

FG Agency Commends Indorama for Compliance on Scheduled Chemicals

IFDC Commends Company's Fertilizer Lab

INDORAMA - NIGERIA

IMPACT

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INDORAMA-Nigeria | Ethylene | Polyethylene | Polypropylene | PET | Fertilizer | Preform

How Indorama Ensures 100% QUALITY of its FERTILIZER

50th Anniversary of MAN: Indorama honoured and MD re-elected into Council

Indorama Fertilizer Plant undergoes 2nd TAM

INSIGHT: Protect Yourself from Cyber Crime Fraud

MESSAGE FROM THE MD

Dear friends and colleagues,
The fourth Quarter of the year 2021 is about to end. Indeed, the year has been one hectic year of unstable economic indicators, especially the volatility of the foreign exchange regime, the rebound of the Coronavirus (COVID-19) pandemic, among others.

But as a company, we have managed to keep our head above water, for which I sincerely commend our dedicated TEAM-NIGERIA.

Our medical team has continued to ensure that all our employees and associates are tested for COVID on regular basis, even those who have taken the vaccinations. This is to ensure that all our employees, associates and their families are safe from the disease.

Throughout the year, our Fertilizer operations team planned a second Turnaround Maintenance for our Train 1 Fertilizer Plant in furtherance of our maintenance culture required in the industry.

This TAM, which is the second, was actualized between Saturday, 21st November to

Wednesday, 8th December. The 1st TAM for the plant was done in 2017. I commend all our various teams involved in the TAM exercise.

Moving ahead, the inspection visit of the International Fertilizer Development Center (IFDC), Abuja to our Fertilizer laboratories in Port Harcourt, on Tuesday 14th September 2021 reinforced our confidence that indeed, we have a state-of-the-art fertilizer Lab.

It was not surprising that after the visit, our Corporate Communications team decided to focus attention on this edition of our in-house IMPACT magazine on how our world-class fertilizer laboratory ensures 100 percent quality of our Urea fertilizer.

Going through the magazine, it is quite clear how Indorama's Quality Assurance and Quality Control (QAQC) Department has put in place various processes and procedures to ensure that every granule of Urea fertilizer that leaves our plant is of the highest quality to boost food production, fight food insecurity and increase the earnings of farmers as well as serve the best interest of blending plants.

As the year ends, it is my pleasure to thank all our employees, our customers, government regulators, host communities, our technical and financial partners, and all



Manish Mundra

other associates for standing by us to help us achieve various successes this year.

I wish you all a happy Christmas and a prosperous New Year!

MANISH MUNDRA
Managing Director (Nigeria)
CEO (Africa)



RE: INDORAMA CELEBRATES NIGERIA @61

I wish to acknowledge receipt of a copy of the special edition of Indorama-Nigeria IMPACT.

Accordingly, I wish to express my sincere appreciation for the kind gesture and commend your efforts at bringing Nigeria to the limelight by showcasing in the magazine, Indorama's multiple benefits to Nigeria in areas of industrial, agricultural, social, and economic development.

Please accept the assurances of my best regards.

Dr. Ifeoma A. Anyanwutaku (Mrs)
Permanent Secretary,
Federal Ministry of Information and Culture.

RE: INDORAMA CELEBRATES NIGERIA @61

We thank you immensely for the gift of one copy of the current edition of your Indorama Nigeria IMPACT magazine and your interest in the Department of Petroleum Resources.

Please accept the assurances of the Department's esteemed regards.

Paul Osu

*For: Director/ CEO,
Depart. of Petroleum Resources*

LETTER OF APPRECIATION

The National Institute is in receipt of a copy of your in-house publication IMPACT magazine.

Accordingly, I have been directed to express Management's profound gratitude for your contribution into the research reservoir of The National Institute. This will no doubt enrich our library and enlighten as well as broaden the knowledge of users of the National

Institute Library.

Please accept the assurances of the best wishes of the Ag. Direct General always.

Christopher Maxwell

*ACAO, General Administration
For: Ag. Director General
National Institute for Policy and Strategic Studies Kuru, Plateau State*

RE: INDORAMA CELEBRATES NIGERIA @ 61

I am directed to acknowledge with thanks the receipt of a copy of the Special edition of Indorama Nigeria IMPACT magazine, which celebrates Nigeria @ 61.

Please accept the assurances of the Vice Chancellor's warm regards.

John C. Akah

*Special Assistant to the Vice Chancellor
Rivers State University.*

C O N T E N T S



Editor's Note

Dear All, this edition of the IMPACT magazine is, as usual, packed with exciting stories and opinion articles. The publication is packaged in such a way that something must be of interest to any of our readers.

Our Cover story is on "How Indorama ensures 100% Quality for its Urea fertilizer," which services over 32 million farmers across the 36 states of the Federation and the Federal Capital Territory, Abuja. The story is quite instructive: a retinue of processes and procedures put in place by Indorama Fertiliser Laboratory to ensure that the product meets all national and international standards of safety and nutritional contents for crops.

We have another interesting story, the Turnaround Maintenance (TAM) of Indorama's Train 1 fertilizer plant, which was formally inaugurated by the then Acting President, His Excellency, Prof. Yemi Osinbajo in July 2017. What this shows is that Indorama takes its maintenance culture very seriously.

This edition also contains various inspection visits by different Federal Government agencies including the National Authority on Chemical and Biological Weapons Convention, which takes charge of controlled chemicals; the Raw Materials Research and Development Council (RMRDC); etc.

The 50th Anniversary of the Manufacturers Association of Nigeria (MAN) was held in Abuja. It was heart-warming that Indorama-Nigeria was honoured with a plaque for its strong support to MAN advocacy over the years while the Managing Director of the company, Mr Manish Mundra was re-elected as a strategic member of the National Council of the Association.

Please relax and enjoy the magazine. Send your reactions or suggestions to my email: jnkwocha@indorama.com.ng

Jossy NKWOCHA, PhD, FNIPR
Head of Corporate Communications/
Special Adviser to the Managing Director



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Our Cutting-edge Laboratory is the Catalyst for producing 100% Quality Urea fertilizer

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Managing Director,
Indorama Nigeria and
CEO, Africa
Manish Mundra

CEO, IEFCL
Munish Jindal
Editor-in-Chief
Jossy Nkwocha

Other Editorial Team
Charles C. Igwe
Chinedum Emeana
Associate Member
Mike Achaziem

Editorial Advisers
Pradeep Ekka
A.K. Sharma
Dr. S.C. Basu

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corporate@indorama.com.ng

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FG's Agency Commends Indorama for Compliance with Regulations on Controlled Chemicals

By CHARLES CHIMA IGWE



NAC & BWC Officials and Indorama team in a group photograph at the chemical warehouse.

On Friday 29th October 2021, Ms. Rita Adeji, Assistant Director, National Authority on Chemical and Biological Weapons Convention (NAC & BWC), Political and Economic Affairs Office (PEAO) in the Office of the Secretary to the Government of the Federation (OSGF) led a 5-man visiting team to Indorama.

Ms Adeji stated that Nigeria is one of the member-countries that are signatories to the National Authority on Chemical and Biological Weapons Convention (NAC & BWC). Thus, her team was saddled to carry out the National implementation of the conventions in Nigeria.

She said NAC & BWC, in collaboration with other relevant stakeholders including National Agency for Food and Drug Administration and Control (NAFDAC) in fostering the peaceful uses of scheduled chemical and

biological agents.

Officials of the Agency, she noted are involved in carrying out inspection of the relevant chemicals in related industries such as Indorama.

According to her, the team came to physically examine and monitor the documentation of the chemicals as well as verify the custody and utilization of the chemicals imported into the country by Indorama within the First Half Year (January – June) 2021 Annual Declaration. The team was also to verify the compliance level of Indorama towards the safety and

storage of the chemicals.

Dr. Jossy Nkwocha, head of Corporate communications who moderated the event introduced the visiting team which comprises Ms. Adeji; Mrs. Olisa Stella-Maris, Mr. Obinna Okoli and Mr. Bolori Abdulhman Tahir all of NAC & BWC and Mrs. Gloria Dick-Williams of NAFDAC.

Others on the Indorama side were Mr. Daljit Singh, head of Ammonia plant (IEFCL 1 & 2) and acting head of Indorama Fertilizer operations who led the company team at the event; Mr. Manikanpan Manni, head of Health, Safety, Environment and Fire (HSE&F); and Mr. J.G. Pichai, head of Materials Management Department (MMD).

Other Indorama executives were: Mr. Balaji Lakshman Rao, head of Safety of IEFCL; Mr. Pratik Prajapati and Mr. Adalumo Tosin – both Managers at MMD; Mr. Shatrugham Singh head of the Feedstock Conditioning Unit (FCU-1), Mr. Samirendra Nath Seth of FCU-1, Mr. P.C. Sharma, head of Section, Ammonia Plant; and Mr. C. L. Suwalka of Ammonia Plant 2.

Mr. Bashir Mohammed, Safety Officer of Indorama carried out safety briefing which intimated the guests with the safety policies and emergency procedures in the company. Thereafter, Mr. Daljit Singh welcomed the guests.

Indorama's MMD team submitted documentation of permit to import, clearance at the seaport, storage, consumption and balance of all the chemicals. After a thorough examination of the document, the visiting team requested to embark upon further verification and



The meeting in QAQC Conference Room - NAC & BWC Officials led by **Ms Rita Adeji** (left) and Indorama team (right).

confirmation at the chemical warehouse. It was a thorough inspection at the warehouse.

Upon returning from the warehouse inspection to the QAQC Conference Room, the Team Lead, Ms Adeji remarked as follows:

- That Indorama has demonstrated resilience, giant strives and undoubted compliance toward government's rules and regulations on scheduled / controlled chemicals.
- That her team is greatly pleased with Indorama and looks forward that Indorama should not rest on her oars.
- Furthermore, her team lauded Indorama to keep flying higher and higher and remain a pacesetter for other industries.
- That Indorama is therefore highly commended for ensuring no misuse, pilferage and diversion of these

chemicals taking cognizance of evident surveillance practices including background checks, consistent monitoring among the plant end users, installation of 24/7 CCTV coverage of the chemical warehouse, proper documentation and strict adherence to internationally accepted procedures for destruction of both used chemical drums and expired chemicals.

Ms. Adeji and her team later unveiled and presented to Indorama three copies of "National Chemical and Biological Emergency

Preparedness and Response Plan 2020" published by NAC & BWC, and endorsed by President Muhammadu Buhari.

Mrs. Stella- Maris while giving her vote of thanks on behalf of the visiting team firstly appreciated Indorama for the hospitality demonstrated towards their team and secondly reminded Indorama of the Second Half Year (July- December) 2021 Annual declaration / inspection exercise planned within the first quarter of 2022.

Mr. Balaji Rao who gave the Vote of thanks on behalf of Indorama, thanked the visiting team and wished them journey mercies back to their destinations.



Govt. Officials examining documents.



Ms Rita Adeji



NAC & BWC Officials at the Chemical Warehouse.



How Indorama Ensures

100%

QUALITY

of its Fertilizer!

By CHINEDUM EMEANA

The International Standard Organization defines quality as “the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs”. For Indorama-Nigeria, ensuring that its Urea fertilizer is 100 percent quality at all times is high priority on daily basis.

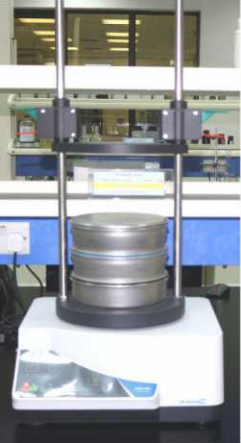
This reflects the first item on Indorama-Nigeria's Quality Policy which commits the company to “consistently providing high quality products and services in order to

meet and exceed the requirements and expectations of its customers and stakeholders through the implementation of effective quality management system across the entire supply chain”

This is not mere wishful thinking, or based on hope, but rooted in a systemic quality assurance and quality control approach to the manufacturing of its Urea fertilizer right from the point of receiving the raw material (natural gas) through several interrelated steps where scientific quality control and monitoring are strictly applied so that appropriate corrective actions can be taken immediately, where required.

According to Mr. A.K Sharma, Indorama-Nigeria's Head of Function, Quality Assurance & Quality Control (QAQC) department, Indorama-Fertilizer's State-of-the-Art Fertilizer laboratory and world-class quality monitoring systems and practices





are the tools that ensure that every grain of its granular Urea fertilizer is 100% quality and fit for farmers' use.

The Fertilizer Lab provides round-the-clock analytical services to the plant operations, while ensuring that feedbacks to the plant are prompt, accurate and reliable to facilitate corrective measure at any stage of the Urea fertilizer production process,



extending to product bagging, warehousing and distribution and even after-sales in conjunction with the marketing team.

Indorama's QAQC department has its foundation on a strong total quality management system, with 4-pronged quality monitoring stages to ensure quality of all incoming materials including feedstock (gas) before being taken in for processing; quality control of various process intermediate streams from plants; quality assurance by extra measures from bagged product and Warehouse, Silo and Jetty before shipping and customer support, and after sales, through marketing.

Indorama's fertilizer urea quality is achieved by a combination of educationally qualified and well-trained personnel, working with cutting-edge technological tools and instruments for critical parameters' testing.

In an interview with IMPACT magazine Mr Sharma said of Fertilizer Lab staff: "aside from being academically qualified, we ensure that each one of our staff is trained for all the activities both in-house and with external agency as well. We also hold In-house Refresher training on need bases from time to time. Our personnel have very good analytical abilities and follow Standard Operating Procedures, and good laboratory practices with safety concern ... I can proudly say they are the best in the country."

Indorama Fertilizer lab is regularly inspected and audited by regulatory agencies and international bodies and the feedbacks received attest to the high standards of the company's quality assurance and quality control personnel, equipment, systems and processes.

For instance, Standards Organization of Nigeria (SON) who visits and audits quarterly to ensure the quality and

systems to produce right quality of Urea has awarded the Indorama Urea its Mandatory Conformity Assessment Programme (MANCAP) certificate, which is renewed periodically; SOW and TOYO both of Japan conducted audit for Indorama Fertilizer Lab's testing facilities, analytical methods, calibration, sampling and other practices and the result was a glowing pass mark for lab staff performance, test methods and lab establishment for the testing of Urea.

Recently Indorama-Nigeria's QAQC Laboratories including Fertilizer Lab got Department of Petroleum Resources (DPR) accreditation as "In-House Quality Control Laboratory" for the services of Petroleum Product Quality Monitoring, Gas Analysis and Environmental Quality Monitoring (Water quality Analysis).

On Tuesday 14th September 2021, a three-member team from the International Fertilizer Development Center (IFDC) visited Indorama Fertilizer Lab for "Assessment of fertilizer testing capabilities in West Africa", and were so impressed by the personnel capability, equipment and simple protocols of the laboratories among other positives.

They proposed a partnership to make Indorama fertilizer Lab a Reference Laboratory to help in testing the quality of fertilizers being brought into the West Africa sub-region as a catalyst for the eradication of low-quality fertilizer in the region.

Moreover, Indorama urea fertilizer is registered with European Commission's REACH which "aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. This is done by the four processes of REACH, namely the registration, evaluation, authorisation and restriction of chemicals."

IFDC Team Commends Indorama Fertilizer Lab, Seeks Collaboration

By CHINEDUM EMEANA



Mr. A.K. Sharma, Head, QAQC, (right), Chinedu Oporum (left) and other Indorama staff conduct IFDC Officials around the company's laboratory.

A three-member team from the International Fertilizer Development Center (IFDC), Abuja which visited Indorama Fertilizer, in Port Harcourt, on Tuesday 14th September 2021 says it was impressed by the capability, equipment, space, storage and simple protocols of Indorama-Fertilizer laboratories.

The team comprised of Job Fugice, a Research Scientist; Emmanuel K. M Azognikou, a Policy Expert and Kido Kouassi, sub-regional coordinator based in Abuja.

They proposed a collaboration to use Indorama's world-class fertilizer laboratory as a "reference laboratory" for fertilizer testing within the West African sub-region to ensure availability of quality fertilizers to farmers within the area and also to be a basis for eradicating low quality fertilizer from the sub-region.

Mr Fugice, who led the team noted that there is paucity of government owned

laboratories for testing of fertilizer within the Economic Community of West African States (ECOWAS), which he noted has influenced the decision to partner with private sector outfits, hence the visit to assess facilities of the Indorama Fertilizer Laboratory.

He disclosed that IFDC is working with West African Fertilizer Association (WAFSA) in this project. "WAFSA brings together the fertilizer players present in ECOWAS," he said.

Mr Emmanuel added that there has been an observation of quality problems in the fertilizers distributed in the sub-region while noting that good laboratories are at the heart of fertilizer quality control.

He stressed the need for ECOWAS to have a fertilizer quality regulation, adding that this has been hampered by scarcity of appropriately equipped labs and trained professionals to test fertilizer samples coming into the sub-region to guard against the ECOWAS area

becoming a dumping ground for poor quality fertilizers from anywhere in the world.

In response to the partnership proposal to use Indorama's world-class facilities as a "reference laboratory" for fertilizer testing, Mr A.K Sharma, head of Indorama's QAQC department noted that while the proposal is interesting, a decision cannot be made immediately as a more holistic understanding of the proposal is required and further discussion imperative to guide management decision.

Earlier, Dr. Jossy Nkwocha, head of Corporate Communications, who moderated the meeting introduced the Indorama team, while Mr Joseph Ngito of Safety Department delivered the mandatory safety briefing to all visitors in the Indorama complex.

Thereafter Mr. A.K Sharma, welcomed the visitors on behalf of the management of Indorama and made a presentation that highlighted Indorama's global manufacturing pedigree featuring 72 sites in 27 countries around the world and its product basket.

In another presentation, Mr Chinedu Oporum of Indorama Fertilizer Laboratory focused on the company's state-of-the-art lab testing facilities that ensure that the urea that leaves the company's plant to farmers are of the highest quality.

The visitors were then led on a tour/inspection of all sections of the Indorama laboratories.

After the lab tour and inspection of facilities the IFDC officials expressed their positive impression with the proficiencies of the laboratory staff, hi-tek equipment and the simple protocols adopted in the laboratory.

Our Cutting-edge Laboratory is the Catalyst for producing 100% Quality Urea fertilizer

– A.K Sharma, Head of QAQC

Mr. A. K Sharma is Head of Function, Quality Assurance & Quality Control (QAQC) department of Indorama-Nigeria Group. In this interview, he highlights the analytical processes in Indorama's State-of-the-Art fertilizer laboratory that helps to achieve 100% quality Urea Fertilizer for farmers

How important is the QAQC in ensuring 100% quality for Urea Fertilizer?

Quality Control and Quality Assurance (QAQC) are very important and critical activities to ensure products are "FIT FOR USE". Therefore, Indorama QAQC has established a "State-of-the-Art" Fertilizer laboratory and also developed world-class quality monitoring system and practices.

To produce Urea product, it is a stepwise process in Ammonia and Urea plants where various reactions and steps are involved to get desired quality of Urea product. These steps are interrelated to each other. Therefore, it is very critical and important to control and monitor the quality at every stage so that appropriate corrective actions can be taken immediately to avoid inferior /off-spec. product.

This is because generation of off-spec quality product is huge financial loss to the company, therefore Quality Control is very important, while Quality Assurance is essential always to ensure that produced products are fit for use as per customer requirement before dispatch. It helps in ensuring consistency in quality of product and produce 100% quality of urea fertilizers.

So, it is possible to ensure 100% quality of our Indorama Fertilizer?

Yes, it is possible, as mentioned earlier, Indorama has well established systems

and practices in place to ensure right quality of product throughout and QAQC plays an important role in terms of monitoring and guiding the operations team. QAQC is committed to meeting the needs of customers and exceed their expectations by offering analytical services to Plant operations in terms of promptness, accuracy and reliability.

These three words hold a lot of meaning for us and by following these, we ensure 100% quality.

It is important to note that Indorama's QAQC department has a very strong total quality management system, with its 4-layer quality monitoring viz 1st stage: ensure quality of all incoming materials including feed stock before



being taken into process; 2nd stage: quality control of various process intermediate streams from plants; 3rd stage: quality assurance by extra measures from bagged product and Warehouse, Silo and Jetty before shipping and 4th Stage: customer support, after sales, through marketing.

What constitutes 100% quality of fertilizer for the best farming and crop production?

As you know, Nitrogen is an important and major nutrient for any crop production and urea is a nitrogenous fertilizer. Biuret is one of the important substances which can be harmful to the plant, therefore Nitrogen content with minimal biuret quantity in Urea Fertilizer is best for farming and crop production.

Some of Indorama Urea fertilizer's unique selling propositions (USP) include the fact that Indorama Urea is granular, consistency in particle size, free flowing, anti-caking treated, quickly dissolve when in contact with moist soil or water, free from harmful substances.

Here I would also like to share that we are in process for developing SOIL TESTING LAB here at site which will help in understanding the health of soil in terms of macro & micronutrients required for various types of crops. Based on the analysis of soil, right combination of fertilizers can be recommended to maximize the forming and crop production. The Lab shall be commissioned in in Q1 of 2022.

What processes are involved in this task?

As you know Indorama brand name is synonymous with Quality and to maintain that USP, we ensure excellence right from the beginning as itemized below:

- Monitoring of feedstock (Natural Gas)
- Monitoring quality of Raw material
- Quality control from various process intermediate streams (Ammonia and Urea Plant)
- Quality assurance of finished products
- Quality assurance of urea from bagging / Jetty Warehouse
- Joint analysis with external and independent agencies
- Monitoring the Quality of packaging materials
- Support in handling customer complaint.

What kind of laboratory equipment or machinery do we have for this task?

As stated earlier, our Fertilizer Laboratory is "State-of-the-Art" with cutting-edge modern, and sophisticated testing facilities and instruments. Few of the critical parameters test equipment are as follows:

- Micro-TKN Automatic Assembly (Velp scientific) for Total Nitrogen
- Crushing strength tester (Ametek) for Crushing strength determination
- KF Moisture Analyzers (Metrohm) for Moisture content analysis
- Visible Spectrometers (Hach, Thermo scientific) for Formaldehyde & Biuret determination
- Atomic Absorption Spectrometer (Perkin Elmer) for Heavy metals determination
- Gas chromatographs (Shimadzu, Perkin Elmer) for Process gas samples
- Sulphur Analyzer (Shimadzu) – For Sulphur analysis
- Sieve Shaker (Retsch) for Particle size distribution
- Flue gas analyzers, DO analyzer, pH & Conductivity meters, Turbidity meter etc.

What caliber of staff do we have for this task?

People first is a critical Indorama value and we believe that qualified, trained and skillful personnel can perform the job better, especially testing job which ensures the process and product are consistently premium quality. Therefore, aside from being academically qualified, we ensure that each one of our staff is trained for the all the activities both in-house and with external agency as well. We also hold In-house Refresher training on need bases from time to time.

Our personnel have very good analytical abilities and follow SOPs (Standard Operating Procedures), and good laboratory practices with safety concern. They have the ability to face the external agencies / visitors coming to laboratory. I have complete trust and confidence in the caliber of my team members; I can proudly say that they are the best in the country.

Has Indorama received any accolades on its quality of Urea Fertilizer?

Indorama Fertilizer lab and products are audited and inspected frequently by various external bodies and regulatory agencies as well and their feedbacks have been complimentary to say the least. Few of the examples are:

- (a) Indorama Urea product has MANCAP certificates awarded by Standard Organization of Nigeria who visits and audits quarterly to ensure the quality and systems to produce right quality of Urea.
- (b) Indorama Urea product is registered with REACH
- (c) SOW, TOYO, Japan conducted audit for testing facilities, analytical methods, calibration etc. along with sampling and other practices. They appreciated lab staff performance, test methods and Lab establishment for the testing of Urea.
- (d) Recently, QAQC Laboratories including Fertilizer Lab got DPR accreditation as "In-House Quality Control Laboratory" for the services of
 - Petroleum Product Quality Monitoring
 - Gas Analysis
 - Environmental Quality Monitoring (Water quality Analysis)
- (e) A team from International Fertilizer Development Center (IFDC) visited for "Assessment of Fertilizer Testing Capabilities in West Africa". This is part of the mandate given to IFDC by ECOWAS commission to assist countries in the implementation of regulatory framework through the Feed for Future Project" Enhancing Growth through Regional Agriculture Input Systems (EnGRAIS).

The IFDC team appreciated Indorama fertilizer testing capabilities and systems and sent an appreciation letter for participation in THE ECOWAS FERTILIZER LABORATORY ASSESSMENT

Has Indorama received any complaints about the quality of its Fertilizers?

No, we have not received any quality related complaints. However, Indorama has well established system and procedure in place to address any customer complaint.

Staff Interviews

100% Urea Quality: QAQC & Indorama Fertilizer Lab staff share their perspectives in these interviews with Chinedum Emeana

“Our pillars are promptness, accuracy and reliability, — Ravi Kumar Vadlamudi, QAQC Dept.

Our quality policy is that we meet the needs of customers, but we are exceeding the needs of our customers' expectations by providing analytical services to the plant in terms of promptness, accuracy and reliability, which are our major pillars.

To maintain this, our management's commitment and participation are always assured. We are trained to adapt our best techniques to meet our quality requirements. Our staff are also very well trained, and we are always under continual improvement as we put all efforts to innovate further.

Another thing is we are strict in maintaining our Quality Management System. So, we have a process flow to maintain the quality; from the feedstock itself, we analyse and ensure its quality, even packaging bags, we do quality control on them. And then quality assurance from

bagging and silos. Even after product is sold, we also give customer services.

We analyse total nitrogen, biuret, formaldehyde, crushing strength, moisture and trace metals. And we have standard equipment for all these, which helps to ensure the quality. In addition, we have the SON MANCAP certificate; they visit our laboratory every quarter, they witness our analysis and certify it. We have standard specifications, and so everything is aligned to those standards.

Working here has helped me to bridge the gap between theory and practice,” -- Utomobong Archibong

I studied Industrial Chemistry at University of Port Harcourt and I have been working in Indorama Fertilizer Lab over 5 years now. Working here has helped me to bridge the gap between theory in school and practical, hands-on knowledge.

Moreover, we are not just

working, but we are being afforded opportunity to grow our professional capacity because the company has an excellent learning culture.

I am very delighted and privileged to be part of the team that ensures that farmers in Nigeria get the best quality fertilizers, helping them to produce more food.

The Fertilizer Lab ensures the integrity of the fertilizer manufacturing process from when we receive the raw material, which is natural gas, from our suppliers we have to analyse and ensure that there are no impurities such as sulphur before we even allow it into our system.

I work with the team that checks the purity of the ammonia process through a series analysis based on our Standard Operating Procedure; it is an interesting job that requires diligence and professionalism.

“It gives me great pleasure to be part of a great team

here in Indorama” --- Victor Sam Udo

I am an Industrial Chemist trained at the University of Port Harcourt. I am happy to work in such a World-class company where all our products measure up to all known national and international standards.

It gives me great pleasure to be part of a great team of professionals delivering products that our customers are very satisfied with, because the lab analyses from the raw materials to the finished urea fertilizer product to ensure only the highest quality gets to the farmers.

This is where we carry out all the quality control analysis. We carry out all the necessary analysis starting from the raw material, which is the natural gas to the process intermediates where Ammonia is formed.

During urea fertilizer production, we in the laboratory carry out timely analysis, checking to control the activities in the plant to



Ravi



Leelee



Dr. Pandey



Archibong

make sure they meet up the required quality of urea production. We can achieve our objectives because of the commitment of the management and dedication of individual staff members.

We use clean technology to produce best quality urea” – Dr Vinod Kumar Pandey

We manufacture Indorama Urea fertilizer by reforming of Natural Gas to get Carbon Dioxide and Ammonia deploying a clean technology and as such no waste is generated from the process.

Urea plant includes two distinct sections namely Urea Synthesis where Ammonia and Carbon dioxide react to produce Urea solution employing the state of the art ACES 21 technology licensed by Toyo Engineering of Japan and Conversion of Urea solution to granules at the Granulator section employing spout bed fluid granulation technology employed by Toyo Engineering of Japan.

From Urea synthesis process, the unreacted Carbon Dioxide and Ammonia Gas are recovered and recycled back to main process stream. The minimal air emissions are from Granulator stack and from continuous flare stack where the separated inert from process stream are disposed by control combustion. The Urea granules produced are sent to storage either for bagging or bulk shipment.

We use clean technology to produce best quality urea – Vinod Kumar Pandey

We manufacture Indorama Urea Fertilizer by reforming of Natural Gas to get Carbon Dioxide and Ammonia deploying a clean technology and as such no waste is generated from the process.



Singh

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The process condensates generated are treated within plants and recycled back as boiler feed water after polishing in Polisher Units. The minimal Polisher Unit regeneration effluent is generated in this process. The floor wash water of Urea plant is collected in a dedicated pit and treated within plant before sending to Treated Wastewater pit.

From Urea synthesis process, the unreacted Carbon Dioxide and Ammonia Gas are recovered and recycled back to main process stream. The minimal air emissions are from Granulator stack and from continuous flare stack where the separated inert from process stream are disposed by control combustion. The Urea granules produced are sent to storage either for bagging or bulk shipment.



Udo

We only use treated water for fertilizer production - ATUL PRATAP SINGH

Indorama urea fertilizer is the best quality because proper care is taken to ensure that every input into the manufacturing process is the best. For instance, we don't use raw water in our process because it has suspended solids and dissolved solids, bacteria, and other forms of impurities, which will create the corrosion in the system and negatively impact output.

The water used in the urea fertilizer production process to achieve the best quality is treated and Demineralized water.

DM plant is required to generate the demineralized water to make-up for steam generation using highly scientific technique and equipment.

This demineralized water is used for steam generation which is required for fertilizer production process. Generated steam is used in reforming process as well as motive fluid for steam turbines to drive the various compressors in Ammonia & Urea plant.

This is just to emphasise the fact that Indorama-Fertilizer does not take anything for granted in ensuring that farmers have access to premium quality fertilizer.



Akpati

We ensure that farmers have access to premium quality Urea fertilizer --- Atul Pratrapp Singh

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Indorama Train-1 Fertilizer Plant Undergoes 2nd Successful TAM

The world-class Fertilizer plant Train 1 of Indorama Eleme Fertilizer and Chemicals Limited (IEFCL), which came on stream in 2016, and inaugurated formally by the then Acting President, Prof. Yemi Osinbajo in July 2017 has successfully undergone the 2nd Turnaround Maintenance (TAM).

By CHIMA CHARLES IGWE

At 12:00am on Sunday, 21st November 2021, the plant was shut down for the effective commencement of the TAM. Prior to the shut-down, equipment, spare parts,

chemicals, etc. were procured and strategically located within the site.

At various locations, cranes, fire trucks and safety related gadgets were also positioned. Contractors and

their personnel for this all-important task were dually engaged.

In addition, Medical, Fire, Safety, Security, Welfare, Technical and operational staff as well as regulatory authorities such as DPR were on ground with great zeal and contributed in no small measure to this laudable success.

In view of the zest and commitment of the Management, staff and contractors, the TAM was successfully carried out as planned with plant re-start on Wednesday 8th December 2021. Indeed, TAM 2021 was few days of extensive work to keep the fertilizer plant in top operational performance.

Turnaround Maintenance (TAM) is a periodic maintenance in which plants are shut down to allow for inspections, repairs, replacements, and overhauls that can be carried out only when the plant and facilities are out of service.

TAM is an essential activity in process industry including fertilizer, refinery, petrochemical, among others. It plays an important role in maintaining consistent and productive capacity. It is a major project that requires sound planning, execution, and control.

TAM is one of the most important maintenance strategies that minimizes the risk of production losses by ensuring reliable equipment. However, the continuity feature of process industries (24/7) makes it so expensive to shut down a process that can create a big challenge from the logistical standpoint.

In furtherance of Management's strives for plant efficiency and in keeping with commendable excellent maintenance culture of Indorama Group, a major Turnaround Maintenance (TAM) was planned and successively executed at record time!

PHOTOSYNTHESIS





- 1, 2,3 Officials of the former Department of Petroleum Resources (DPR), made up of **Emeka Okonkwo** and **Olu Solomon** with Indorama executives led by **A.B. Rao** during the Re-licensing exercise of Indorama plants and facilities.
- 4. IFDC Team who visited Indorama
- 5. IFDC Team inspecting Indorama-Fertilizer Lab
- 6. Group photograph of IFDC Indorama teams inside the lab
- 7. **Mr. Job Figuece**, IFDC team leader, admiring Indorama's collection of international awards.

- 8. **Mr. V. Ravi** make a presentation to RMRDC outlining Indorama's product basket.
- 9. Indorama Officials which received the RMRDC officials led by **Mr. A.K. Sharma**, head of QAQC (right).
- 10. **Dr. Moses Omojola** (right) presents branded RMRDC souvenir to Indorma.
- 11. **Mr. A.K. Sharma** leads RMRDC Officials on tour of Indorama Products Display.
- 12. **Mr. Godday Ineh** (middle), New Zonal Controller of the Nigerian Upstream Petroleum Regulatory Authority (former DPR) on visit to Indorama.
- 13. **Mr. PSJ Bajwa** (middle), Head of Indorama-Fertilizer Operation, giving directions during the just concluded Turnaround Maintenance (TAM) of the Train 1 Plant.

MAN's 49th AGM and 50th Anniversary Show the Way Forward for Nigeria!

...Indorama-Nigeria honoured again, MD re-elected into National Council

Report By DR. JOSSY NKWOCHA and CHIMA CHARLES IGWE

It was a three-day top-class event held at the prestigious International Conference Centre (ICC), Abuja from Monday, 25th to Wednesday, 27th October 2021.

It was the 49th Annual General Meeting (AGM) and 50th Anniversary of the Manufacturers Association of Nigeria (MAN), which also featured the maiden Adeola Odutola public lecture delivered by Dr Akinwunmi Adesina, the President of the African Development Bank; and a special evening with Dr Ngozi Okonjo-Iweala, Director-General of the World Trade Organisation (WTO).



The Award Plaque presented to Indorama-Nigeria at the MAN 50th Anniversary event.

The event also featured a colourful Made-in-Nigeria exhibition as well as election of members of a new National Council of the Association for 2021/2022, unveiling of a new forward-looking logo of MAN to mark its 50th anniversary, a presidential dinner and an award ceremony to honour individuals and organizations that have helped to build up MAN in its 50 years' history. .

Indorama-Nigeria Group, owners of Indorama-Elleme Petrochemicals Limited (IEPL) and Indorama Elleme Fertilizer & Chemicals Limited (IEFCL), was once again honoured for its strong support for MAN activities and for its strategic role in the industrialisation and fertilizer revolution in Nigeria. The plaque of honour was received on behalf of Indorama-Nigeria by Dr Jossy Nkwocha, head of Corporate Communications and Special Adviser to the Managing Director.

Mr Manish Mundra, Managing Director of Indorama-Nigeria and CEO (Africa) was once again re-elected into the National Council as a Strategic member --- to share seats with a select number of top CEOs of big corporations in Nigeria.

President of MAN for 2020/2021, Engr. Mansur Ahmed was re-elected for a second term for the year 2021/2022. In his speech, he eulogized MAN for its remarkable achievements in the past 50 years despite daunting challenges.

He added that many member-companies of MAN were very supportive of the Association and resilient to the problems that plague manufacturing in Nigeria such as poor power supply, poor road network, high interest rate, policy summersaults, multiple taxation, among others.

The lectures delivered by Dr Adesina of the AfDB and Dr Okonjo-Iweala of WTO were quite thought-provoking and proffered solutions that could help reflate Nigeria's economy, shore up the value of the Naira, encourage industrialisation across the country and exports of manufactured products rather than crude oil and other primary products.

Dr Adesina's lecture titled "Overcoming the Binding Constraints to competitive manufacturing for intra-African Trade" enumerated several issues that must be addressed by Government, especially power supply, logistics and other infrastructure.



Representatives of member-companies in Rivers State at the MAN event in a pose with the MAN President, **Engr. Mansur Ahmed** (4th left).

MAN President, **Engr. Mansur Ahmed** presents plaque to **Dr. Jossy Nkwocha** of Indorama (right).



The AfDB President advocated for aggressive industrialisation rather than export of raw materials. He said Nigeria continues to remain on survival mode because of its continuous import of manufactured goods from Europe, US, China, etc at high cost of foreign exchange.

Dr Adesina noted that many Nigerian manufacturers face deep pains and difficulties, making manufacturing not competitive in both Sub-saharan Africa and the international community at large.

Secretary to Government of the Federation, Mr Boss Mustapha who was representing President Muhammadu Buhari at the event promised that Government will continue to find solutions to challenges facing manufacturing in Nigeria.

Okonjo Iweala in her presentation through Zoom technology spoke on the need for Nigerian industries to begin to export their products, not only to earn foreign exchange but for enhancing trade balance in the continent.

She noted that many Nigerian products can compete favourably with products from advanced countries. The theme of her presentation was "AfCFTA and Global Trade: resetting for global competitiveness".

Minister of Industry, Trade and

MR MANISH MUNDRA, MANAGING DIRECTOR OF INDORAMA-NIGERIA AND CEO (AFRICA) WAS ONCE AGAIN RE-ELECTED INTO THE NATIONAL COUNCIL AS A STRATEGIC MEMBER --- TO SHARE SEATS WITH A SELECT NUMBER OF TOP CEOs OF BIG CORPORATIONS IN NIGERIA

Investment, Otunba Adeniyi Adebayo had earlier on first day noted that his ministry would always support and collaborate with MAN and the Nigerian Export Promotion Council to export Nigerian products. He said MAN should not only strive to be economic hub in Africa but the globe at large.

He finally declared open the 3-day Made-in-Nigeria exhibition that gives effect to the Presidential Executive Order 003 with the display of array of products of high quality and standard.

A presidential awards nite was the climax of the three-day event. Awards were given to past Presidents and Director- Generals of the Association, Afrexim Bank as well as major sponsors of the AGM including Dangote and Indorama and personalities that have supported the manufacturing sector immensely including the Chairman of Nigerian Breweries PLC, Chief Kola

Jamodu who received Special Recognition Award.

Other awards include N500,000.00 (first prize), N300,000.00 (second prize) and N200,000.00 (third prize) for winners of MAN @ 50 Essay Competition were presented to Chibuzor Paul Ndubuisi of the University of Nigeria Nsukka, Miss Oyikansola Samsola Komolafe of University of Ibadan and David Chidinma Okenwa, also of the University of Nigeria Nsukka.

Miss Sharon Ama of the Visual Arts Department, University of Lagos was awarded N200,000.00 as winner of the new MAN logo.

It was indeed a well-attended, well-packaged programme with hi-tec facilities in place – yet ensuring that COVID-19 protocols were maintained.

RMRDC Wants Indorama to Expand Product Basket

By CHINEDUM EMEANA

Top officials of the Raw Materials Research and Development Council (RMRDC) made an official visit to the Indorama Eleme Petrochemicals Complex in Port Harcourt, Rivers State on Wednesday October 20, 2021.

The officials comprised Mrs Asabe Mustapha, Assistant Director, Plastics; Mrs Gladys Agbaim, Rivers State Head of RMRDC and Dr. Moses Omojola, former Director, Plastics at RMRDC and now a Consultant to the Agency.

They were received on behalf of Indorama Management by Mr A. K. Sharma, head of QAQC; Dr. Jossy Nkwocha, head of Corporate Communications and other key personnel of QAQC.

In a presentation to welcome the RMRDC team, Mr Sharma outlined Indorama global leadership position in production specialization areas, and more importantly its influence in the development of Nigeria's burgeoning

plastic industrial sector. He highlighted the vast array of polymer resin grades used for the manufacturing of different plastics and packaging products while supporting over 600 companies in that sector.

In response, Mrs Asabe Mustapha, the team lead commended Indorama Eleme Petrochemicals for its system of consistent innovations and product development that ensures that over 600 plastics-based manufacturing concerns in the country get steady supply of different grades of polymer resins (Polyethylene and Polypropylene) as catalyst for their productions.

She noted that Indorama is a major job creation agent in the country and a great contributor to Nigeria's industrialization drive.

However, Mrs Mustapha said the Council desires that Indorama pivots into the production of polyvinyl chloride (PVC) to help the country save the foreign exchange expended by some

local companies in the importation of that raw materials for their industrial production.

"The Council is currently liaising with Manufacturers Association of Nigeria (MAN) to have a database of local consumption of PVC as raw materials. Thereafter, we would have more engagement with Indorama", she said.

PVC polymer resin is a versatile material that can be deployed to many possible applications, including window frames, drainage pipe, water service pipe, medical devices, blood storage bags, cable and wire insulation, resilient flooring, roofing membranes, stationary, automotive interiors and seat coverings, fashion and footwear, and packaging etc.

The RMRDC officials also notified the Indorama team that a foreign investor who is interested in producing PP-based Covid-19 Masks approached them to recommend a company that would supply them an initial 8 tonnes of polymer resins; to which they recommended Indorama. Mr Sharma thanked them and promised to connect the investors with Indorama's marketing team whenever they are ready.

Other Indorama personnel who were part of the reception team includes Bashir Mohammed, Charles Igwe, V. Ravi Kumah, Matthew Udoka and Chinedum Emeana.

The guests were later taken on a tour of Indorama Product Display Room, a bus ride through Indorama's petrochemicals and fertilizer plants. They said they were quite impressed with tremendous progress at Indorama. The meeting ended with exchange of souvenirs by both parties and a group photograph.



Mrs. Asabe Mustapha (2nd left), Assisted Director, RMRDC, with her team, making a point during meeting with Indorama officials.

Indorama Fertilizer Distributes 380,000 Notebooks to Secondary, Primary Schools Across the Country!

As part of its Corporate Social Responsibility (CSR), Indorama Fertilizer has distributed a total of 380,000 notebooks to secondary schools across five geo-political zones of the country to enhance learning.

The notebooks were distributed to the schools through Indorama agronomists who visited the schools, or through our Agro-dealers or through the State Universal Basic Education Boards (SUBEBs) in some states.

The statistics showed that Northwest zone received 130,000 notebooks; Northcentral 130,000; Southern Zone 80,000, and Rivers State, through the Community Relations department, 40,000.

According to Dr S. K. Srivastava, the Head of Sales and Marketing, the objectives of the programme were: to give back to the communities where the Indorama

fertilizer business activities are domiciled; and to encourage learning and educational excellence amongst students especially in rural areas.

Other objectives are to ingrain the Indorama brand image in the minds of prospective consumers in farming communities and to support vulnerable students in gaining better education.

The methodology for this exercise is to ensure an effective distribution through Indorama agronomists, major Agro-dealers in conjunction with the Ministries of Education (MEs) and State Universal Primary Education Board (SUBEB), which controls all activities of public primary and Junior Secondary schools.

For example, Indorama agronomist distributed 250 80-leaves branded Notebook to the students of the T/Baptist Science Primary School, Shendam, Plateau State on 23rd

November 2021.

They were received by the Principal, Mr. Datreng R. Ali in the presence of the entire staff and students of the school and was distributed to the students by the agronomist. The staff and students were excited and grateful for the kind gesture of Indorama fertilizer.

This CSR programme has been received with great appreciation by the schools already visited.

Besides, letters of appreciation have so far been received from the Authorities of Government Girls Senior Arabic School, Kano; State Universal Basic Education Board, Bodinga LGA, Sokoto; State Primary School 1, Agbonchia, Eleme, Rivers State; Central Primary School, Kuzuntu 1, Kaduna State and T/Baptist Science Primary School, Shendam, Plateau State.

Dr Srivastava said that a total of 400,000 Notebooks are planned to be distributed in 2022.



Students of one of the beneficiary schools display the note books

Motivating Workforce for Higher Productivity

By MIKE ACHAZIEM (HR Dept.)

INTRODUCTION:

Motivation is the inner power or energy that pushes one towards acting, performing actions and achieving results. Motivation also has much to do with desire and ambition. Often, a person has the desire and ambition to get something done or achieve a certain goal, but lacks the push, the initiative and the willingness to act. This is due to lack of motivation and inner drive.

Motivation becomes strong when you have a vision, a clear mental image of what you want to achieve, and a strong desire to materialize it. In this situation, motivation awakens and pushes you forward in making the vision a reality.

This article is intended to show how motivating the workforce leads to higher productivity.

WHAT REALLY MOTIVATES PEOPLE?

There is no one thing that is generally accepted that motivates people. The reason has to do with the complexity of human behaviour. No two persons are the same. People reacts to things differently and for different reasons. When we ask whether money is a motivator, we are asking a very broad question that makes predicting behaviour difficult. Money is a motivator to an extent.

According to scholar Daniel Pink, "there are three fundamental motivators: autonomy, mastery, and purpose." He explains that people are motivated by at least one of these and often a combination of the three. It is interesting that money is not on this list. Pink asserts that while people are initially motivated by money, at a point, it loses its ability to motivate. But then, I believe there is no "enough money" in human desire.

People generally crave respect, peace of mind, success, recognition, financial



stability, admiration, and love. These are the motivators that stick—the ones that can spur people to work harder, take risks, and change behaviours. Every workplace must find a way to motivate its employees.

REWARD AND RECOGNITION AS TOOLS OF MOTIVATION

Human beings are rational in nature. The way you treat them determines how they respond. Every manager must understand this. The importance of employees' recognition in the workplace must be noted.

When you recognize employees, you reinforce, with your chosen means of recognition, the actions and behaviors you most want to see them repeat. When you consider employee recognition processes, you need to develop recognition that is powerful for both the organisation and the employee. You must address the points below if you want the recognition you offer to be viewed as motivating and rewarding by your employees and important for the success of your organisation.

1. Good Work Environment:

Motivated employees thrive in a positive work environment. This refers to the

physical and non-physical environment. The physical environment is the office space and surrounding. It is important to place employees into job roles where they can interact with coworkers. Employees could be structured in such a way that they would frequently share tasks, information, and knowledge with one another. The belief is that once employees are placed into a structure where their needs for socialization would be fulfilled, they would be more productive.

2. Positive Dealing: Workers are rational human beings. When you treat them positively, they react positively; and when you treat them negatively, they react negatively. Employers or bosses should treat their employees or subordinates positively and this would ultimately increase productivity.

3. Communication culture: Build a Communications culture with your employees and other associates in your organization. In communicating effectively, you don't just talk. You transmit information verbally and nonverbally (using body language and tone of voice) which must be understood by them, and positive feedback is given.

4. Inclusiveness: If you want workers to put in their best, involve them in the decision-making process. Employees want to bring their ideas, visions, values, and talents to work and want a company that allows them to share these interests. If you involve them, they will be more committed to their work.

CONCLUSION

Research shows that a motivated, engaged and responsive workforce is substantially more productive than an unmotivated group of employees. When workers feel engaged, they are more likely to work harder for the good of the company, because they can see firsthand what their contributions mean to the success of the company.

Modern TRENDS

in Training & Development

Introduction:

Today's workforce is competitive, goal-oriented and self-motivated. In order to attract and keep top talents, you need to provide them with the resources and support they need to succeed.

When employees have ample opportunity to learn and advance their careers, they are less likely to want to leave. Leveraging the latest research insights, you can continue to stay on top of the growing needs of your employees and develop a corporate training and development strategy that helps everyone succeed.

In this article, we'll cover some of these top trends in training and development in the year 2022 and beyond:

Personalized training paths

Not all employees will have come from the same backgrounds or learning environments as others. They also likely to have different ways of learning and respond to different types of incentives. Long gone are the days of a one-size-fits-all approach to training.

Instead, the best organizations today employ personalized training programs that can be tailored to each employee's specific learning needs and skills gap. While this approach is certainly more complex, it will likely yield better results for both you and employees.

Mentoring

Going hand-in-hand with personalized learning, mentoring can also be useful in the workplace. By pairing experienced employees with newer team members through formal or informal programs, you can



By **Kingsley Uruakpa**,
Learning and Development

help reduce turnover, enhance recruitment, and resolve opportunity gaps, particularly for women and some less privileged persons.

Experiential Learning

This approach to training is simply learning by doing. Employees are presented with real-world situations that apply to their jobs – and do their best to solve those hypothetical yet real-world scenarios. This type of training allows for critical analysis as well as quick thinking. It also may be a better option for employees who struggle with traditional book-and-

exam style of teaching.

Continuous Development

Instead of one-off training sessions that take place once a year (or even fewer), there has also been a push for the idea of continuous development, in which employees are continuously investing in their education in order to become more well-rounded at their jobs or workplace. With technology and other advancements happening so rapidly, the need to keep up with new trends and skills is essential.

Power Skills

Behavioral skills – otherwise known as power skills or soft skills – will also be a priority for companies to address in the years ahead. According to a recent IBM report, behavioral skills dominated the list of core competencies that global executives are looking for from their employees – bypassing technical skills for the first time.

Mobile Learning

As smartphone usage continues to overtake desktop users, it may be wise to consider how to move employee training and development to this mobile-first space. Using or creating a mobile app for training will allow employees to access the material whenever they want on their phone. It can also lend itself to more engaging and interactive learning experiences.

Conclusion:

In the years ahead, a lot of new trends and skills are evolving to keep employees updated to achieve greater productivity and cohesion in the workplace. This article has helped to articulate some of the new ways of using training and development to motivate employees to deliver superior results.

GUARDING YOURSELF AGAINST CYBER FRAUD

By UCHE OTOBO, IT Department

Introduction

A few years ago, a Cashless Policy by the Central Bank of Nigeria (CBN) became fully operational in Nigeria. The aim was to encourage electronic transfer for payment transactions with a view to reducing the amount of physical cash within circulation in the economy.

The logic was that this would minimise the risk of cash-related crimes and logistics, but along the line came a major downside of the policy which has been upsurge in electronic banking fraud (e-fraud). Although the cashless banking system was designed to foster transparency, curb corruption and drive financial inclusion, it's threatened by the growing perpetration of fraud.

With reference to the NDIC 2018 Annual Report, a total of 37,817 fraud cases were reported in 2018 against 26,182 in 2017. The amount involved stood at N38.93 billion in 2018 compared to N12.01 billion in 2017.

The actual amount lost to fraud incidences in 2018 stood at N15.15 billion as against N2.37 billion and N2.40 billion in 2017 and 2016 respectively. The rising fraud incidences could be attributed to the



increase in the sophistication of fraud related techniques such as hacking, cybercrime as well as increase in I.T related products and usage, fraudulent withdrawals and unauthorised credit.

Victims of e-Fraud

Every year, millions of people fall victims to internet fraud and the percentage has been on the raise ever since. There has never been a

time we should all be more concerned about the security of our bank accounts. There are too many scammers / internet fraudsters on the prowl, and they are constantly devising new sophisticated methods to steal your money.

CBN has issued a fraud alert to the Nigerian public about the alarming rate of cybercrime activities in the country. According to the apex bank, cyber criminals resorted to taking advantage of the COVID-19 pandemic to defraud citizens, steal sensitive information, or gain unauthorized access into computers or mobile devices using different techniques.

Banks have intensified efforts at educating or encouraging their customers to become more careful and protective of their bank accounts and information with respect to internet fraud.

Attacks on Mobile Devices

Attacks on mobile devices is growing at an alarming rate, as a result of the increased popularity of mobile banking. Reports show that over 51% of smartphone users say they have used their mobile devices for banking in the past 12 months through their Mobile banking Apps.

"The rise in the popularity of mobile devices has certainly made them a target for cyber-criminals," said Kathy Koestner, Vice President, Information Security. "Banks work hard to protect customers' information and customers play an important role. Any device used to connect to the Internet is at risk

and we urge users to keep safety measures in place.”

In today's world of convenience spending and online shopping, it's very common and all too easy to add your debit and credit cards to your online accounts.

While this provides an expedited, convenient, and automatic experience, it's more important than ever to ensure you're taking enhanced measures to protect your account and card information, where account / card alert services help identify fraud attempts. If you have a bank account, savings account, multiple investments or loans, chances are very high you use the Internet for online banking, which arguably make banking effortless on the consumer side.

Think of Cyber Security

Whether you want to transfer money between accounts or pay bills, the first step is always going online. You may not immediately think about security, but the moment you connect to the Internet your financial information is at risk. Unfortunately, there are countless Internet-based threats floating around. And looking unsuspectingly innocent until clicked by the user.

There are a few ways you can protect your banking and personal data from potential theft. However, it can be hard to detect online fraud as scammers are constantly changing their tactics and techniques, they are getting increasingly sophisticated in their attempts to get your money or personal details.

Fraudster target people of all

backgrounds, ages and income levels across the world. There's no one group of people who are more likely to become a victim of internet fraud, all of us may be vulnerable to a scam at some time.

Why Scams Succeed

Scams succeed because they look like the real thing and catch you off guard when you're not expecting it. Scammers are getting smarter and taking advantage of new technology, new products or services and major events to create believable stories that will convince you to give them your money or personal details. However, there are some simple steps you can take to protect yourself, which will be listed below, but can't be limited to just these steps.

Follow The Following Precautions:

- Be alert to the fact that scams exist. When dealing with uninvited contacts from people or businesses, whether it's over the phone, by mail, email, in person or on a social networking site, always consider the possibility that the approach may be a scam. Remember, if it looks too good to be true, it probably is.
- Know who you're dealing with. If you've only ever met someone online or are unsure of the legitimacy of a business, take some time to do a bit more research. Do a Google image search on photos or search the internet for others who may have had dealings with them. If a message or email comes from a friend and it seems unusual or out of character for them,

contact your friend directly to check that it was really them that sent it.

- Do not open suspicious texts, pop-up windows or click on links or attachments in emails – delete them: If unsure, verify the identity of the contact through an independent source such as a phone book or online search. Don't use the contact details provided in the message sent to you.
- Never give out your account passwords - even to persons claiming to be from your bank or from your on-line service. If your passwords fall into the wrong hands, you may find your account billed with unexpected, expensive charges.
- Investigate persons and firms selling investment products to determine if they are licensed
- Keep your browser and computer up to date with the latest security software and new patches as they are released
- Carefully check your financial account statements each month for suspicious activity
- Be very skeptical of offers that sound too good to be true - such as extraordinarily high bank deposit rates, unusually low loan rates or spectacular investment returns that are touted as being "risk free."
- Before completing a purchase or financial transaction, be sure that the website you're visiting supports secure transactions. Your browser should clearly indicate when you link to a secure location. Look

for a URL that begins with https:// and a browser icon displaying either an unbroken key or a closed padlock.

- Don't send sensitive financial information, such as credit numbers, via e-mail.
- Log out completely when you finish a internet banking sessions, either on a system or your mobile app.
- Use caution when downloading apps. Apps can contain malicious software, worms, and viruses. Beware of apps that ask for unnecessary "permissions."
- Avoid storing sensitive information like passwords or a social security number on your mobile device.
- Tell your financial institution immediately if you change your phone number or lose your mobile device.
- Beware of mobile phishing. Avoid opening links and attachments in emails and texts, especially from senders you don't know. And be wary of advertisements (not from your security provider) claiming that your device is infected.
- Keep your mobile devices and computers secure. Always use password protection, don't share access with others (including remotely), update security software and back up content. Protect your WiFi network with a password and avoid using public computers or WiFi hotspots to access online banking or provide personal information.
- Watch out for public Wi-Fi. Public connections

Continues on Page 27

COVID-19 IN CHILDREN

By Dr. (Mrs.) Inobeme Amadi Ijeoma, Medical Department

Coronavirus disease 2019 (COVID-19) is an illness caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). In the United States and throughout the world, fewer cases of COVID-19 have been reported in children than in adults.

Severe acute respiratory syndrome coronavirus 2 (SARS CoV-2) is a highly infectious virus that causes immune dysregulation. The main routes of transmission are respiratory droplets and contact with respiratory secretions and saliva. Aerosol particles may be another possible mode of transmission. SARS CoV-2 can remain viable on various surfaces for hours to days, although transmission is much more common through respiratory droplets than through fomites (objects that can carry infection like furniture, clothes, utensils). Family clustering appears to play a major role in disease transmission.

Overall, current data continue to support the fact that children are infected with SARS-CoV-2 similar to adults but are more likely not to show symptoms or to have less severe disease.

of all ages and sex can be affected and can transmit the infection. However, children with medical conditions such as asthma, obesity, diabetes, congenital heart disease, cancers, are more prone to severe form of the disease.

The incubation period (time between exposure and manifestation of symptoms) of SARS-COV-2 appears to be about 2-14days with an average of 6 days, however it may be longer. Common symptoms in children are cough and fever. However, these symptoms may not always be present.

Other symptoms include the following: shortness of breath, sore throat, diarrhea, rhinorrhea, vomiting, nasal congestion, abdominal pain, loss of sense of smell/or taste. The list is inexhaustible as children can present with nonspecific symptoms necessitating a high index of suspicion.

Diagnosis of COVID-19 in symptomatic children or asymptomatic children with positive history of exposure requires carrying out a Reverse transcriptase polymerase chain reaction (RT-PCR) using oropharyngeal or nasopharyngeal swab which is the gold standard test.

Antigen test is

less sensitive than PCR but positive results are considered generally reliable. Other investigations that can be done include blood tests and imaging studies depending on the severity of the illness.

The best way to keep children safe is by prevention, these include:

- Hand washing with soap and water
- Use of alcohol-based hand sanitizer
- Respiratory etiquette (sneezing into their elbow)
- Physical distancing
- Use of face mask
- Stay home if you feel unwell and contact your doctor
- Get vaccinated.

It is very important to note that vaccines are safe, effective and reduce the risk of severe disease. Different countries have different age cut-offs for vaccines in children.

We all need to get involved in helping the children to stay safe by doing the right things so they can emulate what is right. Children should be fed with balanced diet and hydrated properly as this will help to boost their immunity. Vitamins and Zinc supplements have also been found to be good immune boosters. Close monitoring and supervision are vital in prevention.

There are lots of psychological aspects in relation to Covid-19, as we all know our normal life is disrupted due to this pandemic. Adapting ourselves to this new way of life of wearing mask, being aloof, less physical interaction, virtual classes instead of normal school and many other similar aspects do affect all our children.

Children as we all know have the capacity to adapt to this new situation but, of course, it causes a lot of stress as their normal childhood is affected. We must do our best to see that we do reduce their stress by spending more time with them and see that they get all the needful care and support. Let us all not forget that for normal development of our children in this pandemic period it is equally important to take care of the psychological aspect as it is take care of the physical aspect of the infection and vaccination.

Let's take care of our children !!!



We have All the Answers,

Yet Still Deep in our Economic Problems!

I was at the 50th Anniversary of the Manufacturers Association of Nigeria (MAN), held in Abuja from 25th – 27th October 2021. Two of the guest speakers at the event were Dr Akinwunmi Adesina, President of the African Development Bank (AfDB) and Dr (Mrs) Ngozi Okonjo-Iweala, Director-General of the World Trade Organisation (WTO).

Dr Adesina spoke so eloquently on how the manufacturing sector can be used to get the Nigeria economy out of the woods. Dr Okonjo-Iweala spoke in the same vein, dwelling more on how made-in-Nigeria products can be made competitive in world trade.

It was good that Mr Boss Mustapha, the Secretary to the Government of the Federation (SGF) and the Hon Minister of Industries, Trade and Investment, Otumba Adeniyi Adebayo were at the MAN event and listened as these technocrats reeled out solutions to our economic problems.

At last year's MAN public lecture in Lagos (as part of its 2020 Annual General Meeting), Prof Benedict Oramah, President and Chairman of the Board, African Import-Export Bank (Afrexim), who is also a Nigerian, also took time to enumerate ways our economy can come out of troubled waters.

And each time I listen to our President, Muhammadu Buhari, speak at any foreign forum, he also usually addresses our socio-economic issues in a way that anyone would wonder why we still find ourselves in deep economic quagmire.

Even when you listen to various people speak on television or at public lectures, you come away with the belief that we all know how to solve the social, political, and economic problems that are seriously drawing us back as a nation.



By DR JOSSY NKWOCHA, FNIPR

It seems that implementing the desired solutions is the problem. Some people have talked about the lack of political will to implement solutions. What actually is this so-called political will?

Today, 23rd November 2021, as I write this piece, the exchange rate stood at N555 to 1 US Dollar. The exchange rate has, by the principle of extrapolation, affected everything else in the country. For instance, it has caused hyper-inflation that has made the cost of food items to rise above the reach of most Nigerians.

Besides, the Group Managing Director of the Nigerian National Petroleum Corporation (NNPC), Mr Mele Kyari has already hinted that there would be full removal of fuel subsidy

and the resultant cost of fuel would be about N340 per litre next year.

The new fuel price from N165 per litre to N340 per litre is bound to increase transportation cost by over 100%. The Federal Government says it is planning to give 40 million poor Nigerians N5,000 per month for six months to offset the hardship envisaged from the removal of fuel subsidy. The message everyone gets is that the situation will get worse. God forbid.

And what is the worth of N5,000 stipend for anyone to survive on in one month? How would the 40 million poor people be chosen across the country to ensure equity and fair play? The Labour movement is already up in arms, dismissing government's plan as a "penny-wise- pound-foolish" gamble.

From the above scenario, the economy may dip deeper into the mud. The exchange rate may get worse. Inflation may become unbearable for many people. And the question that comes to my mind is: All the solutions being proposed by Dr Adesina, Dr Okonjo-Iweala, Prof Oramah, and several other experts, why can't the Government implement them?

For instance, why can't we get the four Nigerian refineries in Port Harcourt (2), Kaduna (1) and Warri (1) to work and stop importation of fuel at high foreign exchange cost? Where are the much talked about modular refineries? Why can't Government create an industrial hub for artisanal refineries and regulate them for public good?

Why can't the Government apply the NLNG equity model or the Indorama-Nigeria Public Private Partnership model to get the refineries working?

Why has the cost of food items suddenly jumped over the roof, and everyone is crying? We have heard that bandits have taken over the farms from their legitimate owners in the Northern part of the country, who can no longer go to their farms to harvest their crops for sell. Is there no solution to this kind of scenario, especially as it threatens food security in the country?

Bosses, Colleagues, Friends Celebrate Engr. Mandah

By CHINEDUM EMEANA



Engr. Bennett Mandah



At the Send Forth Party

Monday, 18th October 2021 will remain memorable for Engr. Bennett Mandah, a Plant Shift Superintendent (PSS), who recently retired from Indorama Eleme Petrochemicals after years of meritorious services to the company as his bosses, colleagues and friends came together to celebrate him and bid him farewell into a well-earned retirement.

After the opening prayer, the compere of the event, Mr I.T. Lawson, another PSS welcomed Mr. A. B Rao, Technical Head of IEPL; Mr A.K Sharma, Head of QAQC, colleagues and friends and on behalf of the Organising Committee.

Engr. Martins Chigbu, representing the other PSSs, was the first to speak. He said that the PSS corps was sad to see him go because he was a core professional, a team player and a disciplinarian.

However, he noted that there is time for everything and commended Mandah for a job well done and wished him well in his future endeavours.

Also speaking, Mr Rao described Mandah as a very modest man who despite being very knowledgeable, doesn't show-off. He thanked him for his services which

contributed to the growth of the company.

On his part Mr. A.K. Sharma said Engr. Mandah is a silent achiever, who was quiet but dutiful. He wished him in retirement with the best for his family.

Mr Bassey Offiong of Olefin plant described him as a father figure when they worked in the same shift, noting "he was disciplined but friendly". He was thankful that he is leaving in good health and a good legacy for the younger generation.

Mr Narendra Singh also of Olefins Plant, described the celebrant as a good man and mentor to the younger professionals. He bided him the best in his future endeavours.

Continuing the tribute galore, Mrs Orie Uduma of HR department pointed attention to his characteristics of positive reactions to challenges, especially when they both served in the Employees' 2.5 percent Equity committee. Mr Ikechi Ndu also of HR department stressed that the celebrant has achieved a milestone despite crossing many huddles. He wished him well going forward. He stated that many people hope to be celebrated the way Mandah is being celebrated.

On his part Mr Charles Igwe, former PSS, now of Corporate Communications observed that Mandah was leaving behind a strong legacy of hard work and diligence and wished him well in his future endeavour.

Responding to the rain of tributes, Engr. Mandah said he was overwhelmed by the show of love to him by his bosses and colleagues, "I am very happy," he said.

He admonished all the company's employees to continue to strive hard to keep the flag flying high. "We are here because Indorama is flourishing. So we must all commit to ensuring that the company continues to grow.

Before delivering the Vote of Thanks, Engr. Lawson thanked all who sacrificed their time to honour and celebrate the retiring Mandah. He prayed that they will also receive same measure of kindness at their own time.

The event rounded up with a closing prayer by Comrade Joy Nwanosike followed by presentation of gifts, group photograph and light refreshment.



Mr. Morris Nimaa of Fertilizer Marketing and his wife **Hope** celebrating their 4th Marriage Anniversary on December 2nd 2021. With them is their son **Tobin**.



Media Relations: Dr. Jossy Nkwocha represents Indorama at the Correspondents Week of the Nigeria Union of Journalists (NUJ) Rivers State Council on Monday 6th December 2021 and delivers a Talk of how journalists can be empowered economically.

CYBER FRAUD

Continued on Page 27

aren't very secure, so don't perform banking transactions on a public network. If you need to access your account, try disabling the Wi-Fi and switching to your mobile network

- Review your privacy and security settings on social media. If you use social networking sites, such as Facebook, be careful who you connect with and learn how to use your privacy and security settings to ensure you stay safe. If you recognise suspicious behaviour, clicked on spam or have been scammed online, take steps to secure

your account and be sure to report it.

- Be careful when shopping online. Beware of offers that seem too good to be true, and always use an online shopping service that you know and trust. Think twice before using virtual currencies (like Bitcoin) - they do not have the same protections as other transaction methods, which means you can't get your money back once you send it. Learn more about online shopping scams.
- If you see something suspicious on the Internet or if you've been

victimized by a fraud, immediately contact your Bank or another regulatory agency.

Conclusion

While fraudsters continue to design new ways of working on customers' vulnerabilities, Online fraud can affect anyone. To date, it has cost consumers billions. This is why you must protect yourself by staying proactive and looking carefully at each website you interact with.

"What if I already clicked on a questionable email link?"

- Immediately run a virus, spyware and malware scan on the PC
- If applicable, contact

your IT Department or Consultant

- Check your online accounts for fraudulent activity and change your passwords
- Contact your Bank to Block and/or place Post No Debit (PND) restrictions on your account

Nothing is foolproof, as new viruses and scams are being developed every day, following these precautions above as well as having a general awareness of the threats that are out there enables you to use the internet with more peace of mind and less risk of being a victim of fraud.



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INDORAMA ELEME FERTILIZER & CHEMICALS LIMITED
Indorama Petrochemicals Complex, PMB 5151,
Port Harcourt, Rivers State, Nigeria.
Key Contacts | Customer Care +234-908-707-0001,
S.K. Srivastava +234-908-707-0002, +234-815-082-9270
fertsales@indorama.com.ng www.indoramafertilizers.com

