



Evidence-Based Policy Development: National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN)

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Abstract

Evidence-based policies are recommended for the enhanced chances of efficacy in achieving policy goals. Achieving this in the policy development process may however require approaches that are not as simple especially in less developed countries, where the research-policy linkage is not commonly the case. This chapter provides a guide to a practical approach that could assist policy makers in similar societies based on the steps adopted in the development of the National Adaptation Strategy and Plan of Action on Climate Change (NASPA-CCN) for Nigeria. The NASPA-CCN has been acknowledged as among the models of climate change policy development that other countries could aim for. It is therefore positioned to offer lessons on policy development in a less developed country environment. The focus in this chapter however is not so much on the subject of climate change but the practical experiences and lessons learnt from the process involved in developing the NASPA-CCN providing lessons learned to mainstream climate change research evidence into policy.

Keywords

Building Nigeria's Response to Climate Change (BNRCC) · Research · Community-based adaptation projects · Evidence-based policy development · Stakeholders · Perception · Resilience

Introduction

Climate change negatively impacts sustainable development across the world (World Bank 2019). Climate change slows the developmental progress made by many nations in the world. It is widely acknowledged that climate change is global and mainly caused by human activities, but the impacts are felt differently by different continents, regions, countries, communities, and sectors (NEST and Tegler 2011; IPCC 2013, 2014a, b, c; Gagliarducci et al. 2019). For instance, Africa's contribution to the major causes of climate change is marginal, but the continent is the hardest hit by climate change impacts (Tarfa et al. 2019; Niang et al. 2014). This is largely due to the vulnerability of the continent as well as her low adaptive capacity (Onyeneke et al. 2017). These characteristics present climate change adaptation as an important response strategy to countries in Africa especially sub-Saharan Africa. In responding to climate change in Africa, local adaptation strategies will not be sufficient, hence

Table 1 Projected trends of key climate change parameters for Nigeria by ecological zone

Climate variable	Mangrove zone	Rainforest	Tall grass (Savanna)	Short grass (Sahel)
Temperature	Increasing	Increasing	Increasing	Increasing
Rainfall volume	Increasing	Increasing	Decreasing	Decreasing
Rainfall variability	Increasing	Increasing	Increasing	Increasing
Extreme rainfall events – droughts	Likely	Likely	Increasing	Increasing
Extreme rainfall events – storms and floods	Increasing	Increasing	Likely	Likely
Sea level rise	Increasing	Not available	Not available	Not available

Source: BNRCC and Federal Ministry of Environment (2011)

the need for planned adaptation to deal with climate risks (Tarfa et al. 2019). Planned adaptation strategies, which are often captured in countries adaptation action plans/programs, have been advocated all over the world. Unfortunately many action plans/programs adopted a top-down approach to their adaptation planning and are largely not informed by evidence. This is why many stakeholders advocate for evidence-informed adaptation policymaking and planning.

The impacts of climate change are evident in Nigeria and are likely to intensify in the future (BNRCC and Federal Ministry of Environment 2011; NEST and Woodley 2011) with the effects touching almost every facet of the national economy – communities, economic sectors, businesses, and governments across the country. Nigerian communities are responding to climate risks in their own ways with the limited resources available to them. The projected impacts of climate change in Nigeria are predicted to significantly worsen (Table 1).

Integrating climate change adaptation into development policies, plans, and projects is an effective approach to managing the risks and opportunities of climate change while enhancing sustainable development (BNRCC and Federal Ministry of Environment 2011). It is usually recommended that policies be evidenced based using the best available evidence to inform policy decisions (Nutley et al. 2009). This is because robust evidence is expected to provide an antidote to policy failures (Pawson 2002a, b). The main arguments for this are that evidenced-based policies have wider ownership, they stand better chances of being implemented, and they have brighter prospects of policy goals being achieved and sustained. This rather simple understanding has not been embraced in policy making, and evidence-based policies are the exception, rather than the norm. Evidence-based policymaking could be viewed as a process that rigorously and systematically employs robust and tested evidence in policy design, implementation, and evaluation (Sutcliffe and Court 2005). Head (2008) provided a nuanced description of the knowledge and evidence that characterize policy. According to Head (2008), these include political know-how, rigorous scientific and technical analysis, and practical and professional field experience.

Scientific research seeks to generate knowledge. Commonly the lessons learnt are meant by researchers to contribute to public policies, and also of private interest to serve a wide diversity of goals. In all cases, there are stakeholders for whom scientific research can address the wide diversity of interests and perspectives by providing lesson learned. In addition, policy makers and managers in the public and private sectors recognize the need to be driven by knowledge. While this is the norm, in practice there is no consensus or unanimity of views of steps for the practical implementation of such research-driven policy development.

Nigeria has several policies related to climate change and environment. The process of developing these policies followed largely a top-down approach, where the federal government was mainly responsible for formulating the policies. Furthermore, climate change adaptation was not mainstreamed into these policies. This necessitated the need for a National Adaptation Strategy and Plan of Action on Climate Change for Nigeria, which used evidence from a bottom-up approach, to help address this situation.

The NASPA-CCN was a product of a Canadian International Development Agency (CIDA) supported Building Nigeria's Response to Climate Change (BNRCC) project implemented for four and half years in Nigeria. The BNRCC project included research, pilot projects, youth and communications activities and included a focus on gender in all project components. The research component included development of downscaling scenarios of future climate characteristics of Nigeria. Lessons learnt from all these components were used for climate change adaptation policy development which yielded the NASPA-CCN.

The BNRCC process of policy document development represents a classical and successful evidence-based approach. The objective of this chapter is to describe the steps followed in drawing lessons from these components of the BNRCC, steps adopted in synthesizing policy-relevant lessons from each component, and the perceptions about the process of developing the policy document. The NASPA-CCN was acknowledged prior to the COP18 in Doha by the UNFCCC as one model policy document that other countries could learn from (UNFCCC 2012).

Evidence-Based Policy

To understand evidence-based policy, the chapter first described what policy, public policy, and public policy making are and the how they link with evidence-based policy.

Public Policy

Policy is an effort to achieve desired outcomes by transforming the priorities and principles of governments into programs and courses of action. Thus, public policy can be viewed as a set of decisions by governments and other political actors to stimulate, modify, or frame a problem or issue that has significant impact

in the political domain by policy makers or the wider public (Hassel 2015; Howlett and Cashore 2014). More precisely, public policy is seen as government actions, the reasons they do it and the differences attributable to such actions (Dye 1976).

Policy Making

As described above, policies are courses of actions which include goals and the resources to achieve them, regardless of how well or poorly formulated. Thus, policy making comprises both a technical and political process defining and matching the goals and means of different parties (Howlett and Cashore 2014). The public policy making process is concerned with provision of policy direction for the benefit of the public sector. This includes the identification, justification and formulation of relevant policies (Howlett and Cashore 2014).

Evidence-Based Policy Making

The practice of informing policy using evidence has become progressively popular. This popularity is driven further by the activities of policy communities such as within government departments, research organizations, multilateral organization, think-tanks, and initiatives which advocate for evidence-based policy making. Evidence-based policy can be defined as an approach that helps an individual or organization to make well informed decisions about policies, programs and projects based on scientific and empirical evidence, including impact studies, cost-benefit analyses, program evaluation, and academic research (Leuz 2018; Sutcliffe and Court 2005). Additionally, evidence-based policy is a set of methods which does not aim to directly affect the policy outcomes; rather it influences the processes through which policies are developed. Evidence-based policy proposes a thorough and systematic approach and extends the traditional concepts of research to acquire a comprehensive understanding.

Why Evidence-Based Policy Is Important

The importance of evidence-based policy is fairly apparent. The application of scientific knowledge and empirical evidence to policy decisions processes is sensible. The quest for Evidence-based policy is based on the premise that policy making should be informed by available evidence and should include rational analysis lead to better policies and regulations. Generally, policies based on evidence are considered to yield better results (Sutcliffe and Court 2005). Vital empirical evidences such as those generated from academic research can increase our understanding of the effects of policies. Furthermore, empirical evidences enforce discipline on policy making when they are theory-based which makes policy making less vulnerable to

political pressures and capture (Cairney 2016; Leuz 2018). Also, given that research benefits from public funding, it is expected to significantly contribute to advance knowledge for the society.

In a report for the Australian Department of Industry, Innovation, Science, Research and Tertiary Education, Palangkaraya et al. (2012) summarized the importance of evidence-based policy. According to Palangkaraya et al. (2012), evidence-based policy accounts for which entity is affected, the magnitude of these effects, and the net benefit for the society. They state, for example, that a sound economic policy ought to take into consideration both financial effects (such as productivity and income) and nonfinancial effects (such as environmental and social impacts). Secondly, evidence-based policy also analyzes the counterfactual of a proposed policy, for example, the impact of a specific policy on third party entities' welfare and behaviors as a result of the proposed policy. Thirdly, evidence-based policy empowers policy makers to study and improve already existing policies and programs. Fourthly, evidence-based policy empowers an analyst to measure if the impacts of policies or programs are biased toward one subgroup (such as demographic, economic, or region). Finally, evidence-based policy is valuable to the public sector owing to a lack of appropriate price signal. Due to the profit maximization motive, the private sector typically assesses the efficacy of projects using metrics such as stock prices and revenue. However, the public sector essentially creates its own metrics of impact and value with the aim to maximize societal welfare. Importantly, rigorous research and evidence from credible and independent parties can help gain the trust of key stakeholders and the public.

The literature on evidence-based policy making is typically grouped into two: (1) theoretical arguments in favor/critical of evidence-based approach and (2) theoretical proposal to improve the evidence-based policy making process (O'Dwyer 2004). These two groups assume that the availability of evidence is desirable in the decision-making process. However, interpretation of the soundness of evidence is often times unclear; while the interpretation is universally acceptable at a particular point in time in the natural sciences, interpretation is beset with disagreement in the social sciences. The literature highlights factors that influence policy making, which also serve as opportunity to improve the policy making process. Overall, evidence-based policy making is supported by the literature.

Difference Between Evidence-Based Policy and Nonevidence-Based Policy

Evidence-based policy is closely related to non-evidence-based policy; however, there are major differences. There are basic assumptions of evidence-based policies in the literature: evidence-based policies is an important proposition, policy-makers should have access to evidence, properly interpreted evidence benefits policy development, evidence-based policies are superior to nonevidence-based policies (O'Dwyer 2004). Furthermore, there are different

actors or parties considered in the literature on policy making; these parties include the policy makers, researchers, and practitioners. Other parties with limited roles include evaluators, participants and affected third parties (Lemke and Harris-Wai 2015). There are often no direct links between these parties, however, policy making benefits most with a closer link between the policy makers and researchers. The application of evidence is the major difference between evidence-based-policy and nonevidence-based policy. Importantly, it is relevant evidence that matters, not just any evidence. Lack of an evidence base for policy making implies that policies will be based on other factors (such as values and ideology of both researchers and policy makers, current public opinion, and political goals) (O'Dwyer 2004). The success of evidence-based policy is based on the availability of an evidence base generated through rigorous research relevant to policy (Sutcliffe and Court 2006). Availability of an evidence base is a necessary but not sufficient condition for sound policy making. The availability of an administrator vested with the role of assembling and providing clarity on the quality of research and generated evidence.

Development of Evidence-Based Policy

Different models have been used in the literature to explain the formulation and development of evidence-based policy. These models include, but are not limited to, knowledge drive model, problem-solving model, interactive model, political model, tactical model, and enlightenment model (for more details, see Almeida and Báscolo 2006; Daviter 2015; Trostle et al. 1999; Weiss 1979). These models can be applied jointly in analyzing the research-policy relation. It is also important to note that none of the models is sufficient to analyze the relationship, given the complexities inherent in the policy making process.

How Policy Makers Receive and Interpret the Outcomes of Specific Types of Research

The need for various types of evidence in policy making processes has increased among governments around the world. The typical forms of evidence with implication for public policy, according to (O'Dwyer 2004), include:

1. Descriptive evidence (such as employment statistics and trade deficits)
2. Analytical evidence (deals with establishment of causal relationships and explanations)
3. Evaluative evidence (deals with the effectiveness of existing policies and programs)
4. Policy analysis (relevance is based on the analyst's position in relation to power)

Sectoral Concentration of Evidence-Based Policy Making in Nigeria

Evidence-based policy making in Nigeria is largely practiced in the health sectors (Onwujekwe et al. 2015; Uneke et al. 2017, 2018, Uzochukwu et al. 2016). This situation is also observed in most developed countries (Parkhurst et al. 2018). The reason for the predominant practice of evidence-based policy making in the health sector (physical science) compared with social science fields can be explained by analytical approaches used for evidence collection. The evidence-based approach was pioneered by the medical field, with techniques such as randomized controlled trials, which are straightforward and easy to comprehend. Analytical methods in the social science field are seen to be prone to errors and biases (Bhattacharjee 2012; Ioannidis et al. 2017). Evidence from the physical sciences is generally more acceptable to policy makers than evidence from the social science in the event of excess information and ambiguity (Ioannidis et al. 2017).

The Frame: BNRCC

NASPA-CCN was a very practical example of evidence-based policy document. The methodology of the NASPA-CCN development specifies evidence driven process using scientific research and pilot project partners' inputs, with results mainstreamed into policy by first completing the Climate Change Adaptation Strategy Technical Report (CCA STR) and then using this information to develop the NASPA-CCN a key output of the BNRCC project.

The BNRCC project started 2007 had USD\$5M of funding from CIDA and was managed jointly by ICF-Marbek and CUSO-VSO, along with the Nigerian Environmental Study Action Team (NEST) as the Nigerian implementing partner. The project ran from 2007 to 2011. The project was developed on the basis of the achievements of an earlier initiative, the Canada-Nigeria Climate Change Capacity Development Project implemented with funding from CIDA'S Climate Change Capacity Development Funding (CCCDF, 2001–2004). The overall goal of the BNRCC project was to “*enhance Nigeria's ability to achieve equitable, sustainable poverty reduction through more effective governance related to climate change in Nigeria*” (Marbek Resource Consultants and CUSO 2007). The BNRCC project objectives included “*building Nigerian capacity to meet international commitments and adapt to climate change through improved governance promoting gender equality, poverty reduction and more sustainable natural resource management*” (Marbek Resource Consultants and CUSO 2007). The expected impact is improved capacity of Nigerians to respond to the effects of climate change, reducing the negative impacts on the livelihoods of vulnerable men and women (Marbek Resource Consultants and CUSO 2007). The BNRCC project had four components which included the research, pilot projects, outreach/networking/communication, and policy components. It was implemented in fifteen (15) states of Nigeria (Fig. 1). All project components, except the policy component, had Advisory Groups. The Advisory Groups provided guidance and contributed to decision-making related to

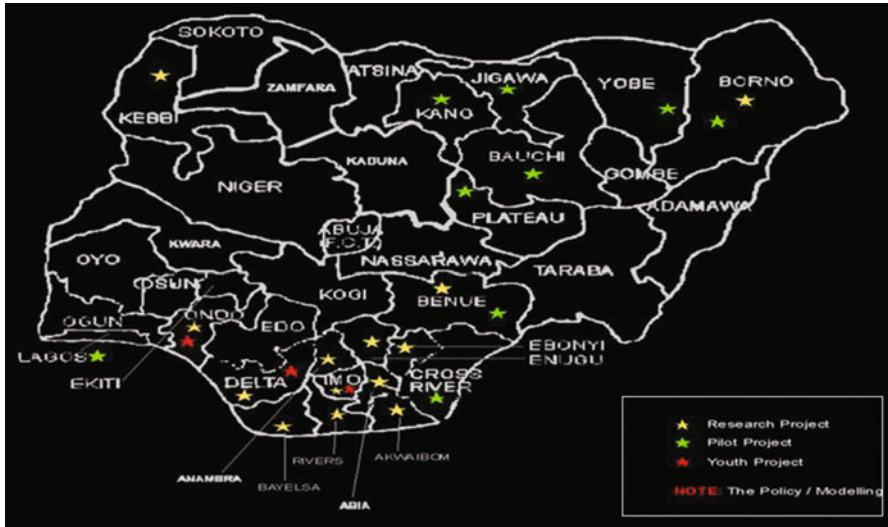


Fig. 1 Map of Nigeria showing states where BNRCC Projects are located

their specific components. The Advisory Groups did not directly participate in implementation of project activities. Each Advisory Group was composed of 5 members, representing a range of expertise and perspectives. The groups had balanced membership with regard to gender, geography, and categories of stakeholder. Each Advisory Group met regularly (approximately 3–4 times per year) during the most active phase of the component for which the Group provided advice.

Research Component

The research component had two categories of research carried out – socioeconomic research on climate change impacts, vulnerability, and adaptation; and climate scenario modeling. This component commissioned experts from diverse fields to carry out studies on socioeconomic aspects of climate change across Nigeria to generate evidence from the field. According to NEST (2011), the commissioned socioeconomic projects included:

1. Adaptation to Climate Change and Variability by Farming Households in the Niger Delta Region, Nigeria
2. Assessment of Impacts, Vulnerability, Adaptive Capacity and Adaptation to Climate Change in the Niger Delta Region, Nigeria
3. Gender Dimensions and Indigenous Knowledge for Adaptation to Climate Change in
 - (a) Southeast Nigeria

The socioeconomic research projects collected gender disaggregated data and conducted gender analysis of the data collected. Gender was also considered in the

composition of the socioeconomic research projects teams. The consideration of gender in all activities of the socioeconomic projects was informed by the fact that climate change impacts are not gender neutral. Climate change affects everyone, but the way and manner it affects men, women, youths, the aged, and people with disability differ significantly. This will also inform the kind of adaptation strategies needed for different groups. Experts, who are academics from universities across Nigeria, with prerequisite knowledge of climate change were selected and commissioned after a nationwide call for expressions of interest.

Also, the Climate System Analysis Group (CSAG), Department of Environmental and Geographical Science, University of Cape Town, Rondebosch, South Africa was commissioned to generate climate scenario models and predict the future impacts of climate change in Nigeria. This subcomponent was important and a major accomplishment of the project because the findings generated provided information on how Nigeria's climate has changed over time and what is expected in the future. Global Circulation Models (GCMs) are too coarse to predict local scale impacts on agriculture, health, natural resources, etc., in different ecological zones of Nigeria. The BNRCC downscaling improves resolution with 1971–2000 climate data from 40 Nigerian Meteorological Agency (NIMET) stations to fill the gap (Babatunde et al. 2011).

This component generated new knowledge and tools of analysis of climate change scenarios, vulnerabilities and impacts on men and women in key sectors and eco-regional zones as well as their local adaptation practices to climate change. Furthermore, it developed regional climate predictions for Nigeria's eco-regional zones, developed vulnerability analyses for adaptation applications, and identified traditional and new response guidelines, practices, strategies, and technologies for climate change adaptation.

Pilot Projects Component

The pilot projects reached 15 primary communities in 8 States from the coastal/rainforest, through the tall grass and short grass savannas to the Sahel ecological zones, covering Cross River, Benue, Plateau, Kano, Jigawa, Bauchi, Yobe, and Borno States. Knowledge generated from the pilot projects contributed greatly in developing the National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN), a policy instrument now with the Federal Government. The Building Nigeria's Response to Climate Change project commissioned seven pilot projects partners across different ecological zones of the country to carry out community-based adaptation projects (NEST and Woodley 2011). According to NEST, Woodley (2011), the commissioned projects included:

1. Use of Agroforestry Strategies to Rehabilitate Sand Dunes and Improve Livelihoods of Rural Communities in the Nigerian Sahel

2. Strengthening Community-based Adaptation to Climate Change for Increased Food Security in Fragile Ecologies of Three Rural Communities in Bauchi and Jigawa States, Nigeria
3. Community-based Integrated Climate Change Adaptation Pilot Project in Two Communities of Plateau State
4. Promoting Climate Change Adaptation Best Practices in Communities in the Guinea and Sudan Savanna Regions of Nigeria
5. Alternative Livelihood Options as a Means to Promoting Community-based Adaptation to Climate Change in the Rainforest and Derived Savanna Zones of Nigeria
6. Alternative Livelihood Options as a Means to Promote Community-based Adaptation to Climate Change in two Coastal Communities in Akpabuyo Local Government Area of Cross River State
7. Alternative Livelihood Options as a Means to Promoting Community-based Adaptation to Climate Change in the Rainforest Zones of Nigeria

The pilot projects adopted a participatory, community-based adaptation, and demand-driven approach in its implementation (see NEST and Woodley 2012 for details). The pilot projects contributed in building resilience to climate change in Nigerian rural communities. Okali (2012) summarized how the pilot projects contributed to building resilience in rural communities. According to him, the pilot projects increased the buffer capacity of rural farming communities through promoting several livelihood diversification activities, training community members in project management, mainstreaming gender in all project activities, value addition of farm produce, introducing and promoting improved cook-stoves, and promoting sustainable land management practices. The pilot projects also strengthened the capacity of rural communities for self-organization and enhanced their adaptive capacities (Okali 2012). In strengthening rural communities' capacity for self-organization, the projects adopted participatory approach in choosing and implementing adaptation interventions in the communities, formed project implementation committees (PIC) in the communities, formed and strengthened community-based organizations, included youths, men and women in projects' management and decision making, ensured that communities take full ownership of the projects to promote sustainability, and relied on local resources in project implementation and management (NEST and Woodley 2012). The project built adaptive capacities of rural communities through learning, creating awareness, knowledge and experience sharing, training, provision of peer education tools for knowledge transfer, creating a platform for different stakeholders to interact freely and provide feedback, and encouraging scaling up successful interventions beyond initial communities (NEST and Woodley 2012). For example, the water project in Kwaikong community in Plateau State (initial project community) was replicated in Kayarda community, and the Local Government Chairman of Langtang South donated about ₦500,000 to support the promotion of adaptation activities in his area (NEST and Woodley 2011). Some of the notable outcomes of the project included neighboring communities of all pilot project communities requesting early maturing varieties of crops tested and cultivated in initial project communities; and more farmers in some communities in the savanna area requesting more shallow

wells for irrigation farming as a result of the success recorded in dry seasons after testing the shallow wells in the communities.

The NASPA-CCN

The main thrust of the NASPA-CCN is to “*minimize risks, improve local and national adaptive capacity and resilience, leverage new opportunities, and facilitate collaboration with the global community, all with a view to reducing Nigeria’s vulnerability to the negative impacts of climate change*” (BNRCC and Federal Ministry of Environment 2011). This Plan of Action identified 13 priority sectors impacted by climate change in Nigeria. These sectors include agriculture (crops and livestock), freshwater resources, coastal water resources and fisheries, forests, biodiversity, health and sanitation, human settlements and housing, energy, transportation and communications, industry and commerce, disaster, migration and security, livelihoods, vulnerable groups, and education. The impacts of climate change on these sectors and the recommended adaptation strategies were drawn mainly from results of the pilot and research projects of the BNRCC.

Recognizing the role different stakeholders play in climate change adaptation (AECOM 2013), the NASPA-CCN allocates concrete responsibilities to all stakeholders including the federal government, state governments, local governments, civil society organizations, international development partners, communities and organized private sector with the government, the private sector, and civil society providing strong and visionary leadership. The federal government is expected to provide the overarching policy and legislative leadership, the states and the local governments lead in the regions and at the grassroots, the organized private sector explores business opportunities presented by climate change, while civil society organizations continue to act as catalysts at the adaptation frontline (BNRCC and Federal Ministry of Environment 2011). The process of developing the NASPA-CCN is described in details in the section that follows.

Process of Developing the NASPA-CCN

The NASPA-CCN led by four main partners including Building Nigeria’s Response to Climate Change project of the Nigerian Environmental Study Action Team Ibadan, Heinrich Boll Foundation, NigeriaCAN (Nigeria Climate Action Network), and the Special Climate Change Unit (now the Department of Climate Change) of the Federal Ministry of Environment, was developed through an innovative process (see BNRCC and Federal Ministry of Environment 2011 for details). The development of the document involved all relevant stakeholders and experts in climate change space including communities, civil society groups, researchers, and specialists of different sectors. The Lead partners engaged with prominent stakeholders to set-up a multistakeholder process to develop the strategy document. A 25-member Multi-Stakeholder Forum whose membership was drawn from the government

(local, state, and federal government officials), nongovernmental organizations, private sector operators, and researchers was formed to provide oversight (BNRCC and Federal Ministry of Environment 2011). The document largely used findings from the Building Nigeria's Response to Climate Change research and community-based adaptation projects.

The BNRCC project staff worked to develop a draft national strategy, drawing heavily on the knowledge gained through BNRCC's pilot projects and research. BNRCC engaged policy/research consultants to collect background research on existing climate change policy and advise on the development of sectoral adaptation strategies. BNRCC first commissioned experts of different sectors (agriculture, freshwater resources, coastal water resources and fisheries, forests, biodiversity, health and sanitation, human settlements and housing, energy, transportation and communications, industry and commerce, disaster, migration and security, livelihoods, vulnerable groups, and education) to produce the Climate Change Adaptation Strategy Technical Report (CCASTR) using inputs/finding from BNRCC's research and pilot projects and other relevant studies. The BNRCC team designed the table of contents of the report and presented and circulated it to the individual writers during different meetings and workshops. The team also designed three templates/tables for analyzing and synthesizing inputs from BNRCC's research and pilot projects and other relevant studies. These tables included Hazard-Impact-Vulnerability-Adaptation Matrix for all sectors in all ecozones in Nigeria; Policies, Programs, Adaptation Options Addressed, Implementing Agency and Cost Table; and Evaluation of Proposed Policies Table (see NEST and Tegler 2011 for details). These tables were populated by the commissioned writers/specialist of different sectors using findings that emerged from BNRCC's research and pilot projects and other relevant studies. The output of this process was a technical report called, Climate Change Adaptation Strategy Technical Report. The BNRCC team distilled the CCASTR text, produced the first draft of NASPA-CCN, and widely circulated the draft to stakeholders and experts for inputs (BNRCC and Federal Ministry of Environment 2011). Inputs received from stakeholders and experts were duly considered and incorporated in the document. The main focus of NASPA-CCN was priority policies, programs, plans, and actions.

Methodology

We conducted a survey across the country to determine stakeholders' perceptions about the NASPA-CCN and the process of producing it. The survey was carried out between October 2018 and May 2019. One hundred and twenty respondents drawn from federal ministries, departments, and agencies; state ministries, local governments; civil society organizations; academia (lecturers and postgraduate students); media; private sector operators; and communities participated in the survey. We presented the results of the survey in the result section.

Table 2 Rating of the process of developing NASPA-CCN

Rating	Frequency	Percentage
Excellent	27	22.50
Very Good	63	52.50
Good	21	17.50
Fair	6	5.00
Bad	3	2.50
Total	120	100.00

Table 3 Key success factors of the NASPA-CCN process

Rating	Frequency	Percentage
Gender consideration	96	80.00
Using evidence from research and pilot projects in developing the document	108	90.00
Engaging/consulting relevant stakeholders in the process	105	87.50
Identification and consideration of all priority sectors affected by climate change	99	82.50

Result

How Would You Rate the Process of Developing NASPA-CCN?

The rating of the process of developing NASPA-CCN is presented in Table 2. Majority (52.50%) of the respondents believed that the process was a very good one. The process followed a systematic manner in developing the document. Multistakeholders forum composed of experts in their various organizations were established. A group of authors were also commissioned to write the Climate Change Adaptation Strategy Technical Report (CCASTR) using largely evidence from BNRCC's pilot and research projects. After writing the CCASTR, the BNRCC team distilled the NASPA-CCN from the CCASTR and several workshops and meetings were held to validate the document. This rating implies that the process of producing the NASPA-CCN is a largely accepted way of policymaking in Nigeria and countries with similar contexts.

What Do You Consider as the Key Success Factors of the NASPA-CCN Process?

Four key factors were identified and considered by stakeholders as the main contributors to the success of the NASPA-CCN as reported in Table 2. These include gender consideration in all activities that led to developing of NASPA-CCN, using evidence-based approach in developing the document – using concrete evidence from research and pilot projects, engaging/consulting relevant stakeholders in the process, and ensuring that all priority sectors affected by climate change were

identified and considered in the process of developing the document. The evidence-based approach (reported by 90.00% of the respondents) applied in developing the document appeared to be most considered success factor (Table 3).

Limitations

This study was based on the knowledge and experience of the first three authors, who were part of the BNRCC team, CCASTR, and NASPA-CCN processes. Also, these authors were involved in preparing the first draft of NASPA-CCN. The chapter benefitted largely from the authors' knowledge and experience generated during implementation of the BNRCC project, CCASTR, and NASPA-CCN processes. The chapter rated stakeholders' perception about the process of producing the NASPA-CCN. Although many of the respondents interviewed were not involved in the NASPA-CCN process, they have read the NASPA-CCN and some other BNRCC reports, which informed their responses. However, our chapter did not focus broadly on the subject of climate change but the practical experiences and lessons learnt from the development of the NASPA-CCN which policy developers not just on climate change, but broader subject could learn in order to mainstream research lessons into policy.

Conclusion

The concept of evidence-based policy making does not necessarily imply good policy making. Biased evidence could lead to bad policy making decisions with damaging outcomes. Similarly, policies can be considered bad if their outcomes are ineffective, even if they utilize evidence-based. Evidence-based policy focuses mainly on the policy making process, however, good policy making not only considers the processes, but the policy outcomes (O'Dwyer 2004). Hence, it is recommended that evidence-based policy making should consider both processes and outcomes in order to be effective.

This chapter documented the experience and knowledge gained about the process of evidence-based policy making as well as adaptation to climate change impacts at the community level, acquired from implementing the BNRCC. The chapter also rated stakeholders' perception about the process of developing the NASPA-CCN – an evidence-based policy document driven by the BNRCC project. The process of developing the strategy document was generally rated to be very good. The project used concrete evidence from research and pilot projects, engaged/consulted all relevant stakeholders in the process, ensured that all priority sectors affected by climate change were identified and considered in the process of developing the document, and mainstreamed gender in the project and process. These factors played a significant role in the success of the BNRCC project and developing and delivering the NASPA-CCN. In particular, the BNRCC pilot projects contributed to building resilience of communities and sectors across the different ecological zones of

Nigeria by improving the buffer capacity and capacities for self-organization and adaptive management.

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