan (ARAP) program from Alaro Poly Area, Ibadan listening to debriefing from IUFMP officials



Participants at a Livelihood Restoration Workshop for Project-Affected Communities in Ibadan



THE MANDATE OF A FLOOD-FREE IBADAN

Ibadan, West Africa's largest metropolitan city, has witnessed massive flooding over the years, with the first officially recorded one being in 1951. Since then, there have been sporadic flooding incidents plaguing the sprawling city, leaving in its wake colossal tragic after-effects on lives and properties.

While there were more floods in the 1980s than in the preceding decades, the worst flooding episode was the one of 26th August, 2011 which destroyed most of the strategic, flood-bearing hydraulic structures in the ancient city, in addition to massive loss of human and animal lives. According to a report titled "**The August 2011 Flood in Ibadan, Nigeria: Anthropogenic Causes and Consequences**" by a team of experts retained by the Oyo State Government, it was stated that "*Despite the fact that the rainfall of 26 August 2011 was not the highest in the recorded history of the city, the monetary value of damages to property that resulted from the event were by far the highest.*"

This propelled the current Oyo State Government led by Senator Abiola Ajimobi, the Executive Governor of the state, to evolve far-reaching and enduring measures that would once and for all keep in check the perennial flooding that has become the lot of Ibadan.

Obviously goaded by the desire to make a difference, and much unlike the previous governments whose efforts towards checkmating the frequent menace had at best been mere palliative measures to contain flooding and redress damages done to people and infrastructure, the Ajimobi administration opted for a rather holistic approach.

Given the magnitude of the problem, the **Oyo State Government**, through the Federal Government of Nigeria, sought and got the assistance of the **World Bank** to bankroll a massive infrastructural redesign and reconstruction, whose thrust is to change the face of the architectural landscape of the historic city, while frontally addressing the perennial and seemingly intractable problem of flooding. This initiative and intervention gave birth to commencement of work on what is now known as the "**Four Priority Sites**" of Ogbere-Pegba, Cele Rainbow, Shasha-Osajin, and Ola-Adua areas, which were among the worst flood-hit areas over the years.

Acting through the **Ibadan Urban Flood Management Project (IUFMP)**, the Oyo State Government, initiated work on construction of massive hydraulic infrastructural facilities at the above-mentioned areas, whilst identifying other sites that are also notorious for heavy flooding

in Ibadan.

It is noteworthy that work on the afore-cited four sites has since been completed and awaiting formal commissioning by the state government; but more importantly, the structures are looking well primed to serve the city well in the task of flood control and channeling when the rains come later in the year.

Also gratifying is the fact that reconstruction work on the next round of hydraulic infrastructure is about to be commissioned. These next commitments include what is known as the "**Thirteen Priority Sites**" and the "**Rehabilitation of Eleyele Dam**", all of which strategically dot the arterial landscape of Ibadan and have direct bearing with the areas usually ravaged by flooding.

In the bid to address the menace of flooding holistically as earlier mentioned, development of masterplans on a number of related issues were added to the IUFMP mandate. These include the **Flood Risk Management and Drainage Masterplan**, which is intended to enhance the channelization of rainwater and flood across the length and breadth of the city, and the **Solid Waste Management Masterplan**, which is necessitated by the fact that Ibadan's incessant flooding has been largely attributable to anthropogenic, or man-made, factors, chief of which is

indiscriminate disposal of solid waste on drainage channels, waterways, flood paths and other such unauthorized places. The overarching one is the **Ibadan City Masterplan**, whose thrust is to evolve a sustainable, connected, resilient, enterprising, cultural, and green city. When fully implemented, this will play pivotal role in the whole process of upgrading Ibadan to its deserved status of a 21st Century mega city.

Added to the foregoing is the renewed vigour of the Oyo State Government to intensify implementation of the extant Town Planning laws, not only in Ibadan but also in other major cities and towns of the state. With this, those who, whether by decision or default, build on waterways and flood paths will have the government to contend with!

However, the critical role expected to be played by the generality of Ibadan residents in the drive to achieve the critical mandate cannot be underestimated. As alluded to earlier in the report of a study done on the 26th August, 2011 flooding incident, a number of man-made factors were fingered as the causative agents for the incessant Ibadan flooding. These would be analyzed in some details in the ensuing paragraphs.

Topmost amongst the factors or causative agents is the challenge of solid waste management in the metropolitan city of Ibadan. On account of its ever-growing population structure, Ibadan generates a massive volume of solid waste materials, which are expected to be ferried by the appointed waste disposal contractors assigned to the different parts of the city for discharge at the nearest of the four official dumpsites in Ibadan, at **Aba-Eku, Ajakanga, Awotan and Lapite**. However, obviously bolstered by a popular

but erroneous local Ibadan parlance which transliterates thus *"It is inconceivable to spend money to buy corn pap and still spend money to dispose of the leafy wraps"*, some sizeable fractions of the city populace are still acting in contravention. This is a most anachronistic philosophy for dwellers of a 21st Century megacity! It bespeaks of hardcore, stick-in-the-mud beliefs and habits that need to change, and very urgently too! One cannot over-emphasize the import of imbibing the right attitude to waste disposal and management. At a recent stakeholders' engagement forum organized by the Oyo State Waste Management Agency (OYOWMA), a top executive of the outfit, submitted that out of the total waste generated by the over six hundred and fifty thousand (650,000) households in the urbanized parts of Ibadan, only 35% are properly disposed at the above-listed official dumpsites! The rest end up at wrong locations, which ultimately become blockages of water channels and flood paths. It is in view of this that the state government, through the Ministry of Environment and Water Resources recently came up with the **'One House, One Waste Bin'** campaign, which is aimed at significantly raising the volume of wastes that are appropriately disposed.

A twin-factor to the waste disposal menace is the

challenge of outright or partial disregard of the Oyo State Environmental and Town Planning Laws, especially as concerns building around rivers, waterways, flood paths and drainage channels. In contravention of extant laws on this, people willfully acquire lands and build at inappropriate places, which stand in the way of flood water when the rains come. With renewed vigour, the Oyo State Government has re-committed to averting building at such unauthorized places and pulling down existing ones. This is also along the line of ensuring a well-drained city, where river and flood water runs its course unhindered and without coming in the way of human activities and day-to-day living.

The surmising factor to changing the narrative about the perennial prevalence of flooding in Ibadan is positive change of behaviour. As aptly and succinctly captured by an expert recently, *"Infrastructure alone cannot solve the menace of flooding. We need positive change of behaviour."* This underscores the commitment of the government machinery to constant and regular engagement with the varying shades of stakeholders and community groupings on the all-important subject.

One may therefore safely conclude that, with all these commitments secured from all stakeholders, Ibadan might just be on its way to becoming a flood-free city.



Resolved to Resolve

(Stories of Resolved Complaints from IUFMP Project Sites)

Alhaji Adekola Adeyemo is a retired employee of the Oyo State Government who earns a living through sales of cement and other building materials. His medium-sized store is located in the Ogbere-Pegba community which received attention for the construction of a bridge as part of the four priority sites of the IUFMP. The prospects of improved sales for traders in the area was exciting and in addition, the firm handling the construction work needed accommodation for its staff and rented a flat belonging to Alhaji Adeyemo. Things were looking good!

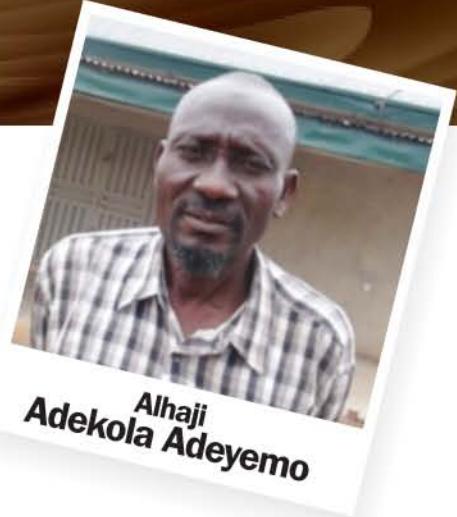
However, the situation became problematic in November 2017, a month after the contractor completed the project. Alhaji Adeyemo found out the contractor's staff using the flat had damaged some installations in the rented apartment. Fixing these items would cost him about N18,900 and no caution deposit was paid by the firm. He contacted the project manager but the outcome of their discussions was not satisfactory. He had very little options since the contractor had stopped work, so he approached the Social Safeguards unit of the IUFMP.

The project has an established Grievance Redress Mechanism which emphasizes amicable and

timely resolution of project-related complaints. Building on the principles of the mechanism, discussions were held with both parties.

The contractor's representative went ahead to ascertain the claims of Alhaji Adeyemo. He promptly submitted the quote he obtained from local building technicians. The contractor assessed the request and thereafter paid for the repairs. IUFMP acted as a mediator and if the matter had proved difficult to resolve, it would have been referred to the Oyo State Mediation Centre (OYMC), the government institution for alternative dispute resolution in Oyo State.

Just like in the case of Alhaji Adeyemo, several cases have been received and amicably resolved through the IUFMP grievance redress process. All project activities of the IUFMP are designed to "do good" to people. The grievance redress mechanism is a critical piece in ensuring the fulfillment of this commitment. Complaint boxes have been installed in all project communities and hotlines of the project's social and



community specialists are circulated at public consultation meetings. There is an active email address for registering grievances (complaints@ibadanflood.org) and more channels will be opened to enable people in project communities send their complaints. Resolving these issues begin with the people in many instances as IUFMP inaugurates project site Grievance Redress Committees (GRCs) to help people affected by project activities in having quick access to opportunities for timely handling and resolution of cases. This is the way IUFMP deals with complaints, and good stories abound from Alhaji Adeyemo and several people who ordinarily would have been voiceless and helpless.



A Resource Person addressing participants at a Livelihood Restoration Workshop for Project-Affected Communities in Ibadan



IUFMP HOSTS 2018 CHILDREN'S DAY *Fiesta*

In acknowledgement of the crucial role of school-age children towards the accomplishment of its mandate, the **Ibadan Urban Flood Management Project (IUFMP)** recently organized a first-of-its-kind Children's Day celebration for public schools pupils and students of Ibadan, Oyo State.

Aptly themed '**Ibadan Children Unite against Flooding**', the programme was aimed at alerting the children to their responsibilities towards mitigating flood risks in Ibadan and wooing them into the '**Say No to Flood**' vanguards. This was in realization of the fact that children are usually the ones sent on errands by their parents to dump wastes, either at authorized or illegal dumpsites.

Additionally, the event was a strategic, catch-them-young move by IUFMP to re-orientate Ibadan children and instill a high index of cleanliness and environmental sanity in them, so as to change the narrative of perennial flooding in the expansive city.

Held on Monday 28th May 2018 at the Banquet Hall of the ultramodern Premier Hotel, Mokola in the heart of Ibadan, the event drew over six hundred (600) students from the eleven (11) Local Government Areas and fourteen (14) Local Council

Development Areas in Ibadan Metropolis. In addition, about one hundred (100) teachers who chaperoned the pupils to the event also participated actively in the programme.

On hand to represent the Oyo State Governor, **Senator Abiola Ajimobi** at the event was the **Honourable Commissioner for Education, Science and Technology, Professor Adeniyi Olowofela**, whose joy knew no bounds upon seeing the massive turnout of students and their teachers for the strategic engagement. In his keynote

address to the gathering, Prof. Olowofela identified schoolchildren as "change-agents in the bid to avert disasters" because it is easier for them to internalize new concepts and ideas.

Other speakers at the event catalogued the different human factors that predispose Ibadan to incessant flooding, among which are improper disposal of waste, building on waterways, utter disregard for building and environmental laws, among others. They also averred that **"It is actually cheaper...to have good waste management practices than to treat [diseases]"**



FROM THE TECHNICAL UNIT

DETAILS OF WORKS ON THE ELEYELE DAM REHABILITATION



Background

Eleyele Dam is an earth dam constructed on Ona River at Eleyele in 1942, for supplying raw water for treatment at the Eleyele Waterworks for the city of Ibadan, and also for flood control during high flow periods through its reservoir-holding capacity.

The dam embankment has a total length of 244m (embankment 138m plus 106m for spillway) and a crest height of 13.0m. The dam crest has an average width of 4.5m. The crest is overlaid centrally with 1.5m wide concrete walkway which adjoins a concrete block-work barrier on the upstream side. The reservoir capacity of Eleyele Lake is 7MCM, with a surface area of 160ha, and a fetch of 2.4km. The maximum reservoir yield is about 2700 cu.m/day. The catchment area of the dam is 320 sq. km. The lake is believed to be heavily silted as a result of urbanization and encroachment of flood plain at the upstream side of the reservoir.

There is an intake tower erected at the downstream end of the dam lake. It is from this location that raw water is abstracted and transmitted to Eleyele Treatment Plant. There are two other intakes, on pontoons located upstream of the dam lake; one of them is for the University of Ibadan, while the other one belongs to a private commercial establishment.

The over-flow of the reservoir is controlled by an un-gated Ogee weir spillway. The length of the spillway is 106m with a crest height of 14.5m, and design flood capacity of 367.9m³/s. The overflow is directed downstream to a concrete-lined tailrace canal which also acts as flow energy dissipater by means of a series of concrete steps.

A major contributor to the hazard potentials of Eleyele Dam is the fact that, as a result of high urban development over the years, it is now located upstream of densely populated and highly developed areas of Ibadan city. Indeed, downstream the Ona River, land use development and construction have progressively reduced the flood plain of the river. Any failure of the dam will therefore result in heavy loss of lives, and serious damage to homes, schools, roads, bridges, rail lines, public utilities, industries, among others.

Since its construction over 70 years ago, the dam has been subjected to at least three major flood incidents, which are the following notable flood events in Ibadan:

- The latest flood event of 26th – 27th August, 2011 – Rainfall value: 188mm within 7.5 hours and the third highest since 1951.

Rainfall resulted in overflow of Eleyele Dam, appurtenance structures suffered major degradation, casualties in excess of 100 people plus significant damage to infrastructure estimated at about 600 million USD. Flood, ageing and other factors are adjudged to be responsible for the Dam and its appurtenance works developing various forms of structural and hydraulic defects, which calls for urgent rehabilitation.

DESCRIPTION OF THE REQUIRED SERVICES AND IMPLEMENTATION

Project Description

The rehabilitation works on Eleyele Dam and its appurtenant structures include spillway weir and channel, embankment, Intake tower, scour tunnel, scour channel and reservoir.

Actions That Have Been Taken On Eleyele Dam Safety Works

Palliative/Emergency Works:

Due to the degraded conditions of Eleyele Dam and its appurtenances, development of various forms of structures and hydraulic defects, some palliatives and

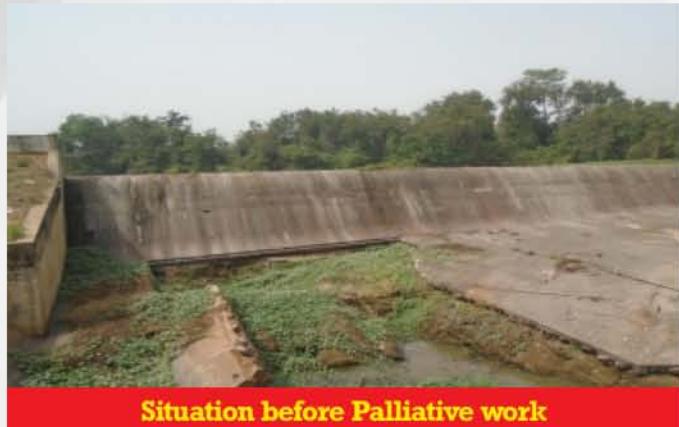


emergency works were urgently carried out on the dam to rectify observed hydraulic defects.

The palliative works was implemented with the aim of

quickly improving the protection of the Ogee Spillway against scouring and collapse. The assignment involved covering and protection of the toe of the

Ogee Spillway with concrete and clearing of the channel of trees, shrubs as well as removal of siltation on the channel from the outflow dam to Ologun-Eru Bridge.



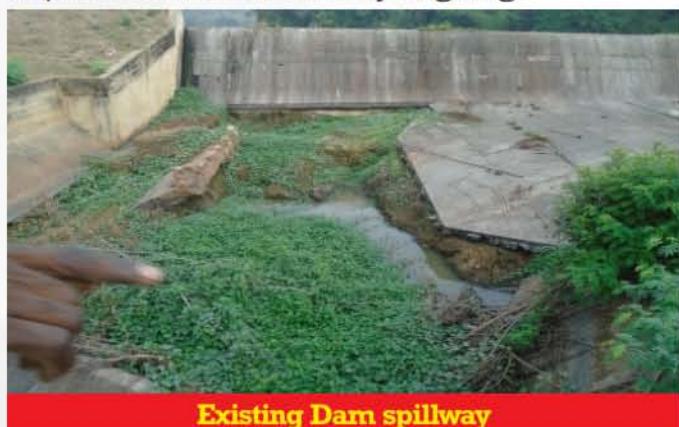
Situation before Palliative work



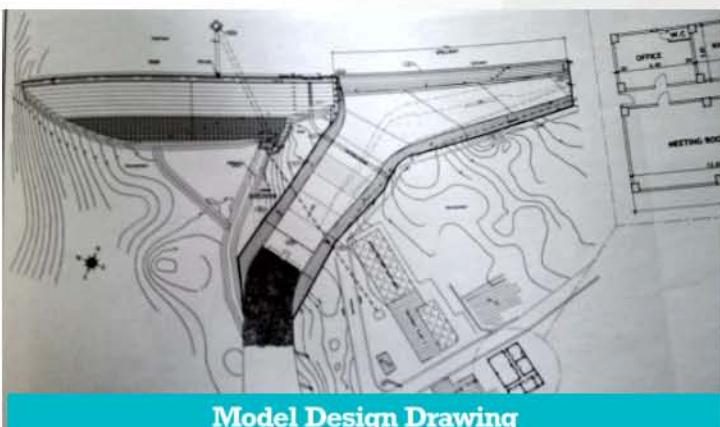
Situation after Palliative work

Rehabilitation of Eleyele Dam and Intake

Sequel to the completion of the studies and detailed engineering design of the rehabilitation of Eleyele Dam and Intake, the contract for the works has been awarded and implementation is already ongoing.



Existing Dam spillway



Model Design Drawing



The IUFMP Project Coordinator, Mr Dayo Ayorinde and other PIU officials at the Flag-Off ceremony of Eleyele Dam Rehabilitation



...SAY **NO** TO
FLOOD!

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