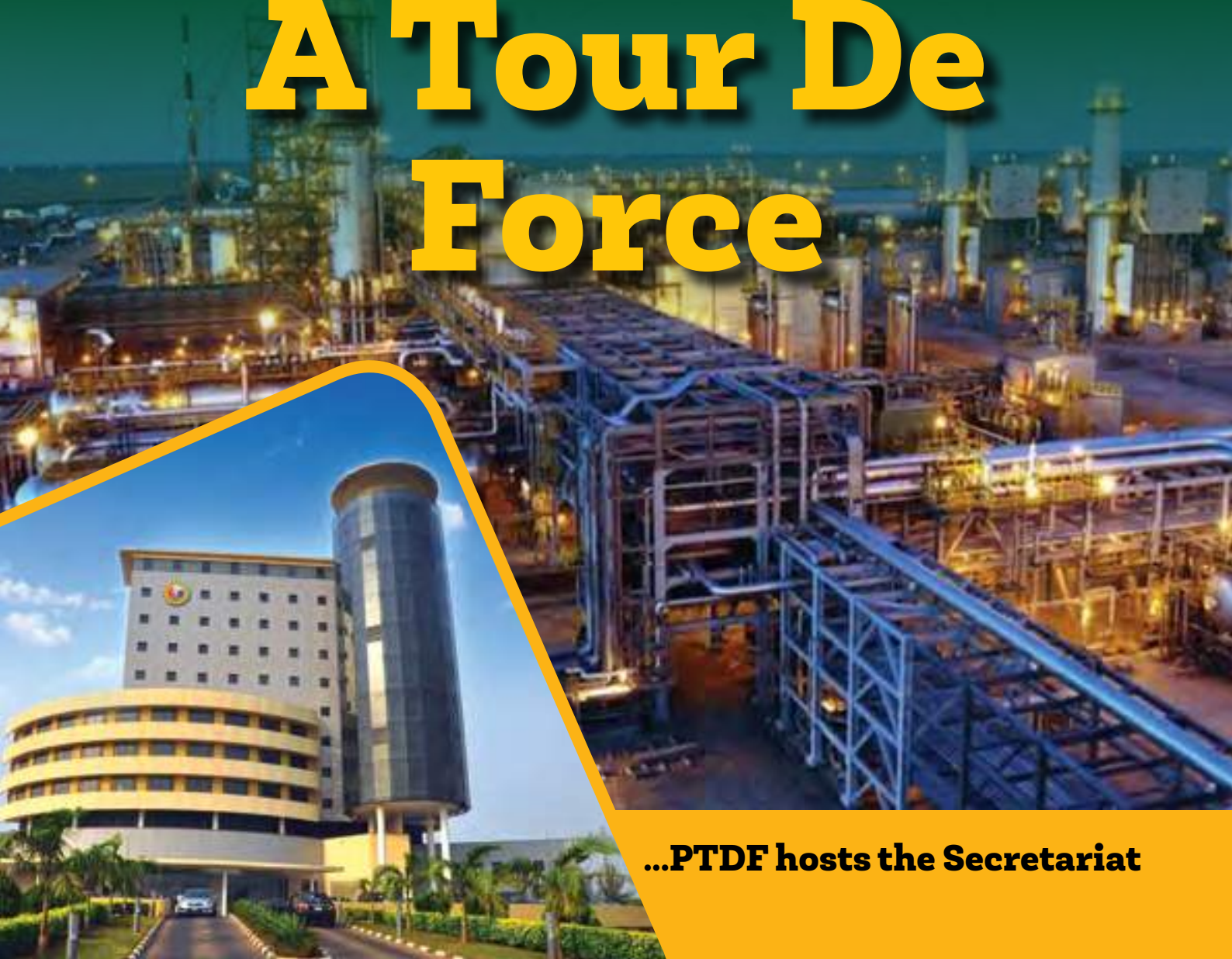


# PTDF Digest

A Publication of the **Petroleum Technology Development Fund**

# PIA: A Tour De Force



**...PTDF hosts the Secretariat**

# PTDF PREMIER CENTRE OF EXCELLENCE

## NATIONAL INSTITUTE FOR PETROLEUM AND ENERGY STUDIES (NIPES), KADUNA



**Institute's Entrance Gate**



**Aerial view of the Auditorium, Hotel and International Conference Centre**



**Aerial view of the Library, Management Wing, Admi Block and Technology Wing**



**Technology Wing**



**Another view of the Library, Management Wing, Admi Block and Technology Wing**



# From the Editor

**I**welcome you all to the year 2022, this is my maiden edition as the editor-in-chief of the PTDF Digest. Like the famous quote, “*To improve is to change, and to be perfect, is to change often*”

Through thick and thin, with serious commitment, we have been able to see light at the end of the tunnel to comprehensively document the scorecard of PTDF to date.

Welcome to a new chapter.

I tagged the year 2021 as a year of emancipation, the biggest highlight within the Oil and Gas industry being the birth of the PIA which was signed by President Muhammadu Buhari GCFR in August 2021.

In this edition, we bring you the experiences of the drafters of this bill and their professional road map to a successful Oil and Gas sector transformation. The tireless and productive work of the PIB drafting committee is being extolled today as one of the most visionary collaborations towards delivering a decentralized, community-rewarding, and systematically regulated oil and gas industry.

Another significant event that took place was the successful marginal field bid round after a long hiatus. With the enactment of the PIA the industry is hopeful for a prolific marginal field bid round

process going forward. As you flip through the pages you shall find the opportunities within the PIA for PTDF.

The industry also, as a fallout of the COP26 Leader’s summit in Glasgow Scotland in November 2021 resolved to embrace NetZero emissions by 2050. That is, no compromise to clean energy and decarbonization. All these have heralded a new focus for the Fund to play a vital role in the Energy transition and diversification of our highly oil-dependent economy. We also share with you in this edition how PTDF is allying to the Energy transition cadence.

The Petroleum Technology Development Fund attained 20 years of its operations as a functional Agency of government in 2020. Prior to the year 2000, the Fund existed only as a desk in the defunct Department of Petroleum Resources (DPR). So, how did we fare over the course of the last two decades? We have looked inward to improve and deliver on our mandate, and the Executive Secretary of the PTDF, Dr. Bello Aliyu Gusau, has shared some of our achievements.

While we should be intentional about our resolutions and dreams, we should also develop our skills, personality, and not neglect our health. I invite you to tap into our learning and growth column,



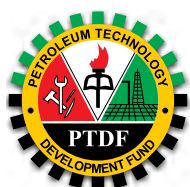
which contains everything that can help us improve.

The year 2022 is expected to bring dividends in line with our projections. All we need to do is be deliberate in our implementation, and we’ll get a good yield. Happy reading!

**Timilayefa Nwajueboe**



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# My Message



I wish to extend my profound gratitude to the management and staff of the Fund who have remained steadfast and loyal in spite of the many challenges we have faced till this time. The year 2021 was indeed a trying year for the PTDF family but we are grateful to God for giving us the strength to keep moving on.

My sincere condolences go out to everyone in PTDF and the families of members of staff that we have lost thus far. May we continue to remember them in our prayers. While the scars are still fresh from these losses and may take time to heal, I implore us all to summon the courage and embrace the good things the remaining months of the year 2022 has in store for us. Knowing we are privileged to be alive, let us put in our best and work in the expectation of our Maker and the success of the Fund.

Once more, I want to take this opportunity to thank everyone for their hard work and dedication in ensuring that the PTDF remains relevant in the delivery of its mandate in the Oil and Gas industry.

**Dr. Bello Aliyu Gusau**  
Executive Secretary PTDF

*From the*  
**Executive Secretary**  
**Dr. Bello Aliyu Gusau**



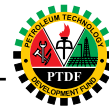
# PTDF: 20 YEARS ON

As PTDF attains a score in its operational years, I would say we have done well. Since assuming its full functionality as a Fund in 2000, though it was established by an act in 1973 sitting as a desk in the Department of Petroleum (DPR) the Petroleum Technology Development Fund has engaged in a lot of programmes towards promoting and empowering capacity development in the Nation's oil and gas sector. Strategically in actualizing our mandate the Fund has been involved in a lot of training and education of Nigerians. It has done a lot in terms of research and institutional upgrades. All these are to help, encourage and improve the quality of the people that we train to engage them meaningfully



in the oil and gas industry. Also, we will be able to export these competencies to other African countries, that need it

so that at the end of the day, Nigeria will be the hub of oil and gas experts for the West African sub-region and



even beyond.

The Fund in 2017 developed the PTDF New Strategic Direction Framework. The framework is anchored on strategic priorities, the implementation of which has impacted positively on the Fund's delivery of its mandate. The strategic priorities are: one, commencement of a phased domestication of the Fund's interventions especially in the Overseas Scholarship Scheme (OSS). Under this domestication drive, the Fund has streamlined the number of partner universities to only 17 universities selected based on their strategic importance and also secured discounts of up to 50% in tuition cost; established new partnerships with German and French education bodies for part funding of visa, health, insurance and living expenses; increased the number of Nigerian Universities participating in the In-Country Scholarship Scheme (ISS) from 23 to all the Federal Government Universities; significantly increased the number of in-Country scholarship awards by over 400%; established the College of Petroleum and Energy Studies through joint venture arrangements with reputable universities overseas.

The other priorities in the framework include the creation of linkages with the oil and gas industry in order to ensure that the benefits of PTDF capacity building interventions are seamlessly realized through increased participation of Nigerians in all aspects of the country's oil and gas value chain; utilization of oil and gas centres of excellence developed in strategic locations to drive the actualization of the Fund's mandate and repositioning of PTDF to be a major source of cutting edge research for the Nigerian global oil industry.

What we are also doing strategically, is that PTDF professorial Chairs in different government universities are focused on industry relevant research. So far, significant breakthroughs have been recorded for some lingering industry challenges. One of such breakthroughs is the development of zeolite catalyst by the PTDF Ahmadu Bello University Chair. We also have another outcome of the research in Sokoto, which is to produce oil well cement using locally available raw materials around Sokoto. We are


working on a partnership with Sokoto Cement company to commercialize the product. And there are more researches like that which we have actually registered as patents. These and other research outcomes have a direct impact on the Nigerian oil and gas industry.

The recent inauguration of the drilling of Kolmani River II Well in the Gongola Basin of the upper Benue trough by President Muhammadu Buhari signifies the commencement of oil exploration in Nigeria's frontier basins and marks a significant milestone in the application of PTDF research outcomes in solving specific problems of the industry in Nigeria.

Another landmark achievement of the Fund is the comprehensive upgrade project executed by the Fund at the Petroleum Training Institute is the rehabilitation and restoration of a dormant and disused demonstration training rig. PTDF not only made the rig and flow stations functional but transformed it to become the only demonstration rig in Africa where International Oil companies send their personnel for hands-on training. Under the infrastructure upgrade project, PTDF equipped the Petroleum Training Institute (PTI) Effurun with the latest drilling simulators known as B5000 and C6000. These were the non-negotiable requirement for accreditation by the International Well Control Forum. This intervention made PTI the only Centre in Africa globally recognized to administer training programmes for oil and gas personnel employed in drilling and well control, well intervention, and work over operations. This shows that Nigeria is interested in catering for the manpower needs of other oil producing countries in the continent.

In the area of renewable energy PTDF has reserved a significant proportion of the scholarship awards towards the development of renewable energy. So, we have sponsored several students in renewable energy areas. We are also hoping to put up a collaboration portal on renewable energy. We are going to include renewable energy studies and research as part of the proposed College of Petroleum and Energy Studies in Kaduna as well.

Again, one of the professorial chairs we instituted is on renewable energy at the Umaru Musa Yar'Dua University Katsina 7 years ago. All the researches



they are doing in that institute is for renewable energy because we knew that renewable energy will be the talk of the future in terms of energy sufficiency. A seminar took place here in the office a few months ago where they exhibited some of the output of their research. The Centres of Excellence we have in Kaduna and in Port Harcourt are going to be essentially dealing with training in renewable energy to be able to meet the renewable energy need of Nigeria and in African as a whole. We want to look at the business of renewable energy and promote those people that are doing new research and innovations, so that the business of renewable energy can be





coordination, there is no regulation. We need to take up the regulatory responsibility backed by law that will empower PTDF to regulate capacity building in the oil and gas industry. I am sure when we do that, more than 90% of the challenges of the PTDF to me will be over.

Despite efforts by PTDF to ensure that its scholars are successfully absorbed into the oil and gas industry, the limitation of its enabling law makes it difficult to achieve that objective. As earlier mentioned, human capital development in Nigeria's oil and gas industry is presently uncoordinated as manpower development initiatives are being implemented by industry players in silos. There is therefore an urgent need for a vibrant umpire to articulate a focused and coordinated human capital development initiative in the industry towards meeting national goals and ideals.

This makes it imperative for a single national platform for human capital development in the oil and gas industry to evolve. These limitations have been acknowledged by the Federal Government which directed the review of the PTDF Act. A committee comprising the Federal Ministry of Petroleum Resources, Federal Ministry of Justice, Office of the Accountant-General of the Federation, and other sister agencies is working on the project.

In conclusion I would say that going forward, PTDF is set for an overhaul in its operations because after twenty years of operation there should be a new focus in the way and manner things are done. That is why the Nine teams addressing every activity of the Fund were set up in November 2020. These Teams are being led by Deputy General Managers and every member of staff is enlisted to at least one Team so there will be cross fertilization of knowledge and accountability in the process. These Teams are given the freedom to think widely based on their terms of reference and present to management actionable proposals that will move the Fund forward ■

promoted because that is the place of energy security in the future.

To me the biggest challenge now really is how to find a way of accelerating the process of reviewing the PTDF Act so that it can be able to provide the governance structure that is in tandem with the current realities and international best practices. All these things are absent in the current law that we have, the law to me is almost obsolete. This law was promulgated in 1973 and since then so many things have happened in the oil and gas industry. And it made certain provisions in the Act, very obsolete and it calls for a comprehensive review of the law so that it will be in line with the current realities of the oil and gas industry.

Amongst other ambiguity in the current Act is that the Act only gave PTDF the backing to build capacity, but it did not give PTDF the powers to engage the capacity that has been built. If you build capacity and you do not engage it, you will lose the skills you have developed. So that is another problem. It is therefore important for the law to specify the regulatory responsibility of the Petroleum Technology Development Fund. As it is today capacity building in the oil and gas industry is being done in silos, the international oil companies are doing their own training, the service companies are doing their own, different oil and gas agencies of government are doing their own, there is no

# PTDF DRIVES ACCOUNTABILITY AND EFFICIENCY

**...sets up nine teams to deliver more achievements**

Dr. Bello Aliyu Gusau, Executive Secretary, Petroleum Technology Development Fund (PTDF) has launched a new strategy to foster efficiency and accountability in the Fund and to create a positive workplace culture for its staff, this was unveiled after his reappointment in 2020 for another four-year term, by President Muhammadu Buhari in recognition of his visionary leadership of the Fund.

To achieve this plan, Dr. Gusau has set up Nine (9) Teams to encourage cross-fertilization of ideas and innovation. The Teams are structured to be led by the Deputy General Managers while the General Managers chaired by the Executive Secretary are the supervising committee. The membership of the Teams cut across different departments in the Fund to deliver on the terms of reference as mapped out by different Teams.

The PTDF Digest crew met the leaders of the Nine (9) Teams to expatiate on the collective efforts of the Teams to drive the actualization and implementation of their specific assignments within and outside the Fund.

**T**he University Upgrade and Resuscitation Committee is set to develop a framework for successfully executing PTDF Universities Upgrade Phase IV and resuscitation of the existing ones for a fit-for-purpose domestication agenda. Mr. Nasir Ahmed is the Deputy General Manager of the Project Department and the leader of the University Upgrade team.

The idea of teams actually is kind of an idea they came about to improve efficiency in the Fund. Yes, we all know that we have various structures and departments in the Fund. And the work of the Fund is done through these departments and structures, you have departments with the General Managers heading them and then you have Deputy General Managers and other staff, so that has been the structure. With the reappointment of the Executive Secretary, Dr. Bello Aliyu Gusau, he thought that probably we can improve the process by having



**Mr. Nasir Ahmed**  
*Deputy General Manager, Projects Department,  
Team Lead, University Upgrade and Resuscitation Committee*

a correspond teams. The whole idea of the teams is to drive efficiency basically and to engender accountability. Yes,

the structures of the departments as we have them will remain, but then by the time you have teams

and these teams are now comprised of staff from across the departments, you will now be able to involve more staff. And then, the Executive Secretary charged these teams with the responsibility of developing terms of reference, developing timelines for their assignments and developing a delivery plan and then the head of the teams will now be charged with the day to day running of these programmes and projects and to see to the successful and timely completion of some of these programmes.

There are Nine Teams across the Fund; I am the Deputy General Manager projects and I head the University Upgrade Team. The University Upgrade Team came about because the Fund is desirous of taking on the 4th phase of the university upgrade programme. The university upgrade programme is a programme that was initiated at the inception of the Fund, it was part of the plan action of the Fund in building capacities to give foreign scholarships to Nigerian graduates but as we move along, we are going to be looking at local universities and improving the infrastructures of these universities to bring them to the standard of any foreign university anywhere in the world. The whole idea is to provide teaching aids, provide laboratory equipment, provide books, provide the building, and provide other services in terms of IT, Utilities; be it water, be it power. So, that has been the programme. So far we have done phase 1, where we did eight universities, we have done phase 2; another eight. We are on phase 3 now with 10 universities ongoing which is almost completed. So, as part of the continuation of that programme, in the University Upgrade Team, we are meant to take on phase 4 of that programme comprising of 8 universities, the universities are spread across the 6 geopolitical zones of the country. So, for each geopolitical zone, there is oil and gas related department that will be upgraded, where all these facilities will be provided.

In terms of the terms reference, it is principally to see to the completion of these universities; implementation that is designed from the onset, the designs of the buildings to procurement, appointment of the consultant to the procurement, to the award of the contracts to the implementation



and completion. That is the main assignment basically and we have a team comprising of staff across departments. I can say that the whole idea is to bring in everybody not to be working in isolation; yes this may be a project department assignment but you have people from legal department, you have people from training department so tomorrow if they find themselves in project department, they would have gained the knowledge.

So, the whole idea is to deliver phase 4 upgrade programme but added to that, we are also going to look at the university lecturers enhancement programme which is currently under the Education and Training Department. We want to see how other programmes can be integrated. The whole idea at the end of the day is to turn these universities into Centres of Excellence. And related to that, our team will also look at the resuscitation of the completed universities that we have done. We all know that technology is dynamic, things have been changing, and even the oil and gas is not static. So, what you have done maybe 5, 10 years ago in a university probably other things would have changed; would have come on board. Part of what our team will do is to also look at how we can intervene, not to go back and redo the whole thing

that we did but just to intervene in a smart way, to update some of the things that we have in place in those universities. So basically that is the remit of our team.

We have presented our concept paper and delivery plan before the coordinating committee. We have identified the steps that we need to take, and this has been presented before management and the management has given a go-ahead to start the implementation.

We have sub-teams that are looking at each aspect of our assignment. We have one sub-team that is focused on procurement and implementation of these new 6 projects, and then we have another sub-team that is looking at the resuscitation component of the assignment, they have visited these universities to see what is on ground which will inform the resuscitation that can be done. And then we also have another sub-team that is looking at the lecturers' enhancement training programme. We should be able to finish the new projects and all the review we are doing on the old projects in not too distant future. The whole idea of having the teams is just to drive efficiency and ensure accountability ■



**Mrs. Rabi'ah Waziri Adamu**

*Deputy General Manager, Education & Training Department,  
Team Lead on STEM Committee*

**Hajiah Rabi'ah Waziri-Adamu, Deputy General Manager, Education and Training Department is the Team Lead of Science Technology, Engineering and Mathematics (STEM) Committee. This Team was instituted to bridge the foundational weaknesses particularly in the area of sciences at Secondary school level.**

### Terms of Reference

- The identification of 1000 Secondary Schools across the nation.
- identification of the specifications for the hardware components
- identification of the software to simulate a laboratory and
- To identify and improve the capacity of the teachers within these 1000 Secondary Schools
- To develop strategy for engaging developmental partners.

The STEM programme came about due to some of the challenges we have noticed in carrying out our mandate. In our various scholarship schemes and other interventions which have always been at tertiary level, we noticed that there are capacity gaps or foundational weaknesses particularly in the area of sciences. So we felt since this is of utmost important to the Fund in delivering its

mandate, it would be wise for the Fund to intervene at the secondary school level which is the foundation, and as a result the STEM programme was instituted.

The main objective of the programme is to train the teachers because we feel by training the teachers you would have a multiplier effect; because they will pass on whatsoever knowledge they have gained to the student. So we decided to improve the pedagogical knowledge of the teachers so that they could deliver the science subjects more effectively, creatively, and to inspire the students. STEM is beyond delivering chemistry, biology or physics; it is also making the students innovative. There is that innovation and creativity in STEM. It is a train the trainer programme. Once you train these teachers, they impact the knowledge to the student and they can also train others in the delivery of these sciences. So basically, that is what the STEM program is all about.

Other components of the programme in addition to training the teachers is to ensure that the students also have hands-on experience and in doing that we would improve the libraries within the institution by supplying books to the schools and other learning aides for the students because in a typical STEM school you

have tool kits where the students can practice their innovative skills. So those are part of the things we would supply. We also looked at the laboratory aspect and decided that it would be a good idea to have simulation software for the students. This software is excellent, It feels like you are in a laboratory and it's even better than being in the physical laboratory because you can make as many mistakes as possible, you can experiment as many times as possible and this actually contribute to the creativity of the students because in a physical laboratory, you are limited to how many times you can use that chemical and how many other reagents you can combine to determine the reaction, whereas in a virtual laboratory, what you can try is limitless. So it is an excellent initiative and we have already acquired that software.

We have other components like the hardware also for the students to appreciate this software; we are supplying computers, projectors and screens for the students to view this software that we have supplied to them.

The intervention in the first phase will involve 1000 Secondary Schools across the nation. So, we would select all the 104 unity schools that we have within the country and the 774 local governments and other schools such as the Special Need schools and those with special talents and gender would also not be left out. At the end of it all, we would have trained 6000 teachers because we are looking at 1000 teachers per subject. The six subjects are chemistry, Biology, Physics, Mathematics, ICT and English Language.

We have gone very far in terms of implementation, we have identified the schools based on the questionnaires that have been submitted, we have carried out analysis of the teachers, subject areas and the facilities present in the schools. We have also acquired the software and in conjunction with our ICT department we have identified the specifications for the hardware and then we have also identified and commenced work with our partners that will deliver the teachers

training. The partner we've identified is Nigerian Educational Research and Development Council (NERDC). Together we've already identified the resource persons and developed the teachers' guide. In all our schools teachers are required to have a guide for the delivery of these subjects. So PTDF in partnership with NERDC

decided to update the teachers. At the end of the exercise, we have an excellent document which has already been published and printed. So we have reached that milestone. The resource persons had some training themselves; we have completed the first and second parts of the training. The first was putting together the teachers' guide,

and the second was putting together the training notes.

There is no clash in having a team on one hand and having a department, the team is there to give a fresh and new perspective to the entire programme. I see it as a creative way of running any programme within any institution ■



**Mr. Usman Pindar**

*Deputy General Manager, Nigerian Content & Industry Collaboration Dept,  
Team Lead Strategic Linkages and Industry Collaboration Committee*

**Mr. Usman Pindar, Deputy General Manager Nigerian Content & Industry Collaboration department, is the Team Lead of Strategic Linkages and Industry Collaboration Committee (SLIC). This team is created to strengthen strategic linkages and industry collaborations.**

I understand and appreciate the vision as initiated by the Executive Secretary. Human institutions like the PTDF are organic. Therefore, every day they try to create different scenarios to ensure service delivery and improved efficiency in what it delivers to its critical stakeholders. We've been doing

many things, and we've been looking for ways to do it even better. Our Mandate is static, and you can't change that, at least not within the Fund. It is what the government has advised us. In trying to do that, we look at several ways of ensuring that we effectively deliver on that Mandate with the least resources and getting the best result out of it. The teams include people from different departments and organs as we know them. So I am the Team Lead for the Strategic Linkages and Industry Collaboration (SLIC) Committee. As the name provides, we are supposed to ensure strategic linkages and Collaboration with the industry, which

### Terms of Reference

- ➔ To develop a comprehensive industry engagement and communication strategy towards enhancing PTDF's relevance in the oil and gas industry.
- ➔ In collaboration with key stakeholders, develop a strategy to drive the utilization of the Centre for Skills Development and Training (CSDT), Port-Harcourt, and position the centre as a hub for middle and low-level manpower development for the oil and gas industry.

is basically at the bottom of what Nigerian Content and Industry Collaboration is supposed to do.

How can you ensure that strategic linkages and industry collaboration are strengthened? For



example, PTDF taken to the industry, and the industry brought to PTDF. In that way, strengthening and ensuring the relevance of the PTDF and ensuring that new services are better performed and are known by the industry and are effectively utilized. In which case, you are getting values for the interventions or values for money as they say in the private sector.

We were told to take the Centre for Skills and Technology Development in Port Harcourt and ensure that it is completed according to industry requirements and that the industry gets to use it after it has been completed. So, we need first to get Port Harcourt online and then get Port Harcourt running, and in doing that, we need to get the critical stakeholders involved in the cooking, in the eating, serving, and in the propagation of how good that food is.

In addition, to ensure that other institutional interventions by PTDF

are sold to the industry, we are also creating the engagement and communication document. You can't sell what is not there. So, you need content, and in developing contents, it is not just Port Harcourt that you will sell to the industry. Even if I am supposed to champion the integration of Port Harcourt into the industry, that is not all that PTDF is doing. And within the larger picture of Nigerian Content and Industry Collaboration, creating linkages, the bridge that PTDF takes to go to the industry and bring the industry back to the Fund, there is a lot more to be done.

In regard to who is responsible for delivering the assignment at the end of the day? There is no concern whatsoever about who is responsible for what. These committees are not departments; they are ad-hoc creatures put together to come and make recommendations that go

to the Management. Whatever the committees come out with will be subjected to the entire processes of the Fund as it is when you are creating programmes and projects. Would you expect the Deputy General Manager in charge of Nigerian Content to be responsible for implementing the communication document at the end of the assignment? Certainly not. There are standard organs within the Fund, and they are the Departments through which you implement what you do. The Fund is one, there are only organs inside, and they are all supposed to work towards one area. The pyramid, as you know, ends at the top. So, all the other interventions that we do, the institutional research and development, are supposed to support human capital development, which the PTDF represents ■



**Mr. Armiyau Baba**

*Deputy General Manager, Finance & Account Department,  
Team Lead, ECM/SOP Committee*

### Terms of Reference

- ➔ To ensure that PTDF processes and systems are automated.
- ➔ To move from the manual way of doing things to an automatic and digitalized form.
- ➔ To ensure we have a quality management system and a standard operating procedure in place.
- ➔ To look at our internal processes and how we do things to proffer solutions and ways of achieving them faster and more efficiently using digital automation.

the ECMSOP Team.

We have done quite a lot. The ECMSOP team has put in place modules that have automated the way we do our work. For example, we have created and rolled out the scholarship portal whereby all scholarship applications are made through that portal from the beginning to the end of the process. The team has also developed the

**The Enterprise Content Management (ECM) Team is headed by Mr Armiyau Umaru Baba, Deputy General Manager Finance and Account**

**Department.**

I am heading the Enterprise Content Management and the Standard Operating Procedure Team,

appraisal, leave, e-memo, the Tenders Board, and Management Meetings modules. So, we have moved a lot from the manual way of doing things to a digitalized form of doing things.

The beauty of this is that all these modules were developed in-house by PTDF IT staff. PTDF is all about training and capacity building, and we have trained the staff of PTDF to the point that they look at the issues and proffer solutions in the form of developing these modules. We are very proud that this is a home-grown module

that makes our work simpler, faster, and more efficient.

Like all new systems, there is bound to be some skepticism from the staff. Before we deployed, there was a bit of apprehension about whether the modules will work or not. However, we decided to train staff first on all the modules before deployment. That training gave us a lot of traction in the sense we did not have too much resistance when we deployed the modules. Also, the modules are very easy to use, so staff found it very easy

to navigate around them. But, yes, there are some challenges and some things we have not envisaged. When these were brought to our attention, we quickly tweaked the modules to accommodate some of the concerns of the staff. But by and large, we have received very positive feedback from staff because, as I explained earlier, automation has made work faster and more efficient. So, many staff are happy with that. They have embraced the ECM modules and the changes that have been made ■



**Mr. Tanimu Ahmed**

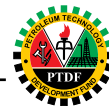
*Deputy General Manager, Legal & Secretariat Services Department,  
Team Lead, PTDF Act Review Committee*

**Deputy General Manager, Legal and Secretariat Services (LSS) Department. Mr. Tanimu Ahmed is the Team Lead of the PTDF Act Review Team. He explains the rationale behind the committee.**

Well, our Team is basically entrusted with the responsibility of reviewing the PTDF Act. As you all are aware that the Law establishing the Petroleum Technology Development Fund is somehow inadequate, there are many important aspects of the

activities of the oil and gas industry that are not adequately covered under the PTDF Act. The law establishing the PTDF empowered PTDF to train Nigerians to qualify as graduates, technicians, craftsmen in the field of engineering, geology, science, and management. Now, it has been there for so many years and as we are aware also the Nigerian oil and gas industry is a dynamic industry, it has undergone a lot of changes, innovations, and so many other things.

This is not the first time the PTDF's chief executive has attempted to review the existing law; sometime near the end of 2019, the Executive Secretary, in his wisdom, formed a committee comprised of various industry stakeholders from the DPR, Ministry of Petroleum Resources, Ministry of Justice, Office of the Accountant General of the Federation, and the NNPC to look into the PTDF Act. The Executive Secretary's vision for



gathering these people is to ensure that all relevant stakeholders are consulted. And at the time, we were able to draft something that resembled a PTDF Bill while taking so many factors into account. The whole idea and vision of reviewing the PTDF Act is to try as much as possible to have a futuristic law that will stand the test of time and its activities, programs, and projects will be in line with the international best practices in the oil and gas industry. It will also put the PTDF in a very good position to be able to collaborate with the other part of the industry and at the same time to be able to implement the various programmes and projects in terms of capacity building. Like you are all aware, there is no organisation that is statutorily and primarily saddle with the responsibility of building capacity in the Nigerian oil and gas industry other than the Petroleum Technology Development Fund. Though there are some organisations whose legislation has empowered them to do similar things as the PTDF is doing. But PTDF is the only organization backed

by law with the primary objective and responsibility of building capacities and competencies in the industry. To position the Fund to play a vital role in the industry is what gave the vision for the review of the PTDF Act. We are looking at the previous work and currently, we have done quite a lot in terms of looking at the existing Law, looking at other organisations, looking at the current and future activities in the Nigerian oil and gas industry to see how to be able to produce a document that can help Nigerians to be able to compete favourably in the Nigerian oil and gas industry in terms of building their capacities, in terms of research and in terms of technology development as well as renewable energy.

Immediately after the constitution of the committee, we tried to understand our various personalities as an individual; we then set smart goals, specific, measurable, achievable, realistic, and time-bound goals for ourselves which we reviewed collectively. We looked at such areas

as the regulatory function and some other areas which were not developed by the previous committee and developed them. The committee consulted and is still consulting with both the internal stakeholders and the external stakeholders, bringing them on board, getting their input.

We also passed our work to the central coordinating committee consisting of the Executive Secretary and all the General Managers for their input. We have also made a presentation to the entire members of the staff, with the view of giving them the opportunity to also contribute towards the development of the Bill. The bill has about nine (9) parts, 40 sections, 2 schedules, and 1 explanatory note.

Like I said earlier, we have an action plan, and based on the action plan, we are on course, and we are hoping that very soon the Bill will be before the National Assembly. It has been a very good teamwork from the beginning ■



**Mr. Mohammed Haruna**

*Deputy General Manager, Admin & Human Resources Department,  
Team Lead, Organisational Restructuring, Discipline and Equipment Committee*

**Mr. Mohammed Haruna is the Deputy General Manager, Admin, and Human Resources Department. He is the Team Lead,**

**Organizational Restructuring, Discipline, and Equipment and he has this to say about his team.**

The vision toward the creation of

this committee is to see a change in our corporate relationship and corporate image, in terms of corporate outlook, interactions, the



speed with which we discharge our functions, the way we relate with our customers; the public especially in the oil and gas industry, the way we relate with the sister agencies in the industry and international corporations in the industry.

We have started work, we have drafted some strategies that we are going to be adopted and very soon you will begin to see the results. Some of the work we are doing is to restructure some of the things that we have been doing and we want to key into the dynamics of the oil industry that is

why we are restructuring the way we do things. We are reviewing staff promotion; we are looking at the area of discipline, corporate ethics, and other related matters.

We are also looking at working tools, we are going to provide a lot of new working tools to the staff so that it will complement the effort the staff are making so that we generally have improvement and enable them to key into the dynamics of the industry.

There is no overlap between the responsibilities of the Admin and Human Resources department and the

committee. The committee's terms of reference are assignments that are mostly aligning with the work of the department. Ideas are generated and deliberated within the committee, thereafter we work out our strategies towards achieving the set goals. These strategies are forwarded to the department for implementation after getting approval from the Central coordinating Committee. So, there is no contradiction ■

**Mr. Olayinka Agboola, Deputy General Manager, Strategic Planning and Documentation (SP&D) is the Team Lead for Research and Innovation Committee. He explains what the committee is doing about Research and Innovation in the Fund, what is on the ground and the improvement measure to be taken moving forward.**

### Terms of reference

- To examine PTDF mandate in terms of technology development vis-a-vis research and innovation.
- To examine the current research programmes in the Fund and assess the impact of these programmes in the oil and gas industry.
- To outline a new approach after doing this review to look at how to come up with new approach to conducting our research and innovation base programmes.
- To see how to introduce new programmes and new activities that would allow us to achieve greater relevance in the area of research and innovation.

The Committee has been working been working assiduously to see how to meet the terms of reference assigned to it by management. And, in general, we are looking at the internal and external assessment and review of the current research base programmes that we run. We engage with stakeholders; internally, we conduct a review as a committee to examine what has occurred over the



**Mr Olayinka Agboola**

*Deputy General Manager, Research & Strategic Planning and Documentation Department, Team Lead, Research & Innovation*

years. We look at the financial review to see how much money has been spent on these programs in relation to the results that have been achieved over the years, and then we look at how well we have done.

Aside from that, we believe there are many stakeholders with whom we will collaborate who have been involved with some of the things we do over the years, since the Fund's inception. We also intend to enlist their help in determining how well we did, so that they can make an assessment as well. We have stakeholders drawn from academia, industry, and other

government agencies. What we did was create a questionnaire, which we will now use to engage them in discussions to determine how well we have fared over the years. They were also able to conduct an assessment for us, and we have the results of that assessment, which we are currently working on; a lot of recommendations and observations have resulted from it.

We're also taking a holistic look at the research and development value chain to see which stages we've done well and which areas of the value chain we haven't covered

well. So, these are some of the assessments we've completed, and it's a comprehensive assessment because we're also working with stakeholders from academia, industry, and other government agencies to see how they can assess and advise us on areas where we can improve. In our stakeholder engagements, we were able to do online benchmarking to engage with stakeholders to benchmark similar organizations who have also been very active in the area of research and innovation to see what they are doing now, the areas where they have been able to make some progress, and then to see what and what we can adopt from some of their measures to improve on what we currently have.

It's not much of a challenge because what the committee is supposed to do is very much similar to what is being done in the department, it's not a completely new thing. It is just that some people are now brought to now look at things holistically and then do a review so that you have a different thought and opinion. It is a way of having some people to look at what you are doing outside the department, and they can also give their own independent assessment to make some recommendations to enrich that process. We will eventually have a dispassionate opinion about how others feel and how certain things should be done, recommendations on areas of improvements as well as new

programmes or new approaches or new strategies that you can use to actually enrich the existing programmes so that at end of the day, these programmes can meet up with the objectives and most importantly to ensure that we achieve relevance in the oil and gas industry with research and innovation. Because we know that research and innovation are the bedrock of most of the things that are done in the industry. So, setting up the committee is a welcome development which I believe at the end of the day will actually go a long way in enriching the activities of PTDF ■



**Mr. Garba Bako**

*Deputy General Manager, Procurement Unit,  
Team Lead Procurement Committee*

**Mr. Garba Bako is the Deputy General Manager Procurement Unit and the Leader of the Procurement Review Team. This Team ensures that the procurement processes are efficiently followed as predetermined by the procurement Act. Mr. Bako has**

**this to say in the interview.**

Towards the end of last year, the Executive Secretary deemed it fit to put those committees to see how the workflow will be more effective. He formed committees, and I am happy to be heading one, which is the Procurement Review Team. Generally,

our primary function is to ensure that all procurement processes and procedures are professionally and transparently followed as stipulated by the Act. And then, we should as well have the COVID in mind to see how the processes will work smoothly and seamlessly. So, that is the focus of the Team.

## Terms of reference

- ➔ To put together a robust in-house procurement flow process pathway for departments and units that are desirous of carrying out procurement processes will follow;
- ➔ To develop a procurement handbook, just like a quick reference, not the Act itself or government circulars or public regulations. Extract things that will be beneficial to the staff of the Fund.
- ➔ And then finally to come up with timelines, from start to finish; how long will it take for a process to start and to finish.

There is wisdom in putting people together. When you put 2, 3, or 4 good

heads, they give you a better result. If I'm in procurement, there is a pattern I do things, and when people come in, they give me new ideas, things you may never even thought of. People tell you, why not do this; why not do that, and then you will start seeing from their end or point of view, and you will see significant improvement in what you do. Sincerely, I will tell you that what the Executive Secretary did was a very laudable programme. He has created value for the entire departments and units because people from different departments were posted to other departments to serve in teams that they may not have been part of. In the end, the whole Fund is driving towards achieving a certain goal; the goal of PTDF achieving its

mandate, and everybody is moving together. There is a great success in that because everybody is participating. So, I like that. I love it.

Finally, I will say that Procurement Unit stands alone and with the Team. All the departments and units who want to procure must come to the Procurement Unit, so the Team is working with the Procurement Unit. The procurement review team is the only Team responsible for delivering the goals because our job does not converge with other departments. We work with all departments, but the Team is responsible for delivering the goal in terms of this aspect ■



**Mr. Waziri Zanna Laisu**

*Deputy General Manager, Special Programmes Unit,  
Team Lead, College of Petroleum and Energy Studies, Kaduna*

**Deputy General Manager, Special Programmes Unit, Mr. Laisu Zanna Waziri heads PTDF University of Science and Technology/College of Petroleum and Energy Studies (PUST/CPES) Team. This team is**

**charged among other things with the responsibility of creating an institute in Kaduna which is envisaged to be a hub for the entire Petroleum and Energy industry in Nigeria. He explains their plans.**

One of our main responsibilities is to look after the establishment of the College of Petroleum and Energy Studies in Kaduna. We've been asked by the Executive Secretary to talk to universities, to partner



and arrange the collaboration with universities across the globe especially the traditional universities that PTDF deals with, and then the Russell Group universities. That's in the first phase. In the second phase, we will be looking at universities that PTDF has maintained partnerships with such as Universities in China, Germany, and France.

The College of Petroleum and Energy Studies has three legs; the Career Progression Programme, the Continuing Professional Development Program, and the Postgraduate Programs. The postgraduate programs will have five faculties; the faculty of Engineering, Information Communication Technology Art and Applied Sciences, Environmental Sciences, and the Health, Safety, and Medically related sciences.

On the delivery of the continuing professional development, the PTDF and the NNPC Leadership Academy undertook comprehensive work and developed programs across mid, down, and upstream sectors of the industry. These programs will be delivered within the College of Petroleum and Energy Studies. When we realized that some critical elements of the career progression program were missing, we reviewed the programme further to incorporate talent management and the IT. So, to that much, we've been able to develop a framework and the report is ready for the management of PTDF and NNPC to consider. What that means is, we are creating a hub within Kaduna for the entire energy industry in a coordinated path for them to have a training institute that will develop and deliver both career progression programs and continuing professional development programs. Going forward, PTDF will now undertake almost all the continuing professional programs for the stakeholders and for the entire industry.

We've been working closely with the National Universities Commission, the regulating authority, on postgraduate programs. We already have the foundational documents, academic brief, and master plans and we've submitted our letter of intent indicating that PTDF will operate postgraduate programs on site. All of these documents have been received by the NUC. We intend to get the final approval to commence academic



activities, hopefully, in 2022, we've had discussions with over 20 UK universities we are going to have multiple partners across the faculties; these are universities that PTDF has been dealing with. The essence is to retain the value of what PTDF scholars enjoy these standards and qualities would not be lost. It's going to be an international joint venture partnership, and the College in Kaduna aspires to become a world-class training college that serves the demands of the entire energy industry in Nigeria and Africa.

The nature of the partnership is a joint venture. Some of the universities we've had discussions with are the University of Strathclyde, Portsmouth, Wolverhampton, New Castle, University of Heriot-Watt, and Robert Gordon. The certification will be either dual or single. These universities are open to the options that we have, they are willing and are ready for either a single award or a joint award because all of these options are allowed under the provisions of cross-border education as stipulated by the National Universities Commission. The CPES

will truly stand shoulder to shoulder with all these universities in the UK. For starters, the PTDF will redirect a number of these overseas scholarship scholars towards Kaduna, and as a result, it will be open to the public, allowing people from all directions, particularly those from the West Coast, to come in and receive the best education available in the UK and beyond in Kaduna.

We are also working with the Galaxy backbone to ensure that a strong and reliable IT backbone is there to deploy a virtual learning environment. This is the way to go now because of the pandemic virtual learning is happening all over, but we have to start with a split-site Ph.D. whereby scholars will spend some time in Kaduna and then go to overseas universities for supervision. Our initial plan was to start with the split-site Ph.D. in the first quarter of 2022 and then commence the MSc programs in September 2022 ■

# PIA:

## A Tour De Force

**...PTDF hosts the Secretariat**

As the nation was busy battling with Covid-19, the PIB drafting Committee headed by the Hon. Minister of State Petroleum Resources was busy looking at what the future of the oil and gas industry would become post-covid-19, for investors, host communities, regulators, and all Stakeholders. We have seen the dividend of their concentrated effort in bringing to bear the Petroleum Industry Act which was accented by President Muhammadu Buhari on the 16th of August 2021. This indeed is a big achievement for the Committee members because the PIB now PIA has metamorphosed through various stages and administration because of the issues that prohibited it from seeing the light of day.

Whereas most players in the

industry are expectant that the committee upon inauguration will hit the ground running, others are carefully dissecting and x-raying the Act drawing out contentious areas. With all the clusters of interest hammering on the PIA some fractions are asking should it have been better for the industry to be without the PIA? is it better to have the PIA at this time in our industry? or should the industry have continued with the way things were before the emergence of the Act.



The unbiased assessment is that the Nigerian oil sector must function to add value to Nigeria in all facets and if that is the consensus of the

populace then we should look at the benefits the Act has to offer. In the developed world laws formed kept evolving and pass through different stages of modification to suit the

present realities.

Amidst the ensuing deliberations from different factions of the industry players and interest groups, the PIA is a commendable landmark achievement

in the history of the Nation's oil and gas industry, we need to put the PIA on a scale and appreciate the work of the Committee and other players have put in to deliver this piece of value.

## Drafters of PIA explain their experiences, legal provisions and justifications

**T**he philosophy and justification of the newly accented Petroleum Industry Act (PIA) are better understood when explained by those who spent long days, hours, and months deliberating, compiling, and sharing ideas about the appropriateness of every word, paragraph, and chapter included in the law. In this spotlight, they walk us through their involvement, accomplishments, and why the PIA is a Tour de Force in the Nigerian oil and gas industry.

**Dr. Kelechi Onyekachi Ofoegbu** is the Senior Technical Adviser (Legal) to the Honorable Minister of State for Petroleum Resources Timipre Sylva, and Executive Commissioner, Economic, Regulations & Strategic Planning of the Nigerian Upstream Petroleum Regulatory Commission. He also serves as a member of the PIA implementation working group, and as the Team Lead for the legal and fiscal workstream implementation working group. He was involved in the drafting of the PIB, which is now the PIA, and he shared his experience with us throughout the process.

### My Experience

It is actually an experience which I hope I can document in a book co-authored with my colleagues in the drafting team at some point in our lives because it was such a checkered experience, I know that every day we went there with gusto with passion and with commitment, because we knew that we were part of something bigger than ourselves, it was potentially a line of sight to bequeathing a legacy to the successor's generation within the industry and we knew that this law was going to be a step change not just



within the sector but to the country, especially when you remember that this sector accounts for at least eighty percent of the forex that this country relies upon, so we were faced with very many challenges, the uncertainty the criticisms, the push backs from different interest groups to be honest and you know that because this is a law that that is not just a legal document it is an economic document as well, so people had diverse interests, most times conflicting with one another, so it was also a challenge to see how you could marry these diverse interests together and still come out with a cohesive document and try to address the interest of all these various stakeholders one the one hand and on the other hand we also knew we were racing against time, we did not have all the time in the world so the time constraint was also there and hey

we thought that the interest was only from within the country even from outside of the country we were getting pressure to pass the law in a certain way, have provisions that favored one interest group or the other, we had to rise above all of that and wear our patriotic caps, our nationalistic caps and ask ourselves at the end of the day what do we want to achieve and we were clear in our minds that we wanted to achieve what is good for Nigeria and the generality of Nigerians and to the glory of God we have done what we have done, by no means a perfect document but it is a start and that is exactly what we wanted to achieve.

### PIA in Concise

Areas the Act is going to address I have termed as the 7Cs, to help anybody understand the broad thrust

of this law. The first C is what I call **Compartmentalization** and that is basically that the PIA has demarcated the roles of the regulator and the regulated, for instance, prior to the PIAs coming it was all jumbled up, you see NNPC playing a quasi-regulatory role sometimes and even the regulator the defunct DPR would be expected to play a commercial role but he didn't have the power or even the competence, the capacity to play that role so what this law has done is to ensure that that demarcation has been fairly established that compartmentalization has been ingrained in the law so there is of course the role of the commission, upstream commission it is different from the authority which is focused on the midstream and the downstream, that is one area of compartmentalization, another area of compartmentalization is between the technical, the commercial role and the environmental roles of the regulators for instance and importantly the role of the regulator vis-à-vis the role of NNPC and other industry operators that are now going to be subject to the regulating rule of the subjects so that is the first C that is for Compartmentalization, the second one is **Clarification** basically the law tends to clarify the intent of investments in the first instance the intent of regulation in the second instance and clarify other aspects of industry operations so that there is absolutely no doubt in anybody's mind especially from an investor perspective when they are coming into Nigeria to know these are the fiscal regimes for instance that are applicable to gas to crude oil production, midstream, downstream and all of that, so it clarified all of those regimes attending there to, next one is **Collaborations**, so there was a sort of collaboration in the industry before the bill was passed into law however this law has now made it a matter of law basically that the upstream has to collaborate with the downstream, the ministry of petroleum resources has to collaborate with the ministry of finance, the ministry of petroleum resources has to collaborate with the ministry of environment for instance as far as environment impact assessments are concerned, all of that, so that makes it that of course when

you have that sort of collaboration that is an absence of friction, that just ensures that parties can work together with minimal friction, next is **Competition**, we created a whole new ministry on downstream sector because we wanted that multiplier effect into the economy, because prior to this time it was an upstream focused business which basically focused on the fact that oil is drilled, brought to the fore sold and then the money is shared among the sub nationals of course the national government as well, but participation by the common man the average Nigerian was excluded, because that space, barriers to entry was so high there was no real completion in that space in that market space what this law has done is open up that space by having a myriad of licenses that ensure that everybody can play at every level depending on your pocket on your passion on your interest Next is **Consultation**, now as a matter of Law this law ensures that to have that cohesion in operations everybody is talking to one another, so the minister is talking to the regulators the regulators are talking to the industry and even the regulators are talking among themselves as well, if you recall that the functions of the default PPPRA and PF have now been subsumed into the authority there are different sectors within that catchment area that are now subsumed into the authority, this law ensures that every interest group is carried along with a view to understanding what their issues are what their interests are, and the law also mandates a stakeholder engagement for instance in the regulations making process, that was deliberate to ensure that we have a regulatory regime that works for everybody and that we are not sitting in the comfort of our offices and assume that we know what is right for the industry without actually get out there to talk to the operators, Next is **Control** now especially from an acreage management perspective there are time lines for the doing of certain things required by law so the courses of action that are mandated by law for instance when application for ministerial consent is made or when application for assignments are made prior to this there was no indication to how long it would take the process

owner or the minister or the regulator to respond by law now we have said you have to respond within a certain time and if you fail to do that, that application is deemed to be approved that is what you call the default approvals. Now the regulator and the minister knowing that, would have no choice but to respond promptly of course that has a positive effect on the industry, it just means that no one is going to wait inordinately. All that uncertainty is going to be removed and that takes me to the last C which is **Certainty**, what the law has done is to infuse certainty across the board, across the entire value chain, so when you make applications you are now certain that you are going to get a response within a particular period.

Hitherto we have lost a lot of money, Mr. President said in the last 20 years or so we must have lost at least 50 billion dollars worth of investments all on the account of our fiscal regimes because the investors like certainty, if there is no certainty about what returns on investments would come to them in a particular jurisdiction, they just take that investment money to other places where there is more certainty, so this law has come to address all of this.

## My Role in the Implementation Committee

As laudable as the passage of the law is, it is only about 20 percent of the work, traditionally what people say about us as a country, as people is that our problem is not laws or policy or rules, our problem is enforcement, implementation, and all of that. so, we realized right from the go that we needed to have a very robust implementation strategy, that defines how we go about operationalising the law. That is why the implementation framework was ready even before this law was passed, So, as soon as it was passed Mr. President approved the implementation framework and inaugurated the steering committee and which then implemented the inauguration working group that I am part of,

My role is the team lead for the legal and fiscal workstream, and in that



regard, I am responsible together with my colleagues for churning out the regulations for the entire value chain, including upstream, midstream, downstream, and even FIRS, it includes those who will govern the industry, as well as those who will regulate NNPC and the rest of the industry's operators.

We are also looking at model contracts because there will be contracts, such as when we hold a bid when contracts will be awarded at the end of the day. We are to create this template, and all of these are intended to infuse certainty so that people understand the rules of the game even before they begin the process. so, if you are going to jump in you jump in with the full knowledge that these rules are going to apply all through and there will be no circumvention or attempt to change the rules midstream, so that is what my committee is saddled with

### **Balancing undue litigations, Interest of Stakeholders and the Nation**

So that is the beauty of mandating by law stakeholder engagement, and we knew this was best practice, but we also knew we could not accommodate every interest at 100 percent. So, what we did was engage a broad spectrum of stakeholders, both within and outside the country, and it was clear to everyone that if you wanted ten things and got three out of ten, it was explained to you why you couldn't get the other seven because where your rights end, another person's rights begin.

Again, you understand that this law is a law for everyone, not just one sector of society; as a result, people understood and bought into the vision,

which is why there was not even one disruption in the process of making it. Apart from the fact that we had the whole 3 percent issue, which was very emotive, you see how it was eventually resolved because people understood that we have to start operationalizing the law first, give the law a chance to work and like every other legislation no matter how well-intentioned, no matter how well-drafted it lent itself to amendments. of course, even if it was not because of the situation today, new, and emerging socio-economic and political circumstances may necessitate an amendment and we are not shy as a government in taking the right steps in the interest of not just the sector but of the people if and when that time arises. That was how we could avoid all of that but we are going into the more difficult stage of implementation, there is no telling what lies ahead but I can only say we



will use our best endeavors to ensure we adhere strictly to the law and carry all the stakeholders along such that there is transparency and there is visibility, there is a line of sight as to how we arrived at whatever decision that we arrived at, that will ultimately form the regulations or contracts that will then govern the industry operations.

### The requirement to drive this process

We have already recognized that this law is not just a legal document it is an economic document, it underpins how we survive going forward as a country, energy transition is real for us, Mr. President at the last UN Climate Change Conference (COP26) pledged

that Nigeria will transit to NetZero carbon emissions by the year 2060 and we are working assiduously to achieve that target. Also, as a country, we have stated that natural gas is our transition fuel and in some cases, it will also be our destination fuel. So, we understand that this is a new playing field for the people, particularly the regulators, who will be tasked with enforcing the law and ensuring that the objectives, particularly the economic objectives, are realized and achieved.

So, there is a very robust capacity building program that we designed at the implementation working group level that will be rolled out when the time comes but of course that also depends on the mapping of the current skills that we have because by law

we have to preserve all the jobs in the industry, but we are now going to look at those people and see what skills they possess and place their skills in juxtaposition with the skills that are required to operationalize the law and achieve the objectives that we set out to achieve. We'll see what the gap is, and then those training will be targeted at closing not just the gaps on a broad scale, but because those gaps are tied to individuals, and as we try to close the gaps on an individual level, we'll be closing the gaps on a broader scale, and that will ensure that we're not only building capacity individually, but also across the industry, at least at the regulatory level, and that will help us achieve our overarching goal ■

**Mr. Lawal Musa** is the General Manager/Lead Business Advisor to the GMD, NNPC. He participated in the drafting of the PIB and currently a member of the PIA implementation working group. He shared his presentation at the Judges conference organized by the Petroleum technology development Fund which focused on the fiscal structure of the PIA, the provisions around the creation of NNPC limited, the midstream gas infrastructure Fund and what community Fund and exploration Fund is about.

### Fiscal Structure

When you look at the fiscal structure, what is more important for any person of authority is the reasoning behind the structure, so if you look at the fiscal structure, for example, you will know that Nigeria is challenged from an investment point of view. Nigeria relies on the petroleum industry. Therefore, we need to grow the revenue base for the industry, but the only way you can do that is if you're able to attract investors. And the reality is capital allocation has no emotion. Capital goes to where investment delivers the highest returns, as you are aware Nigeria for the last 50 years has most of the operations handled by IOCs, and few Nigerian independents. Today



has changed; these same investors who are around us today have options, options right from Africa to global space, options beyond the petroleum industry, looking at renewables and some other investments. They also are having peculiar, unique situations today where you have activist investors sitting on I expect you to continue with integrity and ensure that

this job is completed within the time frame that Mr. President has given to us, you are all aware that we have 12 months, and we have spent some months already of that 12 months. And of course, you know that this industry is at the core of Nigeria's economy. So, please do not take your job lightly, take it with all seriousness, and ensure that you deliver the mandate that has been



handed down to us by Mr. President of the Federal Republic of Nigeria. On this note, you are hereby inaugurated.

The board of some of these IOCs, for example, and you don't seek to invest in any portfolio that you have clear visibility around renewable because of sustainability questions because of compliances. So, what this means is that for Nigeria, from our energy transition point of view we from a country perspective might not necessarily be ready, but the global space is moving towards cleaner energy, energy transition. So that reality forces a challenge for Nigeria on two points. One, the ability to attract that investment, to maximize the use of oil so that you can transit out of oil and the use of oil, however, to do that, you must be able to address the peculiar challenges that are currently limiting their ability to attract that capital, which is from a competitiveness point of view. Prior to this PIA, the Nigerian fiscal structure is one of the toughest fiscal structures in the world, almost among the top 10. However, with the design of this Act, Nigeria has now become a very competitive business environment that can now attract new capital but doing that also will have an implication on government revenue. So, the design of the act allows for a dual structure where you allow our respect existing operators, they took FID before this Act, and they are currently operating. So, you give them the option; combat to somewhat better terms that way you guarantee returning those operators in-country. However, you also do not shock government revenue significantly. What it does, it attracts new investments. You now need to have a new fiscal structure that is competitive across the globe. People can now rank Nigeria compared to any other prolific Jurisdiction and take an investment decision. So that is the new compact new Kris taps. So that would the fiscal structure recognizes also that in today's terms we have two major fiscal structures, which are reality and taxes and in the design, two reality structures were considered; a reality based on production and realty based on price. This enables the government when the price goes above \$50 per barrel, win-win, and the government gets something. And then investors



also get something but below \$50 because most of the breakeven price, most of the investments are around \$50. So that we do not overburden the Investor below \$50. But when it is above \$50, then it's a win-win.

### **Tax Structure**

The same way the tax structure was also. Are broken down into two. So, you have the hydrocarbon tax, and you have the SITA before now, you only have PPT and you have as high as 85% as tax. Now, normally in fiscal design, there's something called the coincidence index. If there's no incentive for someone to see naturally what the result will be is high-cost overproduction. Costs may end up being the new profit. So, the act separated to two and a half the hydrocarbon tax and SITA and SITA primarily because it has to be general application irrespective of industry. However, industry-specific incentives can now be aligned to the provisions of the hydrocarbon tax. So, this is the fiscal design and we're confident at the end of this exercise, Nigeria is now ranked among the globally

competitive countries, not only in terms of fiscal structure but rather even the prolific opportunity that is available. So, this is really about the fiscal structure.

### **The NNPC Limited**

Then the other segment of the presentation talks about the certain arm of the NNPC limited company. And what this will do for Nigeria is it will now as a matter of responsibility, mandate the national oil company to be profitable, to be competitive, and to be commercially focused. This allows for the separation of responsibility between the regulatory bodies and the commercial arm of the industry. So, it will be primarily governed by Karma rules. However, pending when there is a dilution of shares once the government has a hundred percent shareholding to continue to appoint the board often dilution, even if it is 1% of private investment into the national oil company, then every appointment of the board and management will be based on the karma. This is a major shift for Nigeria.



## Exploration Fund

And the other segment of the presentation talks about the exploration fund. Today Nigeria has about 37 billion barrels of the reserve. If you do not replace and you continue to produce to get to your point when we'll deplete our reserve completely. So, the only realistic way to improve your results is if the government itself takes that economic effort from a policy standpoint. Therefore, to continue exploration Fund, 30% of PSE profit is allocated so that you can now explore in a high-risk environment, including the ultra-deep of Niger-Delta today, the Delta basin, the Anambra Basin, the Chad Basin, and the rest of them. So that we can harness this resource, maximize the oil; use the oil to transit out oil. So, the provision for frontier exploration fund is actually in the question of sustainability for the country. If not, do nothing scenario, we'll continue to produce at the rate of either 2 million barrels or 2.5 million barrels in the next 40 years, we'll go to zero would deplete to zero.

On Energy Transition

So that means the energy transition will catch up with Nigeria without

readiness. This is how significant we understand the energy transition. We will also agree that we as a country because developed world, can come up with a policy; big announcements have been met in terms of energy transition. They have clear programs backing it and they have a fund. However, for us as Nigerians and Africans, we must be realistic to ourselves. What we have today is the resource is petroleum. So how do we first move from a perspective of transition to start with the transformation? So we transformed the energy uses so that long-term we can then translate for two reasons because if you talk about China, the EU migrating to electric vehicles by 2035, the reality is today in Nigeria, the ability to catch up in terms of the switching costs, how many people can buy new cars in Nigeria, so that means very few, so if it is very few in means fossil fuels will continue to energize the transport system in Nigeria for a while. Even if there's the capacity to buy new EVs may be in the next 20 years or so, reality is that you also need the power infrastructure to support this, if not, you can't charge the car so you can't travel with the car so that means it's of no use. So, to do that, means you need to have a vibrant midstream and downstream because you need to have enough electricity generated. And the only way you can do that today more than 70% of electricity generated in Nigeria is gas.

## Midstream Gas Infrastructure Fund

Therefore, the contemplation of the act introduced the gas in the midstream gas infrastructure Fund is to enable the domestic utilization of gas that we can have more gas into the domestic. That gas will now be used for the gas to power projects; it can be used for gas-to-gas base industries and the rest of uses for the gas. So, this is the only way Nigeria can grow. If not, you can't have Nigeria growing without electricity. GDP to population ratio is going at par and the only way you can do that is if you're able to embed and cope by having generation distribution and transmission reliable, which can now improve the industrial sector, that way the economy can grow. So that is

the intention of the midstream gas infrastructure.

## Host Community Fund

Then the last part is the host community fund, which also, we're able to have some level of discussion around the host community fund and the Act provided for host community funds as the first level of intervention that recognizes the host community directly. This is the first time in Nigeria this is the only act that recognizes and defines something called host community in Nigeria for the first time. So, to me, that act of recognizing and defining something called host community is the biggest benefit of this act Irrespective of the contribution that is now allocated to the host community. And in terms of structure, host community funds will be directly administered. So, it will not go through the governance. It will not pass through the chairman. It will not go through the counselor. It is the host community directly, and the intention is to be able to do capital projects up to 70% of that contribution, 5% without contribution. And you can also then invest 20% in terms of reserves so that you can have investment management that can generate more funds to sustain the future. And you can then have only 5% for administrative costs for special projects. To us this design that empowers the community, a direct benefit scheme is more than any other thing that you can think of. It's not about the amount of money, if were to be the amount of money the existing interventions from the 10% revision NDDC, the measure of Niger Delta, and all of that would have helped transform and allow the industry the freedom to operate. But today it's not the case. So, host community Funds intend to allow for a direct benefit scheme, under a proper structure with clear governance, starting with a board of trustees, the management committee, and advisory committee, and all these are going to be from the host community is host community driven. And the settler has to now secure the freedom to operate from that community as an exchange with that contribution. So, there's rewards and consequence ■

## Steering Committee on Implementation of the Petroleum Industry Act (PIA) set to meet deadline

It was a cry of eureka when His Excellency President Muhammadu Buhari finally accented to the bill on the 16th of August 2021 and today, we have a consolidated law governing the industry, incorporating modern best practices that will lead to extreme reforms.

Immediately the PIA was birthed, President Buhari announced the members of the Steering Committee on Implementation of the Petroleum Industry Act (PIA). This move provided a ray of hope and heralded the dawn of a new era, as the best intentions in policies and laws promulgated have been made mocked due to inefficiency in implementation.

The steering committee is headed by the Honourable Minister of State, Petroleum Resources, Timipre Sylva. Other members are Permanent Secretary, Ministry of Petroleum Resources, Dr Sani Gwarzo; Group managing director, NNPC, Mele Kyari; Executive chairman, Federal Inland revenue services (FIRS), Muhammad Nami; Senior Special Assistant to the President on Natural Resources, Dr Nuhu Habib; representative of the ministry of justice; representative of the ministry of finance, budget and national planning; Olufemi Lijadu is appointed as external legal adviser while the Executive Secretary, Petroleum Technology Development Fund (PTDF), Dr. Bello Aliyu Gusau is to serve as head of the coordinating secretariat and the implementation working group.

The primary responsibility of the steering committee is to oversee the effective and timely implementation of the PIA during the reform program's transition to the petroleum industry, as well as to ensure that the new institutions established are fully capable of carrying out their mandate under the new legislation.

With a one-year deadline to deliver



*Chief Timipre Sylva, Honourable Minister of State, Petroleum Resources*

on their terms of reference, the committee members have begun work by establishing the mode of operation for success. This was kick-started by constituting members to work in the secretariat made up of industry experts.

During the inauguration ceremony that was held at the Committee's secretariat in PTDF, Chief Timipre Sylva commended the members stating that they have been carefully chosen to play the critical role to ensure strict implementation of the PIA which he said will complete the PIA picture. He also noted that he will that the passage of the Bill is a 40% achievement of the PIA while implementation of the Act is 60% though he will concur with the view that implementation should be accorded 80%.

*Distinguished ladies and gentlemen, I am told that you have been carefully chosen to play this critical role that you have already begun to play. The passage of the PIA, I will say is 40% of the job done and implementation is 60%. Some people will even say that passage of the bill is 20% of the job and the implementation is 80%. And sometimes I tend to agree because of the Nigerian situation, we are all aware that we are not where we are not because the laws do not exist but the problem with Nigeria is implementation and enforcement of, the laws are there but they are obeyed, or they are circumvented.*

He further encouraged members to continue with integrity which is one of the attributes of their being selected.

*I expect you to continue with integrity and ensure that this job is completed within the time frame that Mr. President has given to us, you are all aware that we have 12 months, and we have spent some months already of that 12 month. And of course, you know that this industry is at the core of Nigeria's economy. So, please do not take your job lightly, take it with all seriousness, and ensure that you deliver the mandate that has been handed down to us by Mr. President of the Federal Republic of Nigeria. On this note, you are hereby inaugurated ■*





## DID YOU KNOW

The PIA provides legal, governance, regulatory and fiscal framework for the Nigerian petroleum industry, the development of host communities, and related matters. It repeals the following Acts:

1. Associated Gas Reinjection Act, 1979 CAP A25 Laws of the Federation (LFN) 2004, and its amendments;
2. Hydrocarbon Oil Refineries Act No. 17 of 1965, CAP H5 LFN 2004;
3. Motor Spirits (Returns) Act, CAP M20 LFN 2004;
4. Nigerian National Petroleum Corporation (Projects) Act No. 94 of 1993, CAP N124 LFN 2004;
5. Nigerian National Petroleum Corporation Act (NNPC) 1977 No, 33 CAP N123 LFN as amended, when NNPC ceases to exist pursuant to section 54(3) of this Act;
6. Petroleum Products Pricing Regulatory Agency (Establishment) Act 2003;
7. Petroleum Equalisation Fund (Management Board etc.) Act No. 9 of 1975, CAP P11 LFN 2004;
8. Petroleum Equalisation Fund (Management Board, etc.) Act, 1975;
9. Petroleum Profit Tax Act Cap P13 LFN 2004, (PPTA); and
10. Deep Offshore and Inland Basin Production Sharing Contract Act (DOIBPSCA), 1993 CAP D3, LFN 2004 and its 2019 amendment.

<https://home.kpmg/ng/en/home/insights/2021/08/president-signs-the-petroleum-industry-bill-2021-into-law.html>



# PTDF APPRISES JUDGES AND JUSTICES ON THE FUNDAMENTALS OF THE PIA

**T**he Petroleum Technology Development Fund (PTDF) convened Judges and Justices of the Supreme Court and other superior courts of records, to educate them on the fundamentals of the recently signed Petroleum Industry Act (PIA), allowing them to contextualise the legislation's prescriptions and wisely deploy their interpretive discretion and wisdom in the overriding national interest.

The two-day National Oil and Gas Workshop, titled: "Petroleum Industry Act: New Legal and Fiscal Regime in the Nigerian Oil and Gas Industry," was the third in a series of capacity-building workshops for Judges and Justices organised by PTDF in collaboration with the National Judicial Institute (NJI). The event was

presided over by the Minister of State for Petroleum and Natural Resources, Chief Timipre Sylva, and the Chief Justice of Nigeria, Hon. Dr. Justice Ibrahim Tanko Muhammad, who is also the Chairman of the Board of Governors of the National Judicial Institute. Other eminent jurists at the PTDF House for the workshop included: the President, Court of Appeal, Hon. Justice Monica B. Dongban-Mensem, the Chief Judge Federal Capital Territory High Court, the Administrator, National Judicial Institute, participating Hon. Justices and Judges of the Supreme Court, Court of Appeal, Federal and State High Courts including the Federal Capital Territory High Court.

The resource persons were conscripted primarily from the personnel who actively participated in

the drafting of the Act as well as other relevant subject matter experts drawn from various fields of endeavors.



Speaking at the workshop, the Executive Secretary of the PTDF, **Dr. Bello Aliyu Gusau**, stated that the Fund's sponsorship of the training is in accordance with its capacity-

building mandate for the oil and gas industry, adding that the 2021 National Oil and Gas workshop for judicial officers was deemed critical in light of the imperatives of appreciating the unique regime of the oil and gas sector codified in the new Act.

Dr. Gusau while acknowledging the judiciary as a catalyst for the successful implementation of the Act, explained that it was with this in mind that the Fund organised a multidisciplinary capacity-building event that covers all areas of the industry. *“PTDF recognises that in today’s training of Judicial Officers, it is necessary to acknowledge the complexity of the judicial role: thus, this training is multidisciplinary viewing the complex legal, technical, economic, financial, political and environmental problems associated with oil and gas exploration and production.”*

The Executive Secretary thanked the Chief Justice of the Federation and the Minister of Petroleum Resources for their continued support of the Fund and the National Judicial Institute’s collaborative effort, expressing confidence that the collaboration will always be in the country’s best interest and that of the oil and gas industry.



In his remarks, the Minister of State, Petroleum Resources, **Chief Timipre Sylva**, while appreciating the collaborative effort of the PTDF and NJI, said the workshop could never have come at a better time as dockets of the Judiciary is expected to soon be populated by disputants whose opinions differ on how the law should be operationalised given the interest the law generated nationally and internationally. This, he said makes it imperative for the Judiciary

to acquaint itself with the philosophy and thrust of the law.

He further highlighted the global challenges facing the Petroleum industry arising from domestic and wider international environment, the COVID-19 pandemic, global energy shift, and overall financing of global fossil-fuel projects which has made it imperative for the country to move on the fast lane in order not to be bugged by unnecessary litigations that will retard the growth of the industry and the nation’s economy.

*“These global scenarios provide the context within which your Lordships will preside over cases that are brought for adjudication in your respective courts. Our current realities necessitate that, cases be treated with dispatch and urgency as the luxury of time is no longer available. In this regard, your Lordships will have a crucial role in ensuring that counsels do not defeat the intent, spirit, and letter of the law by resorting to practices whose nuisance value far outstrips the usefulness of any such interventions when they are subjected to the overarching test of the national interest.”*

Explaining the philosophy behind the new PIA, the Minister informed the gathering that the law was essentially meant to provide for the legal, governance, regulatory, fiscal framework, and other related matters in the upstream, midstream and downstream sectors of the petroleum industry in the quest to provide value for the country’s existing hydrocarbon resources.

*“As you would hear during this Workshop, the PIA 2021 overhauls the legal and regulatory framework of the Nigerian petroleum industry and clarifies the rules of engagement for the monetisation of our valuable hydrocarbon resources. The philosophy which underpins the design of the law is anchored on several objectives and core principles. At the heart of this philosophy, is the overarching aim to establish good governance, competitiveness, global best practices, and the ease of doing business within the petroleum sector. The law is designed to guarantee early revenues for Government, clarify roles and simplify the administration of the sector, infuse transparency and predictability in regulation, ensure equity and fairness for all industry players and mandate*

*the rules-based responsiveness of regulators.”*

He then urged the judges to be guided by the overall national interest in adjudicating in same matters as the law tries to accommodate various interests.

*“While every care was taken to accommodate different shades of opinions in the law, there is no gainsaying the fact that there are people who feel that everything they wanted in the law was not reflected and so may feel the need to litigate unnecessarily to challenge certain aspects of the law. Again, your Lordships are respectfully enjoined to be aware of such antics and to patriotically disavow them if and when they ever arise.”*



The Chief Justice of Nigeria, (CJN) **Hon. Dr. Justice Ibrahim Tanko Muhammad**, described the PTDF-NJI workshop as a regular feature on the NJI’s calendar which consistently impacts on the output of the judicial officers. He expressed confidence that the workshop would further expose Justices and Judges to fundamental development thereby enabling them to build capacity on the relevant laws governing oil and gas industry.

*“The judiciary is not oblivious of the fact that these new reforms and provisions are bound to provoke conflict in the area of interpretation, especially among major stakeholders and investors in the industry. Essentially, this will require us as judicial officers to have a proper grasp of this new legislation. Consequently, this workshop will bring to the front burner, the imperatives for correct judicial interpretation of the Petroleum Industry Act. I am satisfied with the choice of topics and the calibre of the resources persons, and I firmly believe that we will find this workshop enlightening and rewarding.”*



In his address, the Administrator, National Judicial Institute (NJI), **Justice Salisu Garba Abdullahi**, also explained that the workshop was convened in furtherance of the statutory mandate of the NJI as enshrined in section 3(2) of its Act which makes provision for the institute to serve as the principal focal point of judicial activities relating to the promotion of efficiency and improvement in the quality of justice delivery.

He stated that the workshop organised by the PTDF, has been beneficial and has provided Judges and Justices with the necessary skills to provide optimal justice in oil and gas-related matters over the years. *“My Lords, over the years, this workshop has impacted our Justices and Judges with the requisite skills to dispense justice efficiently and effectively as regards Oil and Gas matters.”*

He said the new legislation comes up with many innovations that need proper contextualisation by judicial officers in the course of their justice delivery endeavour. *“It is expected that the innovations introduced by the PIA will give rise to legal issues among stakeholders in the sector that would require the attention of the courts; hence the need for this collaborative effort between PTDF and NJI to further ensure that our judicial officers are updated on new developments in the sector.”*

Among some of the presentations during the workshop included: **“An overview of the Petroleum Industry Act 2021”** by Dr. Habib Nuhu, Special Adviser to the President on National Resources, **“Overview 2 and Fiscals of the Act”** by Mr. Lawal Musa, General Manager and Lead Business Advisor to GMD/NNPC,

**“Development Contracts in the Upstream Sector”** by Professor Dayo Ayoade mni, Department of Jurisprudence, University of Lagos and **“Growing Influence of Renewable Resources in the Energy Mix”** by Dr. Victor Dare, Oil and Gas Strategist and Management Consultant among others.



The former General Manager, Legal and Secretariat Services Department, PTDF, **Mr Balarabe Zaharadeen Ahmed**, while explaining the justification of the Fund’s decision to engage Judges and Justices for annual training, said the Fund considers education and training as life experience which needs to be sustained continuously. He said that the recently signed Petroleum Industry Act (PIA) would usher in a paradigm shift in Nigeria’s oil and gas industry, which should be explained to Justices and Judges as the custodians of law and adjudication, and to whom the public would turn for issues, problems, and challenges.

*“In every human endeavour, there will be some challenges and problems, and these challenges and problems will invariably end in court; so, these members of the judiciary are the ones that are supposed to listen to parties that feel aggrieved by the provisions of the PIA or because of the application or operations of the provisions. Some disputes are most likely going to arise, and they are the people to adjudicate, so it is very important that we do this workshop to acquaint them with the provisions of the PIA, explain to them the rationale behind every provision and also prepare their minds that there may be some thorny areas where disputes might arise and they should be ready and whatever they are going to do they*

*should do it in the national interest”.*



**Dr Habib Nuhu**, Special Adviser to the President on National Resource Development makes the introductory presentation titled *“An overview of the Petroleum Industry Act 2021”*. Dr Nuhu gave government’s justification and the philosophy behind the new law and while commending PTDF for a timely intervention in line with its capacity building mandate for the oil and gas industry said that the workshop will no doubt engender delivery of desired value proposition across stakeholders and ensure proper understanding of the new law by the Judges and Justices.

*“When you look at the nexus between PTDF as a capacity anchor envisaging the need to on a proactive basis, create an opportunity for justices and judges to acquaint themselves, to have a deep understanding of the principles and philosophies behind the PIA provisions. Obviously, it’s a very strategic intervention that PTDF is bringing into the fore in terms of building domestic capacity and understanding of the law, and also proactively preparing the judiciary for the full implementation of the law. I believe we should encourage PTDF to do more in that respect across spectrum of stakeholder base in the industry that will engender the delivery of the necessary aspirations and value proposition the law seeks to deliver to the stakeholders and Nigerians at large”*





**Mr Lawal Musa**, General Manager and lead Business Adviser to GMD/NNPC continued the presentation on “*Overview 2 and Fiscals of the Act*” dwelling more on the fiscals and various contracts encapsulated into the PIA culminating to the birth of a new national oil company out of NNPC. He expressed confidence that PTDF’s intervention in this respect will ensure proper understanding of the PIB. *“For Nigeria and petroleum sector particularly, the bridge to value is in terms of competency development. Therefore, the efforts of PTDF in developing and organizing this kind of forums and more other ones in terms of sponsorships right across the value chain cannot be overemphasized and may not be appreciated in the medium term, but however in the long term. Nigeria will stand to benefit the critical benefits that PTDF brings. I see PTDF as a bridge to value for Nigeria”*.



**Prof Lawan Mamman**, one of the discussants and resource person to the workshop said the significance of the exercise organized by PTDF cannot be over emphasized as it will acquaint them with technical oil and gas areas that are hitherto opaque to the judicial officers. He said the workshop will lead to the development

of our case law in Nigeria relating to oil and gas sector. *“Oil and Gas industry is a technical area and there is always need for the judicial system to be very much aware of this area. So, it’s really very important that the PTDF is taking up this challenge as one of its mandate to educate the judicial sector in this technical oil and gas areas. And this help greatly in enhancing their capacity to adjudicate over matter that are coming before them and it will also consequently lead to the development of our case law in Nigeria in the area of oil and gas”*.



**Dr Victor Dare**, Oil and Gas Strategist and Management Consultant presented on “*Growing Influence of Renewable Resources in the Energy Mix*” he took Justices and Judges on the unique area of Renewable Energy as a very significant area that requires proper understanding of the legal luminaries as the way of the future. He also highlighted potential areas of litigation and disputes that might be coming before their lordships sooner or later.

*“The core cardinal of it is to open the mind of the Judges, because at the end of the day when renewable energy became dominant in our economy, there will be litigation, there will be legal issues on it and of course the issue of contract agreement, the issue of stakeholder’s agreement and disagreement will come up. So, we are taking time to educate the Judges and to build their capacity in renewable energies so that when matters are coming up on renewable energies, matters on contract, matters on economic, benefit matter of taxation, matters of who owns renewable energy, where is it located and where it’s not located they are the custodian of these legal issues because most of the*

*litigations are going to end up in courts, so they need to be abreast with the new development in the energy sector”*.



**Professor Dayo Ayoade** mni, Department of Jurisprudence, University of Lagos presented on “*Development Contracts in the Upstream Sector*” which x-rayed various contracts that the Nigerian state utilizes to explore or produced oil and gas resources in relations to the newly accented PIA 2021. These contracts include modern concession contracts, risk sharing, Joint venture and production sharing contracts.

He said its important for justices to promote arbitration as against to litigations as regards the PIA which takes more time to resolve. *“Because of the way these contracts were structured it is important to avoid litigations because these are millions and billions of dollars contracts. Going to court may keep it for 10 years to resolve and that is not healthy for a commercial business of that magnitude. They want to go to arbitration and the question is there will be issues that will come before the lordships on these contracts and we have to act in a way that will promote national interest because the PIA tries to avoid undue litigation. Some lawyers may want to exploit these loopholes, so its important for the judges to let any contract that has arbitration clause to be resolve that way first before resorting to litigation”*



**Hon. Justice Adebukola Banjoku**, a Judge of the Court of Appeal Lagos Division also commend the organisers of the workshop affirming that, the engagement has exposed them to issues related to the PIA and the renewable energy which she said will aid her judicial work.

*“For me it was a very great experience because I am new into the Court of Appeal and I am from a jurisdiction that didn’t deal with Petroleum, it was really an eye opener and very educative to understand the Petroleum industry Act (PIA) and to also understand the imperativeness of why we need to succeed. Also knowing the synergy between that and arbitration and trying to encourage that to avoid litigation which is endless. Trying to stir the parties to respect the agreement is also very important. But what really made me very excited about this program is the fact that it encouraged and it has a foresight on renewable energy which is the new way of the world”*



**Justice Mojid Ogbuwaje**, a Presiding Justice of the Court of Appeal, Calabar also concurred the significance of the workshop and its significance to the judges and justices. *“This workshop is quite relevant in the sense that when there is a new law such as the*

*Petroleum Act there will be questions of interpretations to be handled by judges and other members of the judiciary; that is judges’ and justices, and the workshop has quite exposed us to some not all of the intricacies that could be involved in the interpretation of this new law, so it is relevant and very useful to judicial officers”.*



**Justice Suleiman Kawu**, the Chief Judge of Kwara State appreciated the two-day engagement and particularly pointed out many areas of value addition and exposition to judges and justices like the host community and other contentious areas. He commended PTDF for yet another initiative of its kind.

*“I must start by commending the PTDF for organizing this workshop; it has come at a most appropriate time, bearing in mind that the Petroleum Industry Act has just been signed by the President, and naturally whenever there is any new law issues will come before the courts for adjudication, for interpretation particularly those issues bothering on percentage to be given to the host community. Things like what is the meaning of host community? Is it the ward where the oil is extracted or the whole local government? How will they manage all these resources? These are issues that may come before the courts and PTDF thought it wise to organize this workshop, at least to prepare the mind of judges before these cases begin to come to them for interpretation. I think it is a very nice idea to have this workshop at this time. I am absolutely satisfied with the way PTDF has conducted the conference, they have always been able to get the relevant resource persons to render useful knowledge to participants”.*



**Hon. Justice Olasumbo Goodluck** JCA, a judge of the Court of Appeal, Jos Division while commending the timely initiative of the workshop by PTDF on a thorny issue that has been bothering everyone for a very long time affirmed that it will not only aid their understating of the new law but equally ensure effective justice delivery.

*“I must say that it is an eye opener. The PIB is relatively new in the judicial operations. This is more or less a very fast course that acquaint us with what the PIB is all about and fortunately for us we have good core of presenters that broke the various aspects of the PIB. And it has given us an insight into PIB and as stakeholders in the justice delivery process. I find the program suitable in in what we can do to move the PIB forward. Now I think I have a clearer insight on what PIB is all about and I think it will make my work easier whenever I find this subject matter”.*



**Tanimu Ahmed**, Deputy General Manager, Legal and Secretariat Services expressed satisfaction with the way the workshop is conducted, saying that it cannot come at a better time than now that, the law was just assented by the President. *“I am very much satisfied even from the feedback*

we got from the participants which shows that they truly have gotten value for their time. Also, the array of the resource persons, even they themselves testified that they are very resourceful people with very good skills, knowledge and competencies. Like you observed, most of them had actively participated in the drafting of the bill. They have the knowledge in their hands; they also possess the competencies and the skills. Presence of personalities like Chief Justice of Nigeria, the Honourable Minister of State Petroleum Resources, the President Court of Appeal and respective judges further attest that it is a very successful program”.



**Olumuni Abdulaziz**, Director of National Judicial Institute (NJI) in concluding remark attested that, PTDF-NJI collaborations and partnership has over the years impacted in providing meaningful contribution to the development of the judiciary and help in bringing about more vibrant judiciary rich in oil and gas industry and other related matters. “We are indeed very grateful for the opportunity to collaborate with PTDF and what I can simply just say is to encourage the PTDF to continue to collaborate with agencies that

will positively lighten the burden of the industry and stakeholders because it is by this kind of collaborate that we get the opportunity to critically look at issues and see how we can resolve them and resolve them to the benefit of the stakeholders and then to the benefit of Nigerians.

These National Oil and Gas Workshop is the 3rd in the series of it organized by Petroleum Technology Development Fund (PTDF) in Conjunction with National Judicial Institute (NJI). The Fund in 2017 has in a landmark and proactive move brought together judicial officers of various court jurisdictions to a unique capacity building workshop on enhancing the quality of judicial services in the Petroleum sector. The positive outcome of the engagement process with jurists responsible for interpreting the law through judicial pronouncements on a variety of cases including oil and gas related matters, created the impetus for PTDF to in November 2019, host judicial officers to a 2 day capacity building workshop focusing on Nigeria’s Oil and Gas Laws and Regulations” ■



# PIA: PTDF READY TO PROVIDE REQUISITE CAPACITY FOR IMPLEMENTATION

**As Federal Government sets up a committee to ensure speedy implementation of the recently gazetted Petroleum Industry Act (PIA), Dr. Bello Aliyu Gusau, Executive Secretary, Petroleum Technology Development Fund (PTDF), who is the head of PIA Implementation Steering Committee's Coordinating Secretariat and Implementation Working Group, has stated that the Fund is ready to respond to the new responsibilities created in the law by providing people and institutions with required competencies that will drive the implementation of the act.**

Dr. Gusau made the disclosure at the PTDF Headquarters in Abuja while receiving the Management of the Department of Petroleum Resources (DPR) led by its Director / CEO Engr. Sarki Auwalu on a courtesy call before the defunct of DPR.

He said as the agency of government empowered by law to carry out the mandate of capacity building for the oil and gas industry, PTDF is fully ready to align itself with the new challenges and role that will be provided by the Petroleum Industry Act (PIA) which requires training and capacity building for effective implementation.

He said the major role of the PIA Working Group is to provide guidance and coordination on the expectations of all the stakeholders, he added that whilst most of the work is going to be carried out by people and existing institutions in the petroleum industry saying, the task requires more training and retraining to effectively deal with the challenges of the new industry will be confronted with.

*"I believe there will be new responsibilities, new roles and*

*functions and I know it will require a lot of training and retraining for people who are going to assume these responsibilities as provided for in the new law and in the kind of arrangement that this law is going to provide for. What I can say is that I am pledging the readiness of the PTDF to help to provide capacities, the skills and the trainings and retraining that are required. This is what our mandate is as enshrined in the PTDF Act"*

Dr. Bello Gusau thanked the visiting Team for allowing some of

their staff to contribute to the formulation of the act and further commended the management for anticipating the changes that may occur with the implementation of the PIA and proactively positioning itself to be relevant to the new dispensation.

*"I am so happy that the DPR is already going ahead to anticipate what is going to happen in the implementation process because it is going to be a journey and it is better to commence this journey early*



*that will go a long way in simplifying the process and it's a proactive step that I assure you is going to assist the implementation process".*

Dr. Gusau applauded the partnership between PTDF and DPR which resulted in the two institutions jointly tracking the inflow of Funds into the signature bonus account which is the main lifeline of the PTDF. He also commended the initiative of inviting the Fund to attend the presentation of oil fields development plans, which he said will aid in shaping the PTDF's capacity-building projections.

*"The leadership of DPR invited us to be sitting in the presentation of field development plans and that is important to us because it focuses our attention to where to direct our activities, by attending such meetings we get to know where the industry is heading and what will be the skills and capacity requirements of the industry and we make up our plans accordingly".*

Engr. Sarki Auwalu, earlier in his address, stated that he believes it is

critical to lead a powerful delegation on a courtesy call to the Executive Secretary of the Petroleum Technology Development Fund (PTDF) in the spirit of inter-agency collaboration and to assure him of their readiness to support the full implementation of the recently passed Petroleum Industry Act, in which the Executive Secretary played a vital role towards its drafting and still has a key role to play in seeing its final implementation.

*"Our visit is in two-fold one to establish and guarantee our support to the PTDF in its quest of establishing skills and capacities for Nigerians especially those that have the interest in oil and gas and to guarantee our own capacity as regulators and give our support to the Secretary of the PIA implementation committee in his own capacity and show our readiness to ensure that the PIA work in the interest of Nigerians and the benefit of our future generations".*

He described the Executive Secretary, PTDF as one of the brains

behind the then PIB who after 20 years has been privileged to witness the passage and implementation of the PIA. *"The leadership of PTDF has a lot of institutional memory and capacity for the entire industry and that being recognized the entire process of de-risking the oil and gas industry is put in his hand to manage which he did very well, and we are not surprised that Dr. Bello Aliyu Gusau has carried everybody as a neutral, balanced and unbiased umpire".*

Engr. Sarki Auwalu emphasized the need for capacity building in the journey to the implementation of the PIA and said that with the quality of scholars and industry training provided by PTDF over the years the Fund is well-positioned to support that process. He said the industry requires capacity and skills for values to be created without which the industry will never go anywhere ■



# TVC CONTINENTAL SEEKS TO COLLABORATE WITH PTDF



*Mr Balarabe Ahmed, GM Legal and Secretariat Services, PTDF delivering the welcome address on behalf of ES*



*Mr. Kumar, Head, Business Strategy, TVC Continental giving out his brief during the visit*

**A** Lagos based television network, TVC Continental has expressed desire to collaborate with the Petroleum Technology Development Fund (PTDF) in the dissemination of capacity building effort and other strides of the Fund in spite of the challenges of the Covid-19 Pandemic.

The head Business Strategy, TVC continental, Mr Kumar made the disclosure when he led a team of their management to PTDF Headquarters in Abuja on a courtesy call to the Executive Secretary, PTDF, Dr Bello Aliyu Gusau.

Mr Kumar said the team identified the Fund for specific engagement after the appreciating the great effort the Fund is undertaking to build indigenous capacities for the Nigerians oil and gas industry inspite of the challenges of the pandemic.

He said, inspite of the effect of the Coronavirus pandemic which adversely affected most institutions across the country, the PTDF stands out as one best institution that has deployed strategies to wither the storm and work with a new normal.

*“We are aware of the great work you are doing even though Covid 19 has affected lots of your plans and aspirations but we are committed to profiling the things you do and tie it with a new normal. We help our potential partners and tell their stories in the best way possible. It has to be a partnership that works for you”.*

In his response, the Executive Secretary, PTDF, Dr Bello Aliyu Gusau thanked the team for their exploit and desire to partner and support the Fund in its effort to provide manpower and capacities to the oil and gas industry in Nigeria, describing it as a step in the right direction.

The Executive Secretary who was represented by the General Manager, Legal and Secretariat Services, Mr Balarabe Ahmed said the Fund maintain a cordial relationships and partnership with the media over the years. *“I believe we have a lot to do together, over the years we maintain relationship with the media, of course Covid-19 has done lots of devastating damage to the activities of many institutions, PTDF included. But there is a great hope that we are going to do more this year and as we do we have to communicate same to others”*

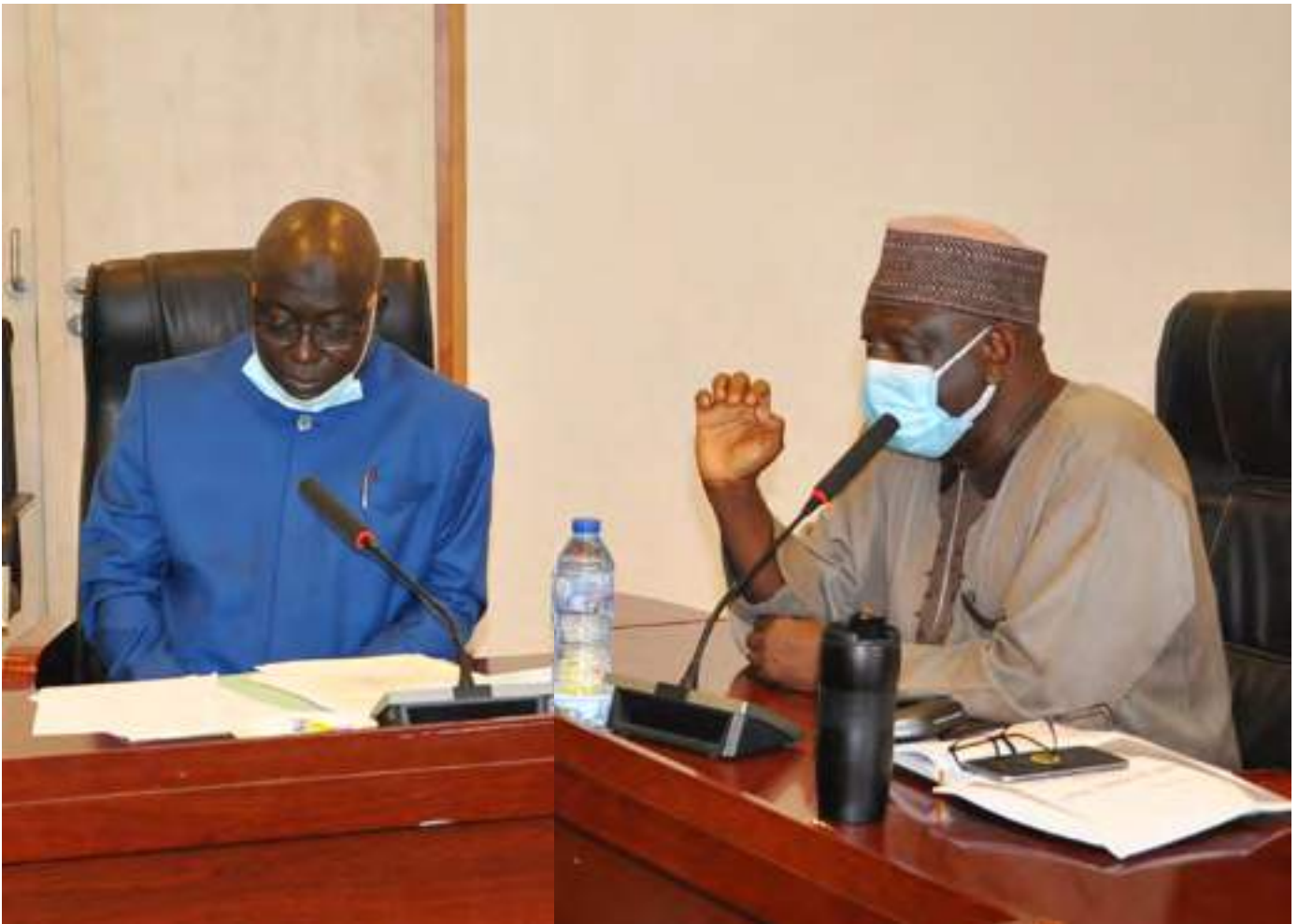
The Executive Secretary then charged the Press and External Relations unit of the Fund to continue from that light and ensure the partnership has been concretized between the Fund and the TVC continental network.

Deputy General Manager, Nigerian Content and Industry Collaboration of the Fund, Mr Uthman Pindar in his remark informed the visiting team that, the PTDF considers the coming of the Covid-19 as not just a challenge but an opportunity to use the new normal and collaborate with institutions like the TVC and PTDF saying that, there is a lot of potentials for collaboration between the two institutions ■



*Some Management and Staff of PTDF in a group photograph with some TVC Staff*

# NASARAWA STATE UNIVERSITY SEEKS PTDF SUPPORT



**T**he Executive Secretary, Petroleum Technology Development Fund (PTDF), Dr Bello Aliyu Gusau, received a delegation from the Nasarawa State University Keffi (NSUK).

The delegation was led by the Vice-Chancellor of the University, Professor Suleiman Bala Mohammed, to seek support from the Fund.

While stating the reason for the visit, the Vice-Chancellor

congratulated the Executive Secretary on his well-deserved re-appointment as the Fund's Chief Executive Officer. He also appreciated the excellent work the Fund is doing in massive manpower development through awards of



scholarships and other capacity building interventions to deserving Nigerians.

The Vice-Chancellor specifically thanked the PTDF for establishing a 1000 capacity ICT Centre in the University and seeks further support from the Fund. To this end, he urged the Fund to endow a Professorial Chair in Medical Geology and Environmental and further upgrade the existing ICT Centre built by the Fund to a more prominent centre with increased capacity.

In justifying the quest for the Fund's endowment, Professor Suleiman emphasized the significance of Medical Geology when the government is refocusing its attention to the development of solid minerals, which he said are in abundance and also goes with a lot of health hazards. *"The mining of these mineral resources goes with a lot of hazards and challenges; therefore, the only way these issues can be addressed*

*is through medical geology. This field is just evolving in the University which happens to be the first in Africa to establish the centre"*.

Professor Suleiman further stated that the establishment of the Centre for Medical Geology Research in collaboration with some agencies and institutions across the world would add significant value to the country, considering the vantage position of Nasarawa State as the home of solid minerals.

A Medical Geologist and Director, Linkages and International Cooperation at the University, Dr K'tsoNgharbu, who was part of the delegation, explained the impact of medical geology as a sub-discipline of the Health Sciences. *"I will refer to medical geology as a double-sided coin where one side looks at diseases related to rocks, Minerals and geologic processes while the other side looks at the benefits of rocks, minerals and geologic processes and*

*the values they add to the health and the environment."*

In his response, Executive Secretary PTDF Dr Bello Aliyu Gusau commended the Vice-Chancellor for his familiarity with the Fund's programmes and activities and described the visit as timely coming when PTDF's domestication initiative of its scholarship scheme and other programmes are receiving management attention.

The Executive Secretary further disclosed that the Fund had extended its university upgrade programme to six universities, one of which is their neighbouring University at the Federal University Lafia. He, therefore, promised the Vice-Chancellor that given the proximity of the University, the institution would be favorably considered as soon as the Fund commences its domestication policy ■



# PTDF SIGNS MoU WITH AIRFORCE INSTITUTE ON CAPACITY BUILDING



*The Comandant, AFIT, Air Vice Marshall M O Olatunji giving his welcome speech*



*The Executive Secretary PTDF, Dr Bello Aliyu Gusau signing the MoU at the event*

**T**he Petroleum Technology Development Fund (PTDF) has signed Memorandum of Understanding (MoU) to formalize its Partnership engagement with Air force Institute of Technology, (AFIT), Kaduna to enhance capacity building in the Nigerian Air force, aviation as well as Oil and gas industry in Nigeria.

The Memorandum of Understanding (MoU) was sealed at the Airforce Institute Headquarters at the Nigerian Air Force (NAF) Base, Kaduna, by the Executive Secretary,

PTDF, Dr Bello Aliyu Gusau and AFIT Commandant, Air vice Marshall MO Olatunji on behalf of their various organisations.

This development will encourage the institute to produce relevant professional military capabilities needed by the Nigerian Airforce as well as the training and manpower development of the oil and gas industry in Nigeria.

Dr Bello Aliyu Gusau who led the management team of the PTDF to the institute in Kaduna said that the signing of the Memorandum of Understanding between the PTDF

and AFIT was meant to further solidify the cordial relationship that has existed between the two institutions over a long period of time.

He was particularly delighted to realize that the Fund has already trained a reasonable number of teaching staff that are imparting knowledge and providing leadership at various level of the institute's operations "Last time we visited, we were pleasantly surprised to realize that quite a large number of the staff had in one way or the other gotten involved with the PTDF, it's

*a thing of pride for all of us to realize that the people in responsible positions including the provost are products of PTDF. So, in that light, there is so much we can do together, and I believe if we work fervently this process will lead to fruition and will be to the benefit of both institutions and to the nation as a whole”*

The Executive Secretary explained that the partnership will focus especially in the areas of engineering and marine security, adding that this synergy will improve on the security and marine sector as well as the oil and gas industry in Nigeria. *“We believe there’s synergy between what we are doing in the PTDF and what is happening in this institute, the kind of capacities they are building and the skills they are imparting both for the civil and military purposes, we believe the more this is developed the better for the security architecture of this country”.*

Commandant, Air force Institute of Technology, Air Vice Marshall MO Olatunji in his response thanked the PTDF for taking the step further to solidify the relationship that has existed between the Fund and the institute. *“the signing of this MoU is something that we are delighted about because it is going to open a new vista for our capacity development effort on training of manpower for the Nigerian air force and the Nigerian civil population, the aviation as well as the Nigerian oil and gas industry. We will also have knowledgeable pools of*

*lecturers that will impart knowledge to the students for a purposeful training of graduates that will meet the needs of our industries”.*

General Manager, Legal and Secretariat Services, Mr Balarabe Zahraddeen Ahmed said that going by this agreement PTDF will redouble its effort towards actualizing its mandate of capacity building through such collaborations. While explaining the obligations of the agreement he said *“The Obligation of the partnership is to further strengthened the relationship between PTDF and AFIT in the areas*

*of research and development, training provision of scholarship, provision of spaces within the AFIT for all PTDF trainees in terms of small and middle level manpower development for the oil and gas industry”.*

The Provost of the Institute, Professor Mohammed Dauda, an ex- PTDF scholar said that AFIT being the most contiguous to PTDF’s National Institute of Petroleum Studies facility in Kaduna desires PTDF collaboration in many areas that are relevant to the oil and gas sector ■

**... it’s a thing of pride for all of us to realize that the people in responsible positions including the provost are products of PTDF. So, in that light, there is so much we can do together, and I believe if we work fervently this process will lead to fruition and will be to the benefit of both institutions and to the nation as a whole.**

**- Dr Bello Aliyu Gusau,**



*A group photograph of some Management Staff of PTDF and AFIT*



# NILE UNIVERSTY SEEKS COLLABORATION WITH PTDF ON CAPACITY BUILDING

Abuja based private University, the Nile University is seeking to collaborate with the Petroleum Technology Development Fund (PTDF) in the training of skills development needs for the Nigerian Oil and Gas and other related industries.

The University's Vice Chancellor Professor Osman Nuri Aras who led a team of the university faculty to PTDF Towers on a courtesy visit to the Executive Secretary and Management of the Fund said the institution wants to benefit from the Fund's international reputation as the leading agency of the Nigerian government for capacity building in the oil and gas industry.

He said, the Fund has over the years invested in the training of manpower for the oil and gas industry through scholarships and other programmes, and their institution will like to key into having already established similar relationship with many public and private institutions across the country.

The Vice Chancellor who described human capital as one of the most important resources in any society said countries face many socio economic and political challenges essentially due to ignorance and poverty. He said a collaboration between PTDF, and Nile University will go a long way in assisting the country to build requisite capacities that will assist in bringing economic growth.

Executive Secretary, PTDF, Dr Bello Aliyu Gusau while thanking the university's delegation for the visit assured them of the Fund's determination to work with any reliable partner who is interested in the development of needed human resources for the country especially at this time that the Fund is refocusing its attention towards Nigerian universities.

*"I am sure you are aware that for quite some time we have focused our attention on training Nigerians in many countries across the globe but in the last few years we have decided to refocus our attention towards Nigerian universities. The numbers are changing, this year alone the scholarship in Nigerian universities is about seven times higher than the number of those going out of the country. Our hope is that gradually we will redirect the traffic*



*ES PTDF, Dr. Bello Aliyu Gusau receiving a souvenir from Professor Osman Nuri, VC Nile University, Abuja*

*away from foreign to Nigerian universities".*

Dr Gusau said the university had come at a right time when the Fund is developing a policy for the states and private universities. He assured the University's delegation that once the Fund perfects its policies on the matter, the university would be one of those to be partnered with in its educational programmes and initiatives.

*"what you are talking about is not out of place, but we also need to perfect the policy to address what we expect from states and private universities. As a sponsoring institution we also consider other things from the universities like completion period in addition to quality and substance" ■*



*A group photo of PTDF management and their guests from Nile University.*

## PTDF EX-SCHOLAR INNOVATES AND DONATES ULTRAVIOLET WALK THROUGH DISINFECTION CHAMBER TO THE FUND



*VU light body disinfection chamber  
donated by PTDF ex-scholar,  
Major Dr AS Imam*

*giving back to society and not just PTDF, we have seen how you and other scholars who return from their studies say we have benefited so much and want to share it, not just with a few individuals but with Nigeria as a whole, I really want to thank you for this gesture”.*

Major Dr. A.S. Imam whose area of specialization is on unmanned Aerial Vehicles, is a Senior Lecturer in the department of Mechanical Engineering, Nigerian Defence Academy. He leads the research group for mechatronics and robotics and has embarked on a number of researches to solve local problems in Nigeria. A major focus of his research work is the development of machines that can be brought in to do certain operational jobs that are hazardous and dangerous to humans. Amongst his researches are the developments of de-mining robot for clearing of planted mines in the North East, development of unmanned aerial vehicle, a convertible version that can take off as a normal helicopter and then converted to a fixed wing aircraft. Some are already deployed and are being tested to ensure their applicability in the field ■



hand sanitizer, Temperature Monitor and Hand Sanitizer Dispensing Stand, Ultra-Violet Walk Through Disinfection Chamber and he is currently working on a smart solution that can work with temperature monitoring camera for large crowds.

The UV-WTDC uses ultraviolet light as its primary disinfecting agent which he said provides “rapid, effective inactivation of microorganism and that when bacteria, viruses and protozoa are exposed to the germicidal wavelengths of UV light, they are rendered incapable of reproducing and infecting” .

The disinfection chamber is equipped with UVC light (200-280nm energy) in the germicidal range, a touch-free body temperature sensor capable of measuring body temperature within 2 seconds, touch-free sanitizer dispensing unit, 2KVA inverter unit with 2 x Lithium-ion batteries, 60 MPPT charge controller, and 4 x 80 Watts solar panels.

Responding to the kind gesture, the Executive Secretary of PTDF, Dr. Bello Aliyu Gusau, thanked him and called him “one of the best advertisement for PTDF”. The Executive Secretary said “because the Fund’s staff and thousands of visitors will benefit from this gift, you have succeeded in

**T**he Petroleum Technology Development Fund took delivery of an Ultra-Violet Walk Through Disinfection Chamber (UV-WTDC) developed and donated by one of its ex-scholars Major Dr. Abubakar Surajo Imam. The disinfection chamber will serve as an additional supportive layer to the protective measures already put in place by the Fund against the dreaded Corona virus.

Maj. Dr. Imam who has also developed and donated a temperature monitor and hand sanitizer dispensing stand, is one of many PTDF ex-scholars practically applying the knowledge and experience acquired during their studies overseas under the Fund’s Overseas Scholarship Scheme, to develop home grown solutions to the problems confronting Nigeria.

Speaking at the formal presentation event, he said “I was sponsored for both my Masters and PhD by PTDF and that is why I am trying to use what I learnt in the UK during my programme to help the country and actually contribute to solving the current problem of COVID-19 in Nigeria”.

He further explained that under the COVID-19 Solution he has developed other products which includes a ventilator, Touch Free hand wash station which dispenses clean water and soap, Pedal-Manual hand wash station which dispenses



*Some PTDF Management Staff during the donation of the chamber*

# PTDF ENGAGES RENOWNED OIL AND GAS PLAYERS TO DELIVER LANDMARK LECTURES ABOUT THE SECTOR TO ITS STAFF



In its bid to continually stay abreast of the happenings in Nigeria's oil and gas industry, the Petroleum Technology Development Fund (PTDF) maintained the tempo of hosting its quarterly industry-based lecture series under the supervision of the Nigeria Content and Industry Collaboration (NC&IC) Department of the Fund. This lecture series aims to increase the Fund's engagement with the industry and its participation in the industry affairs through presentations by serving and retired oil and gas experts.

The first quarter 2021 edition of the lecture series delivered virtually featured a renowned industry player Dr Osteen Oluronsola, Chairman, Energy Institute of Nigeria with the theme is **"Nigeria's Decade of Gas - A capability perspective"**.

The second edition of the lecture series titled **'Energy Transition and the Nigerian Economy'**

was delivered by Mr Augustine Ojunekwu Avuru, Chairman AA Holdings Ltd and co-founder, Seplat Development Company.

While the third in the industry-based lecture series was taken by Mr Rick Kennedy, Chairman, Oil Producers Trade Section (OPTS), Lagos Chamber of Commerce and Chairman/Managing Director, Chevron Nigeria, with the topic; **'Towards Effective Capacity Building Through Collaboration'**

Dr Osteen Oluronsola, who in the course of his career in the industry has occupied various strategic oil and gas positions both in private and public sectors, stated that there is a sharp shift towards renewable energy given the Covid 19 pandemic, which has ravaged the globe economically and otherwise. While strengthening the theme of his lecture, Dr Oluronsola noted that the increasing importance of gas as a transition fuel in the global energy outlook was due to its efficiency and low carbon emissions when used as a source of energy. Furthermore, Dr Oluronsola stressed that the

near limitless uses of gas in power generation, feedstock for major industrial processes, transportation, and cooking fuels meant that gas could drive economic prosperity in Nigeria when adequately harnessed. This he described as the basis for the declaration of 2021 to 2030 as the decade of gas by the Honourable Minister of State for Petroleum Resources, Chief Timipre Silva.

Dr Oluronsola while speaking on the potential of utilising gas as a source of energy to the economy posited that Nigeria has an untapped gas opportunity. He disclosed that the 60 years of oil and gas exploration and production in Nigeria have been focused mainly on crude oil, however, all of the 203 Trillion cubic feet (Tcf) of gas reserves were accidental finds while drilling for oil.

He emphasised that basic competencies are needed in the gas sector for optimal performance in harnessing the gas. *"With the advancement in the sector's operations, ICT skills, automation, critical thinking*

are must-have complementary skills, coupled with the core skills needed to be professionally equipped to handle the challenges associated with gas processing”.

He further expressed that “regardless of having the right policies and legislations in place, it is people that constitute the driving force for the implementation. They need to be fully equipped with requisite skills to do so; thus, PTDF has a big role to play to make this happen”.

Mr Augustine Ojunekwu Avuru while delivering the second lecture on ‘Energy Transition and the Nigerian Economy’ noted that the world faces two challenges today; the first challenge is the need for renewable energy. The second is the need for clean energy to survive in the long term. He affirmed that the projected world population growth from 7.8 billion people to between 9.2 and 9.8 billion people by 2040 would significantly increase energy demand. In his presentation, Mr Avuru asserts that oil and gas will still be utilised, contrary to the belief that fossil fuel will be completely removed from the energy mix. He, however, noted that there would be a significant percentage reduction in its use and a concurrent increase in the use of renewables.

He painted three energy transition scenarios that are tilted towards cutting emissions by 2050 based on the global commitments to reduce carbon emissions. In the first scenario, a business-as-usual scenario, emissions will be cut by less than ten per cent; in a rapid reduction case, emissions will be cut by about seventy per cent; in the desirable net-zero scenario, emissions will be cut by ninety-five per cent. He added that the implications of this emission for the oil and gas sector are that oil supply will drop by eighty per cent in a net-zero scenario attainment, fifty per cent in a rapid scenario and minimally in a business-as-usual scenario.

Speaking further, Mr Avuru disclosed that the combination of pressures from the energy transition, unwillingness of lenders to lend money to the sector



and maturity of assets leading to divestments are already resulting in the movement of capital away from the industry. Beyond 2035, a combination of reduced investments in the upstream and tightening of non-OPEC production will result in a supply tightening, even with reducing demand. *“Tightening of funding will mean countries like Nigeria will have to look inwards to increase efficiency in their operations while driving policy imperatives and regulatory frameworks geared towards ensuring oil and gas is used as a stimulating effect on the economy to achieve about 70 to 80 per cent non-oil funding for the national budget, grooming of indigenous*

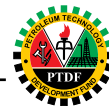
*companies to fill the void left by International Oil Companies (IOCs) divestments and also shift focus to meeting sub-regional energy security”.* He noted.

The Executive Secretary, PTDF, Dr Bello Aliyu Gusau, while expressing his gratitude to Mr Augustine Ojunekwu Avuru, remarked that he was happy that the salient points in his presentation were captured in the Petroleum Industry Act(PIA) to drive investments in the industry.

The third virtual lecture series was presented by Mr Rick Kennedy, Chairman, Oil Producers Trade Section (OPTS), Lagos Chamber of Commerce

**...regardless of having the right policies and legislations in place, it is people that constitute the driving force for the implementation. They need to be fully equipped with requisite skills to do so; thus, PTDF has a big role to play to make this happen.**

- Dr Osteen Oluronsola



and Chairman / Managing Director, Chevron Nigeria. While presenting the lecture titled "Towards Effective Capacity Building Through Collaboration". Mr Kennedy stressed the need for collaborations between various stakeholders in the oil and gas industry to develop adequate capacities required to confront the dynamics and challenges that have continuously evolved in the sector.

Speaking on the readiness of OPTS to further deepen collaborative efforts with critical stakeholders in the sector for effective capacity development He stated that *"partnership is important, and we will continue our partnering largely where there are specific offers, we would like to hear about it and evaluate the ability to participate directly. It's been a long partnership, and I think we treasure it, and we want to carry that on- a collaboration between PTDF, NCDMB and OPTS"*.

Mr Kennedy, during the lecture, outlined the various strides undertaken by the OPTS through collaboration with multiple stakeholders to ensure the development of manpower needed by the industry, which he said have absorbed over 600,000 Nigerians through its capacity building initiatives. He, therefore, applauded the efforts of the PTDF in developing human and institutional capacities over the years and encouraged it to continue in its stride to develop more capabilities in the upstream, mid and downstream sector, particularly in the fields of geosciences and engineering as more of those resources would be needed to address the challenges and opportunities that are continuously evolving in the sector. *"We believe that fundamental oil and gas activities must continue, we need to continue to develop those resources especially in the Petroleum Engineering and Geosciences, we have to continue to develop those in the short, mid and even the long term"*.

He, however, regrets that despite notable successes recorded in the sector, the oil and gas industry is still faced with

**We believe that fundamental oil and gas activities must continue, we need to continue to develop those resources especially in the Petroleum Engineering and Geosciences, we have to continue to develop those in the short, mid and even the long term.**

**- Mr Rick Kennedy**

some challenges globally, which ranges from energy transition, high volatile oil prices and increased competition for available funds. He affirmed that in all these mists that exist in the industry, there are still rays of hope and future opportunities that are inherent in the new Petroleum Industry Act (PIA), stating that the PIA would stimulate employment, develop a competitive supplier ecosystem as well as continued investment in the development of more human capabilities and capacities.

The Executive Secretary, PTDF, Dr Bello Aliyu Gusau, in his remark, thanked the presenter for making out time to share his industry perspective and enlightenments to the staff of the Fund despite his busy schedules and described OPTS as a very important oil and gas institution that has enjoyed a decade old, mutually beneficial partnership with Nigeria. He assured the OPTS Chairman that as the lead capacity-building agency of the government for the

oil and gas industry, the PTDF is well equipped and positioned to continue to play its role of providing training and capacity buildings that are significant to the Human and Intuitional growth in the industry. It is also looking forward to fruitful collaborations with the OPTS.

The Oil Producers Trade Section (OPTS) is an institution dedicated to promoting the interest of the oil and gas industry in Nigeria with a membership of about 28 indigenou and international companies involved in 90% of the Nigerian oil and gas industry production.

Some of staff of the Fund in separate statements expressed hope that with more of these lectures, the PTDF as an agency of government will become a force to reckon with in the global oil and gas industry as it pertains to knowledge and information sharing in the sector ■



# ENERGY TRANSITION AND THE ROLE OF PTDF

**T**he global quest for energy transition which involves transiting from the traditional fossil fuel to cleaner energy sources has become more prominent recently with the world main hydrocarbon consumers declaring to go to zero-emission by different targets. This reality has dawned on countries relying on hydrocarbon resources for their economic survival to shift their focus in order to catch up with the global trend.

Nigeria as a country is no exception. President Muhammadu Buhari in November 2021 at a COP26 leaders' summit in Glasgow Scotland declared the country's readiness to cut its emission to net zero by the year 2060. This was despite his declaration of 2020 to 2030 as a decade of gas. He also directed all related agencies of government to ensure the inclusion of projects with Climate Change credentials in the budget. All these are modest attempts to use the abundant gas as a transition energy resource, harness other renewable options and fulfil the country's obligation as a signatory to the Paris agreement.



This was anchored by the Minister of State, Petroleum Resources, Chief Timipre Sylva when he indicated that, the country's strategy was to focus on its vast natural gas resources, as a critical transition fuel to help battle global warming and function as a bridge between the dominant fossil fuel of today and the renewable energy of tomorrow.

Chief Sylva pointed that with challenges posed by the COVID-19 pandemic there would be a paradigm shift from a traditional business model with the oil and gas industry accelerating its transition towards cleaner energy sources, products, and service delivery. This he said is the reason why Nigeria has created fiscal incentives in the PIA which will attract more investment into the sector.

*"The Pandemic has created a perfect storm that along with ongoing needs to*

*reduce carbon emissions will transform the industry. The future survival and success of many in the industry depend not only in achieving cleaner energy source but also the ability to deliver lower-cost solutions".*

However, the greatest inhibiting factor to the realization of Nigeria's cleaner energy quest was the question of the requisite human resource that should drive this transition before it catches up with us. Human capital development was believed to be the single most important resource needed by Nigeria to meet up with the stated target and of course the ambitious energy transition. This, therefore, underscore the significance of various bodies and institutions charged with the responsibility to create needed human capacity for the industry.



Executive Secretary, PTDF, Dr Bello Aliyu Gusau drove the point home



recently when he interrogated the readiness of Nigeria to embark on this journey to the post-oil economy which is the ongoing transition in global energy dynamics, the increasing efficiency and cost competitiveness of renewables are all indications that this journey has commenced. *"We cannot overemphasize the importance of human resource knowing that oil has been lying dormant underground for millions of years until humans were imbued with the capacity and competence to harness it. We can say the same thing for many other things, but the question is are we ready to develop the necessary human resource to enable us to proceed with this journey? The fact is whether the country is prepared or not, the journey will eventually catch up with us"*

Petroleum Technology Development Fund (PTDF) is indeed, the only agency of the Federal Government statutorily empowered to build capacity for the Nigerian Petroleum and energy industry. It is also crystal clear that the oil and gas industry is the most critical to this journey, it is one of the few sectors in the country with the organisation, the resources, and the expertise to provide the necessary framework for putting in place a post-oil economy. In fact, the whole discussion about diversification is hinged on the capacity of the oil and gas industry to be able to provide the required platform for transiting.

These, therefore, necessitated PTDF to sync with its sole mandate of capacity building, focus its activities and align them with this reality by ensuring training, and provision of necessary skills, capacities and competencies that will drive this process of Nigeria energy transition ambition.

Even though the Fund has in the past undertaken some initiatives to build capabilities, capacities, and competences in gas and renewable energy resources, the agency become more aggressive in recent times in its response to this journey by refocussing its Education and Training efforts, Research and Development interventions and in building a collaborative framework with requisite government and non-government institutions. This was anchored by PTDF through Education and Training Department (E&T), Strategic Planning

and Documentation Department (SP&D) as well as the Nigerian Content and Industry Collaboration Department (NC&IC).



Mr Jide Adebulehin, General Manager, (SP&D) disclosed that, even before the recent global quest, the Fund has been very proactive in the design of its Research and Development interventions with a futuristic view in mind to enhance human and institutional capacities in areas of renewables and other alternative energy resources.

To this end, he said, the Fund built and equipped a multimillionaire Renewable Energy Research Centre established at the Umaru Musa Yar'adua University, Katsina. The centre is presently undertaking numerous research in addition to human capacity building and training elements. The Fund also endowed a renewable energy research Professorial chair at the University of Benin in addition to similar energy-related research being sponsored under annual research grant competition. He said most of them have recorded various breakthroughs, patented and various intellectual property rights.

*"In the University of Benin, we endowed a Professorial chair and they have had a lot of patents on the work they are doing on renewable energy. An erudite scholar Professor Audu worked on it and another professor has taken over. At Umar Yar'adua University Centre they have a team that is working on different areas, now they are doing solar gardens, they are experimenting, they are working with the private sector around that area to see how they can develop small solar panels for the rural areas, they are drilling boreholes that are going to be powered by solar energy, they looking for areas where they can get shallow water that does not require so deep a borehole so that the capacity*

*of the pump will be so small that solar energy can carry it for the rural areas to benefit"*

He said the department has only recently invited all its researchers and stakeholders to reorient them about the shift and inform them of the new areas the PTDF intends to research on which will primarily be largely focused on transitional energy resources.

*"The purpose of our recent meeting with our research stakeholders is to begin to reorient them to begin to think about energy transition, to begin to think that our traditional research processes going forward will not be tied to where we are coming from, we are already giving them the awareness that the proposal we are going to take on the next phase of research grant and the area of specialization that we will advertise will be different from the one we have been advertising because we will advertise an area of specialization that will be conformable to energy transition"*

Among the new areas the Fund intends to focus on according to Mr Adebulehin will include Solar and Wind Energy, Geo-Thermal, Energy Tech, Energy financing, Energy Economics, Big Data processing, Cloud Computing, and many related areas. *"A brilliant person is fundamentally a brilliant person. If the world is transiting from oil to other cleaner energy your brain too as a professor that wants to do research, as a student that wants to get MSc and PhD has to be able to transit so that your expertise can continue to be relevant, that is why we are having different stakeholder meetings to tell them that as the world is changing begin to change your focus, change your research focus, change your desire for PhD and your desire for the undergraduate program so that PTDF can continue to fulfil its mandate"* he added.



Mr Usman Pindar, Deputy General Manager, Nigerian Content and Industry Collaboration Department

Industry Collaboration (NC&IC) Department also revealed that the Fund was proactive enough to establish a Gas Technology Development Unit essentially to respond to the Decade of Gas Initiative of the Federal Government and drive it to reality in terms of capacity needed across the gas value chain, in addition to various collaborations with stakeholders in the gas and renewable energy sector being built by the department.

He stated that the Fund has keyed into all government policies and pronouncements and is participating actively in all committees established by the Federal Government to realize the decade of gas and other cleaner energy resources. *“We have keyed into all the government policies with regards to gas, we are working to see how we can complement with requisite capabilities and competencies needed in ensuring the success of the decade of gas. PTDF as a well-concerned agency of the government in that realization first set up a gas technology division. The division is now looking at the entire government policies, aggregate, see through them and see where there are areas of needs and then bring it up for the PTDF Management to attend to it. Currently, we are working with all the committees set up by the government to drive the decade of gas initiatives”.*

He said the Fund is about to conduct the skills gap audit to guide on the capacities they will need to develop on a short, medium- and long-term basis for the energy industry. *“We are working with them to conduct the skill gap analysis to see what competencies we need, which do we have, where areas are the gaps; so that PTDF will provide them as part of its capacity-building intervention mandate to ensure government objectives are met.”*

Education and Training Department (E&T) is another key department of PTDF currently undertaking a restructure of its training and programmes to be able to effectively respond to the energy transitional objectives. The programmes include the overseas scholarship scheme (OSS), the In-country Scholarship Scheme (ISS) and other short, medium- and long-term training for the industry and other critical stakeholders in the sector.



Rabiah Umar Waziri Adamu, Deputy General Manager Education and Training Department revealed that, although the department has over a decade ago began that process by diversifying on its education and training programmes to reflect special training on targeted areas of the gas value chain and other renewable and alternative energy resource areas. The Department is more aggressive in recent times in its desire to produce a mass of professionals that will be able to drive and ensure a seamless energy transition process and will ensure a pool of capacities and competencies that will populate the petroleum and energy industry in Nigeria.

*“PTDF as a Fund is looking at its Education and Training interventions and we as a department are working towards this energy transition. Although as a department this drive commenced over a decade ago when we started introducing programmes in renewable energy and I think since then the programmes have evolved and we are now looking at more new areas in that regard. Traditionally, when the PTDF started the overseas scholarship programme we focused mainly on the upstream sector of the oil and gas, looking at the traditional petroleum engineering, chemical/mechanical engineering. However, as times began to change and as demand for cleaner energy came into play, climate change advocacy, we now sat back to look at the kind of programmes we are offering, and we decided to introduce new programmes. And currently, we actually introduced so many programmes that would enable the Fund and in general the country for an easier transition into the global demand for cleaner energy.”*

She outlined some of the areas the Fund intends to focus on to include but not limited to areas of decarbonization, gas production, extraction, biofuels, environmental management, and

development of renewable energy resources among others. She noted also that they are planning to continue further industry training on a short and medium basis.

*“We are also overseeing the short skills training for the industry. We have actually trained quite a number of staff from the defunct DPR and other agencies within the oil and gas industry in Nigeria and most of these trainings are highlighting what needs to be done toward the energy transition and like I have mentioned we have downplayed the traditional core areas that we use to sponsor our students on”.*

In addition to utilizing the National Institute of Petroleum and Energy Studies, Kaduna for the development of a pool of manpower resources, the Deputy General Manager Education and Training said the Fund is working with its partner universities overseas to structure courses on the needed skills of the industry.

She stated that PTDF has been able to produce a large number of Petroleum Engineers and other related professionals since the commencement of the Overseas Scholarship Scheme and that it will employ the same aggression in producing a pool of professionals in gas and alternative energy resources until they have populated the entire industry value chains.

With the Federal Government’s continued support, it is clear from the submissions of these PTDF focal departments that net zero-emission is attainable, in concordance with President Muhammadu Buhari’s COP26 declaration that the 2060 timeline is not at all a tall dream.

As a Fund, PTDF is not only observing the entire energy transition spectrum but is also strategizing to respond to the new quest for cleaner energy. With institutions like PTDF demonstrating readiness to train and provide needed skills and preparing a workforce toward the attainment of the Federal Government’s set objective, Nigeria’s inevitable journey to a post-oil economy will arrive just in time ■

# THE PIA AND OPPORTUNITIES FOR THE PTDF



By **Ere Iyalla**

- *Gas Technology Development Division  
(PTDF)*

**T**he sources of funds for the PTDF are signature bonuses from bid rounds and fees accruing from upstream operations in the Nigerian oil and gas industry.

The PIA is designed to increase certainty and ease of doing business in the Nigerian oil and gas industry. This is aimed at attracting the much-required investments in the Nigerian oil and gas industry, which are currently dwindling. KPMG reports that only about 4% of the \$70billion investments made in Africa's oil and gas industry between 2015 and 2019 were earmarked for Nigeria, even though Nigeria is the biggest crude oil producer and has the largest reserves on the continent. This is because uncertainty is viewed as a potential cost. With decreasing investment globally in core fossil fuels in favour of low/zero carbon alternatives, energy companies are effectively optimising their portfolios and transforming their operating models to achieve the highest value at least cost. This implies focusing their investments in regions of low risk and acceptable ease and costs of doing business.

The PIA seeks to reduce this uncertainty/ risk through effective governance of the Nigerian Petroleum industry. The PTDF stands to benefit from the expected increase in investments through an expanded and assured funding base and more opportunities to develop Nigerians to capture upcoming jobs, businesses, and research opportunities.

The implementation of the PIA is expected to open up the domestic oil and gas market to considerable investments; with favourable fiscal regimes in the upstream, open access and tax incentives in the midstream, utilization of flared gas for value adding activities, efficient and effective regulation, amongst other provisions to stimulate domestic demand.

A notable provision in the PIA is that it creates a distinct midstream sector decoupled from upstream i.e. Upstream players can undertake midstream operations only through separate midstream vehicles.

The PIA also creates a Midstream and Downstream Gas infrastructure Fund, which shall have the power to make equity investments in relevant gas infrastructure projects and

consequently encourage private sector investment through participation and risk sharing.

An infrastructure tariff regime and Gas Network Code for open access (to allow third parties transport gas through pipelines to points of use) are also provisions in the PIA that aim to open the domestic market to increased investment and activity.

With this expected increase in activity in Nigerian oil and gas industry, it is expected that the demand for skilled manpower (technical, commercial, and managerial) will increase considerably. The opportunities, therefore, exist for the PTDF, in partnership with current and upcoming stakeholders (especially in the mid and downstream that is set for liberalization and expansion) to identify skill gaps, build the required human capacity and deploy these trained Nigerians to areas of need in the industry ■

# NEW FRENCH ENVOY SEEKS ENHANCED COLLABORATION WITH THE PTDF



**T**he new French Ambassador to Nigeria, Her Excellency Mrs. Emmanuelle BLATMANN, has visited The Petroleum Technology Development Fund (PTDF) to familiarize herself with the PTDF Management and also consolidate on the existing educational partnership between the Fund and France in the development of indigenous manpower for the Oil, Gas and Energy Sectors in Nigeria. She said that she was in PTDF to introduce herself as the new French Envoy in Nigeria and to improve on the relationship between the two countries in the educational sector. *“I came to PTDF to introduce myself and pay a courtesy call to the Management team. PTDF is indeed one of our major partners in higher education, mobility exchange*

*partnership and academic sector. Education and Energy are key to us, we have a lot of know-how, and we know that PTDF is committed to meeting the challenges in this sector.”*

The Envoy who led the Embassy’s high-powered delegation on a courtesy visit on the Executive Secretary, PTDF, Dr Bello Aliyu Gusau, also disclosed the French Government’s willingness to ensure a smooth take-off of the College of Petroleum and Energy Studies, Kaduna, developed by the PTDF.

The Ambassador who described the PTDF as a reliable ally commended the quality of scholars sent by the PTDF to France, which according to her is not only from the way they distinguished themselves as the most organized and hardworking students

received by France in recent history but also by their incredible success stories which propelled other France universities to be asking for more Nigerian students.

She outlined joint research opportunities in Petroleum Engineering, Geology, Environmental and Energy studies as potential collaborative areas and other expertise and technological areas that may be fashioned out between the Fund and Campus France, one of PTDF’s main joint partners in this respect.

In his remark, the Executive Secretary, PTDF, Dr Bello Aliyu Gusau, thanked the Envoy for the visit and expressed the Fund’s readiness to collaborate with all institutions ready to support the implementation of the Fund’s mandate, particularly in



Education, Training, and in Research and Development.

He stated that since 2017 when the Fund consummated a strategic relationship with France and other strategic partners, it has been a worthwhile effort that has grown beyond expectation and has led to an increased interest from candidates wishing to attend various French universities. This, he said, encourages the PTDF to consider doubling the number of its scholars going to the France universities on scholarships.

*“In the past, we had one-way traffic to the UK, but by the time we established that partnership with France, we realized that there are many opportunities we have been missing, and France’s example is one of those we can use. So far, the number of students is growing; we keep receiving more interest, and this year, we are hoping to have more students heading to various French universities. The reports we are getting is an excellent report of the students and the quality of training they are receiving in different universities in France”.*

The Executive Secretary, who thanked the French Government and the Campus France for their efforts and how they take care of the PTDF scholars, also appreciated their interest in the take-off of the PTDF’s



proposed University and Centre of Excellence Kaduna. He said the Fund has reached an advanced stage in the process and will spare no effort to ensure its early take-off.

The Fund has in 2019 formalized its Partnership engagement with Campus France, a major training Consortium promoting higher education and research in over 300 French universities and educational institutions. The engagement was firmed up by a Memorandum of Understanding (MoU) between the

PTDF and Campus France and endorsed by the Executive Secretary, PTDF, Dr Bello Aliyu Gusau, on behalf of PTDF and Joaquim PEDRAZA on behalf of Campus France, at the PTDF House, Abuja. The MoU aimed to facilitate Nigerian students’ training in various French universities and educational institutions in relevant areas of Science, Technology, Engineering, ICT, Renewable Energy and other oil and gas-related courses under the PTDF Overseas Scholarship Scheme ■



# PTDF TO EXPAND PARTNERSHIP ARRANGEMENT WITH ITS GERMAN PARTNERS



**T**he Petroleum Technology Development Fund (PTDF) hosted the Deutscher Akademischer Austauschdienst (DAAD) German Academic Exchange Service, who are the Fund's German partners responsible for managing the Fund's German bound students, as part of its efforts to strengthen and boost its Overseas Scholarship Scheme. The visit was necessary for both parties to renew their existing partnership agreement and also look at areas to further improve their collaborations.

The leader of the delegation and Head, Scholarship Programmes, Africa, DAAD, Mrs. Gudrun Chazotte, informed PTDF that the essence of the meeting is to see ways of improving the relationship that exists between the PTDF and DAAD. *"We are so happy engaging for another contract initiative, and we hope that we can have some fruitful discussions and learn from what we've done so far and know where we could improve on from my perspective and the perspective of the DAAD". She described the PTDF as one of the organisation's important partners in Nigeria and by extension, Africa. "You all know the importance of having a Nigerian partner for the African*

*continent. So, it's quite important to us to be with you"*

Mrs Chazotte further emphasized that the collaboration between the PTDF and the German Academic Exchange Service (DAAD) will allow young Nigerians who benefited from the programme to return to Nigeria after their programme and contribute their quota to the nation's growth. *"Our wish is to give more opportunities and wealth of competencies and experiences to young Nigerians who come to Germany for learning and to have them come back to Nigeria after the programme and help in building this beautiful country"*

The Executive Secretary, PTDF, Dr Bello Aliyu Gusau, in his welcome address described the Fund's partnership with the DAAD, Germany as one of the best partnerships the Fund has experienced. The Executive Secretary disclosed that the Fund is looking forward to ways of expanding the programme. *"We had previously requested that our training department find a way of expanding this programme because of the result and the kind of outcome we have been seeing in the last few years we started running the programme".* Dr Gusau appreciated the guests and assured them that the Fund is ever ready to continue with the

partnership. He also said that the Fund is hoping to make the programme one of its major scholarship programmes ever instituted. *"We would be looking forward to having you back again as soon as possible. I once again assure you that we would do everything possible to sustain this programme"* He affirmed.

In his contribution, the PTDF Programme Advisor, DAAD, Professor Ayodele Ajayi reiterated the need for the partnership to follow the trend of the moment which is green energy. Professor Ajayi stressed the need for the PTDF to join the new trend in order to avoid being caught off guard in the emerging energy mix globally. Green hydrogen, he says, is the future in the energy sector. *"While we are trying to develop the capacity of the petroleum sector, we should also be part of the future and be involved with what is happening in the energy sector, and I know green hydrogen is a major issue in the minds of the German Government. So, building on the strength of our existing relationship with the DAAD, we may find some partners and discuss how to enhance Nigeria's potential in that area, because it will be disastrous if we get to the future and we don't have any capacity in green energy" ■*

# Gusau hails Kalu Otisi

over his  
*Retirement*



Dr. Bello Aliyu Gusau Hails Kalu Otisi on His Retirement

The Executive Secretary, Petroleum Technology Development Fund (PTDF), Dr. Bello Aliyu Gusau has described Mr. Kalu Otisi as the most excellent communicator

he has ever come across both on Television and on one-on-one basis. He disclosed this during the send forth party organized by the Fund in honor of Mr. Kalu Otisi who retired as the Manager and Head of Press and External Relations Unit of the Fund.

*“Kalu Otisi is possibly the most excellent communicator I have ever come across, not just on Television but also on occasions and one-on-one communication or whatever form. When it became obvious to me some months back that Kalu Otisi*



*was going to retire, I kept wondering what is going to fill that void he is going to create because he has been so intricately embedded into the DNA of this organization that I keep wondering, because at a stage he was really the face of this organization”*

He said Kalu Otisi will be missed as the Fund’s spokesperson and expressed his optimism that the Staff he coached will ensure there is no vacuum in the Unit.

*“Well, despite what I have said about the void that you have created, I also want to thank you for the mentoring you did for all the staff that served under you as the team will fill the void very well. They are already doing very well and we are grateful for the mentorship that produced such a great team”*

He assured Mr. Otisi that though he was leaving PTDF, he should always consider himself as a member of the PTDF family.

Warm tributes were delivered by other members of management and staff of the Fund in respect to Mr. Otisi. Some were emotionally touched and recounted their experiences working with him. He was described as a good friend and excellent colleague who will be greatly missed in the Fund.

Tributes were also paid on behalf of the Press and External Relations Team by Mrs. Timilayefa Nwajueboe

who is currently overseeing the affairs of the Unit. She described working with Mr. Kalu Otisi as a privilege and an honour stating that he is a veteran and professional broadcaster that she admired on the screen during his days with NTA.

*“It is a privilege and honour to have worked with you, we know the vacuum you have left in the unit, and we are still trying to fit into your shoes. We assure you that all the coaching and mentoring you gave us will be well applied to improve on our task. We will not only work to meet the standard you have set but we will strive to do better and make you proud of all your efforts”*

While thanking the Management and Staff for organizing the send forth event, Kalu Otisi commended the Executive Secretary for establishing a retirement policy for the Fund. As the pioneer beneficiary, the policy, he said, made the processing of his retirement a smooth and rewarding experience. He thanked his former colleagues for contributing to the success of his stay in PTDF.

Mr. Kalu Otisi became Head of Press and External Relations Unit of the Fund in 2008, and played an excellent image-building and reputation management role for the Fund. As the spokesperson of the Fund for 12 years, he saw to the

eventual flag-off of the PTDF quarterly magazine, PTDF Digest. He also pioneered the PTDF public enlightenment programme on Radio Nigeria, the PTDF Mandate, a phone-in public interactive platform that helped shape the image of the Fund and erased the negative perception of the public about the Fund.

Through his previous professional experience as a broadcast journalist with NTA and having set up the Public Relations departments of ICPC and the Ministry of Housing and Urban Development, it was not a difficult task for him to replicate his experience in building and sustaining the image of the Fund even with the limited manpower he met on ground. To ensure that the PTDF communication strategy represents the Fund’s brand, Mr. Otisi kick-started *“PTDF Update”*, a TV documentary programme that is aired on NTA International weekly.

Mr. Kalu Otisi served in various key committees in the Fund where he demonstrated his skills and put his wealth of ideas in the development of the Funds programmes.



## INTERVIEW

 WITH  
**MR OTISI**

 ON HIS  
*Experience*

**Can you tell us about your life before you joined PTDF?**

Well, before joining PTDF, I was an active broadcast journalist with the Network news of the Nigerian Television Authority Headquarters. I was a news anchor, a news reporter with a bias for reporting legal and constitutional matters. I was also a news producer which in-house is referred to as desk editor. I also scripted and produced news documentary programs such as *"The Scale of Justice"*, *"You and the Constitution"*, and periodically anchored *"Tuesday Live"* and *"Presidential Media Chat"*. As a trained lawyer with over 26 years post-call, I supervised judiciary-related content in NTA network news programs. I was also the pioneer Head of News and Current Affairs, NTA International. Through these responsibilities, I built a strong reputation with my audience.

My passion and activism in the coverage and reportage of judicial assignments, caught the attention of former Attorney-General and Minister of Justice, late Chief Bola Ige. That was in the year 2000. He suggested my joining the pioneering team of the newly established Independent Corrupt Practices and Other Related Offences Commission, ICPC. I joined

the commission in 2001 as Assistant Director, Public Enlightenment, and Education. I was also the pioneer Assistant Director, Public Relations Unit of the newly created Federal Ministry of Housing and Urban Development in late 2003 with Mrs. Osomo as the pioneer Minister and Arc. John Alkali as Permanent Secretary. I have no regrets about all the places I worked prior to joining PTDF. NTA gave me the lift, sort of a springboard or platform. I utilized it effectively. I owe NTA a debt of gratitude. During the 40th anniversary of NTA, I was among the veterans invited to anchor the news, and I did that successfully for two weeks.

In May 2008, I joined PTDF as the pioneer Head of the Press and External Relations Unit. Prior to my joining the Fund, there was a Public Affairs Unit, an omnibus unit covering press matters, protocol matters, and everything was pretty much bunched together. In the wisdom of the administration then, there was a necessity to split the unit into two and give identity to a Press Unit, considered strategic to the goals of the Fund. So, the Press and External Relations unit was created.

Generally, it's been a wonderful

period, 12 years plus, and as I get to the statutory retirement age of 60 this August 2020, I just want to say, it's been fulfilling, it's been exciting working in a friendly environment. I had the privilege of working in different organizations and I want to boldly acknowledge PTDF as a wonderful family, a great family. Despite some challenges, PTDF has been the most exciting government institution to work in. It is much less rancorous and egregious. I have no regret spending 12 years of my life here.

**What was your experience like moving from active broadcasting to come and head the Press and External Relations Unit of the Fund?**

Well, the transition wasn't difficult. Prior to my joining PTDF, I had worked with ICPC from 2001 as Assistant Director, Public Enlightenment, and Education Department. I was the only employee in the department. There was the Chairman, late Justice Mustapha Akanbi, the Secretary to the commission, Mr. Odili, the designated members of the commission, myself and the man

in charge of administration and finance one Mr. Zaki and that was all. When the agency commenced recruitment, I was part of those involved in the exercise. I played a key role in selecting staff of the Public Enlightenment Department. So, it was a pioneering effort. From there I went to the Ministry of Housing and Urban Development, as Assistant Director, Public Relations Unit. I came back to NTA in 2006 and in 2008, I found myself here in PTDF. So, the job and managing bureaucracy weren't strange to me. I had been doing it prior to coming here but here I needed to adopt a more bureaucratic attitude, which is unlike NTA where we operated as professionals only. In NTA, we were trained to do many things at the same time which is unlike here where you are expected to follow procedural guides. So, I tried to break barriers, to go beyond those norms, they were normative, and I didn't think they should apply to my work. Some didn't like it, some thought I was doing things outside the norm. I don't know if landmines were laid but good enough, none exploded. I was able to meander through all of them by the mercy of God and the support of the Chief Executive.

For me, the transition was smooth. The only thing was that expectations were very high. Before I came to PTDF, there was a press statement to the effect that a veteran journalist was joining the Fund, so they needed to see an immediate difference and that again was a challenge to me but thank God all our efforts yielded immediate results. I think I worked very well with everybody; I must have pushed my team members to the extreme. At a point, I felt that nobody wanted to work in the Press and External Relations unit simply because of the demands and expectations. But that is how to develop people. The only thing I regret, was being over diligent, and that never helped my staff. It has its good sides and many bad sides. It could delay things, by making your staff lose confidence in their ability to even do things they commonly could do unsupervised. I believe whenever they picked their pens to write, they are haunted by what my red pen would do to their work. So generally moving from active broadcasting to head of press and external relations was smooth, it was exciting. I have grown

**I just want to say, it's been fulfilling, it's been exciting working in a friendly environment. I had the privilege of working in different organizations and I want to boldly acknowledge PTDF as a wonderful family, a great family.**

**- Mr. Otisi**

to see the other side of life, how to manage people and resources and I thank God that in all the years there has been no scandal.

**While in NTA your drive was basically to please your audience, when you came to PTDF and there wasn't that audience, how did it affect your motivation?**

It was limiting, very limiting, I had to dispose of whatever veneer of the audience I had in my mind, my intention then was to justify my being here, even if it meant working extra hours. I didn't have an audience to please anymore, but I had a supervisor to please and the only way to please him was to meet certain expectations. I love hard work, I desire a sphere of influence where my boss would entrust me with certain responsibilities and I know I am accountable to him and I need to deliver on those responsibilities. I am uncomfortable with situations where you are not treated as relevant, which means the system can function effectively without your input.

**Did you at any point give up your optimism and if not, how did you manage that?**

No, I never gave up. Because I believed that things could change, I was very optimistic. So, we found a way of remaining significant to the Fund. We started an In-house magazine and the publication never failed. When everything else failed, we said, let us concentrate on the magazine. Generating content for the Magazine was the most herculean task but we maintained it.

I had to initiate a radio interactive programme called PTDF UPDATE. People all over the country were calling in to ask questions. People in villages called in to find out how their

children could access the PTDF scholarship and that was what I wanted to achieve. To open up the space so that PTDF will no longer remain mysterious because it was said the scholarship was for the rich and privileged. So, we tried to open up and break barriers and I think that we substantially achieved that. We tried to promote the fact that you don't need a referral from a top government official or traditional ruler to be considered for the award of PTDF scholarship.

We all have our strengths and weaknesses. As a Manager, my task was to discover the strengths in my staff and align that with specific areas of responsibility. Everybody has something good in him or her and I see that in all my staff. I build on potentials. The challenge is that it could take time to manifest and once it manifests the flow of responsibilities will begin to align to those strong areas.

**What Legacy are you leaving behind after 12 years?**

Well, the legacy I am leaving behind is the fact that I came here, and I was given a responsibility and I tried to discharge it to the best of my ability. I may not have gotten it right all the time but most of the time I believe we got it right. It's a collective task, I believe also that the human capital development aspect is also germane to the legacy, no matter what people may say, the writing skills of the staff in the unit probably would have improved because of the corrections they are used to, but they must not be slavish that's the aspect I regret. They don't have to be me to get it right, no. They can still do it their way following the fundamentals that I laid down ■

# VIRTUAL SELECTION INDUCTION, INTERVIEWS AND DOCUMENTATION FOR PROSPECTIVE PTDF SCHOLARS

In its effort to automate all its systems and processes, the Petroleum Technology Development Fund (PTDF) introduced a virtual method of interview and induction for prospective scholars of its Overseas Scholarship Scheme (OSS). The purpose of introducing this method is to reduce the logistical burden on candidates who must travel a long distance to attend selection interviews or induction programs, as well as those who live outside of Nigeria. The Fund used this method of candidate selection for PhD candidates who took part in the 2020/2021 Overseas Scholarship Scheme (OSS) interview process. Candidates from the United Kingdom, the United States, France, Germany, China, Malaysia, Canada, and other countries participated in the process through the PTDF's online portal.

The head, Overseas Scholarship Scheme (OSS), Division, PTDF, Mr Bello Mustapha, confirmed the exercise to the PTDF Digest, stating that the interview was for candidates who were successfully shortlisted to participate in the exercise but were unable to attend due to either Covid-19 restrictions or other circumstances that would make their physical presence in the exercise impossible. According to him, the Fund put together a team of subject matter experts from industry and academia to engage the candidates via an online platform provided by the Fund to validate the relevance of their PhD research proposals in the fields of

engineering, geosciences, computing, environment, and management.

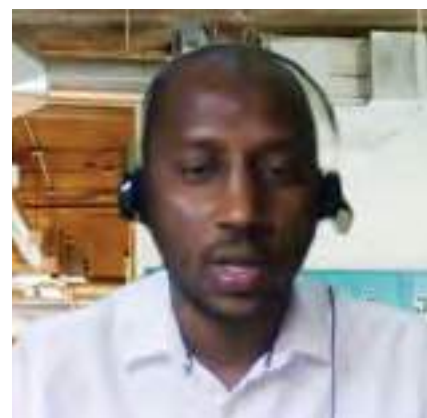
Some of the scholars interviewed during the process praised the initiative, saying it demonstrated the PTDF as a responsive and 21st-century organization. It also portrays the Fund as an organization ready to meet the challenges of the day. Their experiences about the virtual process were shared with the PTDF Digest crew as represented below;



Hope Ike, a research student at Robert Gordon University in Aberdeen, said it was difficult for her to decide whether to abandon it or not until she sent a last-minute email to PTDF and was surprised by the response, which allowed her to conduct the interview virtually. *“When the invitation came, I was devastated because I didn't have funds to buy tickets to go to Nigeria and back, I have a hospital appointment, and there might be chances that I have to isolate myself, and there's a cost to it, it was a tight decision for me. Until the last minute, when I sent an email on*

*the PTDF website, I wasn't expecting a response, but when it came back that I was scheduled for a virtual interview, I was so excited. In fact, to me, whether I got the Scholarship or not, that is a huge thing to me”*

She further stated that the singular act from PTDF, a government institution in Nigeria, increased her confidence that Nigeria is working if her circumstances are taken into account, particularly given the short time she was responded to, demonstrating that small things are happening in the background.



Bashir Mahmud, a lecturer at the Federal University, Gashuwa, Yobe State, said he was in Malaysia for a programme when he was invited for the interview. According to him, the virtual interview had saved him a lot of stress of having to travel to Nigeria for the interview. *“when I realised I could do it online, I was overwhelmed because it saved me a lot of costs. It means I will be able to finish the programme that brought me to Malaysia and come back*

to Nigeria conveniently; otherwise, I would have come to Nigeria because the interview is very important to me”.



Engineer Igbine Chibio, a research analyst in Vienna, Austria, praised the rapid transformation of the PTDF scholarship process, which she said has evolved over time and is still evolving from an initial cumbersome process to a now digital and seamless process. *“I bought a ticket to travel, and covid happened. I say this is another abandoned project, and I completely forgot about it. Suddenly I saw a letter, and I wondered who is this professional in our country. I was given a date, and I replied that I couldn’t make it only to be sent a letter scheduling me for a virtual interview, and it happened, very efficient, coordinated and I liked it”*

She said she was so happy that PTDF has made its digitalisation a success, and it is achieving the same result that they could have achieved physically.

Candidates who took part in physical selection interviews in designated centers across the country’s six geopolitical zones were equally enthusiastic about the processes and had the following to say:



Henry Igwebuike, a PhD candidate

from Enugu State;

*“I am so impressed by the whole process, from the screening down to the interviewers; I enjoyed the little session I had with them. They were very welcoming, and I am confident that they know what they are doing”.*



Itoro Anitey James, a former PTDF MSc Scholarship and a PhD candidate in the exercise, stated thus; *“Last time I went for my Masters, we all praised PTDF because the transparency in the system was very shocking. The PTDF portrays what we want for the Nigerian system. Any Nigerian can be somebody without knowing anybody so long you are competent and qualified and have something to offer to the nation. And I encourage all other government institutions to emulate the good work that the PTDF is doing in Nigeria.”*



Abdulkarim Awwal Mohd, Department of Chemistry, Ibrahim Badamosi Babangida University, Lapai Niger State; *“I will first commend PTDF’s selection because I don’t know anyone, I just applied online, I submitted my proposal online, everything was done online, and I was communicated via my email inviting me for the interview. From what I have seen here, everything is going on smoothly. The accommodation is just fine, and it is commendable.”*



Mohammed Kaka Bello, a Town Planner

*“Like any other person, I learned about the Scholarship through media publication. I applied online, shortlisted, and I am here for the interview. These are the kind of opportunities I want, and I feel these are the kind of opportunities every Nigerian wants. If I make it fine, if I don’t make it fine, I don’t have any worries because, for me, there is transparency”.*



Architect Zulaiha Babagiri, from Nigerian Building Research Institute,

*“Honestly speaking, the interview was seamless; from the start, I noticed a lot of coordination from the whole system. It is a well-organised system, using a very efficient QR code. The interview was in-depth. The panellists drilled us; they tried to get the best out of what we were doing and advised us where necessary.”*

The Panelists who conducted the interview exercise were not left out in expressing how they felt about the selection process. Some of them spoke about the exercise and the quality of proposals submitted by the candidates that participated in the process;



Dr Abdulkadir Hamid Alkali, a lecturer in the Department of Computer Engineering at the University of Maiduguri, “From the time I started participating till now, there has been a consistent improvement. Initially, all these scoring were done manually, we moved on, and it’s now automated and submission are made online. So it has improved, and it has made work quite easier. Almost all the proposals we saw are intended to solve one problem or the other, but some of them might have been done previously, and some are extending from where others have stopped”.



Dr Abdulkadir Mukhtar, an Associate Professor and Head, Chemical Engineering Department, Federal University of Technology, Minna. “The good thing about what I have observed so far is that PTDF keeps improving on the selection procedure. It is even more transparent now. For example, I know the candidates that I will be interviewing, PTDF know them, and the other interviewers know who those candidates are. Once I click on a candidate and submit my result, it will appear on the PTDF database, and nobody can tamper with that result. So that checks the issue of inconsistency and transparency, and nobody can take that away from the PTDF. Secondly, the

examiners have access to the proposals. Before you come for the interview, you must have had the opportunity of checking on the proposals online. So, you can even start doing the assessment, at least you will know the questions to ask the candidate, instead of him coming down, and then you become confused on what to ask the candidate within a few minutes.”



Dr Mustapha Lamurde, an ex-scholar and Managing Director, Summit Energy Limited, “This is the third time I am participating in the interview selection, so I have a lot of experience when it comes to the selection processes. And over time, we’ve given our feedback to PTDF on how to improve, and every time I come, I see some of these improvements. Although sometimes we struggle to go Overseas and study, even overseas, you see most Nigerians doing very good. And basically, that boils down to the foundation they get here, and you will see a lot of top-notch prospective scholars that understand what they are doing. They also understand the inherent issues in the industry, and their proposals capture that. So, many proposals are practically applicable in solving some of the issues we have in the industry.”.



Dr Olusheye Agbede, Lecturer,

Department of Chemical Engineering, Ladoke Akintola University of Technology, Ogbomoso, “Nigeria has a lot of well-qualified candidates, and we have come across excellent ones, but actually, we are looking for the best of bests, people who have prepared themselves in terms of having an excellent educational background in their first degree and MSc. And not only that, those who have been able to identify the important challenge not only in the oil and gas industry but also in the country. So, we are looking for those who are highly focused in their research proposal that will benefit the country.”.



Professor Shehu Adamu Iya, Moddibo Adama University, Adamawa; “Honestly speaking, this is one of the agencies in the country that has remarkably put its footprint within the Nigeria development because it has achieved a lot within a short period. And how the whole process has been undertaken is actually very encouraging. The managers of this particular organisation and the whole exercise need to be commended for an excellent job. We have seen some outstanding research proposals that will benefit the country greatly. The results will economically benefit the country at the end of the research work.”

Upon completing the manual and virtual screening and interview exercise, successful candidates were inducted through a virtual induction programme organised by the Fund to acquaint them with the rudiments of being a PTDF Scholar. The induction ceremony also exposed the scholars to the Fund’s mandate, the visa application process, life as PTDF sponsored students abroad. During the virtual induction ceremony, the awardees received enlightenment

talks by ex-PTDF scholars, counsellors, service providers, and PTDF desk officers responsible for different aspects of the Overseas Scholarship Scheme. The areas of enlightenment included an overview of the PTDF Overseas Scholarship Scheme Handbook presented by Mr Bala Shafi of the Education and Training Department, PTDF which was very informative. Dr Mukhtar Abdulkadir presented Life in the United Kingdom; Professor Ayodele Ebenezer Ajayi presented Life in Germany and Academic/Research Expectations; Dr Eugenia C. Ndukwe, PTDF Asia Pacific Consultant presented Life in China and Academic Expectations; and Mr Bragato Mattieu of Campus France presented the Campus France-Nigeria aspect.

In addition, Abdulrahman Maude of the PTDF Finance and Accounts department presented the payment procedure. Mrs Juweratu Osakaibor of the PTDF Legal Division explained the PTDF OSS bond and other legal issues while Mr Adetayo Aromolara, a representative from the protocol unit, also spoke to the new PTDF scholars about visa and travel procedures.

Executive Secretary of the PTDF, Dr Bello Aliyu Gusau, who was represented by the General Manager, Education and Training Department, PTDF, Mr Ahmed Galadima Aminu, congratulated the scholars on their success in the exercise, which he described as a very rigorous and merit-driven selection process with the highest level of transparency and integrity. He urged the scholarship recipients to be good ambassadors of the Fund and the country as a whole wherever they go.

An analysis of both MSc and PhD beneficiaries of 2020/2021 OSS shows that 342 candidates were successful. One hundred ninety-four (194) candidates received the MSc award, while 148 received the PhD award. The recipients were selected as the best-performing students from the 36 States and the Federal Capital Territory (FCT).

In another development, the In-country Scholarship Scheme (ISS) beneficiaries also received their award letters upon completing their documentation. The documentation exercise initiated by the Fund is an

essential and integral part of the award process used in verifying the credentials of the awardees. The documentation exercise formally welcomed successful intakes into the Fund's pool of scholars. It is also an avenue for the Fund to build and concretise the database of all its scholars.

About 600 candidates received the ISS award. The award includes 452 MSc beneficiaries and 143 PhD awardees. Like the OSS, the recipients were also selected as the best-performing students from the 36 States and the Federal Capital Territory (FCT).

Speaking at the documentation exercise, the Deputy General Manager, Education and Training (E&T), PTDF, Mrs Rabiah Waziri Adamu, congratulated the recipients for emerging victorious in a rigorous and merit driven selection exercise. She said they have automatically become members of the prestigious PTDF Alumni Club. Mrs Adamu explained that, although the process was initiated in 2018, the Fund's desire to improve on the process and the emergence of the unexpected Covid-19 all over the world delayed the take-off of the Scheme. She assured them that no one would be short-changed regardless of the time of the Scholarship award.

Mrs Waziri urged the scholars to contribute and offer constructive criticisms to improve the process. *"Some scholars take time to give feedback on the Scholarship. We don't mind whether it is positive or negative but let it be constructive because it will affect those coming after you. If you feel there's anything we can do to improve the programme, please feel free. We are always happy to receive feedback to improve on our programmes. The documentation exercise has not always been like this. At a time, it was even manual, we used to carry paper forms from here to the 36 states of the federation, but as time went by, we improved, now it is online, so there is always room for improvement"*.

Ms Violet Ogbomo, Head, In-Country Scholarship Division, PTDF, while presenting the PTDF ISS handbook to the awardees, advised them to be good ambassadors of the Fund in any university they find themselves in the country. She

also urged them to always strive for academic excellence in their chosen field of endeavours.

A PhD candidate from the National Open University of Nigeria (NOUN) Mr Tonye Osheribari, on the in-country scholarship scheme, stated that *"The process is indeed transparent and of high integrity "I was surprised to be shortlisted despite the fact that I don't know anyone. In some cases, you will, of course, need to know someone before being considered for a position, but this was not the case. As a result, I believe they select people based on their proposal and qualifications. If this opportunity is granted, I am confident that it will strengthen my capacity and increase the value I will be able to add to the institution where I work, as well as improve the type of work I do at the institution."*

The beneficiaries of the PTDF Overseas Scholarship Scheme attend top-tier universities in the United Kingdom (U.K.), France and Germany, China, and Malaysia as part of the Fund's strategic partnership. While the Fund will support those who have benefited from the In-country Scholarship Scheme (ISS) in their studies at Nigerian universities that offer oil and gas-related courses ■

# ORGANIZATIONAL RESTRUCTURING: PTDF TRAINS MANAGERS ON MENTORSHIP

As part of its organizational restructuring strategy, the Petroleum Technology Development Fund (PTDF) began a special train-the-trainer programme for its Managers and Deputy Managers on effective mentoring and coaching processes. The training exercise is designed to make the Fund respond to emerging industry challenges and ensure a

good succession plan.

The Deputy General Manager, Admin and Human Resource Department, Mr Mohammed Haruna, who is the Team lead for Organizational Restructuring and Equipment made the disclosure during the opening of the one week train-the-trainer programme organized for managers and their deputies in Abuja.

He said the programme is one of the strategies adopted by PTDF to use its internal resources to entrench discipline and a good succession plan in the organization.

According to Mr Haruna, the Executive Secretary's nine special-purpose Teams will serve as clusters for group mentoring and coaching, with respective Deputy General





Managers/Team Leads serving as mentors and Deputy Managers serving as assistant mentors, with the strategy cascading down to all Fund staff.

While declaring the training exercise open, the Executive Secretary, PTDF, Dr Bello Aliyu Gusau, commended the organizational restructuring and other Committees for what they were able to achieve so far. He described the mentoring programme as a necessary initiative required to instil proper ethics and work etiquette for the emerging Nigerian oil and gas industry. *“It became very clear to me that if PTDF is to remain relevant in the industry that is emerging, we have to change the way we do business in PTDF; it’s a fact that in the next few years, this country will have a different oil and gas industry, new institutions are emerging, new practices are going to emerge, and new players are also going to emerge, or at least the existing players will have to change the way they work.”*

He said for PTDF to discharge the mandate that has been given to it effectively, it will have to rise to the occasion and be up and doing as every provision of the new Petroleum

Industry Act (PIA) contains an implicit case for a functioning PTDF.

Dr Victor Dare, Managing Director, Betterways Consult and Chief facilitator of the training, started the presentation on five canons of effective leadership which he identified as Character, Competence, Commitment, Communication, and Collaboration. Dr Dare reaffirmed that the Managers train-the-trainer programme would focus on leadership demand of the 21st century, coaching and mentoring, strategic leadership and building high performing teams, and moving PTDF from success to significance.

In the same vein, the Fund also organized a seven-week intensive Residential Chief Officers Transition Course for staff under this category to prepare them for leadership as a basic requirement to transiting to the Management cadre. This is also geared towards organizational efficiency and career progression to all staff of the Fund.

At the opening ceremony of the program, the Executive Secretary of the PTDF, Dr Bello Aliyu Gusau, who was represented by the General Manager of the PTDF’s Strategic

Planning and Documentation Department, Mr Jide Adebulehin, reminded the Officers of their responsibilities as future Managers whose output will determine the Fund’s future.

*“Let me say that to whom much is given, much is expected, and you are going to Management level, which is critical and important even more than top management because they are on their way out; you are the future of this organization, and that is why you must prepare for the challenges that await you all.”*

The Executive Secretary wished all the participants a successful outing and encouraged them to take every aspect of the programme serious.

Mrs Adetola Adefiseso, who represented NNPC Leadership Academy, the Chief Officers Transition Course facilitators, informed the participants that the exercise would involve seven weeks of hard reading and enjoyment. She assured the Fund that the academy would provide good value for money because it would go to great lengths to prepare the participants for leadership and management roles ■



# Excellence in Scholarship

## DR OLUSHEYI AGBADE

I applied several years ago, I was invited for interview, I also faced panel of interview and on the long run I got the award in 2009. I got the sponsorship to study at the Imperial College London, I studied Chemical Engineering, PhD and then I came back after my studies, currently I lecture at the University of Technology Ogbomosho. So, PTDF sponsorship has made a huge difference for me because it gave me the opportunity of traveling out of the country to study in one of the best top universities in the world. PTDF took care of all the expenses in terms of accommodation, the school fees, the feeding for the number of the years I spent. And then my exposure to state-of-the-art facilities, interacting with experts in different fields has benefited me so much and has positioned me to also deliver at my own department; I am able to deliver lectures and supervise research at that level of experience.

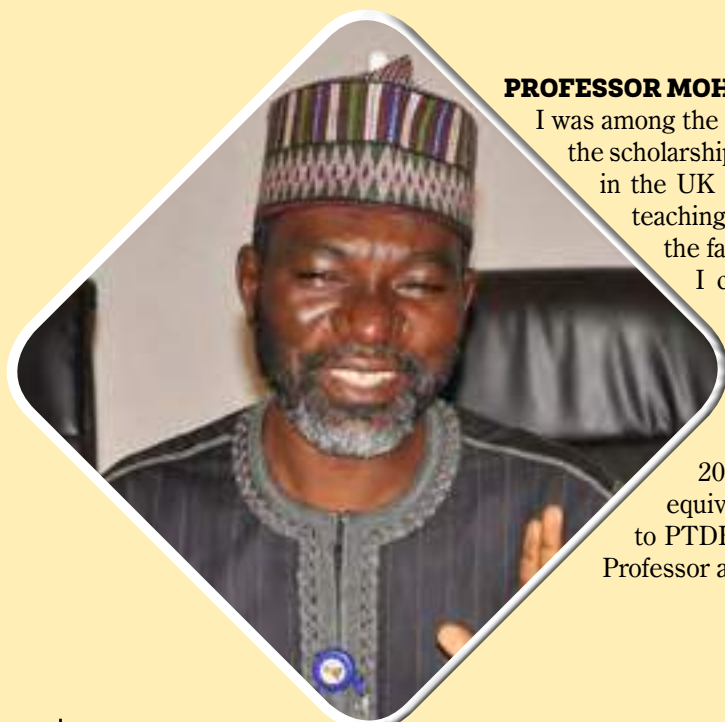
It was an extremely transparent process even back then, actually I knew no one when I got the scholarship. I just applied normally, came for the interview and I don't have contact with anyone in PTDF. I am just an ordinary Nigerian who applied and I was invited based on merit. I was interviewed by a panel of experts in the field who based on my presentation and research proposal I won the scholarship. During my PhD I developed a process for the direct utilization of methane in solid fusil which is an electrochemical device to convert fuel directly to electricity. I welcomed that, developed the process and then I was able to publish my findings. So I think that has been the main thing I was able to achieve up to the time.



## PROFESSOR MOHAMMED DAUDA

I was among the first set of the PTDF scholars that were interviewed when the scholarship was officially flagged off. I was sent to Cranfield University in the UK for my PhD programme. I got appointment as a graduate teaching assistant in the university of Hull and became a member of the faculty of Engineering of the university.

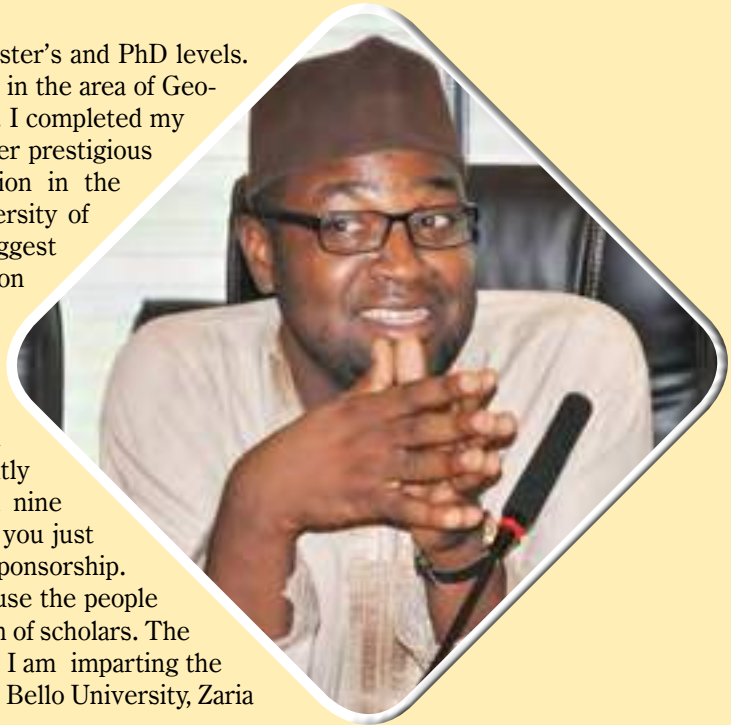
I came back to Nigeria later to continue my lecturing job at Ahmadu Bello University, Zaria and later became the dean of the Faculty of Engineering as well as the Head of the Department of Mechanical Engineering. After which I became a professor in January 2019. When the Airforce Institute of Technology (AFIT) was established in 2017, I became the first provost that was recruited which is equivalent to a Vice Chancellor of a University. I'm very grateful to PTDF for giving me the opportunity of having my PhD, being a Professor and a Vice Chancellor.



**DR. FAISAL UMAR**

I benefited from the PTDF scholarship, both at the Master's and PhD levels. During my MSc I got an award for the best dissertation in the area of Geo-demographic Profiling from the University of Leicester. I completed my thesis at the University College London and got another prestigious award; Roja Thompson prize for the best dissertation in the area of Geographical Information Science at the University of London which was a prize established by ESRI the biggest GIS software company in the world. The PTDF selection process is a very fair process. If you meet the criteria, you will get the chance to pursue your dream to study in some of the best universities in the world.

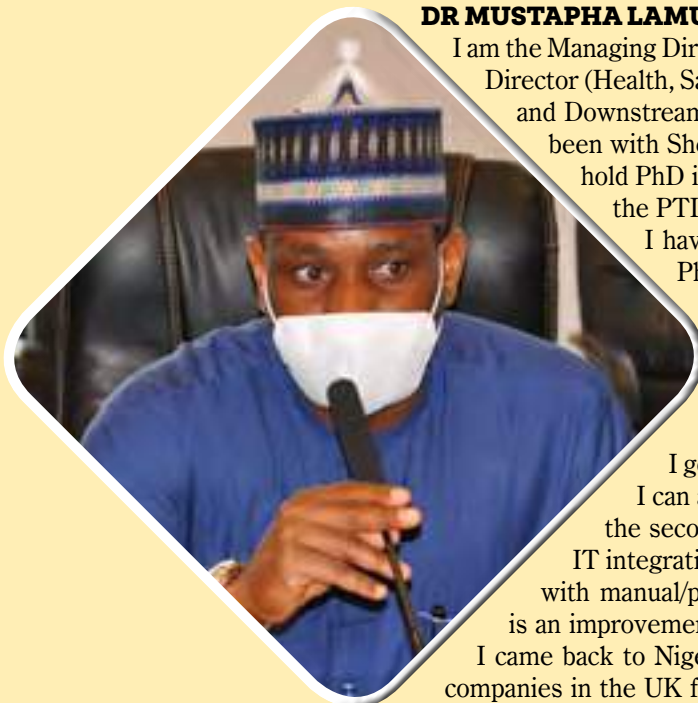
PTDF scholarship is a life changer, the Fund spends a lot of money on tuition, leaving expenses and most importantly supports scholars to attend conferences. I attended nine different international conferences during my PhD. So you just can't imagine what life would have been without this sponsorship. And one good thing that PTDF did very recently is to use the people that they have trained to be on the panel of this selection of scholars. The scholars have already started giving back to the society. I am imparting the knowledge gained via PTDF sponsorship at the Ahmadu Bello University, Zaria right now and will continue to do so.

**DR MUSTAPHA LAMURDE**

I am the Managing Director of Summit Energy Limited, currently the Executive Director (Health, Safety, Environment and Community), Nigerian Midstream and Downstream Petroleum Regulatory Authority (NMDPRA) and I had been with Shell for about 13 years before deciding to be on my own. I hold PhD in Petroleum Engineering and at the moment I am part of the PTDF PhD Scholarship Selection Committee.

I have been a scholar myself; my Master and eventually my PhD was through PTDF and I can attest to the credibility of the selection process. It's rigorous but it's very fair and transparent, the selection process is even being monitored by the Federal Character Commissions which further attest to its transparency. I keep telling people about the PTDF selection process because when I got it I did not know anybody, it is credible and transparent.

I can also see improvement in the selection exercise, we were the second set of MSc/PhD scholars back then and there was no IT integration in the process, everything was manual. And one thing with manual/paper work process is that it takes time, but now there is an improvement in it. I was lucky I got through the process and before I came back to Nigeria to work with Shell, I had worked with a number of companies in the UK for about 2 years. It was during my stay with Shell that I decided to go for my PhD. So I came back a second time and I was lucky to get the PhD Scholarship. I won awards back then in the UK, which I solely dedicated to PTDF.



## I love to do research and want to see my research commercialized in Nigeria

Dr Kachalla Aliyu



with the Gombe State University and at the same time a research coordinator of the Department of Geology and a Faculty Member of the TETFUND IBR Research Committee. He is also in partnership with the University of Aberdeen. His excellent performance fetched him the prestigious PTDF Overseas Scholarship Scheme (OSS) at the University of Aberdeen after passing through the rigorous application process.

The PTDF update was able to have an interview with him to share his experience during the program in carrying out the research. Below is our chat with him.

**Q: Kindly introduce yourself; give us a little bit of your background and how you got involved with PTDF?**

**A:** My name is Dr. Kachalla Aliyuda, I am a lecturer with Gombe State University and at the same time I am the research coordinator of the Department of Geology and I am also a Faculty Member of the TETFUND IBR Research Committee at the same time, I am doing a partnership/Postdoc with the University of Aberdeen. That's what I am doing at the moment. My relationship with PTDF started when I applied for Ph.D. Overseas scholarship in 2016 and I was successful. I started in that year 2016 and I was able to finish the Ph.D. programme on time. Again, I count myself lucky because I have tried the process before during my Masters but I was not successful. So, at the Ph.D. level, I was able to secure the scholarship. So, I count myself lucky and privileged because of the kind of training I have received, what I have achieved so far through this programme, and the platform it has given me to reach where I am today.

**Q: Tell us what your research was**

**F**or decades Petroleum Technology Development Fund (PTDF) has maintained a reputation in the oil and gas industry by providing human capital, enhancing the oil and gas departments of Nigerian Universities, and pushing the frontiers of research in solving oil and gas industry issues.

Through the discovery of new ideas and technologies industrialization occurs, these new ideas can only happen by investing time and resources to research and

development and the PTDF is committed to placing a premium on research funding and findings which will result in building new technologies.

The PTDF sponsors research through the "PTDF Annual Research Grant Competition" and they are expected to solve specific industry problems and contribute to the oil and gas value chain in the country due to the emerging challenges in the oil and gas sector.

Dr. Kachalla Aliyuda is a PTDF scholarship beneficiary. He is a lecturer

### centered on and why you choose that area of research?

**A:** My research is on understanding the stratigraphic controls of hydrocarbon reservoirs. So, we wanted to know what controls or how the geology does or stratigraphy of a reservoir controls the performance of that reservoir. We wanted to know the impact of geology or the rock types and then other properties on hydrocarbon reservoirs. And what inspired that was my passion for this aspect of petroleum geology. I had a lot of research ideas that I wanted to pursue but then I had to discuss with the supervisory team, and we decided which would be the best area of research for me looking at my background with MSc in Petroleum Geology and a very strong background in sedimentology. I have had a very good beginning in sedimentology and that motivated me to go into that area of Petroleum Geology. I also understand that the project will suit my qualities, and I had a better understanding of what the result could be. In addition, it is also an interesting area because a few people have tried it in the past to link sedimentology, stratigraphy to hydrocarbon performance but the results were limited to some extent and in other cases, they were not successful. So, we decided to give it a shot, we used very robust data to see how we can get some results. Because of the issue of copyright and other things, we couldn't get data from the Niger Delta, so we decided to use the data from the Norwegian continental shelf, which is similar to some extent, to some of the businesses we have in Nigeria. And then because the data was there, and it was well structured for the project, we used that. After we took the data, we did some preprocessing and then we used some statistical tools. The most interesting part of the research is that we also used machine learning for data analytics, and we got some interesting results from that.

### Q: Would you like to share some of the challenges you faced in carrying out this research work?

**A:** The most noticeable challenge we had was that not much of that kind of research has been done in the past and the ones that were done do not have

interesting findings. So, it was a kind of new area because we also wanted to incorporate machine learning, that is artificial intelligence machine learning and see what benefit we could derive from that. So, it was new. And for me, I had to learn a bit of computer science and machine learning, coding, and all that because my background is purely geology sedimentology. So that took some time out of the usual time that I would have used in progressing with the research. So, it took me back a bit, but I have gained more from that because I can now do other work that is related to machine learning, so it's an added skill for me even though it was a challenge. Another challenge was getting data because initially, we wanted to use Niger Delta, but we realized that the data was not readily available. So we decided to go for what was available and even with that, there were some fields that the operators did not release the data for us and we sorted for that data but we couldn't get it, we had to make use of what was available. These were some of the challenges but otherwise I did not have any challenges with either my cost of living or how I lived here, there were no other areas that had to struggle with. So, I am grateful to PTDF for taking good care of that aspect for me, I was very comfortable throughout my time of research.

### Q: I know you had some aspirations before you embarked on your research, in terms of utilization of your outcome, would you say your aspirations were met?

**A:** Let me start by saying that in terms of utilization of the outcome of my research, it is very useful because I can confidently tell you that we've published three solid papers from it and then, there are a lot of interests in those publications we had because I shared those publications in the usual

academic forums and then there is a lot of readerships, a lot of attention to those publications as well as citations. So we published three good papers on the result of the research and these are interesting results. Apart from that, because of those interesting results I was given the opportunity by my supervisor to take part in similar research, and which I will also publish two additional papers, so the outcome is really interesting: it's one of my achievements as an academic. So, it's really valuable and I don't think without the scholarship I would have achieved that.

### Q: Generally speaking, how will you relate research to the advancement of any nation?

**A:** Research is really important in developing any nation and if you look at the most developed countries in the world, they so much rely on research; they so much rely on the outcome of

**Research is really important in developing any nation and if you look at the most developed countries in the world, they so much rely on research; they so much rely on the outcome of scientific research. And that is why for example here in the UK, research is really valuable in terms of monetary value. There are a lot of interests from the private sector, from the industries putting in a lot of money into research, supporting universities with funds. So, it's really important.**



scientific research. And that is why for example here in the UK, research is really valuable in terms of monetary value. There are a lot of interests from the private sector, from the industries putting in a lot of money into research, supporting universities with funds. So, it's really important. Take an example of the Covid-19 issue we had, if not because of researchers we wouldn't have achieved that breakthrough. So the world relies on research and important outcomes from research. For developing countries like Nigeria, I think that is what we need to focus on; that is what we need to invest more in. We need to put a lot of resources into research because the outcome we get in research is what drives a lot of economies. Unfortunately, some researchers are not given that attention, so we might be lacking in that aspect, but it plays a key role in a nation's development.

**Q: What is your advice to young researchers; young scientists that will also be aspiring to maybe take up the PTDF scholarship?**

**A:** For anyone talented that wants to take this scholarship or apply for the scholarship, I will say they shouldn't feel discouraged because sometimes some people feel discouraged because they know a lot of people applied for it, that they might not be given the opportunity. I had no upper hand when it comes to this application, I completely relied on my ability and I got it. So, I want to encourage the upcoming scholars not to give up, not to feel discouraged about the competition, it's part of learning. You know when you compete and you emerge, you will have that pride that you earned it, so they shouldn't give up. And then they should be a lot of effort from them in terms of hard work, they should put in more energy into what they do, be it studying for that very course and a lot of energy in research as well. Reading important articles and publications about the area of research they want to go into and then to be dedicated as well because without dedication you cannot achieve much. So, that is my advice for them.

**Q: What is your advice for the programmes PTDF is running in terms of their intervention in**

**So the world relies on research and important outcomes from research. For developing countries like Nigeria, I think that is what we need to focus on; that is what we need to invest more in. We need to put a lot of resources into research because the outcome we get in research is what drives a lot of economies.**

**research as a developmental tool for the oil and gas industry?**

**A:** Well, my advice is that PTDF should sustain those intervention programmes they are doing in research be it in the universities, be it in the developing academics, and then if there are ways, they can expand it for more people to benefit from it, I will encourage that. Because for instance, without this scholarship I don't think I would have achieved what I have achieved so far, getting a Ph.D. in a time limit. Then apart from that, immediately after completing my Ph.D., I got the appointment as the research coordinator, and I have also published a good number of papers. I am also a reviewer in several journals and all these I say thanks to the PTDF. So, I think they should expand it, they should open it up for a lot of people and most importantly to the universities because the universities in Nigeria need PTDF to grow.

**Q: From your experience and being in the academia in Nigeria for a while How do you see the researchers in Nigeria and the challenges they face, do you think your scholarship assuaged those challenges that researchers face in-country?**

**A:** I think the researchers in Nigeria

face a lot of challenges, one of the challenges is the facilities. We lack the facilities to carry out meaningful research in Nigeria. Our laboratories are not well equipped and then we don't have software that we need to carry out a lot of research. These are some of the challenges but then if you have the opportunity to go to a developed country to do research, you kind of eliminate some of these challenges. But the most important thing is, the academics in Nigeria should also put more energy into what we do. We need to be dedicated to our own research. There are other little researches we can do that don't need heavy machinery that we could rely on partnership for example with other developed countries or developed institutions that are ready to help us. So, if we are dedicated, we can leverage those opportunities, we can make use of those opportunities and be able to carry out some research, not relying on some of the sophisticated researches. So, I think the major challenge is the facilities, we lack the facilities but at the same time, our attitude too comes into play. So, if we take our job seriously; put passion into what we do, the idea is for us to develop the country. There are things we can do without relying on these heavy types of equipment ■



## POST COVID-19 ECONOMIC RECOVERY FRAMEWORK: PTDF PLEDGES SUPPORT FOR INDUSTRY

**T**he Executive Secretary, Petroleum Technology Development Fund (PTDF), Dr Bello Aliyu Gusau, at the 14th Nigerian Association for Energy Economics (NAEE), Conference has on behalf of the Fund, pledged to continually provide manpower requirement of the oil and gas industry in Nigeria. The Conference was organised by NAEE, in collaboration with the International Association for Energy Economics (IAEE), with the theme for this year's Conference as **“Strategic Responses of Energy Sector to Covid-19 Impacts on African Economies”**.

In his welcome address, the Executive Secretary, ably represented by



Mr Olajide Adebulehin, General Manager, Strategic Planning and Documentation (SP&D), PTDF, at the Association's 2021 Annual Conference hosted by the Fund, said that the continued support of the Fund in that regard would help to stabilise the economy in the wake of the Covid-19 Pandemic. According to him, the

Conference intends to explore the strategic responses of the energy sector because of the Covid-19 Pandemic and the impact it has on the African Economies. He stated that the effects of the Pandemic have a significant decreasing impact on the Continent's Gross Domestic Product, individually and collectively. The reduction in the Gross Domestic Product has resulted in the loss of employment, increase in the poverty level, high inflation rate, food insecurity and other dire consequences emanating from the global Pandemic. *“It is clear that before we can return to the same or higher levels of GDP, the oil and gas/energy sector will need to evolve and adapt pertinent strategic responses to*



the pandemic,” he said. Furthermore, the Executive Secretary affirmed the Fund’s readiness to support the industry through capacity building. He also added that *“in the wake of this new framework and thrust to normalise the road to economic stability, it is definite that capacity building will play a major role in this upward transition. On that note, PTDF would always be available to intervene and support the industry,”* he reiterated.

Addressing participants at the Conference, the President of the Nigerian Association for Energy Economics (NAEE),



Professor Yinka Omorogbe, emphasised the need for Africa to grow its energy industry through diversification. According to the professor, Africa is endowed with abundant energy resources such as coal, tidal and wave energy, natural gas, wind, bitumen, geothermal energy, crude oil, solar energy, etc. However, she regrets that these God-given resources to Africa are gravely under-utilised for the use of the people, stressing that the inability to harness these natural resources in Africa, by extension Nigeria, has inadvertently brought about untold hardship to the people, thereby making Nigeria the poverty capital of the world, a position which was hitherto comfortably occupied by India. She expressed hope that the harmonised Petroleum Industry Bill (PIB) would address these energy crises in the country if passed into law. *“The primary promise on the horizon is the Petroleum Industry Bill, which one hopes will soon be assented to by the President. My opinion is premised on the fact that there is no alternative to a total reform of the Nigerian oil industry if Nigeria is ever to realise its full potentials.”*

Speaking at the Conference, the Vice-President, Federal Republic of Nigeria, Professor Yemi Osibanjo,

stressed that the oil and gas industry, which serves as a critical aspect of Nigeria’s economy, is the most hit from the effect of the Covid-19 Pandemic principally because its operations rely on human input. Adeptly represented at the occasion by the Special Adviser to the President on Infrastructure,



Engr. Ahmad Zakari disclosed that President Muhammadu Buhari led administration is doing everything possible to bring a significant transformation in Nigeria’s energy sector. He said these transformational initiatives are geared towards bringing about positive and indelible marks in Nigeria’s economy. Some of these initiatives, according to him, include the NLNG Train 7, FID project, which will lead to an increase in capacity of up to 30% at the Bonny Island and keep Nigeria at the forefront of leaders in Liquefied Natural Gas globally, the \$2.6 billion AKK pipeline that will allow closer integration of energy access and increase the number of gas-based industries across the country; Electricity Tariff Reforms with the Service-Based Tariff that have increased collections from the electricity sector by 63%, increasing revenue assurance for gas producers and stabilising the value chain, and an accelerated investment of over \$3 billion infrastructure to put Nigeria on the path to growth. Other notable transformational projects outlined by the Vice-President include; the Okpai PH II; the Afam III; the Zungeru Hydro, and the Kashimbilla Hydro Power Plants, which he said would add more than 1000 MW of capacity in both gas and renewable segments. He noted the administration’s readiness to pass the Petroleum Industry Bill into law, which he said will clarify and improve economic opportunities for the petroleum sector.

In his presentation, the Honourable Minister of State for

Petroleum Resources, and Chairman of the Occasion, Chief Timipre Sylva stated that the drive for a cleaner environment is non-negotiable to sustain massive economic growth in Africa. The Hon. Minister who was represented at the event by the Chief of Staff to the Minister,



Mr. Moses Olamide disclosed that the theme of the Conference is apt given its needed impact assessment regarding the effects of the Covid-19 on the African economy. He therefore urged stakeholders at the Conference to make good use of the Conference’s opportunities to discuss critical issues that will help improve the energy sector for economic growth. *“I urge speakers and critical stakeholders at this conference to feel free to discuss these topical issues in detail and come up with feasible strategic ideas to assist in our quest for economic sustainability and growth for the energy sector in a post-Covid-19 world”.*

The Nigerian Association of Energy Economics (NAEE) is a nationwide non-profit organisation comprising of business, academic and other professionals committed to improve the economics of all the facets of petroleum and energy resources development and use. The Association organises conferences annually to create a platform for the exchanging of ideas, research advancement and professional experiences in energy economics in petroleum resources. PTDF’s partnership with NAEE is hinged on the shared vision of capacity building for Energy Professionals in Nigeria, oil, gas and power and other disciplines that are interested in energy issues and PTDF has been committed to hosting the annual Conference and providing other support to the Association.



To shed more light on the theme of the Conference, the PTDF media crew spoke with some of the stakeholders at the Association's Annual Conference.



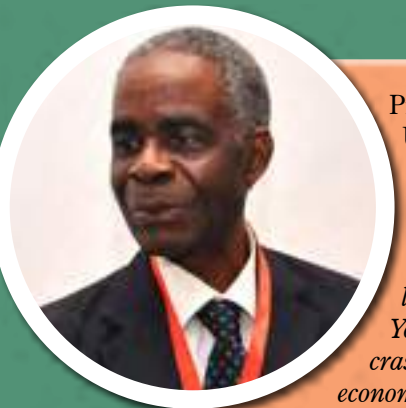
The President of the Association, **Professor Yinka Omorogbe** has this to say to the crew;

*"The Conference is significant to us because it's a known fact that the Pandemic has adversely affected those who are very poor and has adversely affected the poorer nations. The majority of which are in Africa. So we felt that we needed to come together to critically discuss what we can do to arrest the current negative drifts downwards and to see how we can strategise and recommend strategies that would assist us to survive during this period, and not only to survive but to thrive even post COVID notwithstanding all the different challenges of this situation and notwithstanding all the different negative things that have happened. So discussions are going on, and different experts are brainstorming and deliberating. We have many speakers at the Conference, and by the time we have finished, we should have had well over a hundred papers because apart from the big main sessions, we have smaller breakout sessions. So we're going to come out with a very good communique. We will suggest different strategies and activities because it's necessary for us to play an active role since it's such a great gathering of specialists in different areas of the energy sector. So we think that we have something to give, for the benefits of Nigerians".*



The Secretary of the Association and a senior lecturer at Covenant University and Chair, Centre for Economic Policy and Development Research (CEPDer), **Dr Obindah Gershon**, while throwing more light to the theme of the Conference has this to say;

*"This Conference is very important because it's focused on looking at what sort of strategic steps Nigeria can take given the impact of COVID-19 on the Nigerian economy. Because of the Pandemic, the Nigeria energy sector, from where we get most of our revenue, has been affected. So we're deliberating amongst economists, engineers, policymakers, lawmakers, and business owners within the umbrella of the Nigeria Association for Energy Economics to see how we can identify strategic options. For example, what is the way forward with oil prices not being as high as they used to be? Oil demand is not as it used to be. And most of the countries that were buying oil from Nigeria may be looking at net zero economies where they would not be using more gas again. So this Conference gives that opportunity to bring in the Minister, the Vice-President, then the experts in energy economists to say, what are those strategic steps that we can take so that the economy of Nigeria will keep growing based on the sustainable supply of energy?"*



Pioneer President of the Association and Professor in Energy Economics at the University of Ibadan, **Professor Akin Iwayemi** in his contribution, stated that;

*"This is an unusual time not only in Nigeria but globally in respect to the Pandemic and its effect on the energy sector and the Nigerian economy. Last year, the lockdown that came with the Corona virus reduced the movement of people, and energy is important in fuelling the transportation sector. So, the reduction in movement of people led to a decrease in oil demand which led to a price crash before the recent increase. You know that Nigeria depends on oil, so the intersection of COVID-19 and the oil price crash was very devastating on the Nigerian economy because fiscal revenues collapsed, economic activities also went down because of that. So the correlation of these two effects or the combination of both produced a very devastating scenario which brought about joblessness among the people."*



## A RECAP OF 2020 NAAE

The Association in its 13th Annual International Conference titled 'Energy and Petroleum in a Post Covid World' sought to interrogate the devastating effect of the Pandemic to Nigeria's oil and gas industry and proffer ways of surviving as a nation. In a keynote address during the Conference, the Minister of State for Petroleum Resources, Chief Timipre Sylva, admitted that, like every country, the Covid 19 pandemic has impacted many nations' economies. However, he stressed that the Federal Government is strategising to ensure an efficient oil and gas sector in the post-Covid 19 era. *"COVID 19 Pandemic and progressive decline in crude oil prices in 2020 has made it imperative for Nigeria to aggressively pursue the diversification of its portfolio to non-oil business to cushion the effect of a future crash in crude prices and position the oil and gas industry for growth in post COVID world"*. The Honourable Minister revealed that among the strategies adopted by the government to cushion the effect of the Pandemic on the economy is the leveraging on the enormous gas resources the country is endowed with as a low-cost solution and the transition energy fuel. *"We are focusing on our vast natural gas as a critical transition fuel to help battle global warming and function as a bridge between a dominant fossil fuel of today and the renewable energy of tomorrow. Natural gas has the intrinsic ability to meet the increasing global requirement for cleaner primary energy use, while at the same time, enabling much needed domestic industrialisation for rapid economic growth in very few endowed countries, such as Nigeria"*. He opined.

The Minister, in his virtual presentation, disclosed that after making laudable achievements and success on gas in 2020, the country declared 2021 to 2030, the decades of gas in Nigeria, saying that substituting traditional white products with gas will not only cushion the effect of the deregulation of the downstream petroleum sector and stimulate economic growth but improve Nigeria's energy mix, drive investments and create enormous job opportunities.



In his contribution, the Executive Secretary, PTDF, Dr Bello Aliyu Gusau, also decried how COVID 19 pandemic impacted significantly on the various human capital development programmes being undertaken by the Fund, especially those being conducted overseas and through physical meetings.

Dr Gusau, represented by the General Manager, Strategic Planning and Documentation, PTDF, Mr Jide Adebulehin, explained that in the second quarter of 2020, many of the Fund's programmes and projects were disrupted due to physical distancing protocols and closure of airports, among others. He said, however, that, the Fund is strategising and is poised to respond to the new realities. *"For us in PTDF like many other agencies, COVID 19 Pandemic has significantly affected our operations. There have been reduced opportunities for stakeholder collaborations and linkages; however, to fully mitigate these challenges, we have quickly reviewed our operations to eradicate manual processes and pave the way for a new automated flow that is efficient conscious of the fact that the PTDF capacity building initiatives have been pivotal in developing manpower needed to sustain the operations of the oil*

*and gas sector."*

In her address, the National President of the NAAE, Professor Yinka Omorogbe, explained the choice for this year's Conference theme **"Energy and Petroleum in a Post COVID World"**. She noted that the energy industry had been negatively impacted by the COVID 19 pandemic, which behoves the industry the need to create the required capacity to change and adapt to global trends.

*"We have to confront the effects of the present and continuous disruption and plan for what may well be the new normal. We, therefore, feel the time to critically interrogate the way and means by which it affected our sustainable economic development and the petroleum industry that we still continue to depend on, is now, we need to critically understand and unravel "Energy and Petroleum in Post Covid World" to see how best to weather the storm and come out modified, strengthened and prepared to not only cope but triumph as a nation"*. She commended PTDF for being a reliable partner in the quest to provide solutions to specific Nigeria oil and gas industry problems ■

# 2021

# OLEF:

## PTDF HOSTS OLOIBIRI HYBRID LECTURE SERIES



**T**he challenges faced by the oil and gas industry in Nigeria has necessitated a need for the industry players to optimize their performance in their operations specially as the industry like every other sector have felt the impact of the Covid-19 pandemic. This gave rise to the theme of this year's Annual Oil and Gas Oloibiri Lecture Series and Energy Forum tagged **“Operational Excellence and Portfolio Optimization; Way forward for**

### **the Oil and Gas Industry Post Covid-19”.**

The Lecture being hosted annually by the Petroleum Technology Development Fund (PTDF), in commemoration of the discovery of the first oil-well in Nigeria and as part of PTDF strategic partnership with practitioners in the oil and gas industry, provides a platform for oil and gas professionals to deliberate on current global realities in the industry.

Dr Bello Aliyu Gusau, Executive Secretary, PTDF, in his remark said

the theme of this year's lecture is not only apt but crucial to the realization of government's planned transition to attain a stable business environment and create vibrant low-carbon economy in a post Covid-19 oil and gas industry.

The Executive Secretary who was represented by the General Manager, Strategic Planning and Documentation, (SP&D) of the Fund,



Mr Jide Adebulehin, observed that, this year's OLEF seeks to address issues of climate change, digital transformation, cost reduction and public health which are key enablers to achieving operational excellence and business portfolio optimization in the oil and gas industry.

He said, PTDF as an agency of government that is at the forefront of developing Nigerian human capacities, capabilities and competencies for the oil and gas industry is also rising to the occasion by engaging in relevant partnerships aimed at conforming the ever-changing demand and supply dynamics in the industry post Covid-19.

*"I would like to reassure you of PTDF's unalloyed commitment to providing the required support as it relates to building human capacities for the petroleum industry as it has done in the past. No doubt the impact of the Covid-19 has been unfavorable to our operations but to suit this present day reality, the Fund is currently in collaboration with some institutions in Nigeria and abroad to upscale and*

*redesign its Overseas Scholarship to cover more courses on renewable energy and to make learning easier".*

The Executive Secretary promised to sustain the Fund's engagement with various stakeholders such as the Society of Petroleum Engineers (SPE), and emphasized that this can best be enhanced through regular information sharing on the evolving human capital needs of the energy industry, to enable the Fund tailor its interventions to suit specific industry requirements.

In his remark, the Convener of the event and Chairman of SPE Nigeria council,



Mr Olatunji Akinwunmi said, it's the first time the council is conducting a hybrid event of both virtual and limited in-person participation due to the restrictions that have been imposed by the pandemic and hoped that with the kind of participants and oil and gas industry stakeholders that deliberated around the theme of this year's lecture, the resolutions coming from it will stimulate further growth and development within the industry.

The lecture on **"Operational Excellence and Portfolio Optimization"** was delivered by the Country Chair Shell and MD, SPDC,



Mr. Osagie Okunbor followed by keynote addresses on **"Industry Regulation and Achieving Operational Excellence"** and **"Deriving Optimal Value from Oil and Gas asset Post Covid-19"** delivered by the Director, Department of Petroleum Resources (DPR), Engineer Auwalu Sarki and the Group Managing Director, NNPC, Mr Mele Kyari respectively.

The Executive Secretary, PTDF, Dr Bello Aliyu Gusau led the panel of discussants on **"Industry-Government-Academia Partnership"**. The panel included the GM, JV Operations (NAPIMS), Mrs Martina Atuchi, MD, Seplat, Mr Roger Brown, ED, Total E&P, Mrs Tai Oshisanya, Chief Technology Officer, Huawei, Mr Wang Hao and MD, Aiteo E&P Limited, Mr Victor Okoronkwo, among others ■



# PTDF'S GIANT STRIDES IN DEVELOPING IN-COUNTRY CAPACITY FOR THE OIL AND GAS SECTOR THROUGH THE UNIVERSITY UPGRADE PROJECT

The Federal Government created the Petroleum Technology Development Fund (PTDF) University upgrade project to redress the notion by International Oil Companies that Nigerian universities could not produce quality graduates with the relevant skillset for engagement in their companies. Therefore, the Fund was mandated to train and educate qualified Nigerians in oil and gas-related disciplines in universities abroad to acquire the required skills and competencies suitable for engagement in the industry. This was implemented through the Overseas Scholarship Scheme meant as a short-term measure to enable qualified Nigerians to acquire Masters and Doctorate degrees in oil and gas-

related fields in top-rated universities abroad. As a short-term measure, the ultimate objective, in the long run, is for the Fund to intervene and upgrade the infrastructure, facilities and faculties of relevant oil and gas departments in Nigerian universities and other academic institutions, as well as the setting up from scratch of oil and gas training institutions in-country. The concept of upgrading the facilities and infrastructure of departments in selected universities whose focus is the teaching and research of oil and gas-related courses is not only to educate Nigerians in specialised areas of oil and gas but also to ensure that they receive the training in local universities that the Fund has upgraded with world-class facilities installed. The Upgrade approved by the Fund is

aimed at providing facilities such as departmental buildings, laboratory/workshop equipment, ICT facilities and ancillary facilities, amongst others for the institutions. Some of the beneficiaries of this kind gesture by the Federal Government through the PTDF are; the Obafemi Awolowo University (OAU), Ile-Ife, Osun State, The Federal University of Technology (FUT) Minna, Niger State, Othman Danfodio University (UDU), Sokoto, Sokoto State, Abubakar Tafawa Balewa University, (ATBU), Bauchi, Bauchi State, and the University of Maiduguri, Borno. The PTDF media crew paid visits to these institutions to ascertain the condition of the upgrade projects executed by the PTDF for them.



At the **Othman Danfodio University**, Sokoto, the PTDF's upgrade project is the Department of Petroleum Chemistry. The upgraded Department

is installed with all the components of the Upgrade listed all the above. The Vice-Chancellor of University,



Professor Lawal Bilbis, while welcoming the PTDF team, opined that the PTDF intervention project in the Department of Petroleum Chemistry stands out as one of the best in the faculty of science which he said has been of great help to the institution. *"We must sincerely*



appreciate PTDF for what it has been doing to Nigerian Tertiary Education system in Science and Engineering related disciplines. Its Intervention in the Othman Danfodio University has been of great help to us; the Upgrade of the Petroleum Chemistry was the most beautiful building in the University then, a chair was also endowed to promote teaching and research, and it has done wonderfully well, we have graduated several PhD's, some are within the Department and some are working in some universities and tertiary institutions across the country. MSc and PhD Petroleum Chemistry is one of the most thought after courses in the faculty of science." He further noted that the departmental building and the laboratory equipment provided for the University by the PTDF have greatly improved the learning, teaching and research work of its staff and students in the Department. "The equipment provided during the upgrade has contributed a lot in teaching and learning in the area of petroleum chemistry and area of catalysis to the extent that this year's annual lecture series we invited the GMD, NNPC and he came and had a discussion with us, and we are going to partner and work on the catalysis on oil well cement and other oil well chemicals that are used in oil exploration, so PTDF has helped a lot."

The Head, Department of Petroleum Chemistry, Othman Danfodio University,



Professor Aminu Bayawa described the PTDF upgraded department as a project that has brought assistance to the school through the boosting of its manpower needs and growth in the Department. He further described the Department as the pioneer Petroleum Chemistry department in Nigeria before other universities started establishing theirs. He also noted that most of the lecturers of Petroleum Chemistry across the country are all products of the Department, courtesy of the PTDF "In term of manpower that arose as a result of the establishment of the PTDF Chair in Petroleum chemistry in this University, it is worth knowing that before that, Petroleum Chemistry has not been in existence in any university in the country, there was no university that was teaching petroleum chemistry,

so we are the pioneer department that started it and that came as a result of intervention by PTDF. Today it is most of our students that are teaching it in many institutions across the country".

Accordingly, Professor Bayawa, described the PTDF intervention project as a huge relief to the University. According to him, before the intervention, most of them lack adequate office spaces and teaching materials. "Although it started as one of the foundation departments in the university, it was in the Agricultural Complex; it was after this intervention that the whole department moved here, and it came when the university was in critical need of such facility, it was a major relief to the university and the department because it gave us the staff the opportunity having the offices that were not then available to us, this is in addition to the new laboratories that came with the upgraded department which gave it another opportunity of research and training of students" He concluded by saying that apart from the students of the Petroleum Chemistry, other students from the faculty of science have also benefitted from the PTDF In-Country Scholarship scheme. These positive strides, according to him, have therefore given students the prospect of undertaking meaningful researches as well as funding their academic activities without hitches. The professor's testament can be seen in the life of

Mr Mohammed Isiyaku, an MSc student of the Department who hinted that the equipment provided by the PTDF for the students had exposed them to the practical realities of what they learn in theories which makes them better students that are ahead of others in the faculty. "PTDF is promoting sciences in Nigerian universities; they are giving scholarships to our students and funding our laboratories, among others. We now have equipment that we use in the laboratories to run some experiments and analyse data in the field; during our course work, we use the equipment which helps us in getting out the practical knowledge of what we learn in class which then makes us better engineering students" he submitted ■



At the **Abubakar Tafawa Balewa University Bauchi**, where PTDF upgraded the Department of Chemical Engineering for the University, the Vice-Chancellor,



Professor M. A. Abdulazeez spoke gloriously about the efforts of the PTDF in putting up the structure which, according to him, has overwhelmingly assisted the University in imparting knowledge. Furthermore, he opined that the equipment provided by the PTDF for the institution had helped the University to get accreditation by the National University Commission (NUC) and other professional bodies for petroleum engineering and additional energy-related courses. *“You know when it comes to accreditation; NUC normally gives you the accreditation to admit based on the equipment, space and the quantity and quality of staffs you have. So, I think the Upgrade has helped the University in trying to solve that source of those problems, and it has also helped in our accreditation for both professional and for NUC because of the quality of the equipment we have”.*



Dr Mohammed Bello Adamu, a former PTDF scholar who doubled as the Head of Department of Petroleum Engineering at the University while explaining the various components of the PTDF intervention project in the University, stated that the Upgrade which he describes as a “rescue mission” has not only improved on their learning and teaching capabilities of both the teachers and students in the University but has also provided facilities that will make their Department compete with all its counterpart around the globe and encourage their staffs and students to conduct quality research that is geared towards solving specific Nigerian oil and gas industry problems. *“I think the story of the Petroleum Engineering department at Abubakar Tafawa Balewa University, Bauchi, is fully a story of PTDF. As it is, I doubt if, without PTDF intervention, the Department would still exist. So, it has been a very key intervention. The changes cut across the sphere of academic venture in terms of infrastructure, personal training both academic and technology, teaching*

*facilities, laboratory equipment, and the list goes on”*

He further spoke about his scholarship award from the PTDF, which he said is very transparent and has helped so many of them to be what they are now. *“I could not have been so grateful because I am also a PTDF beneficiary at the Masters and PhD level I was trained. Even after returning to Nigeria and ATBU, I am still imparting the same knowledge. So, I am personally a beneficiary of the programme, and I am grateful to PTDF. Perhaps without PTDF, I would not have grown as rapidly as I have done so far and further engagement with PTDF over the years has also been fruitful to my Department and me. Only our qualification spoke for us, and this is an attestation not only from me but from many other scholars I have interacted with. No doubt the process is fair, and the funding is a very generous one”.* He noted.



Engineer Idris Bukar, currently a lecturer at the Department of Petroleum Engineering, ATBU, Bauchi



and one-time beneficiary of PTDF Overseas Scholarship Scheme at the MSC and PhD levels, said the Fund has been living up to expectations in terms of its programmes and projects. Engineer Idris further described the building by PTDF as a complete game-changer as to what they used to see as students in the learning of petroleum engineering and what it is now. *“When I was a student that is from 2005-2011,*

*there was no PTDF intervention. The building was still being built at that point, so we were managing one of the Engineering faculty down there at the faculty of Engineering, but after I became a lecturer, we had this building, and we started benefitting from it, and we had to now move out to this building it is quite a well-equipped building - well built, there is a lot of facilities and a lot of office space and classes and everything”.*

Juliana Ibrahim is a 500-level student of Petroleum Engineering. She believes that she will be relevant to the Nigerian oil and gas industry in the future with exposure to the equipment and facilities provided by the PTDF to her Department. *“We used them for an experiment like the hydraulic bench we use to check the types of flow in liquids and also for the UV spectrometer, we all use them appropriately”* ■



The **University of Maiduguri** is also one of the institutions that benefitted from the PTDF University upgrade project. The beneficiary of this project in the institution is the Department of Geology under phase one of the PTDF upgrade project. The Vice-Chancellor of the University,



Professor Aliyu Shugaba, described the PTDF upgrade project as the wisest decision taken by the PTDF for the school because of the proximity of the University to a region with potentials for oil and gas resources. He said the

Fund’s effort has dramatically assisted in producing quality graduates and academicians that are still impacting the University and the entire northeast region as a whole. Professor Shugaba disclosed that many academic staff were trained by the Fund, not only from the geology department but also from across the faculties of science in the University. *“The PTDF has trained much staff in the University in the area of oil and gas. One of them is a professor of Oil and Gas Law. The PTDF sponsored him. We have another staff in Chemical Engineering who is now in Oman on Post-Doctoral Research, and he is about to become a professor now. The PTDF also sponsored him. Even in the Department of geology, I am aware of many of our staff who the PTDF sponsored. Ordinarily, the University wouldn’t have been able to sponsor them in that. So as far as I can tell, the PTDF has contributed greatly to the development of the University of Maiduguri not only in Geology but also in Chemical Engineering and other departments”.* Speaking on the impact of the facilities provided by the

PTDF to the Department, the Vice-Chancellor said *“PTDF intervention made a lot of difference because at the point in time some of those analytical equipment donated to this University by PTDF has helped in addressing some research problems university-wide. At a point in time, the atomic absorption photo-spectrometer, which was given to geology, became the only one available in this University. It was serving physics, bio-chemistry, animal science, nutrition; soil science just mention all of them were depending on that machine so. So, a lot of differences were noticed when we had those things provided by PTDF”.*

The Head of the Department,



Professor Jalo El\_Nafaty, commended the Fund for its Upgrade. He also requests the resuscitation of some of the equipment and facilities provided to consolidate the achievements recorded by the Department in its overall contribution to learning within the University. He affirmed that the significance of the Fund’s intervention project cannot be overemphasised given the pride of place it has given them for the past twenty years and



the quality of students produced by the infrastructures and facilities provided PTDF to the Department. *“The PTDF has aided our overall teaching and research in a way that is impactful enough. We are in a semi--Saharan environment, and the heat during the hot season is something else. The PTDF project came with air conditions both at the offices and the classes as well as the laboratories. The laboratories have different calibrated equipment and were used to obtain data for undergraduate and postgraduate research. Even lecturers use the equipment to obtain data that several of us have published in well-known journals”.*



Engineer Dr Mohammed Bukar is a PTDF ex-scholar, a lecturer and a postgraduate coordinator in the Department. In his words, the Fund’s

intervention has, apart from making them better lecturers, has also aided their overall learning, teaching, and research in the Department and the University as a whole. *“Well, I was staff before the intervention of the PTDF, and then I continued with the Department after the intervention of the PTDF, so I know the difference. The PTDF intervention has uplifted the quality of teaching and research in the Department because they have provided a conducive atmosphere for teaching and learning, both for staff and the students. We’ve had workers facilities in the laboratories that we can use to generate data for our research, student’s projects and lecturer’s research. We attract even professionals from other departments or outside the University, sometimes in gathering data here. We analyse them, and the quality of our work is appreciated. So I think the benefits we’ve had and the contribution of PTDF cannot be overemphasised”.*



Mohammed Isiyaka, a Deputy Director and Assistant Chief Technologist, while commending the PTDF for providing state of the art equipment to their laboratories, stated that the equipment assisted in no small measure in exposing their geology students to the practical realities of what they are being taught in their classes. He describes the Fund’s intervention to the Department as a blessing. *“The intervention of PTDF to this Department, I will say, is a blessing because we have a lot of sensitive, expensive and accurate equipment that we have been working with for a very long time. We have four different spectrometers, two UV for molecular spectrology, and the molecular plasma, which analyses about 75 elements; it is tough to have these things around. We have the atomic absorption, which analyses about 35 elements. So, by capacity, you can analyse all the graded table elements. To us, it is a tremendous blessing”.* He asserted ■



At the **Obafemi Awolowo University, Ile-Ife**, the PTDF intervention project is situated at the

University’s Geology Department. During the visit, the crew members had interactions with the staff of the

Department who are making use of these facilities provided by the Fund.



Dr Suyi Lawrence Fadiye, is the Acting Head of, Geology Department, Obafemi Awolowo University, Ile-Ife. In his welcoming address appreciated the efforts of the PTDF in the institution, which according to him, has

reflected in the areas of scholarship and the provision of a departmental building to the school. Dr Fadiye affirmed that he is a beneficiary of the PTDF scholarship programme. *“I want to thank you for coming, and I want to appreciate PTDF for all they have been doing. First, for the building, they donated to us and second, in some other ways, such as the scholarship being given to some of the students; besides, I was also a PTDF scholar, I went for Certificate Advance in Academic Practice. We also thank you for the magazine you send to us from time to time; we are grateful for all you have done for us. Thank you very much”*. He further stated that that the PTDF intervention project in the school has also helped the Department in the running of its Professional Masters Programme, which according to him, has aided the students to run their programmes without stress because they now have access to the departmental Library and the reading rooms to do their academic work seamlessly. *“With the coming of the facilities, we were able to have a place to keep the professional Masters’ students to receive their lectures and also able to carry out their practicals in the laboratories and as well do what is needed to be done academic wise. So today, we are proud that the Library, the reading rooms and where they can stay to do their work; all are under the PTDF building. So that has helped the Department”*.



Professor Martins Olusola Olorunfemi, the Option Coordinator, Applied Geophysics in the Geology Department, also appreciated the efforts of the PTDF in providing the facility for the Department in particular and the school in general. *“What I will say is that we have to appreciate you for*



*providing the facility for us because we needed space; we also needed some new equipment”*.

In her contribution,



Professor Mary Taiwo Olowokere, Shell Professor of Geophysics in the Department, solicited with the PTDF to upgrade the Department further to a Centre of Excellence for Geosciences. She opined that the Department has been in existence and therefore deserves such honour. This Department has existed for a long time, and we have trained so many students who are doing well in the

industry. I believe the Department of Geology OAU can be made a Centre of excellence in geoscience training, and so all the equipment when supplied will be put into use, and fantastic students will be turned out and finished at record time. Strike will not affect them, and they will be helpful to society because many companies have Centres of Excellence here and there”. She opined.

In a chat with some of the students who are making direct use of the Department, some of these disclosures were made by them about the project;



Aremu Princess Oluwaseun;

*“PTDF has done a lot, and it’s really good. We now have more chairs, classrooms and laboratories. It has also affected my Department well because now we have more space to work in the classrooms and when there isn’t power we have the generator to provide light for us to study. So we are delighted that PTDF has done this for us, and we are saying thank you so much to PTDF”.*



Sulaiman Asimiyu Ajibade;  
*“This building houses a lot of activities for the Department. For example, we have the lecture rooms, the geochemistry*

*laboratory, the ICT centre, Library and many other rooms under the same roof. The Upgrade has affected us positively because, by the name of the organisation, you can tell what it stands for; Petroleum Technology. We, the Chemical Engineering students who do petrochemical engineering as one of our courses, have benefited immensely. So it has helped us a lot. We thank the PTDF very much for what they have done for us”.*



Odiamehi Precious Osemudiamen;  
*“The PTDF intervention project has*

*been beneficial in the sense that we can do a lot of things with the equipment given to us like the computers. We do a lot with software in the computers PTDF gave to us. In particular, it has helped me because I am good with the software to the extent that I am using it for my final year project. I also know that these skills are instrumental in the oil and gas industry. So I am very grateful to PTDF for that, and if I am allowed to say so, we are expecting more” ■*





The PTDF media crew, next port of call, was the **Federal University of Technology, Minna, Niger State**, where PTDF has an upgraded project in the Department of Chemical Engineering. Located in North-Central Nigeria, the Federal University of Technology Minna is one of the Universities upgraded by the Fund under its university upgrade project. The Department of Chemical Engineering is the beneficiary of the Federal Government upgrade project through the PTDF to the institution. While welcoming the PTDF crew to the University, an Associate Professor and Head of the Chemical Engineering Department who is also PTDF's coordinator for the University,



Dr Abdulkadir Mukhtar, gave his words of appreciation to the PTDF for providing the project for the University which, according to him has helped the school in so many ways. Dr Mukhtar, who spoke from the vantage position of former PTDF scholar-MSc and PhD, attested that other departments within the University take advantage of the edifice provided by the PTDF for

many of their events. *“There are lots of seminars, workshops, even conferences from other departments within the University, who take advantage of our upgrade project to showcase what they do”*. He further acknowledged that the PTDF upgraded Department is serving as a centre of research for the school and other institutions of learning. *“There are quite a number of departments; I am not referring to faculties, I am referring to other universities who come down here to carry out researches in our laboratories. That wouldn't have been possible if we didn't get the opportunity to have an edifice like this from PTDF. So in that regard again, kudos must be given to PTDF”*.



Ms Rabi Isa, a PhD student in the Department, confirmed that the PTDF's intervention projects are perfect for the students, which he said have significantly reduced the burden of inadequate office space and classrooms. Mr Rabi also noted that the equipment provided by the Fund had helped his research work, especially the reactors, which according

to him, is the main component of the equipment in the Department. An MSc student,



Mr Odumu Oche Emmanuel, stated that PTDF intervention in the institution is a welcome development, most especially the lecture rooms and lecture theatres which he described as being among the best the school has. *“I like the fact that most of the classes are conducive. I remember during my undergraduate days when most of the air conditioners were working with the harsh weather condition of Niger state. We know that those air conditioners helped us to be able to work in those extreme conditions, and it was able to help us read and understand under conducive environments. If we do not appreciate the work of PTDF, we will be coming off as ingrates, and we are not Ingrates, so we want to thank PTDF. And we look forward to PTDF doing more in the future. There is something about the Nigerian education system; if it is fully functional, we will have students who are willing to learn and give their best to better the country. So we thank PTDF for giving us the privilege and opportunity”*.

From the above inferences, it is worthy to note that good education is the passport to a future in the oil and gas industry. The testimonies of the beneficiaries of the PTDF university upgrade project in various universities across the country are positive, encouraging and at the same time stimulating. Their testimonies reflect an overwhelming appreciation of the contribution of the Petroleum Technology Development Fund in bridging the enormous infrastructural, teaching and research facilities gaps in many universities with oil and gas-related departments and faculties ■

# PTDF GETS NEW ACTU TEAM



**P**etroleum Technology Development Fund (PTDF) has constituted a Seven (7) man Anti Corruption and Transparency Unit (ACTU) to promote ethical practices in the conduct of the Fund's businesses and ensure strict adherence to the principles of transparency and accountability in line with the extant rules and regulations.

The Fund had since inception maintained an Anti Corruption and Transparency Unit (ACTU) as an internal control mechanism to compliment the effort of the management to ensure ethical

practices in the execution of its various capacity building programmes and projects and inculcate positive anti-corruption culture within the management and staffs.

Chairman of the Independent Corrupt Practices and Related Offences Commission (ICPC),

Professor Bolsi Owasanoye who inaugurated a new set of the Anti Corruption and Transparency Unit members at the PTDF house in Abuja, charge them to leave above board and set good examples themselves to ensure that the hunter did not become the hunted.

The Chairman who was

represented by the Director, Corruption Monitoring and Evaluation,



Mr Ifeanyi Obialor said, the commission



initiated AC compliance by ministries, departments and agencies of government TU within MDA's as a strategy to monitor corruption and endanger full compliance by ministries, departments and agencies of government because fighting corruption is a collective responsibility of all. The initiative he said is receiving full support of the Federal Government.

He said, the unit is not intended to subsume the authority of the management under its wings in running the affairs of the establishment but rather meant to compliment them especially in mainstreaming a positive anti-corruption culture where it may be lacking.

*“The Fund will continuously benefit from the ACTU when the unit effectively carries out its assigned functions namely building ethical culture, risk assessments, system study and review of process of this agency and make recommendations as appropriate to mitigate leakages, loopholes; sensitization of staff, implementation of code of ethics and the conduct of preliminary investigation into complaints received and rendering reports on that”.*

Professor Bolaji then warned them not to use the opportunity of their appointment into the team as a tool to witch-hunt or victimize other members of staff but rather work hard to obtain their support and confidence by striving to justify the confidence reposed in them.

Earlier in his remark, Executive Secretary, PTDF,



Dr Bello Aliyu Gusau vouched for the integrity of those selected to serve as members of the unit saying that, the Fund went its way to select one of the best considering the position of the Fund as one of the agency that aspires to be one of the most transparent agency in Nigeria.

*“I know in this organization we have tried to do things above board and introduce effective financial measures. But the fact is we can always do more and one of the reasons for this occasion is to ensure we do more. We are doing something here not only to improve our score on global transparency index but also to ensure full compliance to the anti corruption process”.*

Dr Gusau then urge all departments, units and divisions in the Fund to give their maximum cooperation and support to the unit to enable them do their job effectively, saying that together the PTDF can attain its aspiration of being the most transparent public institution in Nigeria.

The new PTDF ACTU Chairman,



Mr Olubeiga Suleiman Olayeye thanked the management of the Fund for the nomination and assure that, the team will do all in its disposal to not only justify the confidence reposed in them but also ensure that, they work tirelessly to impact on the operations of the Fund. He then seek the cooperation of every stakeholder to the project.

He said the team will build on the disposition of the current Executive Secretary and Management of the Fund on their zero tolerance to corruption and corrupt tendencies.

*“We are lucky to have the current management led by the present Executive Secretary who ensures institutional control within the Fund through internal units. He allows free debates during tenders meeting. We will focus more on tightening these controls and ensure full fiscal compliance in the system”.*

The PTDF ACTU team is to be led by Mr Olugbenga Suleiman Olayeye and other members include Mr Nurulhuda Darma, Tajuddeen Ibiyeye, Samson Amadi, Mustapha Mohammed, Yemi Adedeji and Farida Musa ■



## **COMMUNIQUE ISSUED AT THE END OF THE TWO-DAY WORKSHOP ON ANTI-CORRUPTION, ETHICAL VALUES AND ORGANIZATIONAL LEADERSHIP IN THE 21ST CENTURY, ORGANIZED BY THE PTDF ANTICORRUPTION AND TRANSPARENCY UNIT (ACTU) AND ANCHORED BY DR. AMINU GUSAU.**

### **PREAMBLE**

As part of the drive for the continuous improvement in the PTDF's processes and in view of the Executive Secretary's vision of building a quality and corruption-free workplace in the PTDF, the Admin & Human Resources Department and the Anti-corruption Unit organized a workshop on Anti-corruption, Ethical Values and Organizational Leadership to educate the Staff on the socio-economic impacts of corruption in Nigeria public service.

The workshop commenced with interactive presentations by the facilitator on the following topics: corruption as a societal menace, emotional intelligence, organizational culture, employee life cycle, professionalism, golden rules of administration and strategic planning.

### **2. SUMMARY OF THE PRESENTATIONS**

**Corruption as a social menace**

Corruption was defined as the misuse of entrusted power, responsibility, position, and influence for personal gains. Furthermore, the political, economic, and social impacts of corruption in a country were evaluated. Bribery, kickbacks, influence peddling and nepotism were described as some of the endemic practices in the society. The role of public officers in raising awareness, prevention, detection, and management of corruption was also discussed.

#### **Emotional Intelligence**

The presenter elucidated that all effective leaders have one common trait called emotional intelligence. It was emphasized that despite the relevance of IQ and technical skills, the key to being a great leader is the attribute of emotional intelligence. Furthermore, the components of emotional intelligence are self-awareness, self-regulation, motivation, empathy, and inter-personal skills as described by Daniel Goleman.

#### **Organizational Culture**

The facilitator highlighted the importance of values in guiding human conduct and practices. Values that are considered important to personal and organizational success, especially in the 21st century, were discussed extensively during the session. These values include integrity, professionalism, leadership, partnership, accountability, innovation and diversity. Their roles in shaping work culture were also discussed. The importance of translating culture beyond words and writing, into action and results, was emphasized by the facilitator.

#### **Movie on Situational Leadership and emotional intelligence**

The facilitator aired a movie titled 'Lean on me' which perfectly depicted transformational and situational leadership, including the combined use of assertive,

supportive, coaching and delegating styles of leadership as the situation demands. The film also showed examples of emotional intelligence, where the leader displayed vision, resilience, creativity, empathy, self-awareness, motivation and interpersonal skills to achieve outstanding results.

#### **Employee Life Cycle**

Employee Life Cycle is a human resource tool that outlines and monitors the progression of an employee in an organization and the roles the Human Resources Department plays in the management of the staff. The Employee life cycle consists of 4 stages- discipline, role model, coaching and exit. Discipline was categorized as essential for the effective functioning of the organization while the impacts of positive role models as catalysts for positive change and organizational development were stated. Additionally, the HR Department should assist the Staff to develop the requisite proficiency for performance of tasks through internal and professional coaching throughout the Life cycle while managing the exit of staff.

### **3. CONCLUSION**

The participants were made aware that they are all leaders irrespective of their ranks /positions. The various forms and negative effects of corruption were well understood. The importance of embracing positive values and the concept of emotional intelligence were assimilated.

### **4. RESOLUTIONS**

- The participants have resolved to identify, shun all acts of corruption, and become the champions of the anti-corruption crusade.
- The participants have resolved to develop and advance the traits of emotional intelligence which is the hallmark of truly effective leaders.
- We have resolved to imbibe the culture of integrity, professionalism, leadership, partnership, accountability, innovation, and diversity in our work and private lives.
- We have agreed to use all we have learnt from the workshop in our day-to-day activities as staff of the Fund.

### **5. APPRECIATION**

The participants wish to express their profound appreciation to the PTDF Management, the Admin & HR Department, and the ACTU team for giving us the opportunity to attend and learn from this rich and highly educative workshop.

We also wish to thank the facilitator for an exciting and engaging workshop and for sharing his repertoire of knowledge, insights, and experience.



# Corpers Perspective



# THE USE OF MORINGA OLEIFERA AND WATERMELON SEEDS FOR WATER TREATMENT

During my industrial training at Niger State Waterboard Minna, I realized the problems associated with the acquisition and use of Aluminium Sulphate (Alum) in water. This prompted me to research on the use of biological resources to assuage majority of the problems. Recently, I presented my findings at the 2nd Faculty of Natural Sciences Annual Conference at Ibrahim Badamasi Babangida University, Lapai, Niger State.

## Abstract

Potable water supply is a basic need required by every individual. Extensive and exhaustive studies have been carried out previously; unfortunately, complete solutions for drinking water problem has not been achieved. Natural coagulants have been increasingly popular in the past few years due to its benefits and the fact that it resolves most of the problems associated with the use of chemical coagulant. Plant-based coagulants perform coagulation due to the presence of water-soluble protein which can be extracted from various plant components. Concerted research and development efforts have been conducted in discovering new plant species and constituents that can be used as natural coagulants, which is further boosting the effectiveness of existing plant-based natural coagulants. The objective of this paper is to provide a review on a study done on the effectiveness of Moringa oleifera and watermelon seeds as primary coagulant for raw water treatment.



## Introduction

Water is an important resource for life.

Entire living organisms on earth need water for life.

Since water have been considered as basic need of life, current misuse of water coupled with growing population size, industrialization, change in climate, and urbanization has decreased the quality of water sources; these and increasing cost of other factors has resulted in increase in the cost of water treatment. Developing countries (like Nigeria) and third world countries are facing potable water supply problems because of inadequate financial resources. Safe drinking water is essential to the health and welfare of a community, and water from all sources must have some form of purification before consumption. The ideal water should have some characteristics such as clear, colourless, tasteless, odourless, pathogen-free, harmful chemical-free and non-corrosive. In this context, water treatment is the removal of suspended and colloidal particles, organic matter, micro-organisms and other substances that are deleterious to health. To achieve this standard, there is one common technique applied in water treatment process, which is coagulation-flocculation.

The common method of water treatment involves the use of aluminium sulphate (alum) and calcium hypochlorite (both synthetic) as water coagulants. These synthetic coagulants are actually expensive and as chemicals, when used for water purification may have negative effects on health of human, animal and plants if not properly administered during the water treatment process. Recent studies have indicated a number of serious drawbacks linked to the use of aluminium salts such as; Alzheimer's



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NYSC Batch B, Stream 1A, 2021

disease, neurological disease and carcinogenic associated with high aluminium residuals in treated water, excessive sludge production during water treatment and considerable changes in water chemistry due to reactions with the OH<sup>-</sup> and alkalinity of water. A number of studies have pointed out that the introduction of natural coagulants as a substitute for metal salts may ease the problems associated with chemical coagulants. Using natural coagulants instead of aluminium salts might give advantages, such as lower costs of water production, less sludge production and ready availability of reagents.

Researchers have proved that the bioactive constituent in plant extract are proteins. Some studies on natural coagulants have been carried out and various natural coagulants have been produced or extracted from plants such as Moringa oleifera, Jatropha curcas, Corn, Prickly pear, Watermelon, and Cactus. Among plant materials that have been tested over the years, the seeds of Moringa oleifera has been shown to be the most effective natural plant coagulant for water purification. Moringa oleifera coagulant has been found to have high coagulation activity only for high turbidity water. The activity is low for low turbid water. Therefore, it is important to improve the characteristics of this plant. This necessitates the need to explore the potentials of combining water melon



and Moringa extracts as substitute for alum. This review attempts to provide collective information of Moringa oleifera and watermelon coagulants for treating water as studied by assorted researchers.

**Preparation of Plant-Based Coagulants.** The initial step in the use of these coagulants for water treatment involves the characterization of coagulants itself and identifying its active compound. This is mainly to determine the characteristics. Previous findings described proteins as the main water-dissolving constituent in the plant which is responsible for water purification. The extraction of coagulant at laboratory scale begins with the sun-drying, deshelling and grinding of the seeds using a grinder. Subsequent to grinding, oil is removed. The seed gives high coagulation effect once oil is removed. The next is the resuspension of the seeds powdered in water at different concentration for optimization purpose (1g/100mL to 5g/100mL). The stock seeds are agitated at high speed for 2-5 minutes to extract the coagulant agent, then the muslin cloth is normally used to filter the paste and used as a coagulant.

### Coagulation Activity Assay

A little quantity of coagulant is normally administered into the collected water sample using mechanical stirrers called Jar test. At laboratory scale, the water volume for the analysis should be in satisfactory volumes with the accurate administration of the coagulant. A small quantity of sample is necessary to facilitate the studies of coagulation assay. This test involves three stages; which are rapid mixing for 4 min at 100-120 rpm, slow mixing for 15 min at 30-50 rpm and sedimentation for 20 min. The resulting mixture is passed through the muslin cloth to separate the filtrate and the supernatant, which is used for determining the final turbidity. While carrying out the Jar test, parameters like

pH, Dosage, mixing time, mixing speed and composition of the coagulants are varied to test for the nature of plant material.

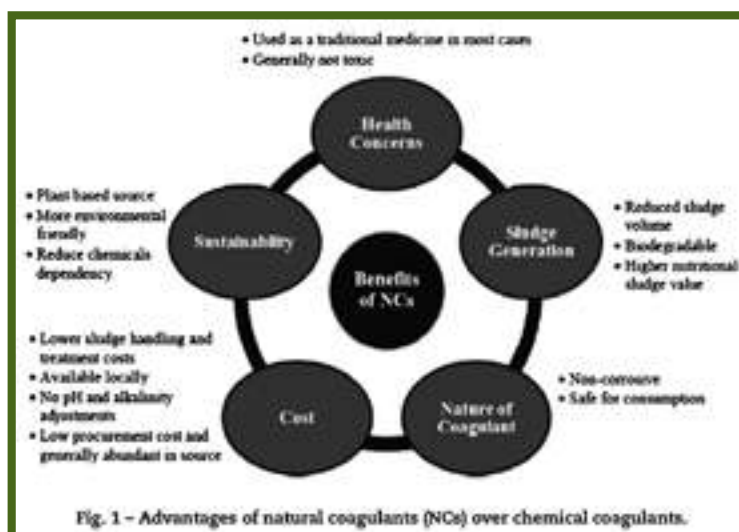
### Contribution of The Coagulants Towards Treatment of Water

The findings of previous research indicated that Optimum dosage of 0.7 g/L, optimum speed of 50 rpm, and optimum composition of 80% Moringa oleifera in conjunction with 20% watermelon were obtained in the study of using these coagulants. This therefore established that Moringa oleifera seed powder as a natural coagulant can be more efficient when used with 20% watermelon seed powder as a coagulant aid. In comparison with alum, combining the advantages of both Moringa oleifera and watermelon yielded overall best results with all parameters within World Health Organization (WHO) drinking water standards. This shows the potential that alum can be replaced with a combined coagulant of Moringa oleifera and watermelon; thereby creating non-toxic quality portable water, biodegradable sludge, and lesser the cost of water treatment.

### Advantages of Natural Coagulant

Owing to the diversified deleterious health effects and economic considerations of the use of chemical coagulants, several natural coagulants have been either researched or actually being used in some water treatments processes around the

world. Natural coagulants have enormous advantages in water treatment and these merits of using natural coagulants over chemical coagulants are illustrated in the figure given below. Natural coagulants produce less sludge volume compare to Alum and they require no pH adjustment. They are of great interest for low cost water treatment and help to provide pure water for world population especially for developing countries who hardly get good quality portable water and an additional benefit of using coagulants like Moringa oleifera and watermelon, is that a number of useful products may be gotten from the seed. Specifically, edible oils, animal feed and fertilizer from the residual solids, and the shell of the seed may be activated and used as an adsorbent. There is also limitation in these plant species. The major limitation is the release of organic matter and nutrients in large scale application.



Source: [www.irjet.net](http://www.irjet.net)

### Conclusion

Increased water scarcity is observed much in rural areas and also to a certain extent in Urban areas. To reduce such problems and the strong push to meet the drinking water needs of the developing world, recently interest has been increased on the use of plant based natural coagulants. Concisely, natural coagulant bring with it advantages of being low cost, eco-friend, production of reduced and disposable sludge, and other problems posed by conventional coagulant have been overcome. Further studies in optimizing working parameter of the combined coagulant of Moringa oleifera and watermelon will benefit research in this area ■

# ECONOMIC EFFECT OF NUCLEAR TECHNOLOGY GENERATION IN NIGERIA; ITS IMPACT

**T**raditional biomass and garbage provide the majority of Nigeria's energy, accounting for 83 percent of total primary production. The rest comes from fossil fuels (16%) and hydropower (1%). Nigeria's significant resources include coal, petroleum reserves, natural gas, peat, hydroelectricity, solar, and wind energy. As the world moves toward renewable energy, several countries have followed suit in order to lessen the greenhouse effect and eliminate or reduce the amount of carbon produced in the environment. Nigeria has followed suit, pledging to increase investment in renewable energy production. Unfortunately, this demand is rarely realized since Nigerians lack access to affordable and cleaner energy, which has resulted in disastrous effects such as a drop in economic growth, poverty, inadequate research development, and socio-economic imbalance.

In addition, Nigeria's regular power outages have prompted the extensive usage of electrical generators, which has resulted in noise pollution. These generators are powered by fossil fuels, which are known to emit greenhouse gases such as CO<sub>2</sub>. Rising sea levels, floods, global warming, and melting of the polar ice caps are all symptoms of climate change caused by these gases. Oil drilling in the country's oil-rich area, on the other hand, has resulted in massive contamination of the land, air, and water. Oil spills and gas flaring are to blame. As a result, fossil fuels like coal, oil, and gas are not ecologically friendly.

How is it that, out of 6000MW of installed energy generator capacity, Nigeria can only generate 1600MW effectively (less than 30%) without proper distribution of the energy generated? It is indeed a major concern since any country pursuing economic

expansion in all capacities must not be short on energy generation; it's one of the main appeals that attracts investors and stimulating economic growth among those investors. What, therefore, has hampered Nigeria's energy prowess?

Is it attributable to terrible maintenance operations, or is it due to obsolete infrastructure and asset misappropriation? Or, third, the ineffective implementation of the management structure that has already been put in place?

These issues are extremely worrisome and require quick attention; how can Nigeria's electrical situation be improved? Because fossil fuels are non-renewable, long-term energy security cannot be assured.

Recommendations for a complete development of solar plants would be an optimal option, but that would have its own limitations, such as maintenance systems and source ease of access, limiting its efficacy and thus deterring it from wholly tackling the impending problem, as would enrichment of nuclear energy plant installation would have.

As most advanced nations have drifted away from energy sources that may have significant or advanced health implications for humans, an investment in new energy infrastructure to expedite the incorporation of renewable sources, providing universal access to modern energy services, optimizing energy security, curbing the health implications of what energy systems renders, and limiting the magnitude of climate change below 2 which are all critical priorities in our globalised era. This creates a more environmentally friendly, low-cost energy system that may be used to light up the country as well as neighbouring African countries (GIANT of African well rep.).

Nuclear energy has long been a source of energy for many of the world's



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biggest nations, but Nigeria, Africa's giant, has yet to invest in nuclear power. Nuclear energy generation's economic impact cannot be overstated; it has aided various countries in achieving their current levels of dominance. As a consequence of the drop in local demand for petroleum, our dependency on refined crude oil would be drastically reduced, resulting in a huge boost in Nigeria's foreign exchange earnings from the oil sectors.

The utilization of nuclear reactions to generate energy is known as nuclear power. Nuclear power is frequently overlooked in discussions about clean energy, despite its potential as the world's second largest source of low-carbon electricity behind hydropower. Nuclear energy provides electricity through nuclear fission, nuclear decay, and nuclear fusion, all of which are zero-emission clean energy sources. Nuclear power facilities currently produce the great bulk of the electricity generated by nuclear fission of Uranium and Plutonium. The fission process involves bombarding Uranium atoms in order to generate energy. The heat generated by the fission process is utilized to generate steam, which turns a turbine to generate power without the toxic pollutants that fossil fuels emit. In comparison to other energy sources such as coal, petroleum, natural gas, and hydroelectricity, this form of energy has one of the lowest levels of deaths per unit of energy generated. Due to air pollution and



accidents, each has resulted in more fatalities per unit of energy generated. Each year, nuclear energy removes hundreds of tons of dangerous air pollutants that lead to acid rain, smog, lung cancer, and cardiovascular disease. Despite the fact that nuclear power is presently a substantial source of worldwide electricity, there is no agreement on its future role due to a continuous controversy about its use. Nuclear power, according to proponents such as the World Nuclear Association and the International Atomic Energy Agency, is a sustainable energy source that minimizes carbon emissions. Nuclear power, according to critics such as Greenpeace International and the Nuclear Information and Resources Services (NIRS), poses several risks to humans and the environment. While Nuclear power continues to grow in Europe, North of America and some Asian countries, it continues as a strong option in some African countries. Nigeria been one of those countries in Africa referred to as nuclear newcomers. This is to help address Nigeria's energy crisis, since there are several important factors to consider while selecting a nuclear power plant, which includes: security supply, economic benefits such as industrial and domestic development and environmental benefits- from mining to waste disposal and decommissioning, it produces remarkably little environmental pollution and greenhouse gas emissions. These criteria will decide nuclear power's long-term role in Nigeria's sustainable energy future.

### **Nigeria's Nuclear Power Production Prospects and Inadequate Maintenance Environmental and Cultural Challenges**

Nigeria has clearly achieved great progress toward its aim in the past by creating the enabling institutions and infrastructure needed for its nuclear power program. The Nigeria Atomic Energy Commission (NAEC) nuclear strategy was supposed to be the driving force behind the country's nuclear program, however that was not the case. A near-term aim for nuclear power's contribution to national energy generation has also not been fulfilled. Nigeria's first nuclear power plant, which was supposed to be connected to the national grid by 2020, has become a distant memory. Despite these obstacles, the projected nuclear power plants should not be phased out immediately, but rather delayed for another 5 to 10 years. Of course, the likelihood of

achieving the high-scenario nuclear capacity would be greatly reliant on Nigeria's economic development as well as their ability to raise the necessary funds.

When it comes to Nigeria as a country and other third-world countries building nuclear power industries, there are numerous reasons to be concerned for a variety of ailments that span human, socio-economic, and environmental aspects, such as: Issues with raw materials, such as nuclear fuel. Poor remuneration and a long wait for workers' salaries, which might lead to industry sabotage. Inadequate knowledge skills and a lack of technical know-how in the field of nuclear technology. Ethical disagreements and political sway over project development. And many other too numerous to mention.

### **The Advantages of Having Nuclear Power Plants in Nigeria.**

For many years, civil nuclear power has been a substantial element of most developed countries' energy mix due to its advantages. Nuclear reactors provided 20.2 percent of the nation's power in 2009, according to US government figures, whereas they only produced 13.8 percent worldwide. Nuclear Power Plants offer the following benefits.

**Availability of energy:** Nuclear power plants provide energy that is not derived from natural resources, therefore they are less reliant on them. This eliminates the threat of running out of energy as a result of depletion of global resources. Uranium, the principal source of nuclear energy, has no other major use and is available in sufficient amounts to endure billions of years.

**Sustainability:** At current consumption rates, the world's confirmed uranium reserves, according to the IAEA, would last far beyond 2060. The greatest deposits are in Canada and Australia, both of which are politically secure and trustworthy. Advanced technologies, such as recycling old fuel or the introduction of thorium as an alternative to uranium, can prolong these nuclear energy sources far into the future. Civil nuclear power stations generate massive amounts of electricity with near-perfect dependability, which is essential for heavy industries. This is something that solar and wind power don't have.

**Cost-cutting:** In comparison to other energy sources, nuclear power plants

can produce electricity at a lower cost. "At a 3% discount rate, nuclear is the lowest cost choice for all countries," according to the 2020 Nuclear Energy Agency (NEA) study. (<https://world-nuclear.org/information-library/economic-aspects/economics-of-nuclear-power.aspx>)

**Ecological Friendliness:** Nuclear power generating is relatively environmentally benign and reliable in terms of both fuel supply and electricity delivery under typical accident-free conditions. Nuclear power facilities can aid environmental preservation by reducing reliance on fossil fuels as a source of electricity. It was argued that burning gas, oil, and coal contributes to atmospheric issues such as global warming and acid rain. Nuclear power plants, which generate electricity without relying on these resources, can contribute to cleaner air for plants and animals.

**Disposal of waste:** Nuclear waste is harmful if not properly disposed of, yet it has the virtue of being tiny in volume and can be buried far below. As a result, the risk of exposure is nearly eliminated. Nuclear power facilities utilize uranium, as opposed to coal power plants, which generate uranium as a waste product that remains on the surface.

**Safety:** Nuclear power facilities have proven to be largely safe, despite well-publicized incidents like Three Mile Island and Chernobyl. According to Ecolo.org, the risks of dying in a nuclear power plant disaster are lower than those of dying from heart disease, fire, murder, or a car accident.

**Impacts on the Environment:** One of the most significant advantages of civil nuclear power is that, with the exception of serious accidents, there is essentially no pollution released into the environment. The International Atomic Energy Agency (IAEA) enumerates the comparative benefits of civil nuclear power over other fuel sources in a comparative study of alternative energy sources. Coal-fired power plants emit massive amounts of pollutants that pollute the air, acidify lakes, and create slag heaps that must be cleaned up. Large tracts of land are submerged under water as a result of hydroelectric projects, triggering human relocation and environmental changes.

### **Conclusion**

Electricity is essential for economic growth because it provides a consistent

and appropriate source of energy. As a result, ensuring the safe and reliable supply of energy is a political, economic, and social necessity. Within Member States with nuclear energy production capability, the safe functioning of a nuclear power plant is widely recognized as contributing to society's success and fostering economic performance. Nuclear energy is a developing technology that is projected to play a larger role in addressing rising power demand in a safe and secure manner that does not contribute to global warming. Nigeria will require a reliable energy supply to fulfil future demand, which is a prerequisite for the country's economic development as outlined in the government's growth and poverty

reduction agenda. Despite the fact that preparatory work to achieve Milestone 2 is underway, it is obvious that the government has demonstrated some interest in bringing the nuclear power program to fruition, at least to some extent, considering the short period since NAEC began operations in 2006. It demonstrates that the government intends to use nuclear energy solely for peaceful socioeconomic goals. To address people's opinion during the effective implementation of the nuclear power program, Nigeria Atomic Energy Commission (NAEC), Nigerian Nuclear Regulatory Authority (NNRA), and Energy Commission of Nigeria (ECN) should put in place programs to communicate with the

public about their varied operations. This will be accomplished by informing the general public about the economic and environmental benefits of nuclear power over other options, as well as the safety and security concerns that come with using nuclear power for power generation and the various approaches it plans to take to manage the risk and waste generated. While Nigeria prepares for nuclear power, public awareness must be prioritized. The industrial and financial sectors, as well as the business community, must be involved in order to take advantage of the possibilities that will be generated if Nigeria's nuclear power program is successfully implemented ■

# SIGNIFICANCE OF BIOTECHNOLOGY IN THE 21<sup>st</sup> CENTURY



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At its simplest, biotechnology is technology based on biology—biotechnology harnesses cellular and biomolecular processes to develop technologies and products that help improve our lives and the health of our planet. Depending on the tools and application, biotechnology overlaps with related scientific fields. The term biotechnology was first used by Karl Ereky in 1919, meaning the production of products from raw materials with the aid of living organisms. We have used the biological processes of microorganisms for more than 6,000 years to make useful food products, such as bread and cheese, and to

preserve dairy products. What do modern detergents have in common with bread, cheese and wine? They are all examples of manipulating living organisms to create products or new processes, thereby making them products of biotechnology. Humans have used biotechnology since the dawn of civilization. Egyptians used yeasts to bake leavened bread, the Chinese developed fermentation techniques for brewing and cheese making, and the Aztecs used Spirulina algae to make cakes. Today, especially in Nigeria when most people think of biotechnology, they probably think of just genetically modified

organisms (GMOs). Although much of modern biotechnology does deal with manipulating DNA, classical biotechnology began long before we even knew about genes or chromosomes. What began as recipes for production of food now includes technology to enhance everything from farming to pharmaceuticals. At the beginning of the twentieth century, industry and agriculture started to incorporate biotechnology. The growing automobile industry, for example, used fermentation processes to produce acetone and paint solvents. By mid-century, major advances

in genetics dominated biotechnology research. The discovery that DNA carries the genetic code and the structure of the “double helix” were described by Watson and Crick. Soon, new techniques were developed to allow manipulation of DNA. Genetically engineered plants, microbes, animals, and products like insulin, highlight the future of biotechnology. Today, biotechnology is being used in countless areas including agriculture, clinical applications, bioremediation and forensics, where DNA sequencing is a common practice. Industry and medicine alike use the



techniques of Polymerase Chain Reaction (PCR), immunoassays and recombinant DNA. Genetic manipulation has been the primary reason that biology is now seen as the science of the future and biotechnology as one of the leading industries.

Biotechnology can also help address global problems such as climate change, an aging society, food security, energy security, infectious diseases amongst others

## TYPES OF BIOTECHNOLOGY

### 1. Medical Biotechnology

Medical biotechnology is the use of living cells and other cell materials to better the human health. Primarily, it is used for finding cures as well as getting rid of and preventing diseases. The science involved includes the use of these tools for research to find different or more efficient ways of maintaining human health, understanding pathogens, and understanding human cell biology.

Here, the technique is used to produce pharmaceutical drugs as well as other chemicals to combat diseases. It involves the study of bacteria, plant & animal cells, to first understand the way they function at a fundamental level. It heavily involves the study of DNA (Deoxyribonucleic acid) to get to know how to manipulate the genetic makeup of cells to increase the production of beneficial characteristics that humans might find useful, such as the production of insulin. The field usually leads to the development of new drugs and treatments, novel to the field. Examples include Vaccines which are chemicals that stimulate the

body's immune system to better fight pathogens when they attack the body. They achieve this by inserting attenuated (weakened) versions of the disease into the body's bloodstream. It causes the body to react as if it was under attack from the non-attenuated version of the disease. The body combats the weakened pathogens and, through the process, takes note of the cell structure of the pathogens and has some cells that 'remember' the disease and store away the information within the body. Another example is antibiotics, strides have been made in the development of antibiotics that combat pathogens for humans. Many plants are grown and genetically engineered to produce the antibodies. The method is more cost-effective than using cells or extracting these antibodies from animals as the plants can produce these antibodies in larger quantities. The method is more cost-effective than using cells or extracting these antibodies from animals as the plants can produce these antibodies in larger quantities.

### 2. Agricultural Biotechnology

Agricultural biotechnology focuses on developing genetically modified plants to increase crop yield or introduce characteristics to those plants that provide them with an advantage growing in regions that place some kind of stress factor on the plant, namely weather, and pests. Example of agricultural biotechnology include pest resistant crop, biotechnology has provided techniques for the creation of crops that express anti-pest characteristics naturally, making them

very resistant to pests, as opposed to having to keep dusting them and spraying them with pesticides. An example of this would be the fungus *Bacillus thuringiensis* genes being transferred to crops. The reason for this is that the fungus produces a protein (Bt), which is very effective against pests such as the European corn borer. The Bt protein is the desired characteristic scientist would like the plants to have, and for this reason, they identified the gene causing Bt protein to express in the fungus and transferred it to corn. Plant and Animal Breeding is another example. This practice has been engaged since farming began. The practice involves choosing the animals with the most desirable characteristics to breed with each other so that the resulting offspring would also express these traits.

### 3. Industrial Biotechnology

Industrial biotechnology is the application of biotechnology for industrial purposes that also include industrial fermentation. Applying the techniques of modern molecular biology, it improves efficiency and reduces the multifaceted environmental impacts of industrial processes including paper and pulp, chemical manufacturing, and textile. It includes the practice of using cells such as microorganisms, or components of cells like enzymes, to generate products in sectors that are industrially useful, such as food and feed, chemicals, detergents, paper and pulp, textiles, biofuels, and biogas.

Microorganisms have also found their use in chemical production for the design and manufacture of new plastics/textiles and the development of new sustainable energy sources such as biofuels. In the current decade, significant progress has been made in creating genetically modified organisms (GMOs) that enhance the diversity of applications and the economic viability of industrial biotechnology. It is also actively advancing towards lowering greenhouse gas emissions by using renewable raw materials to produce a variety of chemicals and fuels and moving away from a petrochemical-based economy.

### 4. Environmental Biotechnology

Environmental biotechnology is the technology used in waste treatment and pollution prevention that can more efficiently clean up many wastes compared to conventional methods and significantly reduce our dependence on methods for land-based disposal. Every organism ingests nutrients to live and produces byproducts as a result. But, different organisms need different types of nutrients. Some bacteria also thrive on the chemical components of waste products. Environmental engineers introduce nutrients to stimulate the activity of bacteria that already exists in the soil at a waste site or add new bacteria to the soil. The bacteria help in digesting the waste right at the site, thereby turning it into harmless byproducts ■

# How Loud is Too Loud?

by Tara Weiss (Forbes.com)

While working at a weekly newspaper in Wisconsin, Angela Kargus became intimately acquainted with a co-worker's personal life. Kargus learned about her fertility problems, that her dog urinates all over the carpet and that she does indeed have a regular menstrual cycle.

You're right to think these are the kind of personal details shared over a cup of coffee or on a friend's couch. Unfortunately, that's not what happened. Kargus and her co-worker aren't even friends. But her co-worker is a classic workplace loud talker. She yapped on her cellphone throughout the day with friends and, quite frequently, her mother.

This probably sounds familiar. Office loud talkers are everywhere, and the worst part is, they probably don't even realize they've been labeled as such. To the unknowing, here's a tip: Proper decorum calls for people to take personal conversations outside the office or into the hallway, especially since so many workplaces are in an open format where only top managers have offices (and doors they can close).

We're not all so lucky. In fact, the office loud talker certainly isn't the only pet peeve known to cubicle land. Among the more popular (or, actually, unpopular) are using a speakerphone with the door open or while in a public area; leaving the kitchen a mess; bringing potent-smelling food for lunch; and leaving the sound on the computer so everyone hears the ding of an instant message.

Despite the laundry list of complaints, the loud talker wins the award for most annoying. Of 2,318 people surveyed in March 2006 by Harris Interactive and Randstad, 32% say an office loud talker is their biggest pet peeve. Coming in a close second at 30% is using an

annoying cellphone ringtone; 22% said speakerphones are their No. 1 peeve.

As for Kargus and her colleagues, no one in the newsroom ever complained directly to their co-worker. Kargus was nervous that her co-worker would get upset and seek retribution or that it would create a tense atmosphere.

Worse than the conversations that reduced Kargus' ability to concentrate was her co-worker's annoying cellphone ring: the Mexican Hat Dance.

*"Writing is something you need to be in that zone to do,"* says Kargus, now director of media relations at the American Chiropractic Association. *"Having the Mexican Hat Dance ringing breaks you out of the zone."*

Not saying anything to the co-worker was a mistake, says Barbara Pachter, an executive coach who specializes in business etiquette. It's just a matter of saying it in the right tone of voice. *"Be polite yet powerful,"* says Pachter, author of *When the Little Things Count ... and They Always Count*.

Do that by saying what's bothering you and explaining the effect it has on your work. Then ask the person to either lower his or her voice or take personal calls out of the office. Then, ask if that's OK, to make sure the other person understands and will comply. Pachter offers a more specific example: *"Hey, you might not realize--I hear your conversation and it's distracting to me. I'm having a hard time working. Could you please lower your voice? OK?"*

For a situation like the one Kargus found herself in with her former co-worker, you can even make a joke out of hearing personal details. Say something like: *"I*

*don't think you want me to know that about you."*

For repeat offenders, just give them a reminder by saying, *"Remember that conversation we had the other day? Your voice is getting loud again."*

Randstad, the staffing organization that contracted the pet peeve survey, takes workplace etiquette so seriously it incorporates it into new-hire seminars. Newsrooms, like the one Kargus worked in, are one extreme. They tend to be loud, open workplaces. The environment at Randstad is the opposite extreme. Personal cellphones must be on vibrate or silent the minute employees walk in the door. If they're not, someone will likely send a note that says, *"Remember the rule? Turn your ringer off."* To maintain a "professional" atmosphere, employees are only allowed to have two personal pictures on their desks.

Private rooms are provided where employees can make personal calls. And on some floors at every sixth desk, there is a table where four or five people can do work together. *"We do that so there isn't that socializing that distracts other employees,"* says Genia Spencer, Randstad's managing director of human resources.

It's not likely most offices will go to that extreme or that it would even work. In the meantime, remember this: Silence your cellphone, eat smelly lunches in the cafeteria, turn the volume down on your computer and close the door when you use speakerphone! It will make for a much happier and productive workplace.

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# Photo-Speak



*The Executive Secretary, PTDF, Dr. Bello Aliyu Gusau visit to Galaxy Backbone Limited Tier III Data Centre in the company of PTDF Top Management.*



*Executive Secretary, PTDF, Dr. Bello Aliyu Gusau and Management of the Fund presenting a Letter of Intent for the establishment of the College of Petroleum and Energy Studies, Kaduna (CPESK) to Professor Rasheed, Executive Secretary, NUC, at the NUC Headquarters in Abuja.*



*Dr. Bello Aliyu Gusau, Executive Secretary, PTDF, and some Management Staff are being shown around the premises and facilities of the Katsina State Institute of Management and Information Technology by the Rector Dr. Babangida Albaba during a working visit to the institute.*





# In 2022 I want to be more intentional about...

I want to be more intentional about my physical and mental health, I will ensure I exercise more, eat right, indulge with family and friends, and set achievable goals without stress.

**- Timilayefa Nwajueboe**  
*Press & External Relations Unit*

I want to be more intentional about humanity. I want to give more to the society that has done so much for me. I want to be intentional about doing things today because tomorrow is not assured to anyone. I want to be intentional about inspiring people never to give up.

**- Mohammed Olowo**  
*Admin Division*

I want to be more intentional in listening to God's instructions and serving Him faithfully, commit to maintaining peace all around me, listen more and talk less, and work smartly and achieve more.

**- Bessie Iyere-Okojie**  
*Finance Division*

I want to be more intentional about opening my mind to new ideas and adopting new habits that would promote a greater sense of emotional, spiritual, and physical wellbeing, saying no to activities or relationships that do not further my goals, practicing gratitude and counting my blessings and having a plan while not forgetting to enjoy the present.

**- Juwaratu Okaisavor**  
*Legal Division*

I want to be more intentional about building my social capital.

**- Titilope Olaleye**  
*Finance Division*

I want to be intentional about personal growth and development.

**- Ahmed - Abdulkadir**  
*Enterprise Content Management (ECM)/ICT Unit*

2021 had been a very trying year for PTDF owing to the loss of 3 of our colleagues whom I regard as not only colleagues but friends and brothers. In 2022, I want to be more intentional about being nicer to the people I work with. I want to spread the gospel of love and unity.

**- Rufai Abba Dabo**  
*Strategic Planning & Documentation Department*

I want to be more intentional about relationship with my creator. I want to be more knowledgeable in my religion and other religions. I also would want to foster tolerance among different religions so that we can live in peace and harmony.

**- Khalid W. Jibrin**  
*Education Division*

# Congratulations!



The Management and Staff of the Petroleum Technology Development Fund (PTDF) wish to congratulate **Mr. Abdulhamid M. Abdulhamid and Mrs. Ramatu Isa Kaita** who were joined in holy matrimony in Kaduna, Kaduna State. The Fund wishes them a fruitful and blissful marriage together.

*Mrs. Ramatu Isa Kaita works in the Finance and Account Department of PTDF.*



The Management and Staff of the Petroleum Technology Development Fund (PTDF) wish to congratulate **Mr and Mrs Muazu Lawal**, who were joined in holy matrimony in Zaria, Kaduna State. The Fund wishes them a fruitful and blissful marriage together.

*Mr Muazu Lawal works in the Project Department, PTDF.*



The Management and Staff of the Petroleum Technology Development Fund (PTDF) wish to congratulate **Mr Abubakar Sanusi Monguno and Mrs Amina Umar Imam** who were joined in holy matrimony in Maiduguri, Borno State. The Fund wishes them a fruitful and blissful marriage together.

*Mrs Amina Umar Imam works in the Office of the Executive Secretary, PTDF.*

# PTDF PREMIER CENTRE OF EXCELLENCE

CENTRE FOR SKILLS DEVELOPMENT AND TRAINING (CSDT), PORT-HARCOURT





# PTDF: ONE STOP CENTRE FOR OIL & GAS EVENTS



With the consistent hosting of major oil and gas events by the Petroleum Technology Development Fund, the agency is not only taking the lead in developing human and institutional capacity for the oil and gas industry but is also providing enlightenment on contemporary issues and concerns about the industry. The PTDF conference centre is now the platform of choice for oil and gas stakeholders to discuss, deliberate and find solutions and new path ways for managing the peculiar demands and challenges of the industry.

