

**REPORT OF THE NATIONAL STAKEHOLDERS' WORKSHOP ON NATIONAL  
ADAPTATION STRATEGY AND PLAN OF ACTION HELD AT THE  
ROCKVIEW HOTEL, ABUJA, FCT (22<sup>ND</sup> - 23<sup>RD</sup> March, 2010)**

**1.0 Introduction:**

- 1.1 The National Stakeholders' Workshop on **National Adaptation Strategy and Action Plan of Action (NASPA)** was held at the Rockview Hotel, Abuja from Monday 22<sup>nd</sup> to Tuesday 23<sup>rd</sup> March 2010. The Workshop was attended by about 145 participants drawn from Government Agencies, private sector, International Agencies, the academia and Civil Society Organizations; and resource persons from within and outside Nigeria. The main objectives of the Workshop were:
- (a) To deepen awareness and to broaden space for Nigerians to cross-fertilize ideas and to make inputs into the development of a National Adaptation Strategy and Plan of Action for Nigeria (NASPA);
  - (b) To ensure that Nigerians are part of a legitimate, consultative process integral to the successful development and implementation of the NASPA.
- 1.2 The two-day Workshop featured a formal opening session, presentations and discussion of selected topics during technical sessions, working group sessions, plenary sessions, and a closing session.

**2.0 Opening:**

- 2.1 The Workshop commenced at 9.25 am with the invitation of the following dignitaries to the high table:
- (a) Professor Salau – Chairman of Session;
  - (b) Professor D. U. Okali;
  - (c) Professor Kingsley Ologe;
  - (d) Dr. Victor Fodeke, Head, Special Climate Change
  - (e) The Permanent Secretary, Ministry of Environment;
  - (f) Commissioner of Environment , Nassarawa State;
  - (g) Representatives from CIDA and UNEP
- 2.2 Thereafter, the opening prayers in the Christian and Moslem ways were led by Professor Emmanuel Oladipo of Integrated Ecosystem Management Project of Niger Nigeria Project, and Malam Murtala Adogi Mohammed of Youth CAN respectively.
- 2.3 After the opening prayer, the Chairman of the session, Professor A. Salau gave his opening remarks. In his address, the Chairman recalled that Nigeria had earlier on

submitted the 1<sup>st</sup> National Communication on Climate Change to the UNFCCC and that the preparation of the 2<sup>nd</sup> National Communication was on-going. The objectives of preparing the National Communication are: He highlighted various efforts of Government and the Civil Societies on Climate Change and stressed that the most important thing was how to coordinate these activities and advance the country's strategy for adapting to the effects of Climate Change in Nigeria.

- 2.4 Concluding, he maintained that the main focus of the workshop was to come up with a National Adaptation Strategy and Plan of Action that would guide formulation of national policy on climate change which would also drive the national adaptation strategy for tackling climate change impacts and also identify projects and programmes for funding under the global adaptation fund of Kyoto Protocol. He stressed that the process must be consultative, transparent and participatory. Finally, he welcomed all to the Workshop and expressed the hope that the outcome would be worthy of the efforts being put in. He therefore urged the participants to put in their best during the 2-day event in order to produce an effective and bankable document on climate change.
- 2.5 The Chairman's opening remarks were followed by the welcome address of the National Coordinator of NASPA, Dr Austin Uganwa, who noted that the workshop was one of the essential activities designed to vigorously pursue and profoundly actualise the adaptation strategy document. According to him, it was conceived as a process to deepen awareness of the project and to provide a wide spectrum of Nigerians a broader space and forum to ventilate ideas on adaptation issues in Nigeria so as to contribute highly to the document. He stated further that the aim was to engender a country-driven process that would provoke communal ownership, thus enhancing the efficacy of the product that would come out of the on-going process.
- 2.6 The welcome address was followed by a short remark by Professor K. O. Ologe, Chairman of the Multi-stakeholders' Forum (MF). He noted that the aim of the Workshop was to provide the avenue for dissemination of information and exchange of knowledge towards the production of a National Adaptation Strategy and Action Plan (NASPA) for Nigeria. Towards this end, he recalled a Multi-stakeholder Forum, which drew its membership from Government, Non-governmental Organizations and private sector and was established to facilitate the development of the NASPA. According to him, the Forum would provide overall guidance on the direction and scope of the NASPA. Specifically, he disclosed that Members of the MF included representatives from the following organizations:
- (i) Manufacturing Association of Nigeria;
  - (ii) Federal Ministry of Finance;
  - (iii) Federal Ministry of Agriculture;
  - (iv) Federal Ministry of Environment;
  - (v) NIMET;
  - (vi) NNPC;
  - (vii) National Planning Commission;
  - (viii) Cross River State Forestry Commission;

- (ix) Adamawa Forestry Commission;
- (x) Niger State Commissioner of Environment;
- (xi) Lagos State Commissioner of Environment;
- (xii) Association of Local Government Authorities;
- (xiii) Women's Environment Program;
- (xiv) Environmental Rights Action;
- (xv) Guardian Newspaper;
- (xvi) Representatives from the Senate and House of Representatives;
- (xvii) Chair and Co-Chairs of the Multi-stakeholder Forum; and
- (xviii) Federal Ministry of Information.**

Individuals representing the above Organizations were requested to stand up for recognition.

2, 7 Speaking further, Professor Ologe disclosed that as one of their first tasks, the members of the Multi-Stakeholders' Forum had established five sectoral working groups as follows:

- (a) Agriculture
- (b) Infrastructure
- (c) Natural Resources
- (d) Health & Sanitation
- (e) Cross Sectoral

2.8 Welcoming members of the Working Group, he stated that they would be tasked with assessing impacts in each of these sectors and providing a report of their findings and recommendations to the Multi-Stakeholder Forum. The forum would then take these reports and synthesize them to produce the overarching National Adaptation Strategy and Plan of Action.

2.9 Thereafter, Professor Ologe gave an overview of the contents of the Workshop. Accordingly he stated that the first day of the Workshop would focus on providing participants with information and obtaining feedback from them on key elements they would like to see included in the strategy. Basically, the first day would feature:

- an overview of Climate Impacts in Nigeria and the scenarios and modelling that can be used to predict future impacts;
- an overview of climate adaptation strategies that have been observed in rural communities;
- breakout sessions, where participants will be divided into groups based on the number that on participants' nametags;
- discussion on the potential elements of a National Adaptation Strategy and how to integrate adaptation measures into the National Agenda – after which there will be another opportunity for you to provide feedback.

- 2.10 He went further to inform the participants that the second day of the Workshop would focus on giving members of the Multi-Stakeholder Forum and Working Groups the tools and background they would need to effectively complete their responsibilities. He thanked all for their attention.
- 2.11 At this juncture, the Chairman of the occasion (Professor A. Salau) invited Dr. Chinwe Ifejika Speranza (PhD) from the German Development Institute, Bonn, Germany to present the first paper titled: **“Overview on Climate Change, Mitigation, Adaptation and related concepts”** with the following outline:
- Climate and climate variability
  - Climate change
  - Mitigation
  - Adaptation
  - Vulnerability and risk
  - Coping strategies and adaptation
  - Some adaptation measures
- 2.12 The presenter defined the terms climate and climate variability, vulnerability risk, mitigation and adaptation. Dr. Chinwe also identified the causes of variability, principal components of variability, implications of climate change, different perspectives of risk, mitigation measures in Agriculture and Forestry, inter-relationships between Adaptation and Mitigation, adaptation as a continuum, coping and adaptation (Household capitals - including, natural, socio-economic political/institutional dimensions; coping strategies; insurance/preventive strategies, recovery/adaptation strategies).
- 2.13 The presenter concluded by giving some examples of climate change adaptation as follows:
- **Agriculture** –
    - (i) Change of crops grown
    - (ii) Increase water availability – rainwater/runoff harvesting, irrigation
    - (iii) Shift to conservation or organic agriculture practices
  - **Infrastructure** – improving road construction/dams to withstand extreme flooding
  - **Natural resources management** –
    - (i) Afforestation /reforestation
    - (ii) Incorporating climate risks into water resources’ policies and management; land use planning;
  - **Health and Sanitation** – improve health and sanitation education / diseases surveillance; increase efforts on disease prevention; improve capacity to treat diseases (malaria, meningities, cholera etc)
  - **Cross-Sectoral** – improve disaster risk management; insurance; mainstreaming Climate Change, gender.

- 2.14 Just at this point, the Permanent Secretary of Federal Ministry of Environment, Dr. B. N. Olorunfemi FNMGS, who arrived at the Workshop during the above presentation, was invited to present his opening address. The Permanent Secretary started his address by apologizing for coming late to the event due wrong information about the commencement time. He maintained that the issue of climate change was the full responsibility of the whole country, even though the Federal Ministry of Environment was coordinating the programme because of its statutory mandate on environmental issues in Nigeria. He noted that all Directors of the Ministry were invited to the Workshop to ensure that the various experts in the Ministry would be aware of the models of the NASPA to be put in place by the various Working Groups and plan along with it in their various programmes and activities so as to achieve the desired goal.
- 2.15 Dr. B. N. Olorunfemi FNMGS disclosed that the challenges of climate change were not only environmental in nature; but were also economic, developmental, governance, human rights as well as inter-generational equity challenges. He stressed further that virtually all human economic and social activities were dependent on the climate. According to him, changes in weather and climate had been known to profoundly affect agriculture, water resources, energy, and other sectors of the economy.
- 2.16 He stated further that as the world continues to find possible solutions to the looming challenges of global warming and climate change, our country, Nigeria was not left behind in finding ways to prepare the nation against its potential impacts and the opportunities associated therein; and that it was in recognition of the urgent need to address the situation that the Federal Ministry of Environment, in collaboration with three Non-Governmental Organisations - namely: Nigeria Environmental Study/Action Team (NEST) through its BNRCC (Building Nigeria's Response to Climate Change) project, Heinrich Boll Foundation (HBF) and Nigeria CAN - had commenced the process of developing the NASPA project.
- 2.17 Finally, the Permanent Secretary acknowledged the commitments of all the Lead Partners of this Project and the development partners - Canadian International Development Agency (CIDA) the United Nation Development Programme (UNDP) - who had committed financial resources for the hosting of the workshop and thanked all who had in one way or the other contributed to the success of our climate change programmes in Nigeria.
- 2.18 After his opening speech, the Permanent Secretary was then invited to recognize members of the Multistakeholder Forum (MF) and inaugurated members of the Multistakeholder Sectoral Working Groups (MSWGs). The members of the MF and MSWGs were requested to stand up and were subsequently inaugurated by the Permanent Secretary.
- 2.19 The inauguration was followed by a goodwill message from the Canadian International Development Agency (CIDA) delivered by its Natural Resources Management Advisor in Nigeria, Mr. Ako Amadi.. He informed the gathering that CIDA had been at the forefront of climate change responses activities since 2002 and had continued this support

for the past eight years in Nigeria. He thanked all other stakeholders for their respective contribution, especially the brilliant move made by the National Coordinating Body by assembling together such a high caliber of personalities to deliberate on issues of climate change in Nigeria with the aim of developing a roadmap for the Action Plan for a National Adaptation Strategy. The goodwill message marked the end of the opening ceremony while the participants went for Tea Break.

### **3.0 First Technical Session:**

- 3.1 The participants returned from Tea Break to resume into the First Technical Session. The Session was chaired by Mrs. Deborah Msheliza of the Department of Geography, University of Maiduguri, Borno State, Nigeria.
- 3.2 The first presenter at this session was Professor Francis A. Adesina of Obafemi Awolowo University (OAU) Ile-Ife. His paper was centered on “**Vulnerability, Impact and Adaptation studies – some briefs & lessons on Climate Change response in Nigeria**”.
- 3.3 The presenter gave a general background to global and national response to climate change, an assessment of impacts and adaptation to climate change projects; and highlighted some present and potential impacts of climate change in Nigeria. He defined vulnerability assessment and described its characteristics and procedure, noting that no single procedure could be perfect. He shared his experience of field work on vulnerability assessment concerning the use of improved wood stove for domestic cooking at the edge of the Guinea savanna in Oyo State and vulnerability of coastal zone of Nigeria to sea level rise.
- 3.4 He concluded by stating that:
  - Nigeria is highly vulnerable to changes in climate;
  - Adaptation efforts must be prompt: adaptive capacities can become poorer without an urgent intervention;
  - Adaptations are required at regional and local levels;
  - Finer understanding of vulnerabilities required
  - Wider study of community vulnerability is necessary as being pursued in the NASPA project.
- 3.5 The second paper was on **Climate Change Scenarios and Modeling** presented by Dr. Babatunde J. Abiodun from University of Cape Town, South Africa who exposed the participants to the methods of scenario setting and modeling, citing practical examples from Nigeria and Mozambique. He concluded by stating that:
  - Climate change impact assessment is cross-disciplinary
  - Government ministries should dialogue on the best ways to utilise the climate change information for mitigation and adaptation strategies.

3.6 The third presentation at this session was on “**Demonstration & Assessment of Climate Change in Nigeria & Development of Adaptation Strategies in the Key Socio-Economic Sectors: Meteorological Approach**” by Dr. Anthony C. Anuforom (DG/CEO, NIMET) who was represented by Mrs. Julie Ukeje. Highlights of the paper included:

- An introduction
- Observed Climate Variability, Changes and Evidences of Climate Change in Nigeria
- GCMs & IPCC’ Projections for West Africa/Nigeria
- Impacts/Challenges in Some Key Socio-economic Sectors (Agriculture & Water Sectors)
- NIMET’s Climate Information Services/Products for Adaptation Strategies in the Sectors
- Conclusion

3.7 Concluding, the presenter stressed the need to:

- (a) Incorporate weather information into national development plans in order to enhance adoption of new farming techniques to suit emerging weather trends, e.g. use of less yielding but fast-maturing seedlings;
- (b) Mount campaign and encourage Nigerians to plant trees in their personal environments;
- (c) Closer cooperation between relevant Ministries, Departments and Agencies (MDAs in order to reduce climate change via emission of green house gases; and
- (d) Enhance Nigeria’s capacity for research and systematic weather observation and Early Warning System (EWS).

3.8 The presentations were followed by a period of questions and answers. In his contribution, Prince Lekan Fadina of Centre for Investment, Sustainable Development Management and Environment (CISMEN) stressed the need for:

- Collaboration with academic institutions and industry;
- Investment in appropriate technology to address the impacts of climate change; and
- Appropriate investment and funding to make climate change beneficial to farmers and other rural dwellers.

3.9 Mr. Usman H. Dukku from NEST, Ibadan, stressed the need to be consistent on statements relating to the actual area covered by desertification in Nigeria.

3.10 Professor Emmanuel Oladipo of IEM Niger-Nigeria Project made the following clarifications:

- (a) Green House Gases (GHG) are not bad in themselves as they make the earth livable – without GHG, the earth will not be habitable.
- (b) Climate modeling is complex. It requires infrastructure (e.g. computer programming for 24 hours for over a period of more than one month duration and human capacity that are still lacking in Nigeria).

- (c) Weather variability is normal, all we need to do is to accept the reality and develop coping and adapting mechanisms.
- 3.11 In his own contribution, Dr. James Aper from the Department of Geography, Benue State University, Makurdi, Nigeria opined that NIMET needs serious reforms and information/data and climate integration and dissemination to be able to achieve effective adaptation. He recalled that in India, farmers access climatic information via GSM on daily basis for their farm work; while in the USA, climate data is free for the benefit of business and research. He concluded by saying that NIMET should improve its network, equipment and personnel to meet World Meteorological Organization's (WMO) standards and contributes positively to climate change project.
- 3.12 Dr. Daniel Gwary from the University of Maiduguri made clarifications on the issue of the three ecological zones (Rainforest, Savanna and Sahel) which Dr. Abiodun presented. He maintained that the North is not all Sahel as shown by the presenter. According to him, the Sahel is only the fringes of the North East and North West around Kano. He concluded that most of the North fall into the Sudan Savanna and a small strip to the South fall into Guinea Savanna.
- 3.13 Responding to the comments, the representative of NIMET, Mrs. Seyi highlighted the main areas of NIMET's challenge as including infrastructure, finance and manpower. She asserted that NIMET used to give data out free of charge in the past but in a bid to sustain the activities of NIMET with inadequate funding from Government, NIMET now releases its data on cost recovery basis. Dr. Abiodun agreed with Professor Oladipo that Green House Gases (GHGs) have their benefits. He maintained that modeling was tedious and that irregular power supply was problematic to modeling.

#### **First Technical Session continued:**

- 3.14 The fourth presentation under the first Technical Session was titled **“Assessment of Adaptation Knowledge based in Selected Rural Communities in Six Geopolitical Zones: An Approach to Building Resilience in Vulnerable/Rural/Poor Communities”**, by Professor Chinedum Nwajiuba from NEST/BNRCC Ibadan. The paper was however presented on his behalf by Mr. Sam Ogallah. The paper aimed at responding to four issues/questions posed in the supporting information to the workshop, namely:
- Are there some traditional adaptation strategies in rural communities?
  - How potent and sustainable have the strategies been?
  - Are there documented evidence/ research work done with regards to traditional adaptation?
  - Can modern technology play any role in strengthening traditional adaptation? If yes, how?

3.15 In responding to the above questions, the presenter shared his experience in the project **Building Nigeria's Response to Climate Change (BNRCC)**. He highlighted the components and source of funding of BNRCC, how research lessons from this could be useful in the assignments of the Multi-Sectoral Working Groups (MSWGs) of the NASPA, locations of the BNRCC projects in Nigeria, key Sectors and Eco-zones, basic concepts on adaptation, coping and livelihood, and lessons learnt so far. He also identified actions to improve sustainability of the project as follows:

- (a) ownership
- (b) conflict management
- (c) mainstreaming gender
- (d) monitoring and evaluation

3.16 The presenter concluded that Nigeria had wide ecological diversity ranging from arid and semi-arid ecosystems in the north to flood-prone ecosystems in the south. Climatic challenges are diverse, and therefore adaptation measures should vary accordingly.

#### **4.0 Discussion:**

4.1 During the discussion that followed, Mr. Murtala Adogi Mohammed of Youth CAN asked if there was any relationship between income level of the rural people and their level of adaption to climate change. Dr. H. K. Ayuba from Department of Geography, University of Maiduguri asked why was it that CO<sub>2</sub> was always the culprit in the climate change debate even though there were other gases of even greater percentage volume in space. Mr. Agbojo Adewale of Heinrich Boell Foundation stressed the need to involve the local people in the BNRCC project while Dr. (Mrs.) Gloria Ujor from Federal Ministry of Environment wanted to know if the BNRCC Project planned to have a voice in the media to communicate with the communities, especially when there might be a sporadic change in weather. The presenters tried to answer all the questions accordingly.

#### **5.0 Facilitated Group Discussion Session 1:**

5.1 After the presentations and discussions in the first technical session, the participants broke out into five discussion groups as follows:

- (a) Agriculture
- (b) Infrastructure
- (c) Natural Resources
- (d) Health & Sanitation
- (e) Cross Sectoral

5.2 Each group had a facilitator, a Chairman and a Rapporteur. Their task was to examine the possible impacts of climate change on their respective sector and propose the appropriate strategy for adaptation on a national perspective. Participants later went for lunch to resume for another round of presentations after lunch.

## 6.0 Second Technical Session:

6.1 The second technical session began after lunch with a presentation on “**Components and Pillars of the Nigeria Adaptation Strategy and Action Plan**” by Mr. Bubu Pateh Jallow from UNEP, Nairobi, Kenya. The presenter highlighted:

- the existing institutional structure for the production of the NASPA at the national level,
- the role of the Technical Team and its Working Groups;
- the various assessment models,
- (i) In-depth national Communications type of assessments including scenario development and biophysical simulations;
- (ii) Rapid appraisal type assessment such as the NAPA approach; or
- (iii) A combination of both and making use of global data and information in similar processes in other countries in the region and/or outside the region

6.2 Thereafter, he identified the elements of national ownership as including:

- Inclusiveness by involvement of relevant stakeholders at all levels
- Integration or mainstreaming into development frameworks by ensuring that all activities ultimately:
  - (i) Address multiple risks
  - (ii) Have multiple benefits; and
  - (iii) Influence and lead to policy development and adjustment,
  - (iv) Consider the use of domestic funding. To this end, he stressed the need to involve the Ministry of Finance.

6.3 Mr. Bubu Jallow concluded his presentation by saying that final outcomes of the NASPA should:

- Identify relevant and prioritized policy options;
- Adjust and/revise the relevant Acts or Regulations;
- Develop a strategy and action plan to implement these policy options, paying particular attention to leadership of sectoral work (MSWGs) and their synthesis (Ministry of Environment/Coordination Unit); and
- Enjoy highest level of endorsement.

6.4 The next presentation was on the “**Identification and Appraisal of the Potential Pillars and Components of Nigeria’s Adaptation Strategy and Action Plan**” by Prof. K. O. Ologe, Chairman, Multi-stakeholder Forum.

6.5 Professor Ologe began his presentation by disclosing that NASPA was an initiative of:

- The Special Climate Change Unit (SCCU) of the Federal Ministry of Environment;
- The Nigeria Environmental Study/Action Team (NEST) through the Building Nigeria’s Response to Climate Change Project (BNRCC);

- The Nigeria Climate Action Network (Nigeria CAN);
- The Heinrich Boll Foundation (HBF); and
- The United Nations Development Programme (UNDP).

6.6 He maintained that these Lead Partners had set up a 25-member Multi-stakeholder Forum (MF) to drive the process of drawing up NASPA and these members were drawn from:

- Federal Government ministries and departments;
- Civil society groups;
- The States;
- The private sector;
- Expertise groups; etc

6.7 Professor Ologe thereafter informed the Forum that the proposed pillars of NASPA were:

- Enhancing national leadership to effectively guide adaptation to climate change;
- Adopting new policies and perspectives in tackling the challenge of climate change; and
- Integrating and improving climate change adaptation programme responses.

6.8 The presenter went further to state that the proposed components of NASPA would be made up of the following main sections:

- Introduction
  - o Overview of climate change in Nigeria;
  - o The background to NASPA;
  - o The rationale for NASPA;
  - o The NASPA development process
  - o Overview of the NASPA document.
- Goals, Objectives and Guiding Principles of NASPA;
- Overview of NASPA:
  - o Summary statement of the three proposed pillars of NASPA
  - o Brief statement on each of the pillars
- Sector - by - sector presentation of the threats of climate change and the proposed adaptation responses
- Summary of proposed adaptation responses, including:
  - o Priority policy and programme responses;
  - o Implementing agency or stakeholder;
  - o Finance;
  - o Monitoring and evaluation.
- Appendices
  - o Glossary;
  - o Climate change in Nigeria (Governance structure);
  - o NASPA development process;
  - o Membership of the MF and MSWGs; and
  - o Monitoring and evaluation.

- References.

6.9 In conclusion, he opined that:

- These proposed pillars and components of NASPA should help us to see what we are trying to do and how our contributions are expected to fit into the big picture.
- We should be able to prepare a comprehensive yet well coordinated report.
- The MF is open to suggestions that can help us to do this.

## **7.0 Comments:**

7.1 Dr. Appolonia Okhimamhe of Centre for Climate Change and Freshwater Resources, FUT Minna suggested the inclusion of the followings in the Table of Contents of the NASPA:

(i). Introduction – to include:

- (a) Overview of Nigeria;
- (b) Overview of Climate Change in Nigeria

(ii). NASPA Background to include:

- NASPA rationale and development process;
- Overview of document;
- NASPA Goals, Objectives and Guiding Principles

(iii) NASPA Proposed Pillars to include the role of Nigerians in Diaspora.

(iv) Relationship between NASPA and National Development Goals to include:

- Climate Change and National Economy;
- NASPA and National Development Policy (e.g. 7-Point Agenda)
- Synergy between NASPA and United Nations Environmental Conventions and Policies

(v) Instead of “Summary and Next Step” , we could have “Enabling Framework for Successful Implementation of NASPA Project” such as:

- Priority Policy;
- Implementation Agency;
- Financing Consideration; and
- Monitoring and Evaluation.

7.2 In her contribution, Ms Jeiyot Elizabeth from Department of Geography, Benue State University, Makurdi, observed that the Table of Contents did not seem to capture the

Country's characteristics of relief, climate, soil geology, drainage, biodiversity, population, poverty, infrastructure and economy.

7.3 In his contribution, Prince Lekan Fadina of CISME made the following suggestions:

- The Regulatory system and the Regulators should be part of the NASPA;
- Need to have knowledgeable experts to drive the process;
- Need to develop and tap on the benefits of climate change;
- Need for networking;
- Need to ensure ownership of the NASPA document by Nigerians through wider participation in the NASPA process.
- Need to develop the low carbon economy.

7.4 Dr. Imoh B Obioh from Centre for Energy Research and Development, Obafemi Awolowo University, Ile-Ife, made the following suggestions:

- the need to include the development of climate science and the vulnerability as one of the strong pillars of adaptation strategies;
- Need to develop and improve the understanding of the economic implications of climate change and using this to articulate policy requirements; and
- Need for Government to provide the enabling environment for private sector participation.

7.5 Mr. Amuwa Joseph Chuks from the Organization Against Corruption and Drug Abuse stressed the need to ensure the involvement of the Governors of the nine States in the Delta Region in NASPA.

7.6 Contributions from other participants included the need to involve Civil Societies, the Local Government Authorities and the Private Sector in the planning and implementation of NASPA and other policy documents on climate change.

7.7 In his response, Professor Ologe agreed on the need to actively involve members of the National Assembly and also the need to integrate with the efforts of the National Planning on Vision 20-20-20.

7.8 Professor Bubu Jallow however expressed some difficulties in dealing with the business sector, noting that a typical private business person would be reluctant to attend meetings of this nature for want of time. He disclosed that he had tried this many times in his country without much result.

7.9 Reacting to this observation, a representative from the Manufacturers' Association of Nigeria (MAN) opined that the strategy for success was to approach the private sector through their professional groups.

## 8.0 Technical Session 2 Continued:

- 8.1 The next presentation was on “**Towards Integrating Adaptation Strategies into Policy Framework, National and State Development**” by Professor Emmanuel Oladipo. The presenter started by defining adaptation as *encompassing action to reduce the vulnerability and build the resilience of ecological and social systems and economic sectors to present and future adverse effects of climate change in order to minimize the threats to life, human health, livelihoods, food security, assets, amenities, ecosystems and sustainable development*. He thereafter highlighted the following key messages:
- Climate change poses a serious challenge to our social and economic development.
  - Despite oil and gas Nigeria’ economy is still more dependent on climate-sensitive natural resources (e.g. agriculture).
  - How development occurs has implications, in turn, for climate change and for the vulnerability of societies to its impacts.
  - Climate change adaptation needs to be brought into the mainstream of development policies, plans, strategies and programmes.
  - In adaptation terms, the issue is how development can be made more resilient to the impacts of climate change.
  - This could be at operational (infrastructure) or policy (e.g. poverty reduction and natural resource management) level.
- 8.2 He identified two basic approaches to mainstreaming adaptation into development as ***Mainstreaming from top-down and Mainstreaming from bottom-up***. His presentation also highlighted:
- The reasons for mainstreaming;
  - Adaptation actions and mainstreaming components;
  - Key mainstreaming entry points and components at the sectoral level;
  - Current Policy Frameworks;
  - Current Institutional Frameworks;
  - Review of selected NAPAs from Sudan, Rwanda, Malawi and Zambia;
  - Lessons from Reviewed NAPAs;
  - Barriers to mainstreaming; and
  - Strategies for overcoming barriers.
- 8.3 During the discussion that followed, Mr. John Van Mossel of Marbek/BNRCC noted that in view of the limitation of time and funds, it might not be possible to produce a proper NASPA document. He therefore suggested the production of a first draft within the limited available resources and time, which could be improved upon later.
- 8.4 Dr. D. Emma Nzegbule from Michael Okpara University of Agriculture stressed the need to get NASPA included in the **Vision 20-20-20**. Responding to this, Professor Oladipo recalled that the Vision 20-20-20 already included climate change concerns and expressed the hope that it would also be included in the action plan of Vision 20-20-20.

- 8.5 Professor D. U. U. Okali from NEST Ibadan requested Dr. Bubu Jallow to illustrate from his vast experiences in Africa, examples of Top-Down and Bottom-Up approaches to mainstreaming climate change adaptation into the National Planning that Professor Oladipo mentioned in his presentation.
- 8.6 In response, Dr. Jallow recalled that an NGO which UNEP worked with in Uganda worked directly with rural communities and that the NGO was well-known thereafter. Commenting on the issue of funding NASPA, Dr. Jallow stressed the need to include Foreign Affairs Ministry and all Diplomatic Missions in Nigeria for the validation workshop.

### **9.0 Closing for Day One:**

- 9.1 The first day's session ended up with a closing remarks by Mrs. Deborah Msheliza at 5.00 p.m.

## **10. Day Two – Tuesday 23<sup>rd</sup> March 2010**

- 10.1 The second day of the Workshop began with a recap of the activities of the first day by Professor David Okali who was also the Chairman of the first Technical Session. This was followed by a presentation on “**How Multi-stakeholders Forum will Shape Policy, Programme or Instrument from the Multi-Stakeholders Working Groups into National Adaptation**” by Mrs. Deborah Msheliza. In her presentation, Mrs. Msheliza highlighted the expected impacts of climate change in Nigeria and maintained that the output from the MSWG would help the Multi-stakeholders Forum in coming up with the adaptation strategies that would be utilized in mainstreaming climate change into policy and development programs. Towards this end, she proposed the following strategies:
- Having knowledge of the existing climate change impacts and existing local adaptation strategies;
  - Community involvement in pilot projects to identify climate change impacts, vulnerability and adaptation strategies;
  - To identify local practices/technologies elsewhere that can be adopted for communities where community based adaptation strategies cannot be easily identified by the communities;
  - To provide information on adaptation strategies in other geographic locations that can be tried in similar locations so as to create room for appropriate technology transfer;
  - To identify the difficulties that may arise in the implementation of the strategy in each agro-ecological zone;
  - To consider the implications of climate change impacts on the most vulnerable communities in each agro-ecological zone;
  - To identify the best methods in identifying climate change impacts locally, nationally, regionally and globally;
  - To keep abreast with both the methodological advances and the field experiences from case studies on adaptive strategies in other parts of the world;
  - To differentiate between vulnerability and risk so as to keep on track in each community studied;
  - To popularise and communicate projects in a way that will further encourage a wider involvement of stakeholders and the involvement of potential local sponsors/donors;
  - To remember that the people who will suffer first and the most from the impacts of climate change are people who are to a large extent incapacitated;
  - In developing the adaptation strategies we need to understand what it practically means to mainstream climate change adaptation strategies;
  - The NASPA document must create entry points at all levels. There must be linkages at the policy level and the sectoral level through the adaptation strategies and the mainstreaming aspects; and
  - At all levels we need awareness creation/raising at each stage about climate change/variability threat, vulnerability and risk.

- 10.2 Mrs. Msheliza concluded by advising all members of the MSWGs to make use of all available literature materials on the subject matter so as to better position themselves for the task.
- 10.3 Thereafter, the Workshop received the two remaining presentations from Dr. Bubu Jallow who had to return to his station in Nairobi in the afternoon. The two presentations which he combined into one were on “**Vulnerability (Impacts and Adaptation) to Climate Change**”. In giving an overview of vulnerability assessment, Dr. Jallow defined vulnerability and adaptation assessment as an evaluation of how changes in climate may affect natural environment, national economy, and human health and welfare and described six major steps involved.
- 10.4 He identified the various study regions as including:
- **Administrative units** (e.g. town, district, province, state and nation);
  - **Geographic or physiographic units** (e.g. river basin, plain, mountain range, and lake regions);
  - **Ecological zone** (e.g. wetland, forests, moorland and savannah);
  - **Climatic zone** (e.g. desert, monsoon zone, and rain shadow area); and
  - **Sensitive regions** (e.g. tree lines, ecotones, coastal zones, ecological niches and marginal.
- 10.5 Thereafter he discussed the various tools and approaches for vulnerability and adaptation assessment, sample databases, models and application of the assessment tools in various sectors, the various policy decision options, cost benefit analysis, and eligibility criteria for domestic and donor funding,
- 10.6 Reacting to the presentation, Professor Ologe, Chairman of the Multi-stakeholders Forum observed that given the constraints of time and funding, it would not be possible to prepare a NASPA that is based on the sophisticated methodology that Dr. Bubu Jallow had presented. He therefore inquired on how to prepare a NASPA that would be somewhere between a NASPA and a full-scale National Communication document.
- 10.7 At this point, the Workshop participants went for Tea Break and resumed later into Working Group Session. The Workshop participants reconvened to receive the presentation of Dr. Chinwe Ifejika Speranza on “**Learning and Understanding Adaptive Mechanisms**”. Essentially the presenter defined/described the following basic concepts:
- Adaptation to Climate Change;
  - Adaptation as a Continuum;
  - Adaptation, Development and Additionality;
  - Sensitivity;
  - Vulnerability in the climate change discourse;
  - Vulnerability from a development perspective;

- Perspectives of Vulnerability;
- Principal Components of Vulnerability;
- Risk and hazard;
- Different Perspectives of Risk;
- Coping and Adaptation;
- Adaptive Capacity;
- Resilience: Social and Ecological Resilience;
- Adaptation action and components of adaptation;
- Criteria for Assessing the Effectiveness of Adaptation;
- Effectiveness of an Adaptation Action;
- Efficiency of an Adaptation Action;
- Equity and Legitimacy of an Adaptation Action; and
- “Implementability” of an Adaptation Action.

10.8 She concluded by stating that:

- **Net benefits independent of climate change** refers to adaptations that provide benefit regardless of whether or not climate change effects occur.
- Adaptation options are preferred if they will result in no net losses (or damages), or if they are ‘no regrets’ or ‘win-win’ measures (Dolan et al. 2001, 10).

10.9 After the presentation, the participants broke for lunch. Shortly after lunch, Professor David Okali made clarification that each MSWG should focus mainly on their Sector but think about how it would play out across the various ecological zones in the country. Thereafter, he gave a brief vote of thanks to all participants for their active participation noting that some of the participants would need to depart to collect their allowances at the UNDP but expressed the hope they would all endeavor to participate to the end.

10.10 The remaining participants continued with the discussions, during which a number of suggestions were made. Reacting to the comments made by Mr. Ayuba Alike from the Association of Local Governments of Nigeria (ALGON), it was agreed that the LGAs would be reached through their umbrella organization – ALGON. The participants unanimously agreed on the need to actively involve the opinion leaders in local communities (political heads, youth and women leaders, etc), and the civil societies. It was also emphasized that relevant Departments in LGAs should be actively involved in the process as they would remain even after the LGA Chairmen might have left.

10.11 The need to include climate change issues in school curriculum was also stressed as a means of building future leaders who would be conscious about the effects of climate change and the strategies for adaptation. It was agreed that the various MSWGs should involve as many relevant community associations as possible.

## **11.0 Closing:**

- 11.1 In closing remarks, the Chairman of the Multi-stakeholders Forum, Professor Ologe advised that members of the MSWGs should assemble all relevant data/information for their Group work from thence till the 8<sup>th</sup> of April 2010, after which Chairmen of the MSWGs would be called for another meeting. The Workshop was finally brought to a close with individual prayers at 5.30 p.m.

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## **APPENDIX I**

### **NATIONAL STAKEHOLDER WORKSHOP**

**MARCH 22-23<sup>rd</sup> 2010**

### **BREAKOUT SESSIONS**

#### **Demonstration and Assessment of Climate Change Scenarios and vulnerabilities in major ecological zones and sectors in Nigeria**

**1. Can you identify a major climate change scenario or effect evident in your sector or eco-zone?**

**Key Responses:**

- **North West** - There is drought, short rainfall period, with extreme rainfall intensity leading to extensive flooding. Sand dunes are migrating into the south. There is desert encroachment in Jigawa State. Due to increase in temperature in the state, the meningitis is more rampant than before and the houseflies are more normal. Bacteria survive better in hot climate, so bacteria and diseases are on the increase. Finally there is increase in poverty level, because of drought and migration.
- **South East** – There is an early onset of harmattan; fluctuation and lateness of the rain as well as a great intensity of rainfall. In Anambra State, rivers are shrinking in size, some have dried up thereby leading to shortage of water and food as well as failure of cassava yields.
- **North East** – changes in rainfall –the rain is heavier and more frequent. Farmers now wait for the onset of rain in July for sufficient rain to plant. The implication is that there is a change in the type of crops planted. Farmers now plant the ones that mature faster within a shorter period of time; there is also loss of livestock due to the pressure for grazing land forage and water. This further increases the cost of food as well.
- **South South** - Fishing which is the main occupation of the men has become more difficult. Selling of the fish is also affected and this is the main occupation of the women. The trickledown effect is that, food and survival become expensive, housing is affected due to flooding from sea level rise, human health becomes a challenge as malaria increasing rapidly.
- **Middle belt area** – there are changes in the type of crops grown (millet grows in low moisture areas and it seems to be the main food growing in the belt now - this is a cause for concern) – charcoal business too has grown causing deforestation and the land threatening to disappear into the Sahel of the north.
- **South West** – there is flooding in the zone especially in Lagos due to intense rainfall.

**General Scenarios and Effects across the zones:**

- **Intensity of Rainfall:** There are changes in raining patterns –shorter, earlier, more intense in all areas. The volume of rainfall has remained relatively stable; however, the intensity has increased due to the change in timing. This causes flooding and its associated problems. This affects human settlement, leads to loss of livestock; increase in prices of food; flooding, and causes diseases as well as contributed to migration and conflict.
- **Increased Temperature:** Temperatures have become extremely harsh and are gradually increasing and this cuts across all zones (the rains are accompanied by heavy thunder storms and wind destroying lives property and farm produce). The implications of this include increases in evaporating water bodies due to increasing temperature. This creates a difficulty for sustainable irrigation, disruption in human settlement, increased health risks - malaria, cerebrospinal malaria and meningitis, social conflict and migration – and if the men migrate, the women’s responsibility increases.
- **Forest is disappearing:** This is not just due to cutting down the forest (harvesting forest resources as a coping strategy for survival for the rural populace) but to the increasing lack of rainfall.
- **Early Harmattan:** The early harmattan has increased in intensity and frequency and this cuts across all the regions of the country.
- **Changes in water beds:** Streams are drying up. There is thus a shortage in domestic water supply, Lower water table and people are forced to adapt to these situations. Some people dig shallow beds since fishing dependence has shifted to smaller types of fish (animals like the vulture are almost extinct for 15 years or so they have not been seen; this suggests migration).
- Increase in heat and diseases such as Heat Rashes, Malaria, Cholera, Cough, Drying trees, Livestock diseases
- **Soil degradation & erosion:** There is more gully in south east
- Yield loss in crops e.g. Potato
- Loss of wild life/Biodiversity: There is Loss of Wildlife/Biodiversity not just Lake Chad and in the north
- **Increasing Aridity:** dry river beds; less vegetation cover, exposure of settlements before covered by vegetation.

## 2. What adaptation measure would you consider pertinent towards addressing it?

### Key Responses:

- Increased Awareness Creation on Attitudinal change;
- Provide better information and Communication to relevant stakeholders
- Prompt responses (provision of portable water);
- River piping for irrigation, Channelization of water ways, Supplementary irrigation
- Adopt effective Early Warning Systems such as Seasonal and/or Preventive Forecasting especially NIMET;
- Water Harvesting including Sand Dunes Fixation using plant varieties .e.g. cactus. Also, water can be harvested and converted into ponds for dry season farming;
- Use of Energy efficient stoves such as Save 80 stoves;
- Early planting using improved seeds and building local sandbags embankment; Plant Quick Maturing and drought resistant crops, Improved crop species/ Alternative Agriculture;
- Intensive Capacity Building and active Engagement of Farming associations;
- Change in the type of staple food like soya beans due to the time for growth. There should be a change in variety of food to plant the types that take a shorter time to grow;
- use well water in planting market vegetables, garden eggs, tomatoes
- Build ditches and dig holes to live inside during the day time – hot seasons (Borno state)
- Undertake a standard Technology Needs Assessment.
- Plant trees and grow shrubs/ cover plantings
- Water conservation
- Inter cropping / alley planting.
- Change in soil management techniques to cope with nutrient loss e.g. organic manure.
- Proper ventilation
- Digging river beds,
- further cutting of wood resources for money to buy water in resourcing communities.
- Water storage and capture in pots.
- Reduction in the size of seed yarn.
- Build Earth dams, Introduce Building codes and undertake Inter-basin Water transfer
- Intensive Research/Documentation and Consultations

**3. Are you aware of any documented evidence/research done with regards to vulnerability and adaptation in your sector/community?**

**Key Responses:**

- Yes. Through the state ministries of Health and Environment, Centre for Arid Zone Studies-Bornu and UNCCD report
- NIMET's (Annual Rainfall Prediction Documents
- Heinrich Boell Foundation's document on Adaptation.
- BNRCC pilot projects report
- NEST
- IITA
- Pharmaceutical institute
- Forestry Research Institute of Nigeria (FRIN).
- M.sc research on impact of climate change on Agricultural food production.
- Baseline study by ARDA & WOFAN in Kano, Katsina, Borno, Kaduna on assessing farmers social-economic status and nature of change they've experienced over time.

**Adaptation knowledge, based in Select Rural Communities in Nigeria: Building Resilience in Vulnerable / Rural / Poor Communities****1. Can you identify some traditional adaptation strategies in your rural communities?****Key Responses:**

- Getting reliable information from NIMET for farmers on climate and weather
- Crop improvement for the farmers through breeding (maize ,soya etc)
- Use sad bag to control erosion
- Higher Mounds and Ridges in farm lands
- Harvesting water from roof top for storage
- Raising building foundation above flood levels
- Water harvesting
- Rehabilitation of sand dunes
- Wood domestication
- Efficient wood-stove
- Agro-forestry.
- Afforestation/Tree planting.

**2. How potent and sustainable have the strategies been?****Key Responses:**

They are not very sustainable because they need repeated replacement

**3. Are you aware of any documented evidence/research done with regards to traditional adaptation in your sector/community?**

**Key Responses:**

Some documentation has been made but specifics not mentioned due to the time constraints

- States adaptations – Agriculture, Development, programmes.
- Some Faculties of Agriculture/Environmental Sciences in Universities.
- Vulnerability Assessment by NEMA
- Climate change Adaptation by Henrich Boll Foundation.
- FAO water seminar (Presentation by Dr. Ayuba).
- Vulnerability Assessment of land use, land cover change in part of Niger- delta region by Dept. of Geography, ABU Zaria.
- AIACC working paper on food security in the Northern part of Nigeria.

**4. Do you think modern technology can play any role in strengthening traditional adaptation in your area?**

**Key Responses:**

Yes. The following technology or strategies can be adopted:

- Genetically modified seedlings.
- Solar and wind energy.
- Adopting efficient fuel wood stoves
- New seed varieties
- New methods of soil conservation
- Access research findings from universities..
- Intervention to popularize and enforce change education, incentives and ownership.
- Efficient wood –stove
- Reliable weather forecast
- Mechanized system of agriculture
- Irrigation
- Water Harvesting
- Purification and filtration of Water
- Need to modify and support local adaptation technologies e.g. construction of embankment to replace sand bags, research on drug resistant crops, Research for best practices on food production (such as fruit ripening).

## **Identification and Appraisal of Potential Components and Pillars of Nigeria’s Adaptation Strategy and Plan of Action**

### **1. What shape do you think NASPA document should take?**

#### **Key Responses:**

- The table of content is comprehensive but can be also reflect the under listed:

#### **BACK GROUND.**

- Administration
- Principles
- Physical, geography and socio – economic characteristics of Nigeria.

#### **METHODOLOGY:**

- Vulnerability and Impact Assessment
- Options for Adaptation
- Prioritization of options
- Strategy for implementation.
- Institutional frame work and Responsibilities.

#### **ELEMENTS:**

- Case studies that are evidence based
- Bring in unique ecology –e.g. mammilla plateau.
- The NASPA document should take into cognizance the geo-political zones of Nig.
- The geography of Nigeria should be captured in the document (relief, rainfall, temperature etc.)
- Level of vulnerability and impact of climate change in the various socio-eco sectors in these zones.
- Adaptation strategies identification and strengthening.

### **2. What elements would you want reflected in NASPA document?**

#### **Key Responses**

- Modify item 5(b) of the Document to read: “Research, knowledge, database. Risk analysis and learning.”
- There is need for databases to keep information on population, demographic data and changes.

- Set priority for adopting NASPA strategy at national, state and local stages
- Ensure that the second adaptation report has NASPA report implemented
- Document should cover different and all eco zones, proffer solutions to the problems (70 - 150) (not to scare off funders or political experts)
- Content to determine the pages –sufficient detailed doc.
- To be written in concise language to reduce the volume – the edited version
- Other elements to consider (communication and dissemination of the information)
- Suggest the best approach towards fast-tracking the integration of adaptation strategies into policy framework?
- State, local government and communities should be involved from the onset in the NASPA (climate change unit set up in all the local governments)
- Increased awareness at the local levels of governance
- Involve the media intensively
- Inclusion of climate change into the school curriculum (primary, secondary and tertiary)
- Ensure implementation of policy in community /grass roots oriented and with full community participation.
- Ensure youth have a voice in developing and implementation of NASPA.
- Involvement of private sector i.e insurance for farmers in research and small/medium scale enterprises.

### **Towards Integrating Adaptation Strategies into the Policy Framework, National and State Development Agenda**

- 1. Suggest the best approach towards fast-tracking the integration of adaptation strategies into policy framework?**

#### **Key Responses:**

- Greater commitment from national leadership (political parties, cabinet, NASS) to the NASPA process
- Need legislative framework & enforcement mechanisms
- Involvement of relevant stakeholders
- Establishment of climate change institutions, particularly a Climate Change Commission.
- Enactment of adaptation policy.
- Climate Change Desk should be in every ministry and NASPA implementation should be audited.

**2. Are there institutions, stakeholders you consider relevant to climate change adaptation policy frameworks not captured in the presentation?**

**Key Responses:**

- Yes; NESREA and NOSREA and other ministries should be included
- Center for climate change (FUT Minna)
- NASRDA.

**3. Can you identify gaps in climate change adaptation policy framework processes?**

**Key Responses:**

- Some groups are not properly carried along especially the private sector and policy makers at this inception stage
- Validation process is lacking
- More grassroots involvement needed
- Advocacy and lobbying needed to get decision makers involved

**4. What do you think can be done to mitigate the gaps?**

**Key Responses:**

- Invitations to be sent out immediately to the groups so they are part of the process
- The chairpersons of the House comm. On environment in the house of rep and the senate should help mobilizing the policy makers at that level
- Ensure the integration of all the relevant stakeholders.
- Should be accessible to the general public (individuals and vulnerable groups).
- Involvement of NYSC and CDS for information dissemination.
- Climate change unit in every local government.