

**RESOLUTIONS OF THE 13<sup>TH</sup> MEETING OF THE NATIONAL COUNCIL ON  
SCIENCE AND TECHNOLOGY (NCST), HELD FROM 23<sup>RD</sup> – 27<sup>TH</sup> JUNE, 2014 AT  
HON. JUSTICE IDRIS LEGBO KUTIGI INTERNATIONAL CONFERENCE CENTRE,  
MINNA, NIGER STATE**

**PREAMBLE**

The 13<sup>th</sup> meeting of the National Council on Science and Technology (NCST) was held from Monday, 23<sup>rd</sup> – Friday, 27<sup>th</sup> of June, 2014 at Honourable Justice Idris Legbo Kutigi International Conference Centre, Minna, Niger State with the theme **“Science, Technology and Innovation Policy: Prospects and Challenges of its Implementation at the Grassroots”**.

2. The Council meeting was preceded by the Technical Session of the official meeting held from 23<sup>rd</sup> to 24<sup>th</sup> June 2014 and chaired by the Permanent Secretary, Federal Ministry of Science and Technology, Mrs. Winifred Oyo-Ita FCA. The meeting was attended by the Commissioner for Science and Technology, Niger State, Hon. Barrister Abbas Bello, and Permanent Secretaries (or their representatives) from Niger, Plateau, Bayelsa, Enugu, Akwa Ibom, Oyo, Kano, Kaduna, Anambra States and FCT. Other participants included Directors from the Federal Ministry of Science and Technology (FMST) and States’ Ministries of Science and Technology, Directors-General from Research Institutes, representatives of Federal and State level MDAs, Academia, (Universities of Benin, Uyo, Nasarawa State and Federal Polytechnic, Oko, Anambra State), Organized Private Sector, International Organizations, NGOs and the media. On the whole, 210 delegates were present at the technical session.

3. In her speech, the Permanent Secretary implored the participants to take the meeting seriously as they deliberate on the memoranda and recommend the way forward on how Science, Technology & Innovation (ST&I) can impact on development while addressing the theme of the NCST. A well researched paper on the theme **“Science, Technology & Innovation Policy in Nigeria: Prospects and Challenges in its implementation at the grassroots”** was delivered by Dr. W. O.

Siyanbola, former Director General/CEO of National Centre for Technology Management (NACETEM). Minutes of the 12<sup>th</sup> NCST Technical Session of officials meeting were adopted after necessary amendments while eighty two (82) memoranda were presented during the plenary. These memos were exhaustively discussed, recommendations made and subsequently presented by the Permanent Secretary at the Council meeting.

4. The Council meeting which took place from 26<sup>th</sup> to 27<sup>th</sup> June, 2014 was declared open by the Executive Governor and Chief Servant of Niger State, **Dr. Mu'azu Babangida Aliyu** **oon con**; and chaired by the Honourable Supervising Minister of Science and Technology, Dr. (Mrs.) Omobola Johnson. Other Dignitaries present at the opening ceremony included the Head of the Civil Service of Niger State, Alhaji AbdulHamid Khadi Kuta mni, Chief of Staff, Niger State, Honourable Umar Nasko, Niger State Commissioners for Works, Alhaji Mu'azu Bawa, Sports Development, Alhaji Garuba Tagwai, Special Duties, Dr. Joshua Bawa and People's Democratic Party (PDP) Secretary, Niger State, Alhaji Abdulrhaman Enagi. The Council meeting had in attendance the Commissioners for States' Ministries of Science and Technology and related Ministries from Niger, Plateau, Bayelsa, Enugu, Akwa Ibom, Oyo, Kano, Kaduna, Anambra States and FCT, Permanent Secretary of the Federal Ministry of Science and Technology (FMST) and Permanent Secretaries of States' Ministries of Science and Technology and related Ministries, Directors and Directors-General/Chief Executive Officers of FMST and other cognate Ministries' Agencies and Parastatals as well as the Organised Private Sector.

5. In her keynote address, the Chairman of the Council and the Honourable Supervising Minister of Science and Technology, Dr. (Mrs.) Omobola Johnson noted that the underpinning philosophy of "culturalisation' embedded in the ST&I policy is one way of ensuring right implementation of the policy at the grassroots for development and improvement of livelihood. To that end she informed Council that the Federal Ministry of Science and Technology is undertaking the Ward Based Cluster Projects (WBCP)

which provides the platform for the demonstration and further deployment of requisite technologies for value addition and resultant transformation of resource endowments of each ward (grassroots) into useful products and services. She further informed the meeting of key performance indicators which have been developed to monitor the ST&I implementation and which also compare with the Global Innovation Index (indicator) that seeks to enable countries benchmark the success or otherwise of their ST&I policies. She reminded Council of the importance of coordination which is essential in the process of using ST&I as an important driver of socio-economic development and therefore stressed the need to galvanize S&T research efforts to establish a vibrant collaboration between the States and Federal systems, Private sector, Academia and Industry. She thereafter presented a list of strategic actions being undertaken by FMST geared towards implementation of the revised ST&I Policy.

6. The Executive Governor and Chief Servant of Niger State, His Excellency, **Dr. Mu'azu Babangida Aliyu** oon con; informed delegates that the State government recognizes Science and Technology as a precursor for development, and as such had taken steps to promote and stimulate the interest of the people in ST&I. He said some of those steps taken included ensuring scientific research at all levels, encouraging female participation in ST&I, promotion and popularization of indigenous ideas and inventions, harnessing technology transfer; and participating in Ward-Based Cluster Project and value-added collaborations that could culminate into scientific breakthroughs. He added that the State has developed institutional frameworks to support a large variety of agro allied industries, and would welcome any initiative that could culminate in the rapid transformation of the state.

7. The delegates inspected exhibition stands mounted by inventors and innovators and expressed appreciation on the quality of R & D products on display. However the exhibitors were advised to improve on the quality and packaging with a view to making the products globally competitive and commercializable. The FMST Agencies equally exhibited their R&D products and services.

## **8. COUNCIL NOTES, OBSERVATIONS AND APPROVALS**

### **8.1 After exhaustive deliberations, council noted:**

- i. the importance of activities of the National Science and Technology (NASTECH) Week as a platform for popularizing and promoting Science, Technology and Innovation products and services;
- ii. the progress made in the establishment of the National Science and Technology Museum (NSTM);
- iii. the progress made on implementation of the Outcomes of Rio+20 conference and Technology Needs Assessment with respect to Climate change;
- iv. the efforts made by the Presidential Standing Committee on Inventions and Innovations (PSCII) in supporting Inventors and Innovators;
- v. the progress made in the NOTAP-Industry Technology Transfer Fellowship (NITTF); which is designed to build a pool of critical mass of manpower needed for speedy economic development of the country;
- vi. the efforts made in promoting the domestication of Foreign Technologies in the country and the need for NOTAP and NASENI and other relevant Stakeholders to partner in actualization of domestication of projects;
- vii. NASENI's strategic approach to consolidate on the achievements of its mandate and further stimulate internal revenue generation to the nation;
- viii. the achievement made to assist researchers and traditional medicine practitioners in developing post-harvest process technologies on drying, preservation and storage of Medicinal, Aromatic and Pesticidal Plants (MAPs) raw materials by NNMDA;
- ix. the progress made by NNMDA on development of Digital Virtual Library; which is a dedicated focal reference centre for Natural Medicine research and data sourcing;
- x. the activities and progress made in the DNA fingerprinting technology programme by NABDA;
- xi. that NABDA is the focal point for the international initiative on DNA bar-coding;

- xii. the efforts made in publishing research works and findings on Traditional Medicine Knowledge and Practices; as evident in two volumes of Book of Abstracts by NNMDA;
- xiii. the scientific research breakthroughs in development of Water Borne Paints using Poly Vinyl Acetate (PVAC) and Natural Rubber Latex (NRL) blend as binders; Development and Production of Web Offset Ink using local raw materials; and development of brake pad from palm kernel shell by FIIRO;
- xiv. that Messrs Sarah Specials, a graduate entrepreneur from TIC Minna, Niger State participated in an International Entrepreneurship Competition in South Korea and won the second position while Messrs Elbare Research and Development from TIC Jos participated in an international exhibition organized by Swiss nationals (Seedsstarsworld) and won USD250,000 as West African sub-regional winner;
- xv. the listing on the Nigerian Stock Exchange of two graduate entrepreneurs namely Austin Laz Nigeria Limited and Spectra Nigeria limited, from TIC Benin and Lagos respectively.
- xvi. Niger State's energy efficient woodstove project with 85% emission control; and its request for collaboration especially with NASENI; with a view to producing stove that has zero emission.
- xvii. the efforts of NABDA in ensuring the speedy passage of Bio-safety bill and therefore implore the Commissioners of Science and Technology to encourage the legislators from their States to support the passage of the Bill;
- xviii. the reviewed Energy Policy and efforts being made to review the National Energy Master Plan (NEMP) in 2014;
- xix. the collaboration of Energy Commission of Nigeria with International Energy Organizations for appropriate renewable Energy Development;
- xx. PRODA's technology for production of Electric Porcelain Insulator pin and shackle types which won the Nigerian Academy of Science (NAS) prize;
- xxi. NASRDA's efforts in development of micro-satellite system for the purpose of environmental monitoring and educational support services;

- xxii. the efforts made by Akwa Ibom state in development of Science and Technology;
- xxiii. the efforts of Kano State in using Science and Technology for Youth empowerment;
- xxiv. the efforts made by Plateau State in ICT penetration at all levels of governance and the ST&I activities undertaken by the State;
- xxv. the various ST&I activities and programmes undertaken by Kaduna State Ministry of Science and Technology;
- xxvi. the need to encourage local production of assistive devices for persons with disabilities as well as formulation of enabling policy framework for continuous production of the devices in Nigeria. Federal Ministry of Women Affairs and Social Development should collaborate with relevant stakeholders, such as PRODA and NASENI;
- xxvii. the need for continuous promotion and strengthening of ICT skills for Social Workers in the 36 States and the FCT by Federal Ministry of Women Affairs and Social Development;
- xxviii. the on-going preparations for Nigeria's participation at International Junior Science Olympiad (IJSO) 2014 to be hosted by Argentina; and the need for States to collaborate with FMST in the selection and training of Nigeria's representatives;
- xxix. the need to implement the clean coal technology programme and the plan to monitor and evaluate all renewable energy projects/pilot projects across the Country;
- xxx. the availability of digital data land use at NASRDA;
- xxxi. the activities to be embarked upon on Technology Diffusion and Transfer (TDT);
- xxxii. the effort of FIIRO on the development of over 250 technologies for Youth empowerment in Nigeria; and
- xxxiii. The inauguration of Forum of Commissioners in charge of Science and Technology during the Council, which is expected to provide a political

platform for implementation of various decisions taken at the Council Meeting.

## **8.2 Observations**

The participants deliberated exhaustively and made useful observations as follows:

- i. Nigeria to leverage ST&I in order to transform from a consumption based economy to a production based economy;
- ii. FMST should prevail on Federal Executive Council to approve an increased budget allocation for ST&I;
- iii. FMST should ensure that ST&I is adequately publicized and there is need to publicize ST&I Policies;
- iv. need to make ST&I a priority of Government;
- v. need to revise the curriculum on science and technology based courses at basic, post-basic and tertiary institutions;
- vi. need to heighten political will for ST&I;
- vii. FMST and Federal Ministry of Education to address the disconnect between Science Technology and Education;
- viii. FMST in Conjunction with Federal Ministry of Industry, Trade and Investment and the Organized Private Sector to strengthen R&D-Industry-policy linkage;
- ix. the State's Agencies should interface with Federal Government Agencies;
- x. need to popularize ST&I at the grassroots through the use of indigenous languages;
- xi. FMST should use the instrument of Federal Executive Council memoranda in actualizing decisions taken at NCST meetings;
- xii. the need for synergies between and among institutes;
- xiii. the need for technology extension workers with a view to transferring developed technologies to the grassroots;
- xiv. need for FMST and other key actors within the National System of Innovation (NSI) to actively drive the policy implementation; and also embark on strategic

- popularization, sensitization and advocacy at all levels of government as well as the Organized Private Sector (OPS) for maximum impact of the policy;
- xv. FMST should activate the National Research and Innovation Fund (NRIF) in order to make it functional within a short time frame to enable the ST&I Sector contribute to socio economic development;
  - xvi. FMST should put in place mechanisms for access to National Research and Innovation Fund (NRIF) to all Science and Technology related Agencies requiring special intervention funds for their projects;
  - xvii. Directors-General and State officials of cognate MDAs on Science and Technology should be trained on Intellectual Property Rights (IPRs) registration procedures and get adequate value from innovations emanating from Nigeria;
  - xviii. FMST should ensure that all claims made by natural/herbal medicine practitioners pass through NAFDAC verification and listing;
  - xix. FMST should work out a framework that will enable Research Institutions access funds from Tertiary Education Fund (TETFUND); which is presently restricted to Educational Institutions;
  - xx. There is need for more collaboration among private innovators, FMST and its Agencies.

### **8.3 Approvals**

Council after extensive deliberation approved that:

- i. NBRI should set up its 2<sup>nd</sup> Pozzolana Cement Pilot Plant;
- ii. States without Technology Incubation Centers (TIC) should invest in its establishment in liaison with FMST and NBTI;

- iii. the National Research and Innovation Council (NRIC) Technical Advisory Committee (TAC) should be chaired by the Honourable Minister of Science and Technology and will meet quarterly;
- iv. there should be an International Advisory Board (IAB) made up of seasoned technocrats drawn from at least six leading innovative countries and representatives of global development partners;
- v. NABDA should be strengthened with requisite infrastructure for the promotion and coordination of activities with regards to the use and application of DNA technology in Nigeria;
- vi. the Federal Ministry of Women Affairs in collaboration with relevant stakeholders should formulate an enabling Policy to facilitate the local production of assistive devices for persons with disabilities;
- vii. States should collaborate with the FMST on the implementation of the Ward Based Cluster Project (WBCP);
- viii. a strong position for intervention funds be instituted by FMST for the WBCP; estimated at ₦141.5 million for the six selected pilot sites;
- ix. the Federal Ministries of Science and Technology, Education and Women Affairs should collaborate in mainstreaming women into Science, Technology and Innovation;
- x. FMST and SHESTCO should work out modalities for connecting SHESTCO to a high priority power supply line from the National grid to ensure regular power supply to the critical high-tech infrastructure in the complex as well as put in place critical infrastructure such as perimeter fencing, and researchers hostel;
- xi. tertiary institutions and States should collaborate with NNMDA in the development of medicinal plants, experimental farms for training, research and development of standardized raw materials for the Traditional Medicine sector of the economy;
- xii. NOTAP should develop an appropriate intellectual property mechanism and mutual benefit sharing regime for Research Institutions and Organized Private Sector to ensure sustainable collaborative R&D activities between Research Institutes and the industry;
- xiii. FMST should make a case to the Federal Ministry of Industry, Trade & Investment against signing of the EU-ECOWAS Economic Partnership Agreements by the Nigerian government in order to protect our local industries and entrepreneurs;

- xiv. the prototype science laboratory model developed by NASENI, NARICT and NISLT be adopted in all secondary schools as an intervention approach to having functional science laboratories in line with the ST&I Policy and this innovation should be patented;
- xv. NISLT in collaboration with Federal and States Ministries of Education should ensure that qualified and Registered Science Laboratory Technologists are deployed to work in laboratories in secondary schools and tertiary institutions within the next five years;
- xvi. Federal Ministry of Science and Technology in conjunction with NISLT, Federal and States' Ministries of Education should commence an immediate process of accreditation of science laboratories in secondary schools as a criterion before registering students for WAEC and NECO examinations to serve as value addition;
- xvii. NISLT collaborates with relevant examination bodies and undertake advocacy on the need for Science Laboratory graduates to register with NISLT;
- xviii. NARICT and other Research Institutes should partner with Bank of Industry to facilitate access to funds for grass root entrepreneurs;
- xix. Research Institutes should collaborate with NOTAP in processing their IPR and technology transfer rights;
- xx. Directors General of Research Institutes should be trained on Intellectual Property Rights;
- xxi. NABDA should collaborate with States such as Niger and Kaduna on the development of their livestock industry;
- xxii. NABDA should set up an International Centre for Genomic Studies at the Headquarters Complex, Abuja;
- xxiii. NABDA should collaborate with NARICT on the development of Bio-fuel;
- xxiv. FMST should support Federal Ministry of Agriculture on the passage of the draft bill on inclusion of 20% cassava flour into wheat flour for Cassava bread and facilitate the funding of FIIRO as Cassava Research Centre and Enzyme Culture Bank in Nigeria
- xxv. Stakeholders particularly State governments should participate in the forth coming FIIRO's 2014 investment and Technology week in August ending and support the youth empowerment intervention program in FIIRO to reduce unemployment rate; and

- xxvi. FMST and its Agencies should facilitate the extension of local content provisions to ST&I sector and ensure effective implementation towards encouraging the participation of Nigerians in the deployment of indigenous technologies;
- xxvii. a Packaging Development Centre be established at FIIRO and other zones of Nigeria to facilitate the deployment of FIIRO's technologies to empower the youth and create wealth. FIIRO should collaborate with SMEDAN and NBTI on branding and packaging project;
- xxviii. NILEST should collaborate with RMRDC, NBTI and NASENI to set up a strong and implementable legal framework to ensure wider participation and commitment from Leather Industries and Government;
- xxix. ECN should explore ways to strengthen the existing Energy Research Centres as well as ensure effective promotion and commercialization of energy R&D outputs;
- xxx. NITR should collaborate with Niger State and FCT in the control of Trypanosomiasis and its vector (Tsetse fly); and should seek for funding from various sources;
- xxxi. NITR should forward request for special funding to the HMST for onward transmission to the Federal Executive Council and relevant national and international funding sources to facilitate the eradication of trypanosomiasis, onchocerciasis and their respective vectors from the country;
- xxxii. local investors should be encouraged to participate in Coal Utilization and Alternative Fuels/Energy R & D Programme and commercial production of PRODA's electric porcelain insulators;
- xxxiii. FMST and RMRDC should ensure that the scope of the Ward Based Cluster Project is broadened in a bid to encourage mass production and reduce costs;
- xxxiv. States should patronize equipment and machinery made by PRODA and PRODA should collaborate with NASENI;
- xxxv. NASRDA should sensitize relevant MDAs and Government at the State and Local Government levels on the use and availability of Land use digital data;

- xxxvi. MDAs, Military, Para-military Organizations should partner with NASRDA on building capacity on remote sensing and Geographic Information Systems (GIS);
- xxxvii. FMST and her Agencies should participate at the African Youth Science and Technology Exhibition (AfroUtTech Expo) event scheduled to hold later in the year;
- xxxviii. FMST's Agencies should participate at the 1<sup>st</sup> West African Industrial Convention and Exhibition to be organized by the Institute of Research and Innovation in Africa later in the year;
- xxxix. Niger State Government should collaborate with NARICT and RMRDC on the production of essential oil;
- xl. Federal Ministry of Science and Technology should collaborate with State Ministries of Science and Technology, relevant MDAs and organized private sector on the establishment of Industrial parks and clusters;
- xli. NABDA should facilitate speedy passage of the Bio-safety Bill while the States Commissioners in charge of Science and Technology should persuade legislators from their constituencies to support the process;
- xlii. FMST and its Agencies should participate at the FCT Science and Technology Week (FASTECH) which is equivalent to FMST's NASTECH;

Council expressed its gratitude to the Chief Servant, Dr. Mu'azu Babangida Aliyu <sup>OON</sup> <sub>CON</sub> for his support towards successful hosting of the 13<sup>th</sup> NCST meeting in Minna, Niger State. Council also extended its appreciation to the government and good people of the State for their warm reception and hospitality during the event.

Dated this 27<sup>th</sup> day of June, 2014 at the Honourable Justice Idris Legbo Kutigi International Conference Centre, Minna, Niger State.

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**Chairman**

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**Secretary**