



NBRRI

Newsletter

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The Quarterly Newsletter of the Nigerian Building and Road Research Institute

SCIENCE & TECHNOLOGY MINISTER GETS BRIEFING FROM NBRRI

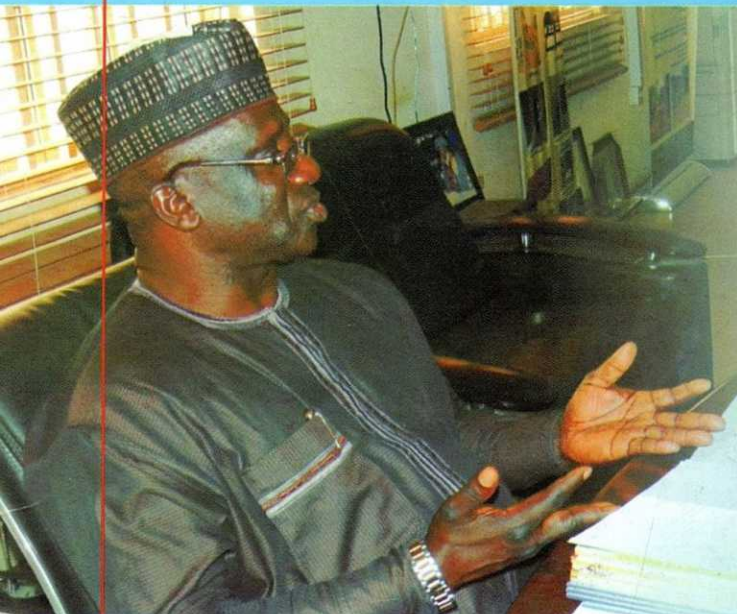


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NBRRI R&D RESULTS HAVE IMPACTED ON THE LIVES OF THE RURAL PEOPLE

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...Professor Danladi S. Matawal
Director General/CEO, NBRRI



2016 NBRRI

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INTERNATIONAL CONFERENCE PLANNING COMMITTEE INAUGURATED

2016 NBRRI

INTERNATIONAL CONFERENCE

PLANNING COMMITTEE INAUGURATED



A cross section off participant at the last NBRRI International Conference

The Nigerian Building and Road Research Institute (NBRRI), in pursuant of its mandate of building capacity by addressing challenges in the Building and Road Construction environment, has inaugurated the Planning committee to organize the 2016 NBRRI International Conference.

The NBRRI International Conference series is a flagship event which began in 2011 when a Stakeholder's Forum was organized with the theme Bridging the Gap between Building and Road Research and Stakeholders. The focus of the NBRRI Conference in 2012 was on Building Collapse with the theme Curbing the incidences of Building Collapse in Nigeria.

In 2013, the conference focused on Road Pavement failure with the theme Challenges of Road Pavement failure in Nigeria while the gathering in 2014 looked

critically into Housing with the theme on Achieving Affordable Housing in Nigeria. The 2015 edition of the International conference was on Road Transport with the theme Roadmap to a Safe Efficient and Sustainable Road Transportation in Nigeria.

The inauguration and maiden meeting of the Planning committee took place on January 26th, 2016 at the Conference room of NBRRI Administrative Headquarters, Abuja.

Membership of the Planning Committee to organize the 2016 edition of the International Conference includes representatives of the Federal Ministry of Science and Technology, Nigerian Society of Engineers (NSE); Council for the Regulation of Engineers in Nigeria (COREN); Council of Registered Builders of Nigeria (CORBON); Town Planning Registration Council of Nigeria (TOPREC); Quantity Surveyors Registration Board

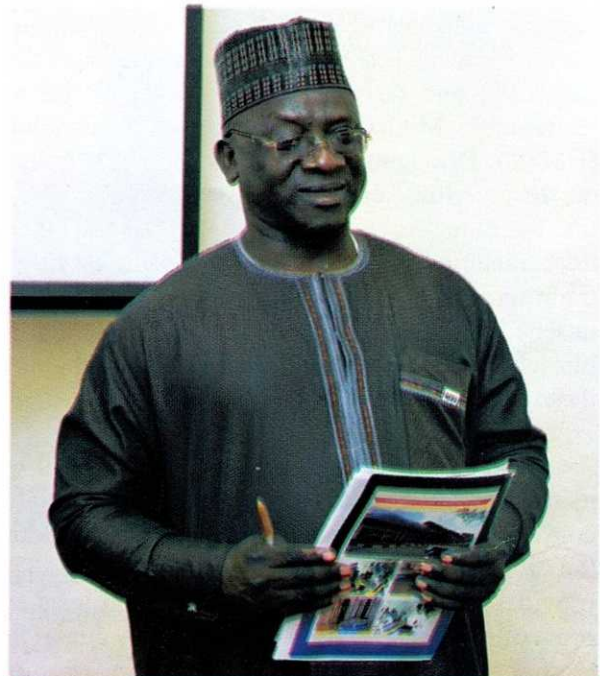
of Nigeria (QSRBN); Architect Registration Council of Nigeria (ARCON); Nigerian Navy; United Nations Development Organization (UNIDO); Federal Ministry of Power, Works and Housing; among others.

Speaking at the inaugural meeting, the Chairman of the committee and Director-General/CEO of NBRI, Prof. Danladi Matawal, called on all members to make impactful deliberations that will ensure the success of the conference.

The Chairman revealed that this year's conference will focus on the Construction industry with the theme on Repositioning the Nigerian Construction Industry- Realities and Possibilities. Prof Matawal added that the Conference aims to address issues and challenges that are critical in the Nigerian Construction Industry so as to proffer lasting solutions that will reposition it for enhanced performance, relevance and innovations to fast track socio-economic development.

During deliberations, the committee adopted the following seven sub-themes that will be addressed during the conference, namely Codes and Standards, Specifications, Quality Control/Assurance in Construction; Structural Integrity of old Buildings, Roads and Bridges, Design consideration and construction; Sustainable financing for construction of Infrastructure sourcing, options and management; New sustainable construction materials and Technologies, R&D innovations and local content promotion in labour, materials and equipment; Construction safety, Risk management, Dispute Resolution, Insurance and Innovative Litigation strategies/considerations in construction; Workforce and labour issues; Moral and Ethical issues, capacity building, quackery mitigation, Artisan and craftsman training in construction; and Real Estate and Infrastructural development; Urban regeneration; sustainable rural settlement planning and challenges of service installation in the construction industry.

To ensure effectiveness, the Planning committee set up the following subcommittees: Finance subcommittee, Publicity and Public Relations subcommittee, Logistics/organizational subcommittee and Technical subcommittee. The subcommittees are to submit progress reports in subsequent meetings of the Planning committee. The 2016 NBRI International Conference is slated to hold from 24th-26th May, 2016 at the Air Force Center, Abuja



DG NBRI
speaking at the last NBRI conference



Participants at the NBRI Conference

The Year 2016 rolled in and appears to be moving at a jet speed. So also are the programmes and activities of the Nigerian building and Road Research Institute (NBRI) which are progressing in spite of the socio-economic challenges and polity of the Nation, characterised primarily by the paucity of funds, etc. In the face of this, the Federal Government under the leadership of President Muhammad Buhari has evolved policy thrust geared towards job creation, local manufacture and increased local content, accelerated industrial and socio-economic base, amongst others, which Science, Technology and Innovations (STI) can foster and fast track. In the light of this the Honourable Minister of Science and Technology (HMST), Dr. Ogbonaya Onu was formally briefed on the activities, programmes, innovations, etc. of the Institute. As a follow-up, the HMST in an uncharacteristic manner that is reminiscent of tradition and devoid of giving advance notice paid an unscheduled visit to the Institute to see things for himself. NBRI Newsletter brings you highlights of these events.

As a way of enriching the menu served to all our teeming readers and audience, NBRI Newsletter considered it expedient and beneficial to introduce the Research and Development Corner. This provides highlights of on-going R&D projects and programmes in the Institute. The primary aim of this Corner is to inform, educate and promote interactions on current R&D activities in the

Institute. The maiden edition of this initiative on R&D activities which NBRI Newsletter hopes will generate a lot of interest amongst Stakeholders especially the academia, contractors, consultants, professionals, etc. in the construction industry, are presented in this edition of NBRI Newsletter.

Another highlight in this edition of NBRI Newsletter is the excerpts of the Interview of the Director-General/CEO of NBRI, Professor Danladi Slim Matawal. In his characteristic manner, the erudite Professor of Civil Engineering and the primary engine room of the success story of NBRI, provided a critical overview on the Nigeria's STI, the role and achievements of NBRI which can support and contribute significantly to the job creation, poverty alleviation, enhanced local content in local manufacture, enhanced socio-economic & industrial growth of Nigeria, and other programmes as envisaged by the incumbent Federal Government. This insightful and educative piece is a must read. This edition of NBRI Newsletter contains highlights of the presentation of another award, this time by the African Student Union Parliament (ASUP), to the DG/CEO of NBRI, Prof Matawal, in recognition of his achievements to Nigeria and humanity.

These and other stories are brought to you for your delight. Enjoy it as you savour the richness in this edition of NBRI Newsletter

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NBRI (VISION, MISSION & CORE VALUES)

**BUILDING CAPACITY & SETTING THE PACE IN
INDIGENOUS CONSTRUCTION TECHNOLOGY
DEVELOPMENT**

VISION

To evolve and use a comprehensive and integrated approach in appropriate technology development and transfer, sustainable capacity building and investment promotion.

So as to foster the application of environment-friendly and energy-efficient innovation construction materials, manufacturing technologies and cost-effective building and road construction practices.

Which will enhance job-creation, wealth generation and poverty reduction as well as nurture the emergence of vibrant, knowledge-based and highly competitive indigenous construction companies capable meeting global standards

MISSION

Integrated R&D, capacity building and robust extension services in which technology innovation and knowledge-based practices in the fields of building, road, and engineering materials will be used to provide adequate and affordable housing and road infrastructure as well as increased economic empowerment.

CORE VALUES

- * Professionalism
- * Commitment and integrity
- * Resourcefulness
- * Innovativeness

SCIENCE & TECHNOLOGY MINISTER GETS BRIEFING FROM NBRRI

DG/CEO stressing a point to the Honourable Minister of Science and Technology while the Permanent Secretary looks on



As part of his familiarization of agencies and parastatals under the Federal Ministry of Science and Technology (FMST), the Hon. Minister in charge of the Ministry, Dr. Ogbonnaya Onu, was briefed on the Nigerian Building and Road Research Institute, NBRRI.

The briefing was done by the Director-General and Chief Executive Officer of NBRRI, Professor Danladi Matawal at the Conference room of the Ministry and had in attendance, the Permanent Secretary, FMST, Dr. Habiba Muda Lawal, some Directors and staff of both the Ministry and NBRRI.

In his briefing, the DG said NBRRI was established with an aim to build capacity; conduct integrated applied Research and Development and set the pace in indigenous construction technology development. He added that the vision of the Institute is to evolve and use a comprehensive integrated approach in appropriate technology

development and transfer, sustainable capacity building and investment promotion to foster the application of environment-friendly and energy-efficient innovative construction materials, manufacturing technologies for cost-effective building and road construction practices that will enhance job creation, wealth generation and poverty reduction.

The NBRRI CEO also told the Minister that the mission of the Institute is to improve the quality of life of Nigerians in the area of affordable housing and increased economic empowerment through integrated R&D, Capacity Building and robust Extension Services, technological innovations development and knowledge-based practices in the fields of Building, Road and Engineering Materials. He further stated that NBRRI has several mandates it is pursuing with its three Research Departments and other service departments; adding that the core researches of NBRRI are carried out at the National Laboratory Complex in Ota, Ogun State.

READ MORE 

Speaking on the numerous programmes and achievements of the Institute, Prof. Matawal said the general thrust of R&D activities at NBRI is geared towards evolving technologies and processes to increase local content and increase capacity utilization of alternative/local building materials, encouraging small and medium scale entrepreneurship in building materials production thereby facilitating employment generation, and evolving cost-effective methods of providing shelter/access roads in the construction industry.

Some of the technological achievements at NBRI in the last few years were listed to include: Development of Electro-hydraulic Brick Making Machine; Fabrication of bitumen/water spraying Machine; Development of Earth Compactor/Asphalt cutting machine; production of low-cost ceiling boards using molasses; Development of Interlocking paving stones vibrating table using plastic moulds; Development of Interlocking block making machine with grooved moulds for conduit wiring; Fabrication of gear box for roller compactor developed by NBRI.

Other significant and important studies of national relevance conducted, as pointed out by the DG/CEO of NBRI included the Production of Digitized engineering Sub-grade soils maps of Nigeria for economic pavement design; Construction materials survey; Studies on Housing Needs and Building Materials Price Indices In Nigeria; Traffic Studies; Road Pavement Failure Studies; Road Safety Guidelines, among others.

On the Institutes mandate for capacity building, Prof. Matawal stated that NBRI places premium emphasis on capacity building which also encompasses the organization of annual

International Conferences. He noted that the 2015 edition of the International Conference was on Road Transportation and the theme was titled "Roadmap to Safe, Efficient and Sustainable Transportation in Nigeria".

Enumerating on current projects embarked upon by NBRI, the DG mentioned the NBRI Pozzolana cement pilot plants in Ota and Bokkos that he said will lead to reduction in the price of cement in Nigeria; Constructin of Skill Acquisition centers in several sites across Nigeria using NBRI Technology and the Development of curriculum for the training of Artisans in the Construction Industry, among others.

Rounding up his briefing, Prof Matawal listed some of the challenges facing the Institute to include Inadequate funding; Late releases and staggered funding; Poor envelope system; Inadequate fund releases per quarter; Inability to access project sites.

In his response, The Minister of S&T, Dr. Onu thanked the DG and his management for the efforts to reposition the Institute through its technological innovations, research breakthroughs and programmes that impact on the lives of Nigerians. Dr. Onu noted that Government is interested in the training of Artisans in the Construction industry as this will ensure more job opportunities especially for the teeming Nigerian Youths as promised by the present Administration.

He pledged to work with the Institute towards achieving goals that will impact positively on the lives of Nigerians, stating that without Science & Technology, Nigeria cannot progress significantly and become a developed nation.

Finally, the Hon. Minister requested the DG NBRI to make a presentation at an Interactive forum to be organized by the FMST for State Ministries of Science and Technology on Building collapse. He also informed the DG/CEO that a forum will soon be organized by the Ministry for Research Agencies in S&T to showcase their products to potential investors.



NBRRI DG RECEIVES ANOTHER AWARD



The Award recipient, Prof. Danladi S. Matawal (3rd from Right) flanked on the immediate right by Hon Kewul of African Student Union Parliament (ASUP) and other members of the delegation and NBRRI Staff

The Director-General/Chief Executive Officer of the Nigerian Building and Road Research institute (NBRRI), Professor Danladi S. Matawal has continued to receive accolades and recognition for his great strides in the Nigerian building and road construction industry as well as his feat in transforming NBRRI into a world class Research hub.

The latest honour on the Civil Engineering Professor is from the African Students Union Parliament (ASUP). Justifying their reasons for the honour during a brief Award presentation ceremony, the Speaker of the African Students Union Parliament, Rt. Hon. Kewul Abel said that from the comprehensive investigations carried out on several nominees by the Parliament, Prof. Matawal was found to be hardworking, dedicated to National service and has a compulsive drive for articulating and implementing policies geared towards integrated research for achieving

accelerated national development in the construction industry. The Speaker, while paying glowing tribute on the NBRRI DG, further noted that Prof. Matawal is a man of courage whose ebullient and vivacious nature fused with remarkable administrative acumen as evident in the successes recorded in NBRRI under his leadership. Hon Kewul further highlighted some of the broad criteria that qualified Prof. Matawal for the award, and it included:

- Building capacity and setting the pace in indigenous construction technology development
- Improving the quality of lives of Nigerians in the areas of affordable housing and empowerment through integrated research and development in the construction sector
- Research findings and programme formulation which is a prerequisite for national development

READ MORE ►

The Parliament Speaker noted that the decision to honour the NBRRRI DG was reached during the ASUP conference held in Kigali, Rwanda and that the Parliament has representatives from 51-member Countries. He listed the major objectives of ASUP to include encouraging cooperation and harmonious coexistence among members' states.

Hon. Kewul said ASUP is currently embarking on a campaign to stop drug abuse among students of higher institutions in Africa, which was flagged off at the Federal University of Technology, Minna.

In addition to Prof. Matawal being bestowed with the Pan African Prize for Excellence in Technology, a Mandate Delivery Certificate was presented to the Nigerian Building and Road Research Institute (NBRRRI) to further encourage staff of the Institute to work harder in delivering on the mandates of NBRRRI.

Responding, Professor Matawal said he felt humbled and deeply honoured by the Award. He noted that as a University Don, he is always encouraged when students recognise his efforts to serve humanity. He noted that NBRRRI has an African outlook as it has collaborated with some sister countries in the continent such as Ghana where there is a strong partnership that has resulted to a joint publication between NBRRRI and the Building and Road Research Institute, Ghana. Other collaborations according to Matawal include partnership with South Africa and Egypt.

The DG encouraged the Students to use the Parliament to solidify the unity among Africans and urged them to be dedicated to their studies so as to become role models for the younger generation. He promised that the Institute will support the body to actualize some of their programmes especially the campaign on drug abuse amongst tertiary institution students across Africa.

The highpoint of the ceremony was the presentation of the award to Prof. Matawal by officials of the Students Union Parliament.



Prof Matawal, DG/CEO of NBRRRI receiving the Award from Hon Kewul of African Student Union Parliament (ASUP)



Hon. Kewul of African Student Union Parliament (ASUP) reading his address at the Award Ceremony

SCIENCE & TECH MINISTER PAYS UNSCHEDULED VISIT TO NBRRI HQ

The HMST Dr. O. Onu and the Permanent Secretary Dr. Muda Lawal arriving at NBRRI Administrative Headquarters in Jabi, Abuja



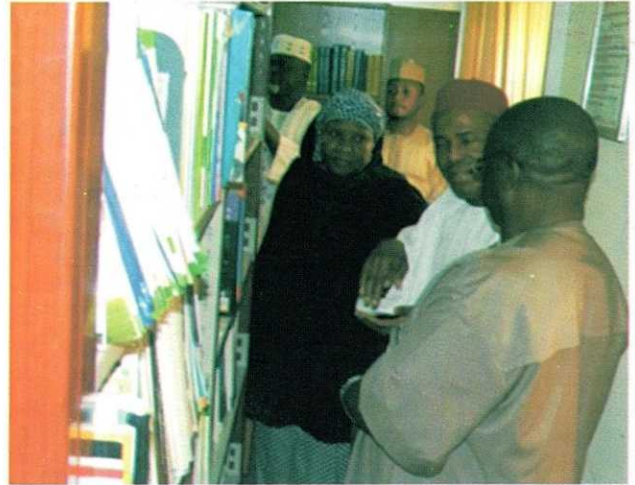
The Honourable Minister of Science and Technology, Dr. Onu, accompanied by the Permanent Secretary of the Ministry, Dr. Habiba Muda Lawal paid an unscheduled visit to the Administrative Headquarters of the Nigerian Building and Road Research Institute (NBRRI) in Jabi Abuja. The Hon Minister and his team were received by the DG/CEO of NBRRI and conducted round the facilities of NBRRI at its headquarters. These included the NBRRI Display Centre, the mini-Library, the Materials Testing Laboratory, the Office complex, etc. the highlights of the unscheduled visits are pictorially presented



At NBRRI Display Centre



At NBRR! Materials Testing Laboratory



The HMST Dr. Onu and DG/CEO of NBRR! Prof. D.S. Matawal at NBRR! Mini-library at the Administrative Headquarters, Abuja



The DG/CEO of NBRR! Prof. Matawal explaining a point to the HMST Dr. Onu at the NBRR! Materials Testing Laboratory, Abuja while the Perm Secretary looks on



Dr. Onu, the HMST and the Perm Secretary Dr. Muda Lawal listening to an Explanation by Professor Matawal at the Materials Testing Laboratory



The HMST observing NBRR! structure at Abuja during the visit



The HMST Dr. Onu explaining a point to Prof Matawal at the NBRI Materials Testing Laboratory while the Permanent Secretary Dr. Muda Lawal looks on



The Hon. Minister being conducted round the NBRI Display Centre at the Administrative Headquarters



The HMST being conducted round NBRI Materials Testing Laboratory



The HMST and DG/CEO of NBRI at the Materials Testing Laboratory



The HMST Dr. Onu and DG/CEO of NBRI during the visit of the HMST

HIGHLIGHTS OF SOME ON-GOING RESEARCH STUDIES AT NBRI

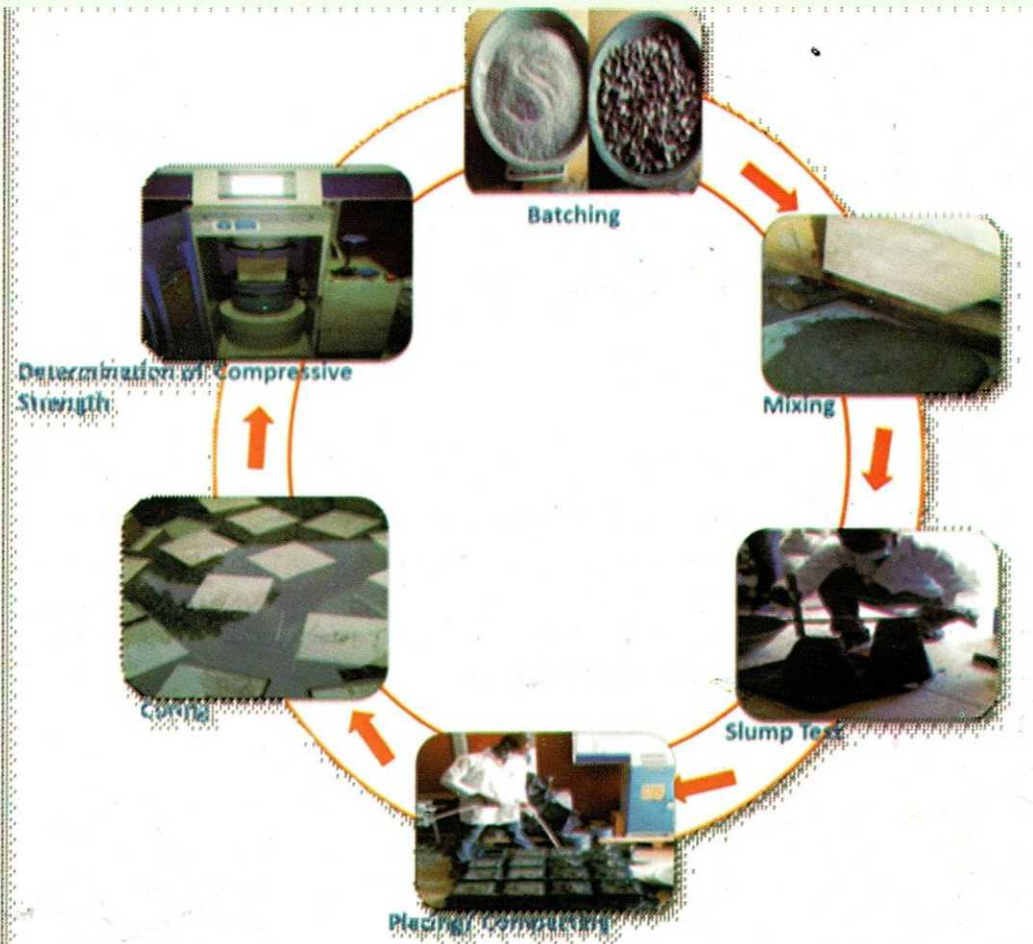
In order to add pep and spice to the quality and improve the technical content of NBRI Newsletter, it was decided to present highlights of on-going R&D activities at the Institute in the quarterly NBRI Newsletter. This maiden presentation highlights some research activities at the Research Unit at NBRI Headquarters.

PROJECT 1: DEVELOPING A CONCRETE MIX DESIGN MANUAL FOR NIGERIA: ANALYSIS OF TEST RESULTS

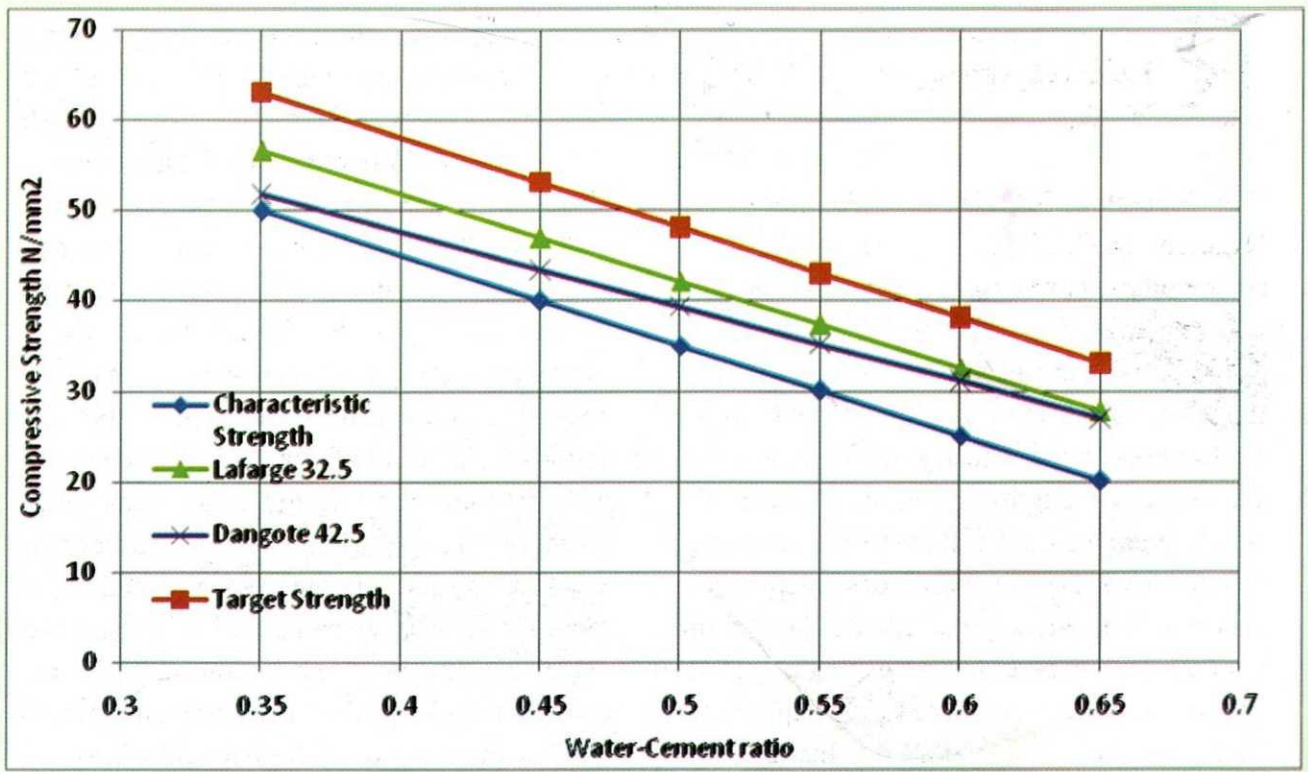
Research carried out by: **Concrete Research Group** at NBRI Abuja Headquarters

The Council for Regulation of Engineering in Nigeria (COREN), as well as major stakeholders, is working towards producing a concrete mix design manual for the use of professionals in the Nigerian Construction Industry. This is an intervention to address the controversy in the industry on the application of various strength classes of cement for construction works. The primary objective is to develop a manual which provides a step by step procedure for carrying out mix designs for the various grades of concrete by deducing the appropriate quantities of materials required for each mix. To achieve this, the Institute has

conducted series of tests on cement, aggregates and concrete to ascertain the accuracy of the procedures recommended in the British Standards for Concrete Mix Design with a view to justifying the adoption or modification of the charts to suit Nigerian conditions and materials. To achieve this, mix design was carried out using the British Standards to ascertain required proportions for various concrete mixes using two cement brands: Dangote 42.5 and Lafarge 32.5. Sixteen cubes were prepared for each mix and Compressive Strength was determined at various ages of concrete. Based on the results obtained, a relationship between compressive strength and water cement ratio was deduced for each cement brand. Further tests are ongoing to validate the adoption of these relationships.



Process flow for the production and testing of concrete cubes



Test results showing deduced relationship between Compressive strength and water cement ratio

PROJECT 2 POLYMER REINFORCED LATERITE FOR BUILDING MATERIALS

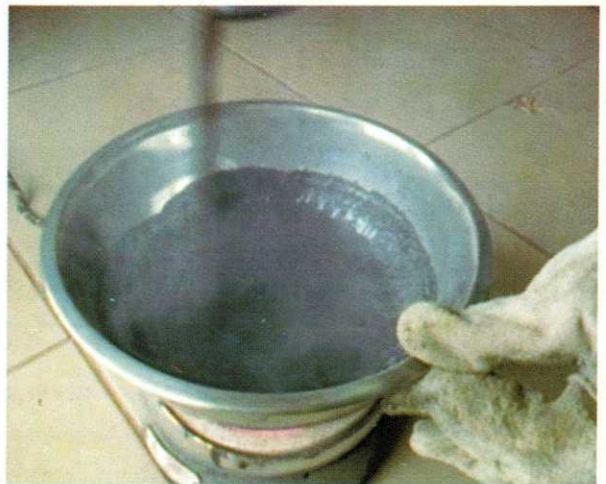
Research carried out by: **Polymer Reinforced Laterite Group** at NBRR! Abuja

There has been a considerable imbalance between the availability of conventional building materials and their demand in the recent past. On the other hand laterite is abundantly available and the disposal of waste plastics (PET, PP, etc.) is a big challenge. This is because repeated recycling of PET bottles poses a potential danger of being transformed into carcinogenic materials, and only a

small proportion of PET bottles is being recycled. In this work, an attempt has been made to manufacture bricks by using waste plastics in range of 65, 70, 75 and 80% by weight of laterite waste and 60/70 grade bitumen was added in range of 2 to 10% by weight of soil in molten form. This bitumen-plastic resin was then mixed with laterite to produce the bricks. These bricks possessed the following properties: neat and even finishing, negligible water absorption and satisfactory compressive strength.



Melting of Shredded Plastic



Mixing of Melted plastic with Bitumen



Mixing of plastic/bitumen mix with laterite



Final Product (Polymer Reinforced Brick)

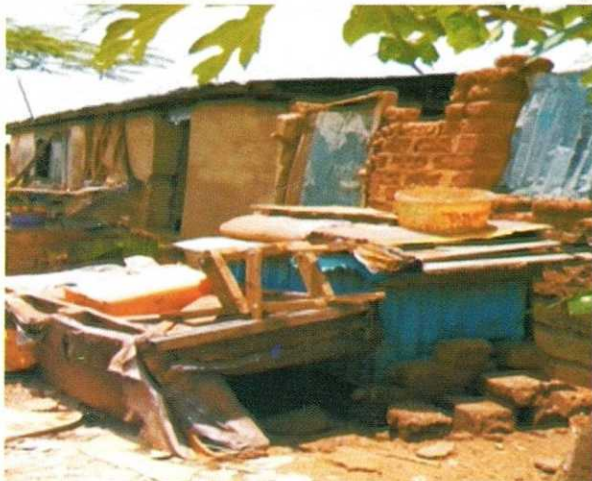
PROJECT 3

INVESTIGATING SLUM HOUSEHOLDS LIVING CONDITIONS IN NIGERIA: A CASE STUDY OF ASO A WARD, MARARABA, KARU L.G.A, NASARAWA STATE, NIGERIA

Research carried out by: **Slum Development Studies Research Group** at NBRI Abuja

The purpose of the study was to investigate slum living conditions in the study area. The research was conducted between February and June, 2015. Case study was adopted as methodology in this

research using questionnaires, interviews and Focus Group Discussions as instruments for data collection. The results of this study showed that the slum conditions were characterized by dilapidated houses with overcrowded rooms, inadequate water supply and sanitation, narrow and uncoordinated streets with no storm water drainages.



SOME SELECTED PICTURES OF THE STUDY AREA

PROJECT 4 WASTE MANAGEMENT AND THE BUILT ENVIRONMENT: CASE STUDY OF JIKWOYI (AN FCT-ABUJA SUBURB)

Research carried out by: **Environmental and Climate Change Research Group** at NBRI Abuja.

This research work investigated the waste management practice in Jikwoyi, a suburban settlement situated at the periphery of the FCT with the aim to educate the people on environmental ethics and discipline. The survey objective was to

achieve a sustainable and integrated waste management system for improved and healthier environs for citizens, thereby exploiting the economic potentials of waste as a lucrative resource for valuable secondary products and also promoting cleaner and healthier environment.



SEWAGE DUMPING



UNLAWFUL DUMPSITE IN THE STUDY AREA, JIKWOYI PHASE I&II

PROJECT 5 ASSESSMENT OF COMPLIANCE RATE OF DRIVERS AT SIGNALIZED INTERSECTIONS: A CASE STUDY OF SELECTED INTERSECTIONS IN ABUJA METROPOLIS, NIGERIA

Research carried out by: **Traffic Studies Research Group** at NBRI Abuja

The purpose of this research was to study driver's compliance rate at signalized intersections in Abuja, and to provide information needed to examine the effectiveness of traffic control and

regulations in Abuja metropolis. It was discovered that driver's response to obeying traffic lights at signalized intersection is poor especially the taxi drivers in the city. This study advocates for policies to control, enforce and regulate the behaviors of drivers at relevant intersections within the study area.



JABI STUDY AREA



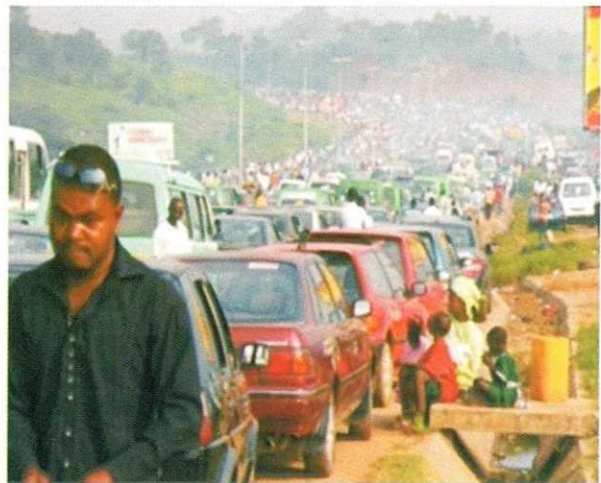
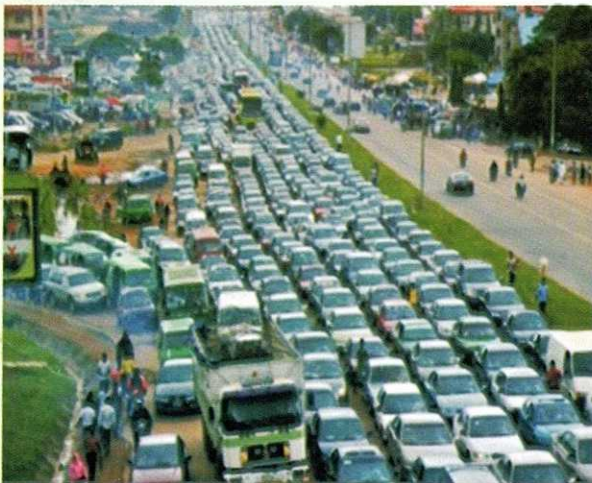
WUSE ZONE 4 STUDY AREA

PROJECT 6 INVESTIGATING ROAD TRAFFIC CONGESTION USING GIS AND REMOTE SENSING APPLICATIONS: A CASE STUDY OF NYANYA-MARARABA ROAD

Research carried out by: **GIS & Remote Sensing Research Group** at NBRI Abuja

This research work was carried out to identify the major causes of traffic congestion along the Nyanya-Mararaba road in Abuja in order to proffer solution. The area was mapped out using Google

Earth. Primary sources influencing traffic congestions were identified. The work recommended that a GIS infrastructure in addition to existing traffic management techniques should be put in place to monitor traffic congestions in the city.



Existing Traffic situation in the Study Area

PROJECT 7

INVESTIGATING THE QUALITY OF ORDINARY PORTLAND CEMENT BRANDS IN NIGERIA

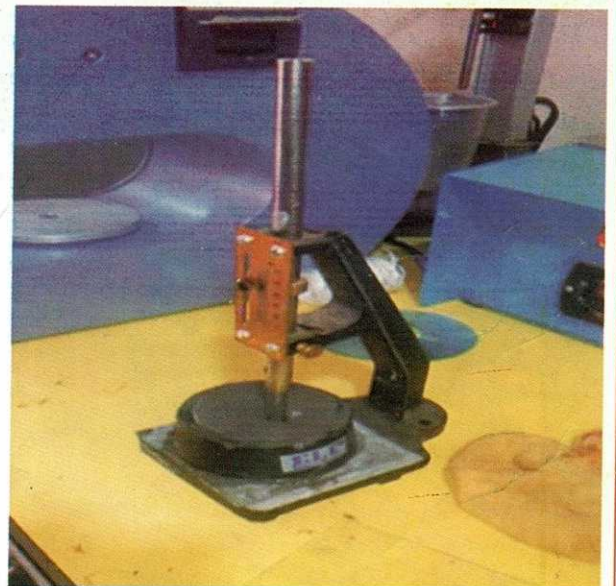
Research carried out by: **Cement Research Group** at NBRI Abuja

In this study, 8 brands of Ordinary Portland Cement available in Nigeria were sourced and tested in the NBRI laboratory Abuja. The quality of the cements was investigated and the results analyzed

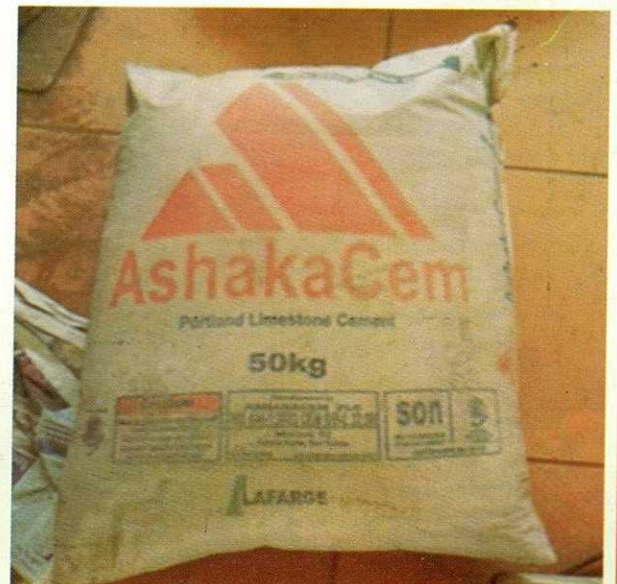
in conformity with the Nigerian Industrial Standards. The tests conducted included Standard Consistency, Setting Time (initial and final), Soundness, Fineness and Compressive Strength. It was deduced that most cement brands comply with standards. There is however a relative inconsistency in the quality of OPC distributed in the market.



Mixing of cement paste



Consistency Test (Vicat Apparatus)



Sample Brands of Cement

PROJECT 8

PRODUCTION OF LAMINATED BAMBOO PANELS FROM NIGERIAN BAMBOO (*Bambusa Vulgaris*)

Research carried out by: **Alternative Building Material Research Group** at NBRI Abuja

This study produced a Composite Material in the form of a Laminated Bamboo Panel (LBP) from

round bamboo culms. The panels produced by lamination of bamboo strips would reduce inherent variability in geometry and mechanical properties associated with the use of bamboo in its natural state while on the basis of its aesthetic appeal would compete with wooden panels in the Nigerian market. This research has been able to illustrate that bamboo can be modernized and industrialized to produce panels that can be used for flooring, roofing, partitions, doors and window frames, ceiling, walls, fences, trusses and rafters in building application.



BAMBOO PLANT

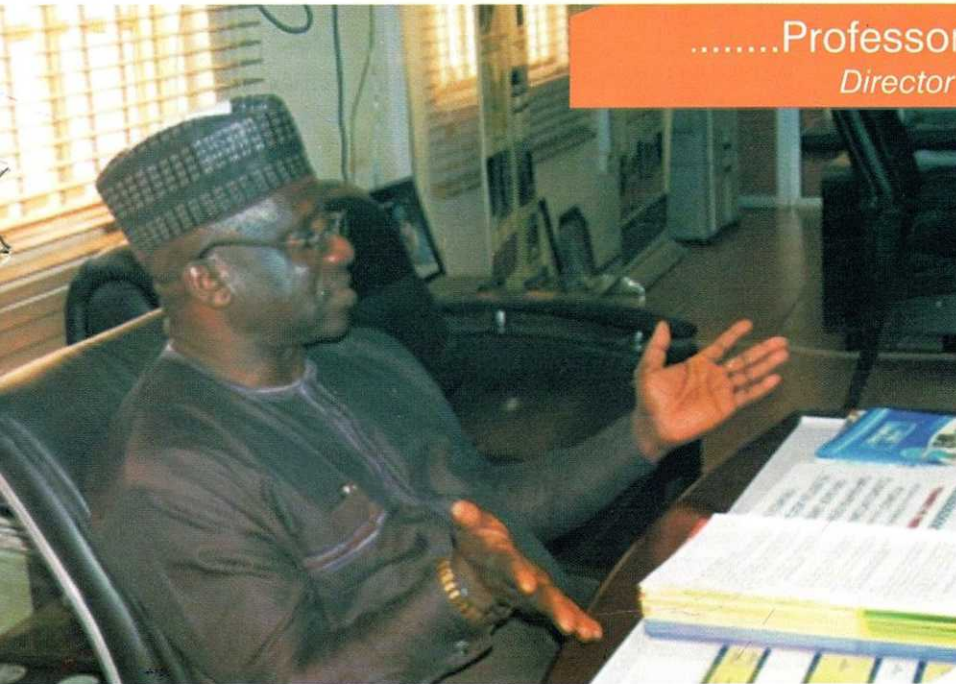


PROCESS



LAMINATED BAMBOO PANEL

NBRRI R&D RESULTS HAVE IMPACTED ON THE LIVES OF THE RURAL PEOPLE



.....Professor Danladi S. Matawal
Director General/CEO, NBRRI

(Being Excerpts from an Interview which Messrs. Okono Patrick and Obassi Ettu of the Process Equipment and Plant Magazine (PEPM) of the Raw Materials Research and Development Council (RMRDC) had with Professor Danladi Slim Matawal, DG/CEO, NBRRI with NBRRI Newsletter participating)

QUESTION: Good morning Prof., can you tell us about your person?

DG-NBRRI: My name is Danladi S. Matawal. I am the Director-General of the Nigerian Building and Road Research Institute (NBRRI), a position I got re-appointed to for another 4years with effect from the 1st of March, 2015.

I was born in Bokkos in Plateau State. I got my First School Leaving Certificate (FSLC) in 1968; West African School Certificate (WASC) in 1973; I. J. M. B. Certificate (Advanced Level) in 1975; Bachelor of Engineering in Civil Engineering in 1978 with a First Class Honours; Master of Science in Civil Engineering in 1981; Diploma of Imperial College in Soils Mechanics in 1981 and Doctor of Philosophy in Civil Engineering in 1992. I have been a Professor of Civil Engineering since 1999.

Prior to my appointment as the DG/CEO NBRRI in 2011, I was the Dean of Postgraduate School, Dean of Engineering and Head of Engineering Department at the

Abubakar Tafawa Balewa University (ATBU), Bauchi. In fact, I am actually a university don and I have produced numerous first degree, Masters and Ph.D Students. As a scholar, I have many publications including books, journal, seminar and conference papers, many productive works as well as articles on professional issues. I have been an external examiner to several Universities which cut across private, States and Federal Universities.

I am a Fellow of several professional bodies including the Nigerian Society of Engineers, Nigerian Academy of Engineering, among others. I am a Registered Engineer on the Roll of the Council for the Regulation of Engineering in Nigeria (COREN); a corporate member of the Solar Energy Society of Nigeria and was inducted into the Nigerian Construction Hall of Fame in 2013. I have a lot of awards and have been Chairman and member of several boards and committees over the years. I am very happily married with children and I take pleasure in and love every beat of the work I am doing.

"Prior to my appointment as the DG/CEO NBRI in 2011, I was the Dean of Postgraduate School, Dean of Engineering and Head of Civil Engineering Department at the Abubakar Tafawa Balewa University (ATBU), Bauchi."

It might also interest you to know that I have an attachment with RMRDC which dates back even prior to my appointment as a Professor of Civil Engineering in ATBU, Bauchi. Then I applied and got a grant to carry out a research work on raw materials-related project. I have worked in the industry as a Consultant especially with a civil design and construction firm (Ete Aro and Partners) on road and bridge design as well as on housing projects. I have worked in my State Government as Director; and I reported as DG/CEO to NBRI in 2011 on leave of absence.

The way to the top was never easy; but becoming the DG of NBRI, I can say was miraculous. I was in the private sector where we handled design of roads and bridges and was posted to Jos. While in this business, I made plenty of money as a Consultant. But when consultancy became difficult because government was not paying as before coupled with the fact that my people felt that I was not offering much to them, they pulled me into government. While in government, I got disenchanted with the system and went back to ATBU since I already had my Masters degree from Imperial College in the UK. My experience in the private sector helped me to, in my quest for education, to become a professor on 1st October, 1999.

"I also combined my stay in the University with a lot of community services as a way of assisting the poor in the community with interventions in areas related to education like building schools, offering scholarships as well as community security issues, etc."

During my period in academics at ATBU, I anchored some University projects including the 1000-capacity Lecture Theatre-- one of its kind which I am proud of, and which today stands as a memorable edifice in the University. I also combined my stay in the University

with a lot of community services as a way of assisting the poor in the community with interventions in areas related to education like building schools, offering scholarships as well as community security issues, etc.

I could say that one day, I was called from sleep by my people to apply for the appointment in this agency and I moved in support of my people. Nevertheless, I must say that making it to the top and becoming DG of NBRI was never easy, but required hard work, dedication, and above all working with God in whatever you do. Again, it is also important to note that while you are at the top, you must endeavor not to forget how you got there.

QUESTION: *NBRI was established in 1977 and commenced operations in 1978 as an autonomous organization under the former NSTDA, but now under the FMST. Can you tell us what the agency was established to do?*



DG-NBRI: Yes, the Nigerian Building and Road Research Institute (NBRI) is one of the parastatals under the aegis of the Federal Ministry of Science and Technology (FMST). As you rightly pointed out, NBRI was established in 1977 by the Federal Government under the National Science and Technology Development Agency Bill (Now Act) 1977. It became operational on 1st April 1978 and later operated under the Federal Ministry of Science and Technology and much later as part of National Agency for Science and Engineering Infrastructure (NASENI). That was why part of our mandate could still feature on the law establishing NASENI. However, there has been a review of that Act which has received the endorsement of the Federal Executive Council and is now with Ministry of Justice to be perfected and passed to the National Assembly for a review of NBRI Act.

NBRI is responsible for researching into and developing the various aspects of the building and

"The Mandate of NBRI however is broad-based and includes conducting R&D into the varied aspects of the construction industry."

construction sector of the economy. In 1993 the mandate was expanded to include R&D into all aspects of engineering materials related to construction industry. The Vision of NBRI is to build capacity and set the pace in indigenous construction technology development while its Mission is to improve the quality of life of Nigerians in the areas of affordable housing and increased economic empowerment through integrated R&D in building, road and engineering materials sector.

The Mandate of NBRI however is broad-based and includes conducting R&D into the varied aspects of the construction industry. It involves carrying out R&D in such areas as Local building and road construction materials in order to increase local content in the Nigerian construction sector; Architectural designs of buildings best suited for Nigerian conditions; and the design and performance of functional units in buildings roads. Other areas of NBRI mandate include conducting R&D on Local construction methods, foundations, earthworks, roads and bridges; the Development of structural designs, design criteria, specifications and codes of practice; Road safety studies and methods of reducing accidents including economic and social aspects of buildings, roads and transportation. The mandate also covers conducting R&D on all classes of engineering materials, including the system for their conversion, synthesis, processing, protection, their utilization and failure analysis and prevention. In addition to these, NBRI provides consultancy services and specialized support services, etc. to the construction industry.

QUESTION: *That's quite a huge mandate! But sir, NBRI is a renowned institute that has been around for many years. In your candid assessment, how far has NBRI gone in achieving its mandate? How is it structured to execute its mandate? Do you think it could have been structured better?*

DG-NBRI: The Institute is well structured to carry out its responsibility with an Administrative Headquarters in Abuja, a National Laboratory Complex in Ota, Ogun State and Zonal Offices spread in all the six geo-political zones of the country. It may interest you to

know that NBRI has its South-West Zonal Office located in Lagos; the South-South Zonal Office located in Uyo, Akwa-Ibom State; the South-East Zonal Office located in Nnewi, Anambra State; the North-Central Zonal Office in Jos, Plateau State; the North-Western Zonal Office in Kano and the North-East Zonal Office Gombe, Gombe State.

In fact, NBRI executes its activities and programmes through a well structured organizational framework comprising of eight (8) Departments (Four Service Departments and Four core R&D Departments) as well as twelve Divisions and various other units with a total staff strength of 442, all under the leadership of the Director-General and the Governing Board.

"The Institute is well structured to carry out its responsibility with an Administrative Headquarters in Abuja, a National Laboratory Complex in Ota, Ogun State and Zonal Offices spread in all the six geo-political zones of the country".

We are strictly aligning and ensuring that we achieve our mandate; and this we are doing in collaboration with a wide range of stakeholders. So far we have made significant progress in three major areas which I refer to as Software Application, Hardware Development and Pilot Planting. For the information of the general public and yourself, Software Application refers to innovations that are necessary and invaluable for cost-effective delivery of buildings and roads. Such innovations include the development of local design data for use in the construction industry as well as the development of the Digitized Sub-grade Soil Maps of states) of the country. It also includes the development and





implementation of integrated tools in mathematics, physics, chemistry and computer science for application in roads, building and engineering materials.

Also the NBRRI has recorded significant achievements and technologies with high local content. Generally and as earlier mentioned, we refer to these as Hardware and Soft technologies. The Hardware technologies can be easily seen and they include the machines and equipment developed by NBRRI, most of which are ready for commercialization while some have been commercialized. Typical examples include, among others, the Manual Brickmaking Machine with production capacity of 600-700 bricks per 8-hour workday, the Interlocking Blockmaking Machine which produces 3,000 interlocking blocks per 8-hour workday.

One area of significant impact of NBRRI is the setting up of successful Pilot plants such as the Pozzolana Cement Pilot Plants in Ota Ogun State and Bokkos in Plateau State; as well as successful Demonstration projects such as the Skills Acquisition Centres in different parts of the country, to showcase the technical feasibility and commercial viability of some NBRRI technologies, and in the process attract potential investors.

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QUESTION: *This is quite interesting and revealing. Sir, part of your mandate addresses the issues of roads and buildings. What can you say is responsible for the many failures on our roads and the many cases of building collapse across the country and how can these be addressed?*

DG-NBRRI: Thank you for the question. But let me first emphasize that, in addition to the efforts mentioned earlier, NBRRI has established Materials Testing Laboratories for relevant R&D testing and engineering materials development. Incidentally, these facilities are accessible to professional outfits in the public and private sectors needing our services. We have also been conducting Annual International Conferences on topical issues in the construction industry since 2011. Previous Conferences have addressed issues of building collapse across the country, road pavement failures, affordable housing and road transportation.

"One area of significant impact of NBRRI is the setting up of successful Pilot plants such as the Pozzolana Cement Pilot Plants in Ota Ogun State and Bokkos in Plateau State; as well as successful Demonstration projects such as the Skills Acquisition Centres in different parts of the country, to showcase the technical feasibility and commercial viability of some NBRRI technologies, and in the process attract potential investors."

With respect to your question on the reasons for collapse of buildings in the country, I can tell you categorically that collapse of buildings is due to a combination of two or more causative factors; and these include high rate of quackery in the industry, inappropriate designs and use of inferior materials with total disregard to standards and international best practices. It is however important that monitoring and evaluation by professionals be stepped up to address these unfortunate situations. The case is not too different with our roads which are caused primarily by poor or absence of soils investigation to ascertain load bearing capacities and determine the best materials for varying climatic and environmental conditions; as well as delayed or lack of road maintenance. Addressing these issues require ensuring proper design based on professional analysis and testing as well as using experienced and professional firms for construction of buildings and roads.

QUESTION: *Sir, it is common knowledge that Government in the recent past has been advocating boosting its revenue base through Internally Generated Revenue (IGR). What is your view on this? Do you have ways of Internally Generating Revenue?*

DG, NBRI: Revenue generation is not only important through taxation, but could also come through commercialization of viable R&D products and from patents. Generating revenue needs some measure of other facilities, but we are primarily research-based. Since NBRI is a Research Institute, we must not lose focus on our primary mandate which is R&D. However, we ride the tide being a specialized government outfit and we promoted activities in collaboration with companies and stakeholders with interest in our mandate areas and our technologies. This provided a window for meeting some of our operational needs especially during the trying periods when revenues were not forthcoming.

QUESTION: *Sir, the current Administration of President Buhari has emphasized on the diversification of the economy from its current sole dependency on crude oil, as well as creating jobs. As a research institution, what are your institute's key R&D outputs/results that can be harnessed for these government policies; and how is your establishment going about this?*

DG, NBRI: NBRI has a lot to do with local communities where our R&D results have been implemented to impact on the lives of the rural people. We are very much in tune with the policy directions of government and this has influenced our activities in creating Skills Acquisition Centres in different parts of the country. I would say that we have been successful with our projects in Ogun, Benue, Akwa Ibom, Kano, Plateau States, etc. We have also intervened in rural feeder roads in rural settings in Kano, Ogun, Cross River, Ebonyi and Benue States where some employment has been created through the use of local labour to clear, cut, shape and do drainages during construction of feeder roads. In Bokkos, Plateau State we have used our R&D results to establish a waste-to-wealth project using volcanic ash to produce partial cement substitutes.

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Also we have intervened in the use of our burnt bricks and interlocking blocks to rehabilitate Nomadic education schools in the North. We have been receiving interests from individuals and companies that want to use or invest in some of our R&D results/ products. Recently, the Adamawa State showed interest for skill workshop for internally displaced persons (IDPs). There are others like a group in Enugu interested in our



building and road construction materials. In fact, our R&D findings have found useful applications in over thirty (30) locations across the country and counting, because we are not relaxing but working to provide much more solutions in building and road construction across the country.

QUESTION: *From your earlier statements, it is clear that NBRR! has ventured into the development of some process equipment. Can you please give an insight to these equipment and where they are currently being deployed?*

DG, NBRR!: The Institute has developed flagship projects such as the successful establishment of 2-ton per day plant for the production of Pozzolana cement which provides green solutions and eco-friendly substitute for Portland cement. With the high cost of ordinary Portland cement, this has created options for people.

Like I have earlier mentioned, our achievements over the years were in the areas of R&D Innovations and products as well as in special programmes and extension services. But in terms of concrete technologies for manipulation of raw materials into products within our mandate areas, I can mention some equipment and machines locally developed by NBRR! and these include cube moulds and curing tank, brick making machines, interlock block making machines (both manual and hydraulic types), Asphalt cutting machines, roller compactors with gear boxes, vibrating tables, crushers and grinders (ball mills) for laterite, mixing machines, paving stone machines, fibre concrete and clay roof tiles making machines, etc. These machines are working fine and in cases where we needed modifications we have been doing that and I can tell you that they are ready for commercialization by interested investors. Most of them are already being used in the execution of projects and in generating jobs and creating wealth for our people.

QUESTION: *But sir, who are your major stakeholders and collaborators; and in which areas are you collaborating?*

DG NBRR!: It is our belief that collaboration with other relevant

organizations and stakeholders can create the needed synergy/complementation that can reduce cost and bring about sharing of experiences. NBRR! is actively doing this. In our business, we have been collaborating with Federal Ministry of Works on issues of R&Ds for roads, bridges and building materials; Federal Road Maintenance Agency (FERMA) on road construction machinery/materials and maintenance, Nigerian Society of Engineers (NSE) for monitoring, quality and standard assessment, Lagos Ministry of Physical Planning for certain related intervention, RMRDC on refractory bricks and cluster development projects; Standards Organization of Nigeria (SON) on regulatory issues; State Ministries of Works and Local Governments on construction of rural roads; and a host of others. Federal Ministry of Power, Works and Housing, and the Housing Corporations of Nigeria are partners.

Apart from these, we have collaborations with some organizations outside the country. Examples include the Building and Road Research Institute in Kumasi Ghana where the collaboration covered many areas including staff exchange programme as well as the publication and joint ownership of a scientific Journal; Hyperneca of Cape Town in South Africa; we chair the Selection Committee of the Women Engineers Achievers of Africa and collaborate with TRL of UK and India on various fronts.



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QUESTION: *In your estimation sir, how has the private sector performed under the much-advocated PPP arrangement by government? What is your overall assessment of the building and construction sector in such arrangement?*

DG, NBRRI: There is no doubt that Nigerians are still in need of basic road and building infrastructure. But it should be noted that government cannot go it alone in providing the entire infrastructure requirement in the country. For this reason, Public-Private Partnership becomes expedient as the way to go. Building projects are becoming more and more attractive for individuals and companies to invest in, but the same cannot be said for road infrastructure which is almost, if not totally, dependent on government efforts. Government is putting in place lots of incentives to woo the private sector into PPP arrangements.

Like I have earlier mentioned, we are thriving with such

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partnership that made operations possible even at very difficult times when government funding was being cut down, coupled with delays in release of funds. In terms of attracting the much needed partnership with respect to funding, government is actually trying, but much is still needed to get the full participation of the private sector to invest into rural road infrastructure as well as in making them patronize local materials and technologies produced in the country. People still prefer to import simple machineries for building and road construction in the country at the expense or to the detriment of locally available ones which are even better and cost effective. We may not be there now, but we would get there with little more efforts.

QUESTION: *What is your funding like? Do you get sufficient yearly government funds necessary to*



execute your programmes. What are your budget trends like especially for 2015 and 2016?

DG NBRRI: Funding is hardly enough, but we try to put to maximum use whatever little funds that is given to us by government. The year 2014 and 2015 were difficult for us because our overheads could only meet 20% of our budget. But with the way President Buhari Government is going, we believe that 2016 budget when approved, will see a lot of changes from what were obtainable in past years.

Our other prayer is for sustainability of the National Assembly's heavy interest in NBBRI because of the constituency projects which have been used to uplift their Rural Roads Projects, Skill Centres with examples in Ondo, Ogun, Akwa-Ibom, Plateau, Kano States, etc.

QUESTION: *What can you say are your major challenges in the Nigerian business environment, especially those affecting the achievements of your mandate?*

DG NBRRI: The challenges are many but we always have to find ways around them. Funding like I have earlier said is a great challenge especially funds for pilot plants establishment and possible up-scaling. In addition, as you go round our facilities here in Abuja Headquarters of NBRRI, you would not be left in any doubt that space challenge is excruciating. We are already addressing capacity building for the right research skill set for staff.

Four years ago, a research Unit was established in Abuja. We have 40-50 research officers operating in the Materials Testing Laboratory now. In the laboratory, we carry out tests on various brands of Nigerian cement and other engineering tests. We also carry out road safety audits to come up with policy for safety in our roads. In the future, we are looking forward to establishing

"In Bokkos, Plateau State we have used our R&D results to establish a waste-to-wealth project using volcanic ash to produce partial cement substitutes."

research offices in the existing zonal offices in the six geopolitical zones to render services. All these require adequate funding to address them holistically.

QUESTION: *How can these challenges be addressed to properly benefit the nation and its citizens?*

DG, NBRRI: There obviously will be no magic wand in addressing the challenges. Research requires funding and liberal budget provisions and until we get this right, the challenges are bound to remain with us. In addition, our efforts require a champion who can reason in our direction and give the needed impetus. Skill gap issues if properly addressed can actually do the magic of realizing result-oriented R&Ds. We hope that government will soon give attention to our space challenge

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QUESTION: *What is your focus in the next few years; and can you tell us what you would like to be remembered for when you leave NBRRI?*

DG, NBRRI: Let me say that the Institute was established to impact on the basic life of our people and therefore must have a global outlook and be competitive in translating its R&D innovations into commercial ventures for the purpose of job and wealth creation.

One area we have already made tremendous stride is "staff outlook improvement" though there are few cases of complacency. Our outlook for support staff against research staff was 80:20, but we are close to 60:40 with the ongoing improvements.

My legacy is to leave the staff in a comfortable situation. My place is in the University when I go out from here. But I want to leave well trained professionals and people in an encouraging and productive environment they will be proud of. Again, I think we have created enough linkages with other institutions that will outlive my tenure in NBRRI.

QUESTION: *Prof, how do you relax? Tell us about your hobbies, pleasures and Family.*

DG, NBRRI: Honestly, I am happy with what I am doing. I don't have problems with my job. No unusual problems. But I like to be open and to offer humanitarian services and lots of church work, as well as backing my local community in fighting crimes and other village thieives.

There is something about me which most people don't know, I absolutely love sports. In fact, I am a weight lifter and I constantly work on treadmills. I am exceptionally a happy man with a happy family life. I try to forgive as much as possible. I write a lot and derive a lot of pleasure in it and in offering services to students and ex-students.



BUILDING COLLAPSE CASES

IN 2015

COMPILED BY: BUILDING RESEARCH DEPARTMENT, OTA

A. Building Collapse Cases in Nigeria in 2015

S/N	Building Location	Type/Nature of Building	Date	Result of Preliminary Investigation	No. of Casualties
1.	Cathedral of St. Anthony Catholic Church, Oduma, Aninri, Enugu State.	Church building	11 th April	After heavy downpour	5 church members killed
2.	19B Dolphin Estate, HFB Way, Lagos.	A residential building.	18 th April	Cooking gas explosion	4 people injured.
3.	Landpark Street, Coker, Orile. Lagos	Three-storey warehouse Construction just completed.	6 th July 2015	-	No casualty.
4.	43, Commercial Avenue, Sabo Yaba	4-storey building under construction	9 th July 2015	Investigation on-going	No report of any casualty.
5.	29, Olotan Street Ebute Meta, Lagos	3-storey building constructed since 1959. Evacuated since 2012 having been marked for demolition by state government.	15 th July 2015	-	No report of any casualty.
6	Mekaval Hotel, Effurun, Warri Delta State	3-storey building	9 th Sept 2015		7 people injured
7	Abu Naima Quranic Primary School, Jos Plateau State	One storey building	13 th September 2015		7 pupils dead, several injured.
8	Akanni Ajiran Street, Osapa London, Agungu, Lekki, Eti-Osa LGA, Lagos	2-Storey building under construction.	22 nd Sept. 2015		No casualty
9.	87, Swamp Street, Odunfa Lagos Island	3- storey building already marked for non-destruction structural integrity	21 st Oct. 2015		No casualty.
10.	Sapele Road, Benin, Edo State.	Portion of a three (3) storey building under construction.	31 st Oct. 2015	-	One killed, two injured.
11	Orisha Street, Isheri Magodo, Imodium Ojodu/Berger	Upper part of another building collapsed on a bungalow	7 th Nov. 2015	Mudslide due to heavy rainfall	Four killed

B. Building Collapse Cases in other Countries in 2015

S/N	Building Location	Type/Nature of Building	Date	Result of Preliminary Investigation	No. of Casualties
1.	Town of Mughalsarai, Northern Indian	Two(2) storey under rushed construction	15 th Feb. 2015	Investigation going on	13 killed
2.	Omsk Oblast, Russia	Roof and walls of an army barrack	12 th July 2015	-	23 killed 19 injured
3.	Beiwudu in Wuyang , China	Two (2) storey building built in 1990.		Collapsed as a result of renovation work on foundation	17 killed, 23 injured
4.	New York	Apartment building	2015		12 injured



Heiman Makwin of RRD
Abuja took former Miss Lois
Dang to the alter on 26th
March, 2016 in Bokkos,
Plateau State



Mr Ayuba Gai of NBRRI
Gombe office married former
Miss Utittok Augustine on 2nd
April, 2016 in Maijankai,
Plateau State



Mr. Elisha Gelkur of the
Maintanance Unit, Abuja
married Miss Comfort Awoniyi
on 27th March 2016 in Hong,
Adamawa State

**SOUTH-EAST ZONAL OFFICE COURTESY VISIT TO THE
IGWE ORIZU PALACE OTOLO NNEWI ANAMBRA STATE**

**NBRRI SOUTH-EAST ZONAL OFFICE COURTESY VISIT
TO THE HONOURABLE COMMISSIONER OF ANAMBRA MINISTRY
OF SCIENCE, TECHNOLOGY & MINERAL RESOURCES**



From L-R; Mr. Igbiele Sylvester,
Mr. Ezirim Sunny Zonal Head,
HRH Igwe K.O.N Orizu III of Nnewi,
Ms. Ozoemena Ngozi,
Mr. Obi Emeka,
Mr. Okaro Ifeanyi and
Mr. Ngige Chijioke



From the left is Mr. Sylvester Igbiele,
Ms. Ngozi Ozoemena,
Hon. Comm. Chinedu Emeka, Ph.D.,
Mr. Ezirim Sunny,
Mr. Okaro Ifeanyi and
Mr. Eze Christian Emeka.
On the South-East Zone Introduction/
collaboration request visit to the
Honourable Commissioner for the
Anambra state Ministry of Science,
Technology & Mineral Resources.



The Cabinet Chiarman Prince Emma Iwuchukwu
(Oke-Ide, Dike na ogbo-ogu) visits the Nnewi Zonal Office.

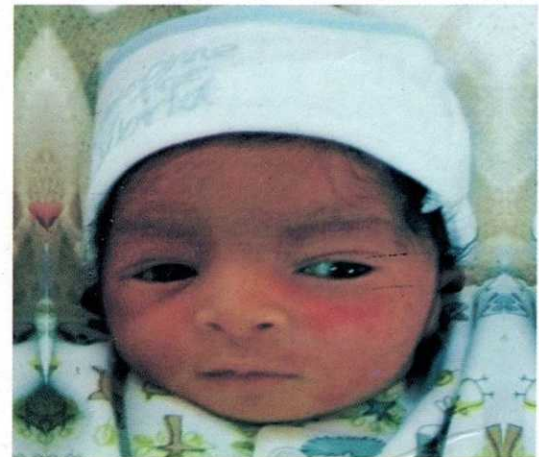
A group picture with the Cabinet Chairman on His Visit
to the South-East zonal Office.

Social Diary

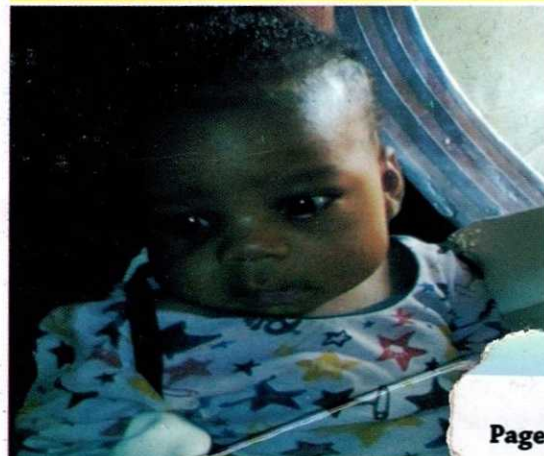
Birthdays

S/N	NAMES	DATE OF BIRTH	DEPT.
1.	Tejumade O.A	1 st Jan	RRD
2.	Surajo L. Abdullahi	1 st Jan	CES
3.	Olutayo Ainde Oyedapo	1 st Jan	A/F
4.	Nwasha M. J	2 nd Jan	A/F
5.	Amos Tabe	2 nd Jan	A/F
6.	Tsamiya Sani	3 rd Jan	CES
7.	Kadiri Zulukifilu O.	3 rd Jan	BRD
8.	Isah Saliu Dantala	4 th Jan	CES
9.	Abu Aminu	4 th Jan	A/F
10.	Abah Godwin	5 th Jan	A/F
11.	Haruna D. Israel	6 th Jan	PIT
12.	Ugo Ukawbasi	10 th Jan	RRD
13.	Sanni Reuben	10 th Jan	RRD
14.	Oyadosu S. A	11 th Jan	EMRD
15.	Egbuna Ikechukwu	13 th Jan	EMRD
16.	Stephen Okpah	15 th Jan	A/F
17.	Ojenike Lawrence A.	15 th Jan	A/F
18.	Igwe Rowland	18 th Jan	BRD
19.	Ogunro Ayodele S.	21 st Jan	EMRD
20.	Adio Fatimah F.	23 rd Jan	RRD
21.	Akinlade S. James	25 th Jan	CES
22.	Oneshi Umoche	26 th Jan	PIT
23.	Alozie Darlington E.	1 st Feb.	EMRD
24.	Jude-Iloma I. E.	1 st Feb	A/F
25.	Edibo Jibrin	2 nd Feb	A/F
27.	Kadiri Abdullahi	2 nd Feb	A/F
28.	Okunochae Reuben	2 nd Feb.	EMRD
29.	Legogie Josephine	2 nd Feb.	PIT
30.	Etuchere Prisca O.	2 nd Feb	CES
31.	Adeyanju Tunde M.	3 rd Feb	PIT
32.	Adeyemi James	3 rd Feb	CES
33.	Sosanya Oluwatoyin	9 th Feb	PIT
34.	Maton John Dafang	10 th Feb	BRD
35.	Danjuma Hassan U	13 th Feb	CES
36.	Okwunze C. Felix	13 th Feb.	BRD
37.	Babalola .O. toluwaloju	14 th Feb	EMRD
38.	Emore R. A.	17 th Feb	A/F
39.	Emole Charles	18 th Feb.	A/F
40.	Ima-Ima Ime Amos	18 th Feb	PIT
41.	Olaifa O. Adebayo	19 th Feb.	EMRD
42.	Hannah Aileku Ayedime	22 nd Feb	A/F
43.	Tyosa Terver Elijah	24 th Feb	CES
44.	Edeh Blessing O.	26 th Feb	A/F
45.	Yakubu Nda Umar	27 th Feb	A/F
46.	C.C. Osadebe (Dr.)	28 th Feb.	RRD
47.	Ogundola Temitope M.	28 th Feb	BRD
48.	Udenyi Anthony Wonah	4 th Mar	A/f
49.	Makwin Heiman Luke	4 th Mar	RRD
50.	Arabi Kehinde Paul	10 th Mar	PIT
51.	Anthonia Robert	11 th Mar	A/F

52.	Kareem Y.O	12 th Mar	BRD
53.	Iyaji J. Monday	12 th Mar	EMRD
54.	Rufus S. Olalekan	14 th Mar	CES
55.	Igwe Stanley	15 th Mar	CES
56.	Abubakar Musa Yola	15 th Mar	RRD
57.	Idu E. Abraham	16 th Mar	A/F
58.	Onuche Samuel Ataguba	17 th Mar	RRD
59.	Oludare Samuel Olu	17 th Mar	A/F
60.	Oyeleye Daniel O.	19 th Mar	A/F
61.	Abdulrasheed Bashir	19 th Mar	RRD
62.	Mohammed Ahmed K.	23 rd Mar	RRD
63.	Akpan Smart John	24 th Mar	CES
64.	Abdullahi Aliyu	24 th Mar	CES
65.	Aminu Momoh	27 th Mar	EMRD
66.	Dauda, Yusuf Waziri	27 th Mar	EMRD
67.	Asade B. E.	27 th Mar	EMRD
68.	Ahmed Yushau Ibrahim	27 th Mar	CES
69.	Iruobi E. O	28 th Mar	A/F
70.	Ajah Boniface Audu	29 th Mar	A/F
71.	Amobi Uchenna N	30 th Mar	PIT
72.	Emmanuel Sarah D.	30 th Mar	DGs office



A baby boy Abdallah was born to the family of Nuhu Suleman Mohammed of PIT Dept., Abuja



Mr Okeke Ugochukwu Samuel of Admin and Department South-East Zonal Office Nnewi blessed with a baby boy Okeke Chidiebere Samuel on 6th February, 2016.



Nigerian Building and Road Research Institute (NBRRI)

(FEDERAL MINISTRY OF SCIENCE AND TECHNOLOGY FMST)

In Conjunction With

Stakeholders In The Construction Industry

PRESENT

2016 NBRRI INTERNATIONAL CONFERENCE

TAGGED

CONSTRUCTION SUMMIT 2016



T H E M E :

REPOSITIONING THE NIGERIAN CONSTRUCTION INDUSTRY - REALITIES AND POSSIBILITIES

SPECIAL GUEST OF HONOUR:
Babatunde Raji Fashola (SAN)
Federal Minister of Power, Works and Housing

CHIEF HOST:
Dr. Ogonnaya Onu
Minister of Science and Technology

KEYNOTE ADDRESS:
Prof. Kunle Wahab

DATE: 24th - 26th May 2016

TIME: 9am Daily **VENUE:** NAF Conference Center, Abuja

IN CHARGE: PROF. DANLADI S. MATAWAL FANSE, FA Eng. (DG/CEO NBRRI)

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