



# ANAMBRA STATE NEWMAP

...A GAME CHANGER Vol.2

A Detailed Pictorial Reference by Anambra State  
Project Management Unit (SPMU)







## ABOUT NEWMAP

The Nigeria Erosion and Watershed Management Project (NEWMAP) is an eight-year innovative and multi-sectoral project initiated by the Federal Government of Nigeria and some select States and financed by the World Bank to address and resolve challenges related to soil erosion, climate change and develop renewable energy sources in the several target states. The idea behind the formation of NEWMAP is to have a more organized and sustainable fight-back against the danger of gully erosion and the frightening devastation of our ecology by reclaiming damaged areas and resuscitating them through a holistic watershed management approach.

Launched on June 26, 2014 in Anambra State, where a significant part of the landmass is under severe threat of flood and soil erosion hazards to redress the impact of erosion on its communities, the state government targeted to rehabilitate and remedy some of its existing gully corridors through the NEWMAP opportunity.

The down payment of the sum of N1 billion as counterpart funding by Gov. Willie Obiano was rightly seen as a clear demonstration of this commitment and absolute good faith by the World Bank who quickly scaled up its interventionist effort to stave off the menace. NEWMAP today has done tremendous work on 13 sites across the State.

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"Now more than ever before, governments and institutions must mainstream climate change action in their development strategies. Individuals and communities must take ownership of protecting their environment. It makes fundamental sense to do so for our collective well being, because climate crises are inextricably linked to instability and poverty. Anambra State is evolving climate-smart policies in responding to the greatest challenge of our lifetime"

**His Excellency**  
**Chief Willie Obiano, FCA**  
**Governor, Anambra State**  
Executive Sponsor, NEWMAP





“ NEWMAP is doing very well in terms of restoring landscapes and enhancing livelihoods across participating States and building trust among the people. Anambra State under Gov. Willie Obiano is very satisfied with this partnership. ”

His Excellency  
**Dr. Nkem Okeke,**  
Deputy Governor, Anambra State



Anambra State Deputy Governor Dr. Nkem Okeke leading the visiting World Bank Practice Manager, Maria Sarraf (4th right) to the Anambra State Stand at the NEWMAP Result Market place while the National Project Coordinator, Salisu Dahiru (5th right), SSG, Prof. Solo Chukwulobelu listens as the PC, Michel Ivenso (extreme right) briefs the team.



“ Anambra State Government 's commitment to reverse gully erosion in the state is result driven. The success of this partnership with NEWMAP is evident in the achievements so far recorded. The Obiano administration is committed to its sustainability. ”



**-Prof. Solomon Chukwulobelu**  
Secretary to the State Government, Anambra State



## SUCCESS STORIES

- ❖ About 20 Engineering designs and feasibility studies in line with global best practices approved for the State by the World Bank
- ❖ Against the target of reclaiming 77,714 hectares, the Project has reclaimed 41,439 hectares and bioremediated 2,156 hectares across the three pioneer erosion sites in the State; St. Thomas Aquinas/Neros Plaza, Amachalla and Omagba.
- ❖ In addition, the Project also constructed 499m length asphalted paved access roads with storm water collector channels at St. Thomas Aquinas/Neros Plaza erosion site and 778.6m length asphalted paved access roads with storm water collector channels on both sides at Amachalla erosion site.
- ❖ The success of these interventions has ensured lives, homes, public institutions and faith-based infrastructure were saved from imminent destruction.
- ❖ Businesses have returned to the previously devastated areas and traffic flow also significantly increased.
- ❖ Values of properties (especially land) have significantly appreciated across all the thirteen (13) benefiting communities
- ❖ In total, 4,248 lives have been saved and 418 structures including those mentioned above were saved making life a lot easier for thousands of residents and users.
- ❖ The interventions have created 1,864 jobs in the State including the SPMU staff and the members of various communities thereby equipping the state workforce with critical skills as part of its sustainability strategy.

For more success stories and testimonials, visit: [www.newmap.an.gov.ng](http://www.newmap.an.gov.ng)



# NEWMAP.. A GAME CHANGER



## **Hon. Obi Nwankwo**

Hon. Commissioner for Environment  
Anambra State

Anambra State is gravely impacted by the adverse effects of climate change. Sadly, women and children are disproportionately affected by these perennial crises. Impacts are mostly in the form of severe flooding and rapid landslides, forming deep gullies- characterised by fatalities, displacement of people, loss of livelihood, damage to critical infrastructure, destruction of farmlands and harvest losses creating hunger and disease outbreak, especially in poor communities.

The tragedy of the menace of gully erosion is that it is mostly caused by the wrong attitude towards the environment. For instance, most of the deep gullies that threaten whole communities were caused by abruptly terminated water channels. Other causes include improper control of storm water, deliberate deforestation, burning of bushes and other avoidable habits that harm the environment.

The menace of Gully Erosion is therefore a story of man and his environment. But it is happily a story that the Anambra State Government together with the Federal Government and the World Bank have demonstrated a great concern and empathy for which led to the formation of the Nigeria Erosion and Watershed Management Project (NEWMAP)



Launched in June 26th, 2014 in Anambra State, the idea behind the formation of NEWMAP is to have a more organized and sustainable fight-back against the danger of gully erosion and the frightening devastation of our ecology by reclaiming damaged areas and resuscitating them through wholistic watershed management approach that includes civil structure and bio-remediation. It also comes with a whole empowerment package that helps people displaced by the rage of gully erosion to repossess their lives by investing in modest business ventures to enhance their livelihoods.



**Governor Willie Obiano during a site inspection**

Following Governor Obiano's desire to see immediate progress in the campaign to push back the ravages of gully erosion in Anambra State, he made a down payment of the sum of N1 billion as counterpart funding for immediate take-off of the campaign against gully erosion in the state. The payment of the counterpart funding was rightly seen as a clear demonstration of commitment and absolute good faith by the government of Anambra State as the World Bank quickly scaled up its interventionist effort to stave off the menace. NEWMAP has done tremendous work on 13 sites across the state. These include, the St Thomas Aquinas/Nero Plaza, Awka, the Amachalla Site, Awka, the New Heritage/Omagba Site, Onitsha, the Ekwueme Square/Federal Secretariat Complex, Awka, the Ugammuma Site in Obosi, the Ikenga Ogidi site, the Enugwu-Ukwu site, the Abidi Umuoji Site, the Nkpor Flyover Site, the Nnewichi Site, the Ojoto Site, the Ire Obosi Site and the Abagana Site.

It is also heartening to note that the World Bank has given approval for its intervention to commence in the age-old Agulu-Nanka-Okoko set of gullies and the Umuagu-Ufuma gully site.

This second edition of this special publication highlights succinctly and pictorially the success story of NEWMAP as a game changer in environmental sustainability and its magical transformation in Anambra State.



## NEWMAP IS TRANSFORMATIONAL

**Dr. Abu Amos**

Task Team Leader NEWMAP  
World Bank Environmental Specialist

Question; Sir, many stakeholders in Anambra state have described NEWMAP as a game changer, as a leader of the task team, may we know your assessment?

Answer: The Nigeria Erosion and Watershed Management Project with me as Task Team Leader, Dr. Grant Milne and Dr. Ruth Kennedy-Walker. as co Task Team Leaders NEWMAP in Nigeria, and particularly Anambra State have been very transformational in terms of our approach, in terms of its global best practices and community mobilization, ownership and awareness in solving very difficult development challenges that have faced the good people of Anambra State. The issue of soil erosion is really very menacing. Focusing on the accomplishments of NEWMAP in the State, wherever you look at whether is at Omagba, Onitsha, St. Thomas Aquinas/Neros Plaza and Amachalla, both in Awka, Nkpor-Flyover, Abidi-Umouji, Abagana, Ikenga-Ogidi, the results are the same. And of course, the emergency response to the situation in Awka as per the Federal High Court premises, described as "Miraculous" is a product of collective effort that brings to bear the best of Engineering design and Practices, of bio-remediation measures, afforestation, community vigilance / ownership and participation and a highly mobile, highly motivated project implementation team and of course the visionary leadership and ownership of the State Government. All of this came together to provide the transformational results that we are getting in Anambra State.

Question: Thank you very much, Sir. Another key primary focus of this intervention is to impact on the lives of the communities. So to an extent can we say the project has achieved this?

Answer: You know part of the objective of the project is to actually lift people out of poverty which is consistent with the vision and the good work that the State Government has been doing under the leadership of Dr. Willie Obiano as you





## INTERVIEW

definitely know, but there are a lot of elements that will have to come together before you can have that kind of transformation. It was very clear to us right from the beginning that we need to fix broken infrastructure and do a lot of remediation and prevention work but also needed that people in the communities imbibe behavioral changes by stepping away from certain practices including farming and activities that tend to expose the soil and make it vulnerable to erosion<sup>5</sup>. For people that have lost their houses as well as other assets including farmland etc to agree to this, it is not enough to just say "sorry this has happened to you, we will fix it, don't behave like this again". You have to provide alternative and better ways of doing things and this project has been able to do this innovatively. And the buy-in actually has been oversubscribed and we are thinking of how we can scale it to accommodate more people in the program so that they too can benefit from the alternative means of livelihood.

One of the selling points of the alternative means of the livelihood is that it actually comes from the people naturally, it is what they are doing and they also know themselves. In terms of accountability, reporting, as well as delivering of the results we have never had any surprises or disappointment or fraud or take-over by a small group or by an individual and this talks about the genuineness of the program as well as the ownership and vigilance of the people because it comes from the people themselves, They administer this, and they also select their leaders. They know their leaders more than any of us and so they have been very good at doing this and this explains the successes that we have recorded in the provision of alternative means of livelihood to the people and also clearly explains the increasing demand for same. Like I said earlier, we will try to see how we can scale it up in coordination with the State Government.



Question: One last word to the community on the issue of sustainability?

Answer: We derive lot of energy as you can see from the enthusiasm, active ownership, participation and vigilance of the community. We have a kind of an MOU, but

not written on a paper but this MOU is anchored on trust that the Bank in coordination with the State Government will come with these solutions, the communities also have a big role to play especially in terms of waste management so that they don't clog the drains that we have constructed. They also have a very key role to play in ensuring that the areas we have paid for are not used for certain activities, especially those that brought about the problems. So far the communities have been very vigilant and supportive in ensuring that these drains are kept clean and that the land use and cover are vigorously implemented and respected.

So thank you very much.



# NEWMAP SITES AT A GLANCE

## Statistics of Current Interventions in Anambra State

SITE	SIZE	TARGET AREA TO BE RECLAIMED	TOTAL AREA RECLAIMED (Ha)	POPULATION IMPACTED
<b>ST. THOMAS AQUINAS/ NEROS PLAZA</b>	Length 122m, Average Width of 18m, Depth 8m		17.21	5,097
<b>AMACHALLA</b>	Length 50m, Average Width of 30 - 40m, Depth 20m		13,249	5,072
<b>NEW HERITAGE/OMAGBA</b>	Length 400m, Average Width of 25m, Depth 15m		10.98	27, 035
<b>EKWUEME SQUARE/FEDERAL HIGH COURT</b>	Length 0.32 and 0.05km, Average Width of 20m, Depth 16m	3.49	3.49	5,023
<b>UGAMUMA-OBOSI</b>	Length 4,303m, Average Width of 17.7m, Depth 5.1m	57.09	17.69	13,700
<b>IKENGA OGIDI</b>	Length 1,697m, Average Width of 5.87m, Depth 4.7m	9.5	0.5	17,140
<b>ENUGWU-UKWU</b>	Length 1,927.87m, Average Width of 5.86m, Depth 4.7m	16.66	0.91	10,000
<b>ABIDI UMUOJI</b>	Length 2,400m, Average Width of 23.5m, Depth 23.1m	3.87	1.94	16,274
<b>NKPOR FLYOVER</b>	Length 1,545m, Average Width of 505m, Depth 20m	15.56	4.58	11,000
<b>NNEWICHI</b>	Length 3,730m, Average Width of 110m, Depth 27m	39.05	4.2	52,824
<b>OJOTO</b>	Length 3,950m, Average Width of 41m, Depth 33m	29.06	16.1	6,694
<b>IRE-OBOSI</b>	Length 4,150m, Average Width of 103m, Depth 53m	24.28	8.15	5,000
<b>ABAGANA</b>	Length 7.9km, 12.66 hectares	16.04	2.38	8, 352



**COORDINATES (GULLY HEADS)**

<b>LATITUDE</b>	<b>LONGITUDE</b>	<b>% COMPLETION @ 24/04/2020</b>	<b>CONTRACTOR</b>
6° 14' 10.2605" N	7° 05' 48.0216" E	<b>100</b>	Anchor Noel
6° 13' 21.9974" N	7° 05' 17.1944" E	<b>100</b>	PaChuks Nig Ltd
6° 08' 55.8089" N	6° 49' 10.7972" E	<b>94</b>	NIC & NIC Construction Ltd
6° 14' 17.6606" N	7° 04' 55.4838" E	<b>100</b>	IDC Construction Ltd
6° 06' 52.4157" N	6° 50' 15.4225" E	<b>25</b>	Chez Aviv Nig Ltd
6° 09' 54.8608" N	6° 50' 58.1200" E	<b>55</b>	Chez Aviv Nig Ltd
6° 10' 0.0680" N	7° 01' 6.2909" E	<b>14</b>	CGC-CHWE Joint Ventures
6° 07' 46.6670" N	6° 54' 0.0200" E	<b>75</b>	CGC-CHWE Joint Ventures
6° 09' 9.2293" N	6° 49' 42.8554" E	<b>49</b>	Monier Construction Company (MCC)
6° 02' 46.5307" N	6° 55' 13.4267" E	<b>65</b>	CGC-YSEJ Joint Ventures
6° 06' 7.3828" N	6° 53' 49.7679" E	<b>70</b>	CGC-YSEJ Joint Ventures
6° 06' 56.9499" N	7° 09' 12.6790" E	<b>58</b>	Monier Construction Company (MCC)
6° 10' 42.9790" N	6° 53' 46.2204" E	<b>43</b>	Chez Aviv Nig Ltd

# ST. THOMAS AQUINAS/NEROS PLAZA EROSION SITE, AWKA

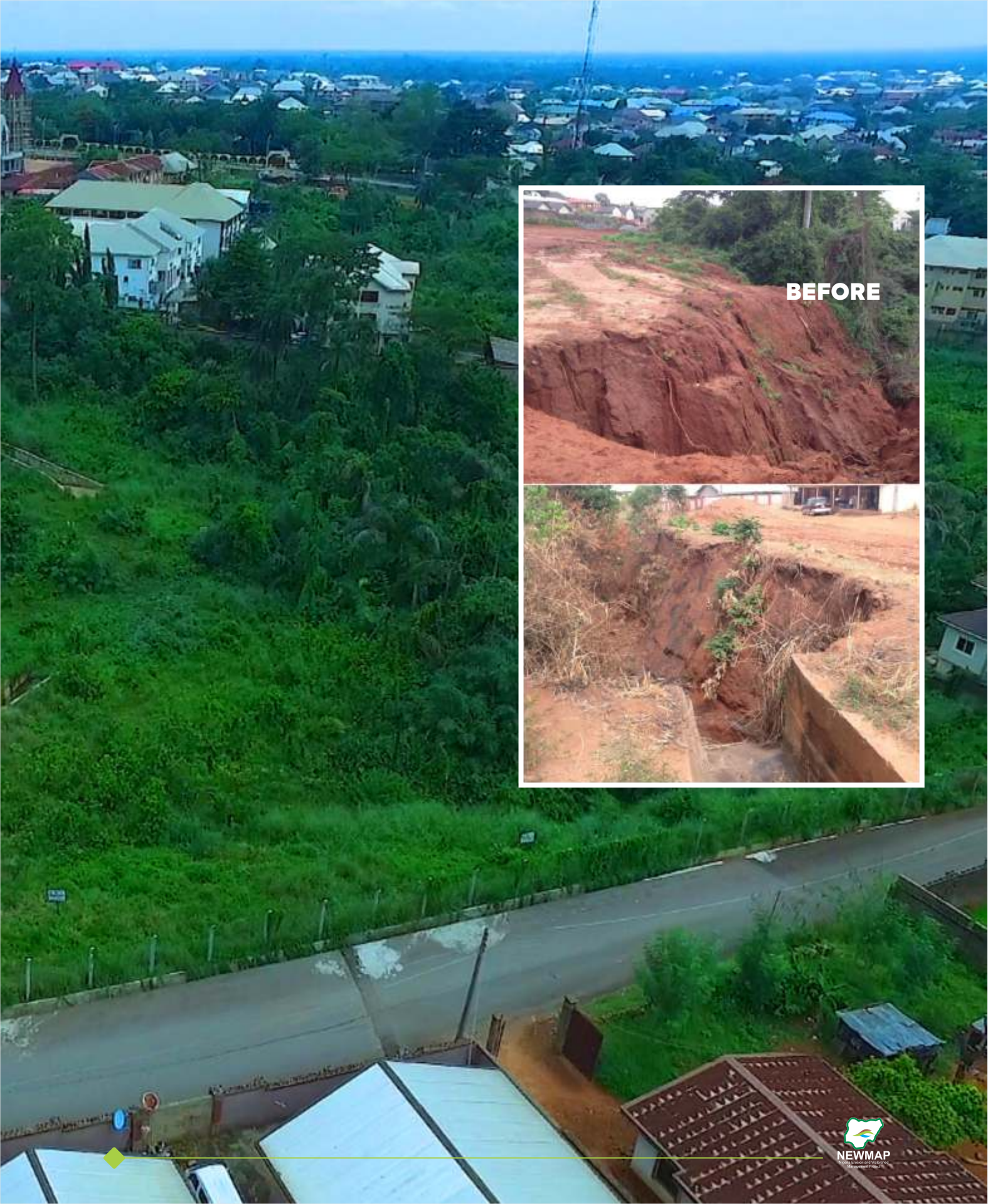
...100% COMPLETED

Length 122m, Average Width of 18m, Depth 8m  
17.21 Hectares reclaimed

**AFTER**









# AMACHALLA, AWKA

**...100% COMPLETED**

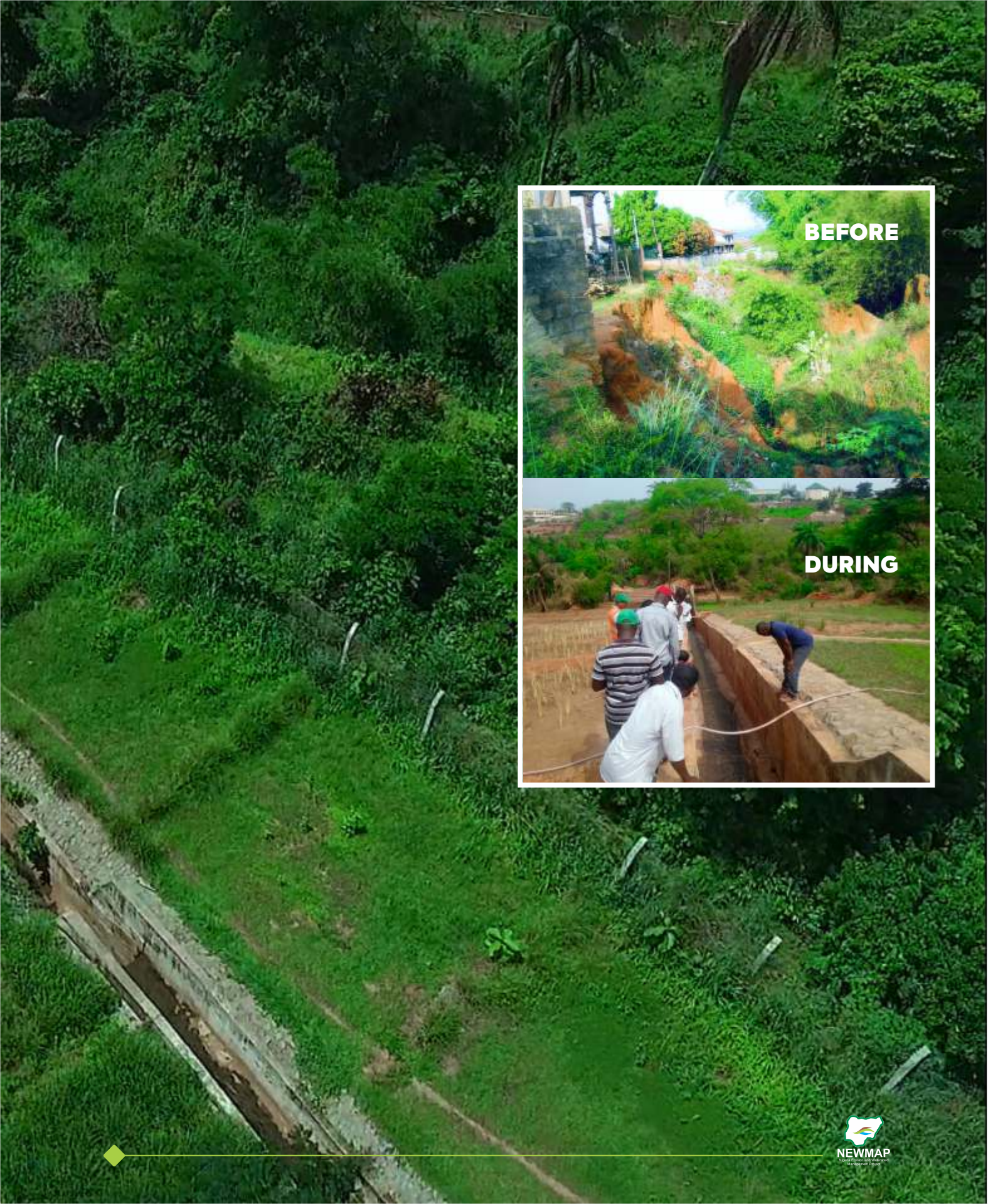
Length 50m, Average Width of 30 - 40m, Depth 20m

13,249 Hectares reclaimed

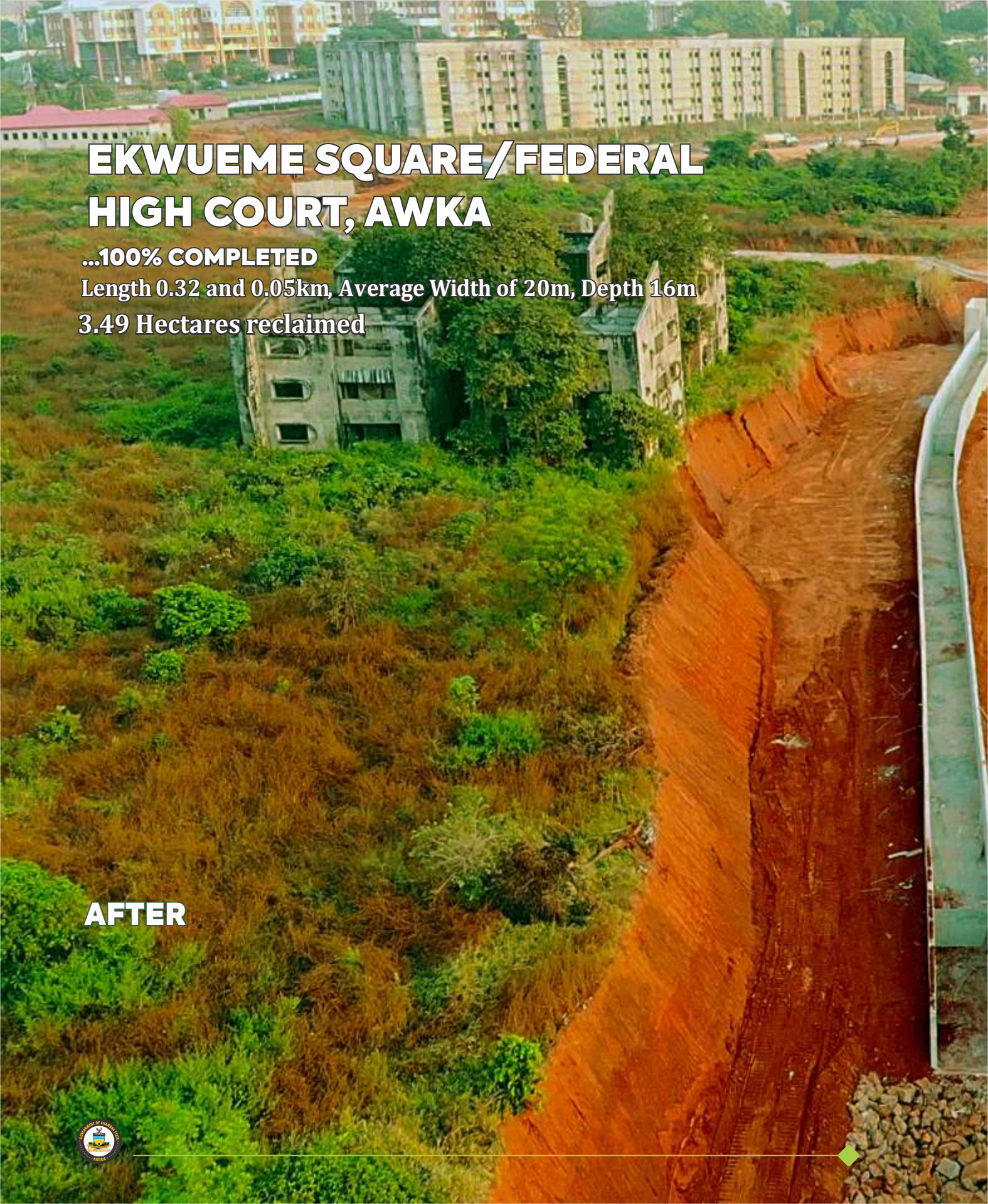
**AFTER**











# **EKWUEME SQUARE/FEDERAL HIGH COURT, AWKA**

**...100% COMPLETED**

**Length 0.32 and 0.05km, Average Width of 20m, Depth 16m**

**3.49 Hectares reclaimed**

**AFTER**







**BEFORE**



# NNEWICHI

**...65% COMPLETED**

**Length 3,730m, Average Width of 110m, Depth 27m  
4.2 Hectares reclaimed**

*Work still ongoing*

**AFTER**







**BEFORE**



# ABAGANA

**...43% COMPLETED**

Length 7.9km, 12.66 hectares

2.38 Hectares reclaimed

*Work still ongoing*

**AFTER**









# NEW HERITAGE/OMAGBA ONITSHA

**...94% COMPLETED**

Length 400m, Average Width of 25m, Depth 15m

10.98 Hectares reclaimed



**AFTER**









# NKPOR FLYOVER

...49% COMPLETED

Length 1,545m, Average Width of 505m, Depth 20m

4.58 Hectares reclaimed

**AFTER**







**BEFORE**







## ANAMBRA NEWMAP IS BLAZING THE TRAIL

**Dr. Salisu Dahiru**

National Project Coordinator  
NEWMAP Nigeria

**Question:** Sir, as the National Project Coordinator, what is your assessment of the implementation of NEWMAP in Anambra State in the last couple of years?

**Dr. Dahiru:** Thank you very much. Anambra State is among the first mover states. Naturally, it had an opportunity to present sites within the first phase and presented about four sites and these four sites have reached an average of 90% completion with a phenomenal positive impact. For instance, if we take St. Thomas Aquinas/Neros Plaza and Amachalla which is one of the very important ones where not only has the gully been addressed, controlled and healed completely, it also helped in restoring the road network within that area beyond what was even there. And the impact met all the necessary community accolades associated with it. This is also a clear indication of the commitment of the State Government and the Project Management Unit together with the kind of support that Federal Project Management Unit is giving under the guidance of our able Task Team Leader, Dr. Amos Abu which rendered a tailor-made timely support to the PMU. Anambra state will also stand as a special case because this is the State that at the beginning of the project made a commitment of providing N 1 billion and in fact the Bank had to ask the State Governor to take it slowly because at that time the Project had not advanced, and we collected rather only N 500,000,000 which has been paid. Anambra State also did something that is now being copied by other States, by committing its own resources to the design of additional sites. With this, eight successfully designed sites have been awarded and are at various stages of completion. You see the spirit of partnership, the spirit of community mobilization and the spirit of oneness in terms of implementation of the project which combine to provide the much needed success that is already being recorded in Anambra State. A number of States have copied this by using their own internal resources to fast track the development of bankable designs which helps to accelerate construction activities on the sites.





## INTERVIEW

**Question:** Finally sir, NEWMAP has been described in certain quarters as a game changer, now what is responsible for the success of NEWMAP all over the country?

**Dr. Dahiru:** First of all, if you recall the issue of gully erosion in Nigeria has been a long standing one and various attempts by different tiers of Government at different times have not yielded desired results probably due to lack of proper planning, inadequate funding to match the severity of the problem and lack of technical depth and experience in handling gully erosion. When NEWMAP came on board it applied what is known as Integrated Watershed Management style to gully healing and gully treatment. This means that the Project started with very good planning and design. The design is subjected to the best international quality control and assurances and then integrated with full implementation that is focused on delivery of quality services, vis-à-vis community mobilization and participation and then combining both the civil works (construction or engineering construction) and balancing it with the combination of old, hard and flexible materials and then rounding it up with vegetative cover or bioremediation which is an aspect of this. Now the system does not just stop at this, but it incorporates community mobilization as well as livelihood enhancement because the factors that are responsible for either the start or the aggravation or the severity of the gullies have always been a combination of man-made activities as well as natural factors. For the man-made activities, a majority of them are attached to the quest of man to seek his livelihood either by agricultural practices, by construction or by some other means which result in disruption of the hydrological as well as physical morphology of the soil.

So NEWMAP's system looks at the causes and effects of these man-made activities and of the natural factors such as climate change and integrates these on a case-by-case basis for each gully system. This has been the hallmark of

NEWMAP for which the Bank has agreed to provide funding.



Hon. Ministry of State Environment, Hon. Sharon Ikeazor in company of the Dr. Nkem Okeke, Deputy Governor, Anambra State listens with rapt attention to the NPC, Dr. Salisu Dahiru during the inspection of the Ire-Obosi gully site

On the issue of funding, the combination of availability of funds in sufficient quantity and its timely release have ensured that once you start work on the gully side, funding is not an impediment. When a contractor does only 10% he gets 10%, if he does 90%, he is assured that his payment is readily available so there is no complaint on the part of the contractor

by the community. And to further enhance this collaboration, it is only NEWMAP that has a dedicated Non-Governmental Organization at the Federal and then at the State level responsible for community mobilization, sensitization and ensuring that communities are trained on how best to guard against the derailment of this Project to ensure timely delivery. This helps to further enhance community ownership and success for NEWMAP projects nationwide.

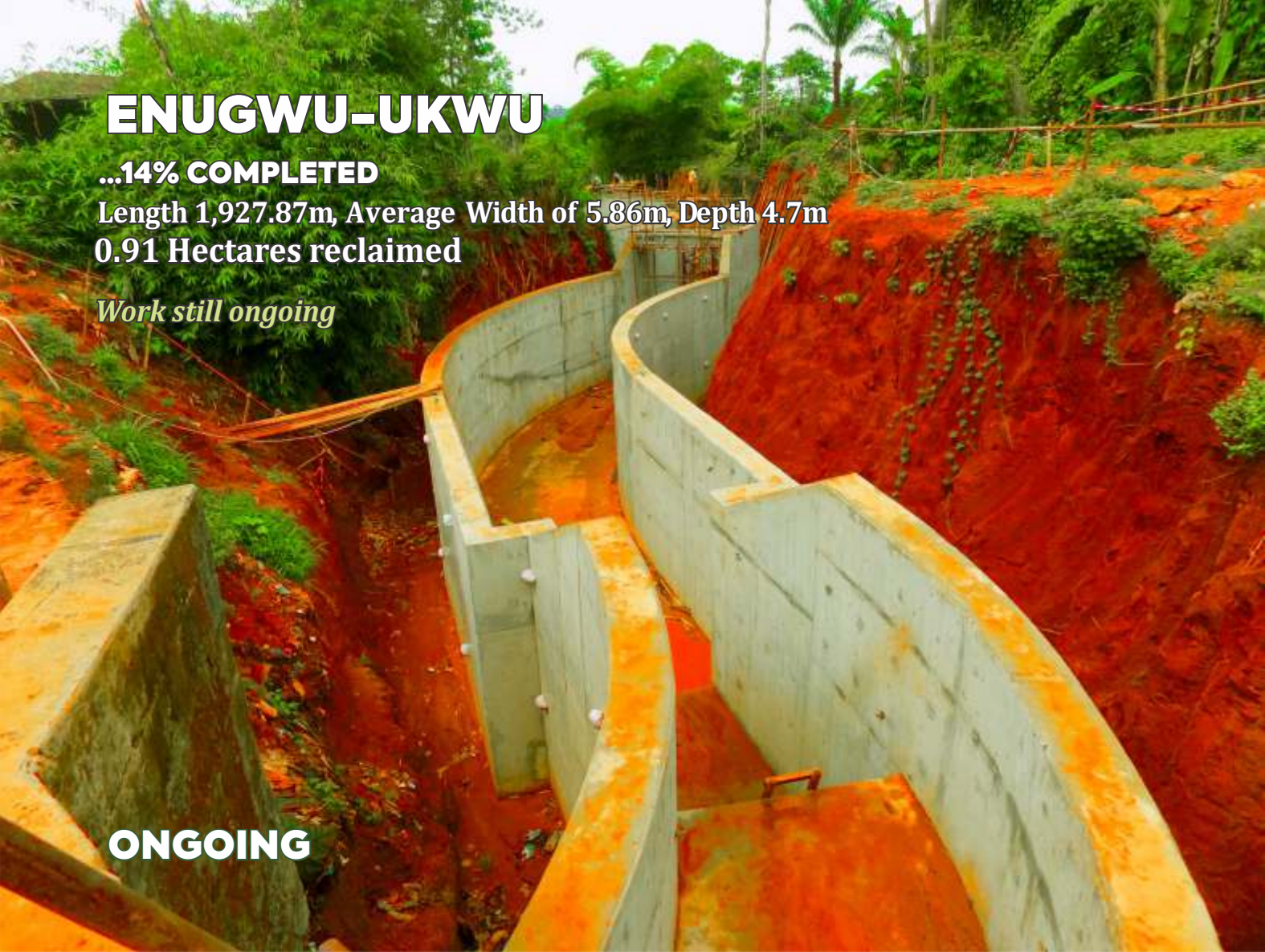


# ENUGWU-UKWU

**...14% COMPLETED**

**Length 1,927.87m, Average Width of 5.86m, Depth 4.7m  
0.91 Hectares reclaimed**

*Work still ongoing*



**ONGOING**



**DURING**



**BEFORE**





# ABIDI-UMUOJI

...75% COMPLETED

Length 2,400m, Average Width of 23.5m, Depth  
1.94 Hectares reclaimed



**ONGOING**



**DURING**



**BEFORE**





# OJOTO

...70% COMPLETED

Length 3,950m, Average Width of 41m, Depth 33m

16.1 Hectares reclaimed

*Work still ongoing*



**ONGOING**



**DURING**



**BEFORE**





# OGIDI

**...55% COMPLETED**

**Length 1,697m, Average Width of 5.87m, Depth 4.7m**

**0.5 Hectares reclaimed**

*Work still ongoing*



**ONGOING**



**DURING**



**BEFORE**







## NEWMAP SAVING LIVES, RESTORING HOPE-

**Michael Ivenso**

Project Coordinator

NEWMAP Anambra State

Question: Sir, we would like to know the journey so far. What has been the experience informing NEWMAP, what are the milestones, what are the possibilities?

PC: NEWMAP as a project provides real-life experience for anyone who is involved at the stakeholder level. One gets to see first-hand the devastation, the suffering experienced by real people, especially women and children, who live under the shadow of these gullies. It is a very emotional experience and one that wakes me up every day wanting to do more. Overall, the impact NEWMAP has made on the lives of people is a reward because I know the precarious state of our beneficiaries before intervention and the progress we have made. It gives me great joy.

I can tell you that is a life-changing experience, the sense of fulfillment is overwhelming and I experience this every time I am inspecting sites that we have completed, and I see people whose houses have been saved - like Mrs. Theresa Okoye at Nkpor, Mr. Innocent Obasi at Omagba, Mrs. Florence Anagbogu in Amachalla. I could name many of them. These are real people whose houses would have been severely affected but for the intervention of NEWMAP, which has put a smile on their faces. Like I said, the best part of this job is to see people who could have lost their homes but are still in those homes because of NEWMAP's intervention. I am grateful for the opportunity to serve. Nothing can provide that kind of satisfaction. It's a very difficult job but this aspect make it really worth it.

Question: How would you describe your presence in Anambra State, the scope of your involvement in the push back against gully erosion?

PC: As you are well aware, NEWMAP is a project under the State Ministry of Environment and a tripartite arrangement of the Anambra State Government, the Federal Government of Nigeria and the World Bank. The other funding partners are Special





## INTERVIEW

Climate Change Fund (SCCF) and Global Environment Facility (GEF), contributing to support NEWMAP operations across the 23 States in the country currently participating in the NEWMAP project. Specifically, in Anambra State, the impact NEWMAP has had is tremendous. The experience of witnessing what used to be and what it is today is life-changing.

In terms of scope and numbers, we have intervened in 13 erosion sites across Anambra State. These are very huge gullies, ranging from 2Km to 4Km long and 20m deep or more. This tells you the extent to which this devastation is adversely affecting the lives and livelihood of the people we work for. Out of the 13 sites, 2 have been completed and are awaiting hand over by the State Government back to the communities. Eleven of them are in various stages of completion and work is going on simultaneously in all of them. We have a team of experts from different fields that are fully involved in every aspect.

We are supervised by the Ministry of Environment at the State level. The Honorable Commissioner for Environment is the Chairman of NEWMAP Steering Committee that provides oversight. Other MDAs are represented in the Steering Committee through their respective Commissioners and are participating in what NEWMAP is doing. The feedback we get from the communities on the impact of NEWMAP is very encouraging. It means that the work we are doing is good and that the people are happy. Most importantly, we are greatly encouraged by the leadership and sponsorship of His Excellency, Chief Willie Obiano, who ensures that NEWMAP gets all the support needed to succeed. That is why beneficiaries across Anambra State feel the dividend of democracy.

Question: What is the nature of the relationship between NEWMAP on the one hand and donor agencies and then the State Government? How would you describe the relationship and how well has it worked in Anambra?

PC: Our partnership with donor agencies has been a tremendous success. NEWMAP is an organ of Anambra State Government, supported by the Federal Ministry of Environment, the Federal Ministry of Finance, the World Bank and other funding partners - SCCF and GEF. In this relationship, Anambra State is honoring its commitment by ensuring that we provide the requisite facilities for NEWMAP to operate in terms of counterpart funding, staffing as well as the provision of office space and related support systems. This relationship is further strengthened by the Governor's active engagement with the Federal Government and the international development community.

NEWMAP is one key area where government meets the people and the feedback we are getting is very positive. We have been extremely lucky in the sense that our relationship with the development partners is good. I must stress that Anambra NEWMAP has been true to the guidelines of this arrangement, especially in project ownership, procurement and financial transactions. We are ensuring that we are not falling foul of the stringent guidelines. Several times a year, we get separate audits and supervision missions from the Federal Government and the World Bank. They come to look at our books and processes. Thankfully, there are no red flags so far. As a matter of fact, the World Bank review rated us high in compliance, which we are very proud of. This is especially important to our ability to draw down funds for the erosion projects needed by the people. Due diligence must be followed and the funding partners have to be satisfied that we are complying, the State Government has to be satisfied that it is putting money where we are having the most visible impact. Therefore, this arrangement is a well-oiled machine, positively impacting on the lives of the good people of Anambra State.



**Most importantly, we are greatly encouraged by the leadership and sponsorship of His Excellency, Chief Willie Obiano, who ensures that NEWMAP gets all the support needed to succeed. That is why beneficiaries across Anambra State feel the dividend of democracy.**







## EARTH OBSERVATION AND GIS CONCEPT IN NEWMAP

**Dr. Joy Agene**

Co-Task Team Leader NEWMAP  
World Bank Geo-Spatial Specialist

Earth observation is the gathering of information about the physical, chemical, and biological systems of the planet via remote-sensing technologies used to monitor and assess the status of and changes in natural and built environments while a Geographic Information System (GIS) is a framework for gathering, managing, and analyzing data. Rooted in the science of geography, it analyzes spatial location and organizes layers of information into visualizations using maps and 3D scenes. With this unique capability, GIS reveals deeper insights into data, such as patterns, relationships, and situations—helping users make smarter decisions.

NEWMAP has utilized GIS in project implementation in the following areas;

- ❖ Environmental and Social Management Planning – General Environmental studies and understanding of the gully geometry.
- ❖ Resettlement Action Plan – with the use of GPS, the coordinates of land areas for compensation are identified and mapped, the areas/set back/ boundaries where civil works may impact is delineated for resettlement.
- ❖ Watershed planning – utilized in delineating the catchment boundaries for each erosion site presenting best management practices in placing activities into designated zones.
- ❖ Engineering designs and feasibility studies – Understanding of the drainage patterns in the area to inform design decisions and taking measurements of work progress.
- ❖ As an open source data to view images of gully erosion - with the use of drones, digital data like the "before and after" images of the gully are viewed and verified, historical images compared, and future projections made.
- ❖ ~~• Environmental and Social Management Planning – General Environmental studies and understanding of the gully geometry.~~
- ❖ ~~• Resettlement Action Plan – with the use of GPS, the coordinates of land areas for compensation are identified and mapped, the areas/set back/ boundaries where civil works may impact is delineated for resettlement.~~
- ❖ ~~• Watershed planning – utilized in delineating the catchment boundaries for each erosion site presenting best management practices in placing activities into designated zones.~~
- ❖ ~~• Engineering designs and feasibility studies – Understanding of the drainage patterns in the area to inform design decisions and taking measurements of work progress.~~
- ❖ ~~• As an open source data to view images of gully erosion - with the use of drones, digital data like the "before and after" images of the gully are viewed and verified, historical images compared, and future projections made.~~





# CLIMATE CHANGE ADAPTATION UNDER ANAMBRA NEWMAP

- ❖ A quick outline of how NEWMAP supports the climate response effort of Anambra State and support for Nigeria's Nationally Determined Contribution (NDC) under the Paris Climate Agreement. The idea is to mainstream climate action in the state's development agenda.
- ❖ Onitsha Urban Stormwater Management Masterplan has been completed by Anambra State Government under NEWMAP. The masterplan proposed strategies to effectively manage perennial flooding incidents around Onitsha metro area and vicinity. The environmental, social and health dimension of the flood is ex-rayed in the masterplan. The plan, which proposes a 3-phased approach to the problem, is 100% completed, approved by the World Bank and is ready for actual implementation.
- ❖ The Design of Household and Community Rainwater Harvesting in Anambra state seeks to address stormwater runoffs which is the leading factor in soil erosion. It advocates water conservation methods for domestic and agricultural use, especially during the dry season. Giving the soil morphology of Anambra is highly susceptibility soil erosion, this activity will help reverse the emergence of gullies. Prevention is the most effective approach of controlling the menace of erosion in the State.
- ❖ Solar Powered Borehole was installed in the three senatorial zones of the State and Awka Capital Territory. This is intended to provide emission-free, climate-smart solution to providing access to clean water which fully supports NEWMAP's Project Development Objectives. Anambra NEWMAP in selecting the benefitting communities considered areas where access to clean water is scarce to meet the needs of women and children. It is expected that the project will reduce the number of time and distance they walk to access clean water.
- ❖ Solar Power Supply Facilities is aimed at providing low-emission, off-grid power supply to public institutions serving communities in the State. The impact of this project is to improve services to communities and users of these facilities, reducing operating cost of buying fossil fuel and eliminate harmful emission into environment as a practical response to the adverse effects of climate change.
- ❖ About 27,000 units of energy-saving bulbs has been procured for distribution across erosion communities in the State. These bulbs use significantly less power to produce the same luminous capacity compared to traditional bulbs thereby reducing greenhouse emissions which is a crucial element in the fight against global warming and climate change impact.
- ❖ NEWMAP will distribute over 1600 units of energy-efficient cook-stoves that are designed to reduce the use of tress and other vegetative materials as cooking fuel. Traditional firewood obtained from deforestation are harmful to the environment and generate harmful smoke that causes respiration problems. NEWMAP will distribute these innovative cookstoves in line with the Climate Change Response Component of NEWMAP project which aims at reducing Greenhouse Gas (GHG) emissions preserve the forest assets in the State.
- ❖ In response to the COVID-19 pandemic, Anambra NEWMAP is distributing Solar-Powered Touchless Liquid Soap and Water Dispenser to public institutions. The equipment addresses the problems of maintaining COVID-19 hygiene through hand washing as well as eliminating carbon footprints when compared to similar devises that run on fossil fuel. Again, the key is reducing carbon footprint in support of climate change action.
- ❖ Socio-economic trees of local species were carefully chosen to help regenerate forest and green environment around erosion-prone communities in Anambra. Deep roots of these trees hold the soil to make them erosion-resistant, their branches provide cover and carbon sink for humans and the environment. Farm seedlings will provide livelihood restoration for vulnerable population in the effort the create food security. When combined, the 2-pronged approach of economic tree planting and farm seedling will prevent formation of gullies and improve livelihood support for ndi Anambra.



# IRE-OBOSI

...39% COMPLETED

Length 4,150m, Average Width of 103m, Depth 53m

8.15 Hectares reclaimed

*Work still ongoing*



**ONGOING**



**DURING**



**BEFORE**





# UGAMMUMA OBOSI

**17.71% COMPLETED**

Length 4,303m, Average Width of 17.7m, Depth 5.1m

17.69 Hectares reclaimed

*Work still ongoing*



**ONGOING**



**DURING**



**BEFORE**







## OBIANO TAKES ANAMBRA EROSION CRISIS TO THE WORLD

Gov. Willie Obiano of Anambra State has lamented that 36% of the State's landmass is being threatened by active gully erosion. Speaking at the Anambra State event on the sidelines of the just concluded United Nations Climate Change Conference tagged COP25 in Madrid Spain, the Governor in partnership with the Nigeria Erosion and Watershed Management Project (NEWMAP) unveiled the Climate Change Resilience Campaign titled Save Our Landscape (SOL).

Anambra State was represented at the Conference by Michael Ivenso, State Project Coordinator for NEWMAP and Jide Ikeako, Managing Director of Anambra State Investment Promotion and Protection Agency (ANSIPPA), The State Project Coordinator lamented that Anambra state which boasts of almost 100% arable land was fast losing her lands and forests, with colossal loss of lives, properties and critical infrastructure due to gully erosion and flood, occasioned by climate change. Also speaking at the event, Dr. Salisu Dahiru, National Project Coordinator for NEWMAP, stated that climate change impacts across Nigeria are evidenced in several dimensions, depending on the region.

Impacts of intense rainfall leading to flooding and erosion are felt in over 12 of the 36 states of the nation. This is most severe in Anambra State. The event was aimed at illuminating the impact of climate change on agriculture and forest preservation in the State. At the event, presenters shared their life experiences of the socioeconomic impact of flooding and erosion in the State. They also shared continued remediation efforts of NEWMAP with focus on its mitigation and adaptation activities. NEWMAP is funded by the World Bank with Global Economic Facility (GEF) and Special Climate Change Fund (SCCF). The unveiled Climate Change Resilience Campaign titled Save Our Landscape (SOL) is an innovative reclamation programme replete with components of afforestation, climate smart agriculture, awareness, sensitization and capacity enhancement. SOL is indicative of the State's readiness to tackle climate change impacts through innovation, partnerships and collaborations, funding and technology support from global climate change community.





# LIVELIHOOD SUPPORT

STATE	SITE	TOTAL NO. OF CIGs	TOTAL BENEFICIARIES	MALE	FEMALE	TOTAL AMOUNT DISBURSED (₦)
Anambra State	Abagana	14	284	133	151	35,178,960.00
	Nero's Plaza/St. Thomas Aquinas	18	451	240	211	35,765,550.00
	Amachalla	5	135	69	66	11,032,300.00
	Omagba	25	385	169	216	28,077,990.00
<b>TOTAL</b>		62	1255	611	644	110,054,800.00

- ❖ Established sixty-two (62) cottage businesses registered as Community Interest Groups – C.I.Gs in first four (4) of these erosion ravaged communities involving 1255 community members, thereby reducing poverty and improving the wellbeing of these communities.
- ❖ These CIG members have been adequately trained and empowered on such issues as Simple Bookkeeping, CDD approaches and Soil Conservation, and have been equipped with the capacity to operate/manage such vocations as Poultry, Fishery, Pig Farming, Metal Fabrication, Palm Oil Processing, Cassava Processing, Snail Farming, etc. They have as well extended these skills to the operation of their personal businesses..
- ❖ CIGs formation in the new sites are progressing well with priority on the formation of GIGs on Waste Management.







**Dr. Amos Abu**  
*NEWMAP Task Team Leader &  
World Bank Senior Environmental  
Specialist*



**Dr. Salisu Dahiru**  
*National Project Coordinator*



**Hon. Obi Nwankwo**  
*Hon. Commissioner for Environment  
& Chairman Steering Committee*



**Dr. Emmanuel Okafor**  
*Permanent Secretary,  
Ministry of Environment & Chairman  
Technical Committee*



**Michael Ivenso**  
*Project Coordinator*



**Sylvester Ezeanolue**  
*Head Project Finance  
Management Unit (PFMU)*



**Emeka Achebe**  
*Communication*



**Humphrey Anazodo**  
*M&E*



**Ogechukwu Emejulu**  
*Accounts*



**Chikelue Chuka-Okeke**  
*Procurement*



**Chukwuebuka Okoli**  
*Engineering*







**Clementina Nwachukwu**  
*Internal Audit*



**Emenike Ajulufu**  
*Natural Resources*



**Emeka Chidume**  
*Administration*



**Blessing Okafor**  
*Social Safeguards*



**Ejikeme Onuchukwu**  
*Environmental Safeguards*



**Vincent Aligo**  
*Procurement 2*



**Egodi Anikpe**  
*Accounts 2*



**Chioma Anuagasi**  
*Natural Resources 2*



**Ifeanyi Nwasinoke**  
*Engineering 2*



**Onyinye Obi**  
*M&E 2*

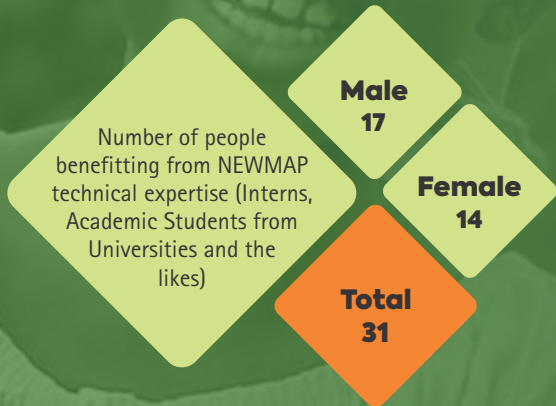
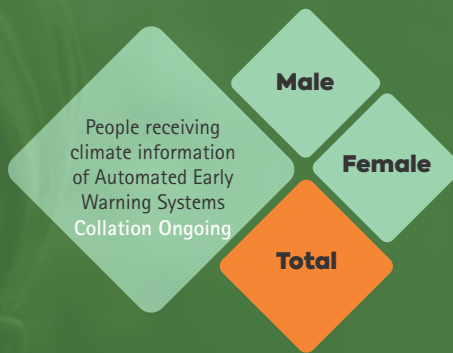
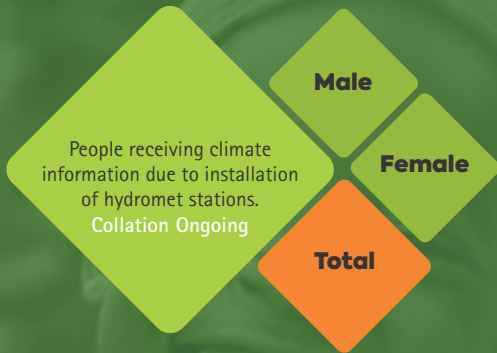


**Chibuzor Uyammadu**  
*Finance*



**Chiadikobi Agwu-Okechi**  
*Social Safeguards 2*



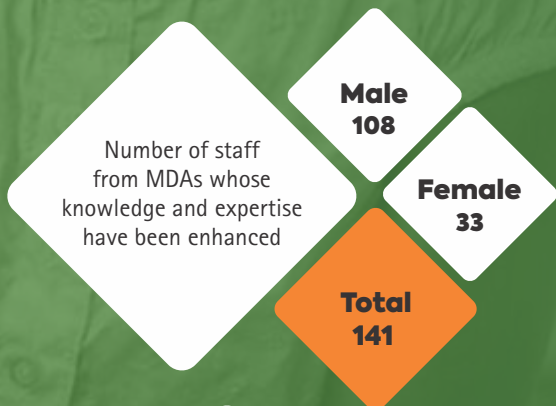


# ANAMBRA

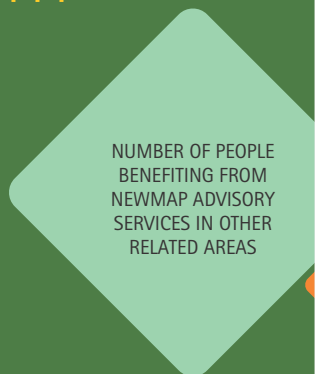
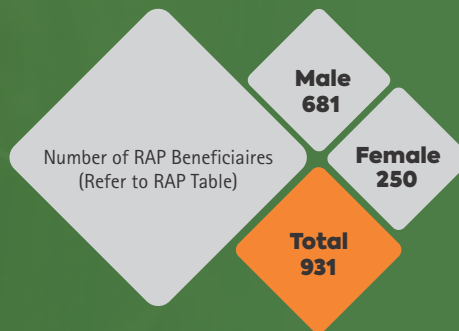
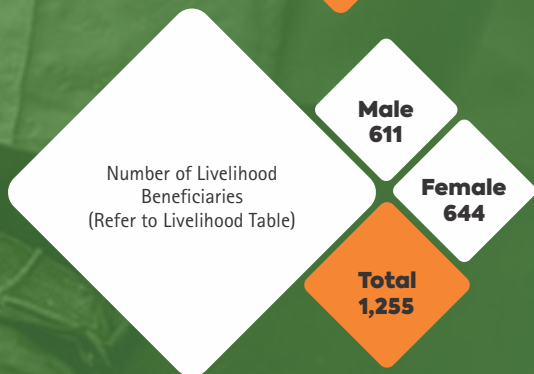
# NEW

# 25,539

# BEN

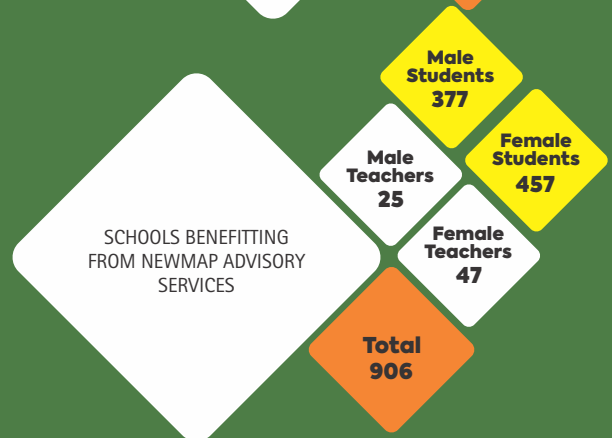
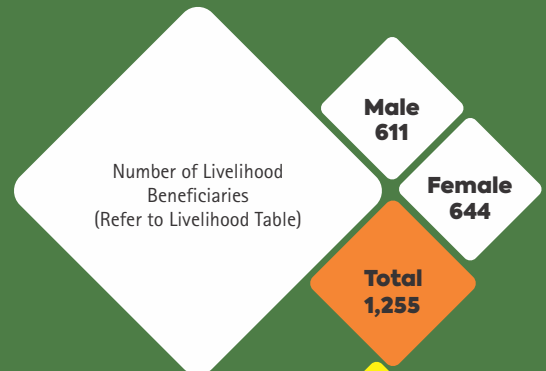
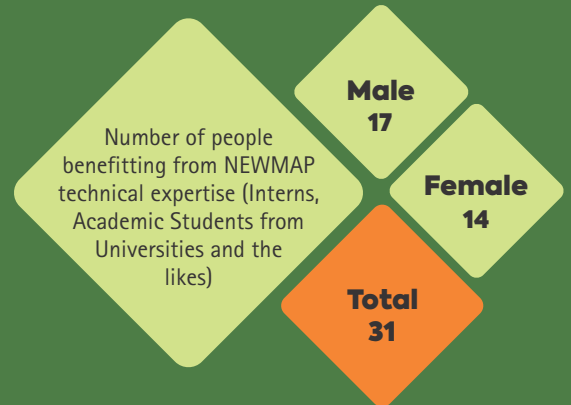


25,539 persons have received NEWMAP supported advisory services in Anambra State including the PAPs, CIG members, those who received the cook stoves, sensitized on waste management, rainwater harvesting, storm water management, soil and water conservation and other catchment management best practices.





# BRA WMAP PROJECT EFICIARIES







# NEWMAP

Nigeria Erosion and Watershed  
Management Project



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