



**FEDERAL UNIVERSITY OF TECHNOLOGY  
MINNA, NIGER STATE, NIGERIA**

**SCHOOL OF ENVIRONMENTAL TECHNOLOGY  
INTERNATIONAL CONFERENCE (SETIC) 2018**

# **CONFERENCE** *Proceedings*

**CONTEMPORARY ISSUES  
AND SUSTAINABLE PRACTICES  
IN THE BUILT ENVIRONMENT**

**EDITORS:**

**Asimiyu M. JUNAID  
Olatunde F. ADEDAYO  
Richard A. JIMOH  
Luqman O. OYEWOBI**



**School of Environmental  
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(SETIC) 2018**

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State, Nigeria**

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**Volume 1**

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# Conference Proceedings of the School of Environmental Technology International Conference (SETIC) 2018

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10th – 12th APRIL 2018

School of Environmental Technology,  
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# FOREWORD

The organising committee of the 2<sup>nd</sup> School of Environmental Technology International Conference is pleased to welcome you to Federal University of Technology Minna, Niger State Nigeria.

The conference provides an international forum for researchers and professionals in the built and allied professions to address fundamental problems, challenges and prospects that affect the Built Environment as it relates to Contemporary Issues and Sustainable Practices in the Built Environment. The conference is a platform where recognised best practices, theories and concepts are shared and discussed amongst academics, practitioners and researchers. The scope and papers are quite broad but have been organised around the sub-themes listed below:

- Architectural Education and ICT
- Building Information Modeling
- Construction Ethics
- Energy efficiency and Conservation
- Environmental Conservation
- Facility Management
- Green Construction and Efficiency
- Health and Safety Issues
- Information Technology and Building Maintenance
- Information Technology and Construction
- Information Technology and Design
- Innovative Infrastructure Development
- Resilient Housing Development
- Smart Cities Development
- Social Integration in Cities
- Sustainable Building Materials Development
- Sustainable City Growth
- Sustainable Cost Management
- Sustainable Property Taxation
- Sustainable Architectural Design
- Sustainable Urban Transportation Systems
- Theory and Practices for Cost Effectiveness in Construction Industry
- Urban Ecology Management
- Urban Land Access
- Disasters, Resilient Cities and Business Continuity

We hope you enjoy your time at our conference, and that you have the opportunities to exchange ideas and share knowledge, as well as participate in productive discussions with the like-minded researchers and practitioners in the built environment and academia.

**Local Organising Committee**  
**School of Environmental Technology International Conference (SETIC) 2018**  
**APRIL 2018**



## ACKNOWLEDGEMENTS

We have tried to build on the success of the maiden of SETIC held in 2016 which came with good feedbacks and memories. The success of the 2<sup>nd</sup> School of Environmental Technology International Conference holding at the Main Campus of the Federal University of Technology Minna, Nigeria is predicated on the support and goodwill from Vice-Chancellor of Federal University of Technology, Dean School of Environmental Technology and many other highly motivated people.

I sincerely wish to appreciate you for attending this Second edition of SETIC and to warmly welcome you to the city of Minna the capital of the *POWER STATE*. It is a great honour to have you in the beautiful campus of Federal University of Technology Minna, Nigeria. I am aware of the great sacrifices made by many of you to be present in this occasion and I will definitely not overlook the long distances some of you have had to cover to get to the conference venue. We genuinely appreciate all your efforts. It is our singular hope and desire that this 2<sup>nd</sup> edition of the conference (SETIC 2018) meets your expectations and gives you unquantifiable experience and tremendous developmental networking opportunities for a life fulfilling career.

We are grateful for the presence of the Vice Chancellor of the Federal University of Technology Minna Professor Abdullahi Bala whose leadership and distinguished academic career has served as inspiration and encouragement to many academics within and outside Nigeria. His desire to continue on the path of greatness for this Humble University of ours has seen the University become a destination for International conferences, Public lectures, Book Development, Presentations and Seminars that meet International standards. We are happy to have you as the Chief host to declare the conference open and deliver the welcome address.

We are grateful to the former Dean of School of Environmental Technology, Federal University of Technology Prof A.M. Junaid and the Ag. Dean of School of Environmental Technology Prof. S.N. Zubairu for providing the healthy platform, academic backing, management and guidance for the organisation of the conference. You increased the level of challenge from 2016 and provided the required resources, direction, energy and strategies for achieving its success, it is a great honour of having the opportunity to work closely with you and learning never to give up.

I wish to thank also all the special guests particularly leaders of the Industry, Built Environment and Academia.

A special thanks goes to the Bursar of Federal University of Technology, Mrs. Hajara Kuso for the timely responses to all our requests regarding the financial aspects of access to funds for the conference.

SETIC is beginning at the foundation this year and for this I wish to thank all those who have supported us through various forms of participation. Specifically I wish to thank the delegates and the partners for contributing significantly to the conferences. I wish to thank Prof. S.N. Zubairu Prof. A.M. Junaid, Prof. O. O. Morenikeji and Prof. Y.A Sanusi, who all genuinely and consistently monitored the progress of the conference preparations. My desire in 2016 was for SETIC to become a constant feature in the calendar of the University and global conference listings, am a happy person today seeing this desire fulfilled with the SETIC 2018 edition.

Delegates to SETIC 2018 are from different academic and research institutions that are spread across different countries. This offers participants a wonderful opportunity for exchange of cultural, social and academic ideas during the conference periods. It is also an opportunity to create awareness about programmes and events at the participants' individual institutions. I encourage you all to make good use of the networking opportunities that are available.

In this 2<sup>nd</sup> edition we received 258 abstract submissions because we had a wide distribution outlet as compared to the 1<sup>st</sup> edition which is an indication of growth. Using a rapid review system we accepted a total of 209 abstracts and the authors were communicated on what issues they were to examine while developing the full papers based on their titles and aim of the paper. Two hundred (200) full papers were received and reviewed. We sent back the reviewed papers and reviewers comments forms to each of the prospective authors to assist

in the preparation of the revised papers. It was after this rigorous and time consuming process that we were able to accept 172 papers for presentation at the conference. It gives me great joy therefore to congratulate all the authors whose papers made it to the conference. It is my sincere believe that the presentation of the different ideas in your paper would go a long way in improving the knowledge of the participants and also generate meaningful discussions over the tea beaks, lunch and beyond.

I wish to express my utmost gratitude to each of the Seventy-three (73) reviewers for a wonderful job done well and for tolerating our deadlines and Oliver Twist syndrome. It is your dedication and expertise that has ensured that the conference is a success.

Special thanks to all our keynote speakers, Arc. Umaru Aliyu, (ficiArb, fnia, ppnia) (*President, Architects Registration Council of Nigeria (ARCON)*), Prof. Stella N. Zubairu (*Former Dean Postgraduate School, Federal University of Technology Minna*), Dr. Julius A. Fapohunda, (*Editor-in-Chief: International Journal of Sustainable Energy Development & Leader: Sustainable Building and Urban Growth Research Unit, Cape Peninsula University of Technology*).

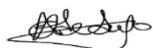
It is important to appreciate the roles and efforts of the following people for their selfless and very significant contributions made towards the successful organization of the conference: Oyetola Stephen, Alonge Olubunmi, Lynda Odine, Adedokun John, Idowu Oqua, Bamidele Eunice and Muhina Lami (for being available to run around at very short notice),

The organisation of this conference would not have been this easy without dedicated individuals offering to serve. My heartfelt gratitude goes to Dr. Taibat Lawanson, Dr. R.A. Jimoh, Dr. L.O. Oyewobi, Dr. N.I. Popoola, Dr. Lekan Sanni, Dr. I.B. Muhammad, Dr. A.A. Shittu and Dr. A. Saka for their unflinching support all through the process.

It is our sincere hope that this conference will serve as a forum for the advancement of research in the urban sphere towards achieving a sustainable environment. It is our sincere believe that academics and professionals in practices will continually participate in this forum.

Worthy thanks goes to the members of the Local Organising Committee for the tireless effort. The success of the conference goes to these wonderful people. You have made SETIC 2018 to ROCK.

Once again I wish to thank you all for creating time out of your busy schedule to attend this conference. Please do enjoy your stay at Federal University of Technology Minna, and the city as a whole. Ensure that you make use of the different fora created throughout the conference to build new relationships for the future and strengthen existing relationships. I look forward to seeing you all in future.



Olatunde Folaranmi ADEDAYO  
SETIC 2018 LOC Chairperson  
APRIL 2018



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# DECLARATION

## PEER REVIEW AND SCIENTIFIC PUBLISHING POLICY STATEMENT

10th APRIL 2018

TO WHOM IT MAY CONCERN

I wish to state that all the papers published in SETIC 2018 Conference Proceedings have passed through the peer review process which involved an initial review of abstracts, blind review of full papers by minimum of two referees, forwarding of reviewers' comments to authors, submission of revised papers by authors and subsequent evaluation of submitted papers by the Scientific Committee to determine content quality.

It is the policy of the School of Environmental Technology International Conference (SETIC) that for papers to be accepted for inclusion in the conference proceedings it must have undergone the blind review process and passed the academic integrity test. All papers are only published based on the recommendation of the reviewers and the Scientific Committee of SETIC

Names and individual affiliation of members of Review and Scientific Committee for SETIC Conference 2018 are published in the SETIC 2018 Conference Proceedings and made available on [www.futminna.edu.ng](http://www.futminna.edu.ng)

Olatunde Folaranmi ADEDAYO  
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Federal University of Technology, Minna, Nigeria

Papers in the SETIC 2018 Conference Proceedings are published on [www.futminna.edu.ng](http://www.futminna.edu.ng).

## REVIEW PANEL

We wish to express our deepest and sincere gratitude to the following people in no particular order who provided comprehensive scientific reviews and made commendable suggestions towards improving the over 258 abstracts and 182 full papers submitted to SETIC 2018. They provided constructive comments to authors regarding their papers, it is necessary to state that there was no reported case of conflict of interest by any of the reviewers or the authors.

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## PROFILE OF KEYNOTE SPEAKERS

SETIC 2018 organisers wishes to thank our keynote speakers for accepting to create time to share from their rich wealth of knowledge and interact with delegates and participants on varied issues being examined at this year's conference. A brief profile of each keynote speaker is provided here, this would allow for future interaction and networking with them.

**Prof. ZUBAIRU, Stella Nonyelum**  
**Federal University of Technology, Minna**

**Academic Qualifications:** PhD (Building Maintenance, 1999); MSc (Facilities Management, 1989); BArch (Architecture, 1980).

**Professional Registration:** Registered Architect with Architects Registration Council of Nigeria (F/483, 1985); Member, Nigerian Institute of Architects; Member, International Federation of Facilities Managers.

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Prof Stella Nonyelum Zubairu is a lecturer in the Department of Architecture, School of Environmental Technology, at the Federal University of Technology, Minna, Niger State, Nigeria. She obtained a second class upper division degree (BArch) in Architecture from the University of Nigeria, Enugu Campus in 1980. She served in the National Youth Service Corps in Niger State Housing Corporation, Minna, after graduation (1980 -1981), then she worked briefly for a private architectural firm, SWACON, in Lagos before joining the Niger State Ministry of Housing and Environment in 1983 as an architect II. The Ministry later merged with the Ministry of Works and was renamed Ministry of Works and Housing. She rose through the ranks in the Ministry and reached the position of principal architect. During this time, she was involved in many projects in the State including the design and construction of the Government House, extension of the Governor's office, supervision of all health projects in the State and later the design and construction of the Old Peoples' Home and other social welfare projects in the State. In 1988, she was granted study leave to go to Strathclyde University, Glasgow, where she obtained an MSc degree in Facilities Management in 1989. In 1991 she left the Ministry to join the Federal University of Technology, Minna as a lecturer I. In 1995 she was granted a study fellowship to study for her PhD at the University of Lagos which she completed in 1999 with a PhD in Building Maintenance. She was appointed Head of the Department of Architecture, Federal University of Technology, Minna (1999 – 2006). She was promoted to the rank of professor in October 2006. She served as Deputy-Dean Postgraduate School (2008); then she was appointed as Director, Centre for Human Settlements and Urban Development (2008 – March 2011) in the same University. She was then appointed Dean of the Postgraduate School (March 2011 – March 2015).

# INTEGRATED APPROACH: A SUSTAINABLE STRATEGY TO ADEQUATE HOUSING PROVISION BY THE URBAN POOR IN LOKOJA, NIGERIA

**Amlogu G. Y. & Sulyman A.O.**

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The housing sector in Nigeria have always adopted single sector or multi-sectored approaches to address the plaguing issue of housing deficit which have proven ineffective and partial. The most affected are the low income earners due to their inability to afford the rental values as well as other factors that impedes their access to adequate housing. This study is aimed at adopting strategies that will reduce the problem of poverty and aid affordability so as to ensure a sustainable provision of adequate housing. In achieving this, the study examined the provisions made by previous strategies in the study area that have been represented in sixteen (16) neighbourhoods made up of 1,836 housing units. 318 questionnaires were administered and 309 retrieved and analysed using SPSS. On another hand, focus group discussion was held to research the potency of integrated approach through participation over other strategies. A transcript was generated and subjected to analysis using Nvivo. With a highest representation of 33.3% of responses being related to local economic development followed by a 22.2% of responses related to urban governance, the study revealed that participation of people from all areas of life in the housing delivery process and related governance issues as well as engagement of the government in programmes that will improve the livelihoods of the urban poor will result in a more sustainable journey to adequate housing provision than the previously used strategy in the study area which reflects a mean index of 2.73 of the provision as fair, that is, not good enough. Therefore, better involvement in the governance as well as a concurrent improvement in the lives of the people will help every government achieve their prerogative of adequate housing provision not just for the urban poor but for all.

**Keywords:** Adequate housing, integrated approach, public participation, livelihood, urban poor.

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## INTRODUCTION

Every living being is entitled to certain basic rights one of which is adequate housing. This right is recognized by the international human rights law as part of a right to adequate standard of living. Despite the central place of this right within the global legal system, well over a billion people are not adequately housed (United Nations Habitat, 2014). This happens as a result of a constant, yet unprecedented rise in population especially in developing countries, consequently making access to adequate and affordable housing by a majority of the population an issue until appropriate intervening measures are taken to achieve this provision at a sustainable level. (Jacqueline and Danielle, 2017). Olotuah and Bobadoye (2009) observed that lack of adequate housing in Nigeria, is a manifestation of poverty; the main reason why significant proportion of the urban dwellers live in high density housing and areas where environmental conditions which constitute serious health hazard and threat to their general productivity exists. In the context of Nigerian cities, there have been interventions (examples include the site and service scheme, low-cost housing scheme, direct built by government in the form of staff quarters) in the housing sector in a bid to accommodate the rising population. These interventions have been in the form of programmes and policies that have guided housing developments, but these have proven not to be sufficient. (Enisan and Ogundiran, 2013).

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**Amlogu & Sulyman (2018). INTEGRATED APPROACH: A SUSTAINABLE STRATEGY TO ADEQUATE HOUSING PROVISION BY THE URBAN POOR IN LOKOJA, NIGERIA.** Contemporary Issues and Sustainable Practices in the Built Environment. School of Environmental Technology Conference, SETIC, 2018

As against the recommended strategy by the UN Habitat (2014), in using a participatory approach that ensures social inclusion and environmental viability, the study area, Lokoja, has maintained a pattern of housing provision that has not satisfactorily served the end users and has sidelined the urban poor in the area. This is so because the provisions made so far have been direct built by government and purposely for civil servants except for the flood victim estate. A distribution of these provisions is shown in the table below. It is on this premise that this paper aims to promote integrated approach through participation at all levels as a strategy for the sustainable provision of adequate housing to the urban poor. This is going to be achieved by first, examining the level of satisfaction of the end users of housing provision made through implementation of other strategies and then secondly, examine the resources that can be harnessed in improving this provision through integrated approach in the study area.

**Table 1.1 Public Housing Provision in Lokoja, Nigeria.**

S/NO	NAME OF ESTATE	HOUSING TYPE	No. OF UNITS	CADRES
1.	Lokongoma Phase I	32 block of 8-man quarter of 2-bedroom bungalow	248	Intermediate Staff
82	Adankolo Housing Estate	1, 2 and 4 bedroom bungalows	74	Junior and Intermediate
3.	Lokongoma Phase II	3 bedroom bungalow	150	Senior
4.	Salau Attimah Estate	1 and 2 bedroom bungalows	70	Junior and Intermediate
5.	4 <sup>th</sup> Republic Legislators' Quarters	3 and 4 bedroom bungalows	35	Senior
6.	Workers' Village	24 blocks of 2 bedroom bungalow	96	Intermediate
7.	Former Commissioners' Quarters (G.R.A.)	4 bedroom bungalow	25	Senior
8.	Danladi Zakare Housing Estate (Ganaja Road)	1 bedroom bungalow	50	Junior
9.	Oba Micheal Olobayo Housing Estate, Ganaja Road	3 bedroom bungalow	226	Senior
10.	Former D.G.'s Quarters, G.R.A.	4 bedroom bungalow	15	Senior
11.	New Commissioners' Quarters, Ganaja Road	6 bedroom duplex	30	Senior
12	Old Poly Quarters, Ganaja Road	3 bedroom bungalow	10	Senior
13.	Otokiti Housing Estate, Barrack Road	1, 2 and 3 bedroom bungalows	253	Junior, Intermediate and Senior
14	Ganaja Housing Estate, Ganaja Road	1, 2 and 3 bedroom bungalows	252	Junior, Intermediate and Senior
15	New Permanent Quarters, Ganaja Road	5 bedroom duplex	30	Senior
16	Flood Victims Estate	1 and 2 bedroom bungalows	272	Flood Victims
			1,836	

Source: Author, 2017

## The Concept of Housing

The concept of housing varies from place to place. It is basically seen as a shelter that protects one from the harsh effect of weather elements (Jinadu, 2007). By this definition, huts, tents, canopies and even caves can be regarded as housing. In a case where adequacy is paramount, all these are inappropriate, hence they must fulfill certain functions that only the entirety of adequate and sustainable housing can fulfill (NASA, 2007). Housing is therefore not just a structure with a roof but also the features within the environment provided to support the functionality of the structure. Housing also goes further to portray the social status of a person or family, a source of prestige, a symbol of one's personality or a means of one's identity. It is above all a basic human right (United Nations, 2014)

## The Concept and Characteristics of Adequate Housing

United Nations (1991) defined adequacy in housing as a case which is determined in part by social, economic, cultural, climatic, ecological and other factors. For housing to be adequate, the occupants should have a degree of tenure security which guarantees legal protection against forced evictions, harassment and other threats. This security should be available for both property owners and those renting houses. The availability of services, materials, facilities and infrastructure is also a determining factor for housing to be regarded as adequate. Certain features should be put in place such as safe drinking water, adequate sanitation, energy for cooking, heating, lighting, food storage or refuse disposal. There also has to be a degree of affordability as housing is not adequate if its cost threatens or compromises the occupants' enjoyment of other human rights. People should be able to

demand for housing with the corresponding willingness and backing to afford housing according to one's taste and within not more than 30% of a person's income. Other than secure tenure, affordability and availability of infrastructure and services, for housing to be totally adequate, according to UN Habitat (1991), it has to be habitable, accessible, well located and culturally adequate.

### **Housing and the Urban Poor**

The urban poor are those found in areas referred to as slums or informal settlements which in most cases lack tenure, adequate infrastructure and structurally sound and safe houses (Adedayo, 2015). These people are made up of migrants from rural areas to urban areas that relocate to the cities to get a better source of livelihood. They constitute the vast majority of urban dwellers and they are in a disadvantaged economic position to build for themselves and are generally unable to make effective demand of existing housing (Olotuah and Taiwo, 2013).

Nigeria, like most of other developing countries, have made attempts at providing adequate housing for their urban poor through various approaches such as provision of low cost housing, site and service scheme, staff quarters for civil servants among others. All of these approaches have shown very little success as the deficit is still on the increase. At some other points when approach adopted involves renewal or redevelopment of the already existing slums, forced evictions without alternative accommodation or adequate compensations usually take place. This further displaces the urban poor and makes them believe less in the government's ability to salvage the situation of homelessness and housing inadequacy (Afolabi and Olumide, 2012).

### **The Concept of Integrated Approach**

Integrated approach, as defined by Rossiter (2000) is a process where a multi-sector approach is co-ordinated to be mutually supportive, with all the different sectors operating in such a way that results in one are reinforced by achievements in another. This school of thought by Rossiter is being globally concurred with and adopted as seen in the report at a workshop by the UN Department of Economic and Social Affairs and the UN Division for Sustainable Development (2015). The participants at this workshop described the post-2015 development agenda and sustainable development goals as a 'global, national and local social contract where communication, participation and partnership are its keywords.' They also stated that in adopting integrated approach as the way forward, the proposed social cohesion which is the a key aspect of the driving forces to achieve this, demands attention to governance, where national, regional as well as local levels are completely interconnected, where multi-stakeholder and multi-dimensional approaches and collaborations are the norm.

### **Sustainable Livelihood Framework: A Tool to Achieving Integrated Approach**

The Sustainable Livelihood Framework according to Majale (2003), seeks to improve housing (physical capital) through the use of alternative building materials in urban areas which involves building human capital through skills upgrading, strengthening community based groups (social capital) and facilitating access to credit (financial capital), as well as reviewing regulatory frameworks. The concept of livelihood is relevant here because it is an important defining factor in the ability of an individual to provide housing for himself. Majale purports that livelihood connotes assets, entitlements, means and activities by which people make a living. This therefore sums up sustainable livelihood to be a function of how members of a society utilize these assets to meet their needs without compromising those of future generations. This is affirmed in the definition of livelihood by UN Habitat Factsheet (2014) as activities that allow people to secure the basic necessities of live, for example, food, clothing, water and shelter, which is, housing.

The above framework therefore supports the expected outcomes of employment generation and poverty reduction as an important area that the UN Habitat Global Housing Strategy Framework seeks to achieve as part of the forces that will ensure the achievement of sustainable provision of adequate housing. Integrated approach was adopted in Nakuru, Kenya in tackling the issue of providing adequate housing to the urban poor. This they did through participation and improvements of livelihood at the community level. Efforts were concentrated on developing medium scale enterprises to increase the income-earning capacity of community based organizations, especially women's groups. Skills and business

From the table 4.5 above, the condition of the buildings provided by the previously implemented strategies in the study area is outlined thus; the condition of the walls, roof and floor were considered fair with mean index of 3.47, 3.41 and 2.88 respectively. Those of doors and windows were satisfactory also with mean indices of 2.09 and 2.22. The characteristics of the dwelling units had the size of the toilets and windows considered fair with mean indices of 2.51 each. All other characteristics were considered satisfactory as indicated in the table above.

On the other hand, the condition of infrastructure and environmental quality had a vote of dissatisfaction in the regularity of power and water supply as well as the level of security. This is seen in their mean indices of 3.53, 3.69 and 3.67 respectively. The conditions of the access road and the drainages as well as the effectiveness of the solid waste disposal system were considered fair, having mean indices of 3.45, 2.76 and 2.88 respectively.

## **Resources Available for Implementation of Integrated Approach in Lokoja**

A focus group discussion was carried out involving representatives of selected group of people to have a fair hearing of housing and environmental issues. These people were drawn from workers in the informal sector of the economy, those living in disadvantaged neighbourhoods as well as civil servants.

The questions asked were based on the components of adequate housing as well as factors that determines access to adequate housing, which have been summarized into thematic areas such as basic urban services, environment, urban safety, urban disaster risk, land, urban governance and local economic development. These themes were further categorized under the various aspects of resource capitals that make up the sustainable livelihood framework (natural resources, social resources, human resources, physical resources and financial resources). These attributes and themes and their categories brought about the following findings;

### **Natural Resources**

Natural resources are made up of natural resource stock from which resource flows useful for livelihoods are derived. Examples are land, water, bio-diversity and environmental resources. The thematic areas that contain natural resources that are being and can be harnessed to improve the livelihood of the urban poor or create a platform for such possibility include Environment and Land

### **Findings for Environment**

Environment here refers to the immediate surrounding as well as the entire ecological setting of the study area.

*'... the variety of river fish and some historic features and sites like the mount patti, the confluence of river Niger and Benue, .... All of these places will be very good for tourism purpose.'* (Government, Community, Cooperative or Individual Driven)

*'Efforts are being made by the government to better the environment of the people and help improve their livelihood. For example in the Kabawa area, the reclaimed land opposite Kabawa by the river itself is being planned for a recreational garden.'* (Government driven)

### **Findings for Land**

Land here refers to undeveloped plots available for agricultural purposes.

*'.... Ponds are actually encouraged by the government as well as farming of rice and cassava. Loans are given if you have sufficient land space land and are ready to dive into this initiative. I believe these things can translate into higher income.'* (Government driven)

*'... the reclaimed land opposite Kabawa by the river itself is being planned for a recreational garden.'* (Government driven)

## **Discussion**

Responses have shown that the environment of the study area can be harnessed to create a platform for improved livelihood. Some of the activities and ideas are government driven, while others are individual or community driven. The ownership of undeveloped land can

as well be an asset for those interested in agricultural activities. When these resources are put into good use, an increased income is ensured as well as support from the government.

### **Social Resources**

This comprises of the social resources (relationships of trust, membership of groups, networks, access to wider institutions) upon which people draw in pursuit of livelihoods. The study area possesses these resources as seen in thematic areas such as local economic development and urban governance as follows;

### **Findings in Local Economic Development**

Local economic development here involves economic activities of the informal sector (such as carpentry, tailoring, and hair dressing) as well as government efforts towards improving these activities.

*‘... the government has helped the unemployed youths and women by engaging them in menial jobs and paying them a token every month. .... What they do is basically engage some of them in cleaning of the streets of Lokoja and others are trained in various vocations ... get paid and then given soft loans to start business at the end of their training.’*

*‘Cooperatives and associations give business loans to members who regularly contribute financially to enhance their businesses. ... daily contribution, for the petty traders, they save a certain amount of money daily and are granted loan after some time, ...’*

### **Findings in Urban Governance**

This thematic area involves the activities undertaken by the government as well as methods or initiatives used to improve the wellbeing of the people.

*‘... That is why most of the soft loans given are given to those who apply at cooperative level just to try to show them how cooperative work can bring result.’*

### **Discussion**

It is evident that affiliations with various associations has helped to boost the livelihood of its members either by directly financing their businesses through loan issuances or by giving members a credible platform through which they can obtain financial help from the government for improvements of livelihood activities. These associations and relationship networks have therefore proven to play important roles in making the lives of its members better.

### **Physical Resources**

This includes infrastructure such as water supply, electric power supply, waste disposal system/sanitation, road/transportation, housing and means of equipment of production. The thematic areas that have shown alignment with this resource area are the basic urban services and local economic development.

### **Findings from Basic Urban Services**

Basic urban services include infrastructure and services such as water supply, electric power supply, waste disposal sanitation as well as road/transportation.

*‘Since 1991, it has been the old water works, until Alhaji Ibrahim Idris constructed the new water board at Ganaja producing up to seven million gallons per day which supplies Crusher, Barracks, Ganaja, Phase I and II.’*

With respect to power supply;

*‘Apart from the communities in the town that are geographically in other local governments, the old Lokoja town still suffers more of black out all day.’*

*‘... As regards basic services like power supply, Kabawa have very regular light and they are not being billed.’*

As regards waste disposal practices;

*‘..... the Geemony sanitation company, a private company which works for the government and in turn employs so many youths in cleaning the environment of*

*government owned organizations and some public housing estates like the legislative quarters and the commissioners' quarters.'*

The road and transport sector has also been regarded as bad as well as expensive to get people and goods around. Not much has been done on the roads, but other areas of transport are being explored.

*'..., only the road that was constructed at Adankolo and Kabawa we can call improvement.'*

### **Discussion**

Having all physical resources available at their optimum level will have a direct positive impact on other activities both economic and domestic in nature. Cost of creating alternatives can be reduced due to a boost in the provision of these services.

### **Human Resources**

This comprise of knowledge, skill, ability to labour, information and good health. Thematic areas that fall into this category include local economic development and urban safety.

### **Findings from Local Economic Development**

Local economic development here refers to development and improvement of skills that are essential to starting a viable economic activity.

*... others are trained in various vocations like carpentry, tailoring, hairdressing, get paid and then given soft loans to start business at the end of their training.*

*'.... They are as well working on a semi-jetty because of the fishermen since they know that most of the men engage in fishing business.'*

### **Findings on Urban Safety**

Urban safety sees to the security of the environment. This thematic area refers to skills as well as willingness to carry out activities that ensure such security.

*'The state government has a body of vigilantes trained by the state and assigned to work in collaboration with the police force. They are dispatched to various locations for security purposes and are paid by the government.'*

### **Discussions**

Local economic development in the study area has been a target area by the government of the study area in various ways that has and still can literally boost the income of the urban poor. This is evident through initiatives that has helped train people in various vocations as well as finance their businesses to help translate their trainings into money making activities. The willingness of the people to labour has also yielded positive results in earning them security through the vigilante scheme sponsored by the state. Through this, people are getting employed and security of the study area is beefed up as well.

### **Financial Resources**

This includes savings, credits, regular remittances or pensions available to kick start or boost income. The thematic areas relevant to this resource type are local economic development and urban governance.

### **Findings on Local Economic Development**

Local economic development here involves the institutions and initiatives that financially drive and improve economic activities in the study area.

*'There is the Mortgage bank from the government and the Agric bank also which also gives soft loan to those who are interested...'*

*'Cooperatives and associations give business loans to members who regularly contribute financially to enhance their businesses.'*

### **Findings on Urban Governance**

This refers to the willingness of the government to make financial aid available to the people through various loan schemes.

*'The state also offers soft loans to improve businesses of small scale business men and women and traders.'*

*'The current programs sponsored by the state government are the Best Brain Project, also dealing with vocational training and sponsoring of small businesses; ...'*

### **Discussions**

Financial resources are key to every other resource and it is evident in the study area that its governance activities are making as much financial aid as possible available to the people. This has helped to improve their economic activities hence, a rise in their income and livelihoods.

### **SUMMARY OF FINDINGS**

The housing interventions from previous strategies in the study area suffer poor structural conditions as expressed by the high level of dissatisfaction of the respondents. While the characteristics of the dwelling units are generally satisfactory and the approach ensured the provision of some basic infrastructure; the efficiency, condition and regularity of these infrastructure turned out to be poor.

The study area is endowed with the necessary resources it requires to improve the livelihoods of the urban poor if put to good use. This can be done if among other thematic areas, a major attention is given to local economic development and good urban governance.

Participatory approach to planning is not in itself a provision of access to adequate housing by the urban poor in the study area but is a very strong entry point to the basis on which every other factor of access to adequate housing is hinged, which is an improved income or financial base.

### **CONCLUSION**

The approach adopted in housing provision in the study area has shown not to have successfully addressed the need for the provision of adequate housing. This is obvious from the various levels of dissatisfaction as expressed by the respondents in the course of carrying out the research. On the other hand, the focus group discussion revealed that the attempts that are being made to improve the livelihoods of the people have been yielding positive results. The level of participation of the participants of the FGD also goes to prove that this can be a very useful tool in knowing the mind of the people with respect to housing. This therefore means that integrated approach, if fully adopted with a focus on improving the livelihoods of the people, will yield a more sustainable result where adequacy in all its ramifications is met and the urban poor are being actually housed or given the platform for an easy self-provision of adequate housing.

### **RECOMMENDATION**

The government needs to see to the implementation of policies and programmes that will have the urban poor as their target with respect to housing provision. This is achievable by putting in place mechanisms for proper monitoring during implementation of housing programmes as well as evaluations at regular intervals as well as creating an enabling environment for the development of local businesses which should be consistently encouraged by the government.

The institutions and organizations in the field of housing provision should create a work frame that allows the participation and input of the urban dwellers of all levels in planning processes especially those that concern housing provision.

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