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All papers submitted to COBRA were subjected to a peer review refereeing process.

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A FRAMEWORK FOR THE SUSTAINABLE MANAGEMENT OF SOCIAL (PUBLIC) HOUSING ESTATES IN NIGERIA: A PILOT STUDY

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ABSTRACT:

Stakeholders' involvement; effective building maintenance; and appropriate estate management practices are essential for social (public) housing estates to be sustainable. Therefore, it is asserted that if these concepts are properly aligned, the issues related to housing management and lack of supply of social (public) housing estates in the Niger Delta region of Nigeria would be reduced. Sustainable management of social housing estates could provide comfortable, cheap to maintain, good quality homes that contribute over their whole service life-cycle to the social, economic and environmental wellbeing of a neighbourhood. The accessibility of appropriate housing is a measure that defines the echelon of a country's development. However, evidence such as the extent of unoccupied, unfinished, vandalized, and abandoned social housing estates in the Niger Delta indicates that the availability and management of decent social housing estates is lacking because the post-construction management practice is not as good as it should be. This paper sets out the context for research in this topic area and reports the results from an exploratory pilot study that involved a series of semi-structured interviews (15 Nr) with expert practitioners and other supply side stakeholders in the management of social (public) housing estates in the Niger Delta. The interviews explored current practice in relation to: sustainability; stakeholder involvement; housing maintenance; and housing management. The findings indicated that there was a need for a framework for the management of social housing estates in a more sustainable manner to be developed. The results also showed that such a framework needed to adopt the principles of sustainability in combination with effective building maintenance and good estate management practices. It is recommended that further work is undertaken in this area to further refine this framework to ensure its applicability to practice in other emergent developing countries.

Keywords: Building Maintenance; Estate Management; Niger Delta; Stakeholder's Involvement; Social Housing; Sustainability;

INTRODUCTION

The mere construction of social housing estates is not richly significant, but, what matters much more is sustaining the assets created by the improvements (Franks, 2006). This would provide the opportunity to see beyond the project construction phase, and to appreciate the benefits of operating it rather than the investment per se (Franks, 2006; Ihuah, 2007). As such, any social housing estates provided without a guideline on how the post-construction management is to be guided is assumed not sustainable. Sustainability was first conceptualised in the World Commission on Environment and Development summit (WCED, 1987). It provides that a sustainable development is "development that meets the needs of the present without compromising the ability of the future generations to meet their own needs'' (Bruntland, (1987), cited in Cooper and Jones, (2008) and Brandon and Lombardi, 2011). Sustainability provides for a frame to help ensure long-term ecological, social, and economic growth in society (Ding, 2008) and to ensuring a better quality of life

for everyone now and for generations to come. In that case, social (public) housing estates need to have a guideline for their sustainable management. This management would incorporate the sustainability agenda and allow the future generations to access social housing estates (Cooper and Jones, 2008). It will provide an improved social (public) housing estate quality, with safety and comfortfor the people within the built environment. However, it is predicted that this can only be achieved when it is in association with good housing/building maintenance practices, stakeholders' involvement and appropriate estate management methods. In Nigeria, some social housing estates are unoccupied, vandalized, incomplete, and abandoned (Fatoye and Odusami, 2009; Fatoye, 2009; Kadiri, 2004) and in the Niger Delta, these are parts where all the features and benefits of housing estate is suspected lacking. In this sense, the social (public) housing estates have become white elephants within the very poor or low-income communities that desperately need it (Ihuah, 2007). The wider sustainability issues, stakeholder's involvement and good housing/building maintenance practices are lacking. Olotuah and Bobadoye (2009) opined that sustainability in social housing estate provision and post-construction management was very important but no framework or guideline to achieve this was developed.

The purpose of the research study is to develop a framework which amalgamates sustainability issues, building maintenance, stakeholder involvement and appropriate estate management practices together for use in the post-construction management of social (public) housing estates. The pilot study explores these concepts within the social housing sector context so as to develop and refine the framework. It further explores the need and relevance of a guideline for the management of the social (public) housing estates in a sustainable manner using the qualitative approach of semi-structured interviews and content analysis for the analysis and discussion of the results. This provides convenience, less cost and time for a short study like this. The study trying to fill the gap by taking the debate on meeting the social housing challenges faced in the Niger Delta further from being focused only on housing provision but towards integration as the review of other studies has revealed. It will act as a multi-dimensional tool to aid social (public) housing estate management decision makers in the management of both existing and future social housing estates in a sustainable manner. The framework would be a better approach and reference document to use in meeting the social housing estate challenges and an area for further research work. Finally, it will contribute and enable formal courses in the built environment at the higher education level to better reflect the emergent trend in the area of practice related to sustainable management of public housing estates in Nigeria.

PROBLEM STATEMENT

In the Niger delta, literature has shown that constructed, commissioned and on-going social housing estates provided by the federal and state government exist. However, tremendous shortages of social housing estates have remained a major challenge facing people in this region. This is suspected to be tied to the exploration and exploitation of crude oil activities which characterize the region. In addition, there has been unprecedented urbanization and uncontrolled population increases in the Niger Delta. Such development is believed to increase the challenges of successful social housing estates maintenance and management. The unplanned post-construction management approach to avert the housing estate challenges prominent in the region is obvious (Wapwara *et al,* 2011). The numbers of unoccupied, incomplete,

vandalized, abandoned and unsuccessful social housing estates in the region (Kadiri, 2004) are symptoms of unsustainable estate management practices. Evidence of corruption practices; lack of good governance and decentralization of power; and the lack of active involvement of stakeholders into social housing estate management decision-making exists (Kadiri, 2004). Wapwara *et al* (2011) and Kadiri (2004) identified that there are shortcomings in the infrastructural services and amenities provided in social housing estates. These housing estates do not cope with the demands of the tenants which characterizes itself in the untold hardship in living standards and continuous paucity of needed homes (ibid). Features such as: overcrowding; noise pollution; and crime are common because most of the population cannot appropriate housing and therefore live in slums and squatter areas of the region (Jiboye, 2009, Olotuah and Ajenifujah, 2009). Another major issue is the predicted lack of an existing housing/building maintenance requirements standard for social housing estates and the triple principles of sustainability namely: social; economic; environmental; is inactive in the current management practices of social housing estates (Olotuah and Bobadoye (2009). Consequently, the Niger Delta population will be prone to worse needed housing estates challenges and deficits, which calls for the present study.

REVIEW OF LITERATURE

Sustainability/Sustainable Development

In the developed and developing countries, urban and rural areas are faced with rapid urbanization and as a result there arise a series of environmental, socio-cultural and economic issues that need to be addressed. This problem emerges because of the continually increasing population, the consumption and depletion of the natural resources and the consequent generation of waste and pollution in the built environment. Therefore, the need to abate these issues means that the concept of sustainable development emerged with the intent of providing solutions to the problems and challenges faced in developing and developed countries in areas such as the housing sector.

The World Commission on Environment and Development (WCED 1987, p.8) defined sustainable development as development which '*meets the needs of the present without compromising the ability of future generations to meet their own needs'*. The Commission emphasised that addressing these problems requires global economic growth whilst also recognising ecological constraints. The commission did not only consider that environmental problems needed to be addressed but also that the social and economic problems were equally significant and needed to be tackled. The concept of sustainability at first focused on environmental phenomena, but currently, it has gone beyond the boundaries of environmental issues to include a consideration of social, economic, political, and development issues (Edum-Fotwe and Price, 2009, Brandon and Lombardi, 2011). Brandon and Lombardi (2011, p.21) contended that sustainable development is concerned with smoothing the progress of improvement without endangering what already exists. They define sustainable development as "*a process which aims to provide a physical, social and psychological environment in which the behaviour of human beings is harmoniously adjusted to address the integration with, and dependence upon, nature in order to improve, and not to impact adversely, on present or future generations*". Similarly, Ding (2008) argued that sustainable development is development concerned with attitudes and

judgement to help ensure long-term ecological, social, and economic growth in society. This means that sustainability is related to the simple idea of ensuring a better quality of life for everyone now and for generations to come. Franks (2006) asserted that *sustainability means anything the writer requires* but understanding what constitutes sustainable and unsustainable development is crucial in any project management and post-construction management system. Cooper and Jones (2008) in their study of social housing management and argued that development will be sustainable when attention is given more to: greater community engagement; deliberative forums to help people live more sustainable lifestyles; investigating ways in which stakeholders can influence decision-making; new commitment to support education and training in sustainable development; and response to key environmental issues. It is clear that while the concept of sustainable development from the literature is well known and widely used, it is also evident that there is no common understanding of it. For instance, in consideration of what 'needs' are regarded as being important, sustainability varies from nation to nation. In fact, it is different in: time; economic; social; and cultural backgrounds. Therefore, what constitutes sustainable development is very much context-specific and the condition and practices may not be applicable everywhere.

Sustainable Housing/ Social (Public) Housing Conceptualised

Housing is not only the building block of sustainable communities, it is also about the transformation of communities and creating places where people can continually live and work for present and future generations (Kabir and Bustani, 2012). It is the building or shelter in which people live; and represents one of the most basic human needs with profound impact on: health; social behaviour; satisfaction; efficiency; and general welfare of the community (Kadiri, 2004).

However, housing in the context of the research is restricted to social (public) housing estates. It is housing estates built and managed by the federal and state Governments for the interest and benefit of all that have a stake, particularly low-income groups in the country. Lutzkendorf and Lorenz (2005, p.214) asserted that in order to classify sustainable social housing, it is possible to start with the general area of protection, which is part of the three dimensions of sustainable development. In sustainable social (public) housing, several various definitions exist; the EU defined sustainable social housing in terms relative to quality of construction, social and economic factors as regards to affordability and psychological impacts, and eco-efficiency such as efficient use of non-renewable resources in the built environment (VROM, 2005). But, sustainable management of social (public) housing should provide comfort, be cheap to maintain and harmonizes its exclusive environment. In addition, sustainable social housing should be a housing practice, which strives for integral quality; including social, economic and environmental preferences in a broad way. Applying the sustainable development concept to social housing, a distinction needs to be made between serviceable and ecological sustainability. Therefore, for social housing estates to be sustainable the issue of natural resource depletion should not normally be a key factor, rather functional and serviceable sustainability should be a priority or more relevant. In this context, the concept of sustainable development is applicable to social housing estates since serviceability and functionality are integral parts of housing and contribute to the sustainable management of social housing estates (Lutzkendorf and Lorenz, 2005).

Housing/Building Maintenance Management

In simple terms, a house can be described as walled roofed structure used for many economic activities that ages and deteriorates throughout its lifespan (Olanrewaju *et al*, 2011). It undergoes physical, functional and economic obsolescence. A good housing maintenance management practice, for example, will increase the value with respect to functionality, physical appearance and economic returns (Olanrewaju *et al*, 2011). Housing maintenance management is one of the functions which entail the planning, forecasting, controlling, directing and co-ordinating of maintenance activities with the aim of optimizing returns (Baharum *et al*, 2009). The practice of good housing maintenance management is aimed at preserving buildings for their continual use in the built environment, as well as, related issues, for example: value for money; investment; and good appearance in its integrated housing maintenance management plan (Olanrewaju *et al*, 2011).

The term housing/building maintenance has several definitions but the British Standards Institution (BSI 3811, 1993) defines it as works undertaken in order to keep or restore every facility including the site and building to an acceptable standard/condition. It could be argued that this definition is narrow because it does not consider the improvement of any facility; that is, the building; its services; and surrounds to a currently acceptable standard and to sustain the utility and value of the facility. As a result, Olanrewaju *et al (*2011, p. 263) define housing/building maintenance management as "processes and services to preserve, repair, protect and care for a building's fabric and engineering services after completion, repair, refurbishment or replacement to current standards to enable it to serve its intended functions throughout its entire life span without drastically upsetting its basic features and use'. Therefore, this recent definition on building maintenance has now included the word ''maintain'', ''repair'', and ''alter'' so as to reflect the requirements of the clients, end users and the community. However, the different definitions revolve around and within phrases such as restoring, maintaining, or repairing a building so as to improve the value of the built assets. Also, building maintenance is not all about the property per se; rather, it includes the purpose for its existence, and its occupants or users. Therefore, the objectives of housing maintenance management are: to ensure that housing and its associated services are in a safe condition; to ensure that the housing is fit for use; to ensure that the condition of the housing meets all statutory requirements; to maintain the value of the housing estate; and to maintain or improve the quality of the housing.

Stakeholder Relevance and Management

In recent times, many challenges have been encountered on public projects post-construction management which have eventually led to failures (Franks, 2006). At the same time, a lack of stakeholder satisfaction is suggested as the main reason for the failure in such public project management (El-Gohary *et al,* 2006). Therefore, the need to determine, tackle and incorporate stakeholder opinions so as to better facilitate the management of social housing estates after completion that will meet the needs of those stakeholders is an imperative. In addition, understanding the concepts that

underpin stakeholder involvement is an essential step towards creating a strong involvement to help manage social (public) housing estates in a sustainable manner. According to El-Gohary *et al* (2006) and Baker (2009), A **''stake''** is an interest or share in an undertaking which would be categorised into interest, right and ownership. Hence, a stakeholder is any individual, group, government, societies, neighbourhoods, institutions, organisations or even the natural environment who possess a stake in a development (Baker, 2009, El- Gohary *et al*, 2006, Mitchell *et al,* 1997). However, Freeman (1984, p.46) as in his seminar work defines stakeholder as ''*any group or individual who can affect or is affected by the achievement of the organisation's objectives''*. This definition remains the extensively adopted and recognised definition of a stakeholder in the literature. Mitchell *et al* (1997) opined that stakeholders are classified as either primary or secondary stakeholders. Primary stakeholders are those stakeholders that have a direct stake in the project and its success. On the other hand, secondary stakeholders are those stakeholders that have a public or special interest or stake in the project development success and its continuity. In addition, they contended that their identification is attributed to having one, two or all three of: power; legitimacy; and urgency.

Power according to the seminal work of Weber (1947) is the probability that one actor within a social relationship would be in a position to carry out his own will despite resistance. In contributing to the debate, Pfeffer in his seminal work (1981) asserted that power is the relationship among social actors in which one social actor gets another social actor to do something that otherwise they would not have done. Mitchell *et al* (1997) agreed with Pfeffer's and Weber's assertions, but, argued that power is tricky to define but easily recognise. It borders much on how the power is exercised to bring about the desired goal. **Legitimacy,** Mitchell *et al* (1997) suggested is a socially accepted and expected behaviour, which often is coupled with implicit power when people attempt to evaluate the nature of relationships in society. Therefore, it could be suggested that having legitimacy means having power when merged with urgency, but, on the other hand, those who might have legitimacy may not necessarily have the power to influence, as both have distinct characteristics in stakeholder identification, attitudes and management. **Urgency** is the degree to which a stakeholder's claim calls for immediate attention (Mitchell *et al,* 1997). Therefore, it shows if a relationship or claim is time sensitive in nature and also, if the relationship or claim is significant to the stakeholders. Furthermore, Mitchell *et al* (1997) opine that within the confines of power, legitimacy and urgency of stakeholder's classification, other stakeholders are identified, such as: Dormant stakeholder; Discretionary stakeholder; Demanding stakeholder; Dominant stakeholder; Dangerous stakeholder; Dependent stakeholder; Definitive Stakeholder; and Non-stakeholder.

METHODOLOGY

The study the extracted opinions and perceptions on sustainable development, housing maintenance management and stakeholder involvement amongst housing estate management officers, residents/tenants, professionals and housing estate community in the management of State Government and Federal Government social (public) housing estates in the Niger Delta region of Nigeria. This is achieved by the analyses of data from pilot semi-structured interviews held with nominated interviewees from each housing authority and the external social (public) housing estates environment using content analysis tools. The emphasis was on determining a framework that will

be used in managing the social (public) housing estate in a sustainable manner. It assesses the current practice in managing this sector, the relevance and level of involvement of the stakeholders of the federal and state housing estates in their management, and to ascertain whether the sustainable principles inclusion in the management is necessary. The respondent/interviewees consisted of stakeholders in social (public) housing estates management in the Niger delta of Nigeria. The federal government and the state government are predominantly the two major social (public) housing estate providers, as well as providing the post- construction management. The sample chosen consisted of fifteen (15Nr) social housing estate management stakeholders including: Federal Housing estate management staff; State housing estate management staff; Professionals; tenants/residents; and the housing estates community representatives in the ratio of 3:3:3:3:3 respectively. The choice of the respondents was based on a letter of invitation to participate in the research sent to their respective offices and associations, with a follow up telephone call and personal visit to the nominated persons /respondents. Of the total (15) nominated and contacted by the researcher, ten (10) were interviewed since they were willing to take part in this research at that point in time, whilst the other nominees were not able to participate within the period earmarked for the piloting because of official engagements. The respondent sample is small; yet it was deemed satisfactory for a pilot test of this kind. The sample consists of a reasonable balance of federal and state government housing estate management staff and other partakers in current management practice of social (public) housing estates. Several questions were put to the respondents identified within each sample organization, during pre-arranged semi-structured interviews. The 'semi-structured interview questions' were made up of two parts. The first part (A) assessed respondents' status and length of involvement in the authority social housing post-construction management. The second part (B) assessed current housing maintenance management practice; the relevance of stakeholder involvement in the management practice; and the need to bring sustainability principles into the housing estate management approach.

QUALITATIVE DISCUSSION OF FINDINGS/RESULTS

The study used the following identification system to recognise and differentiate the responses in each part. For instance, AQ1 equates to question 1 in section A, whilst BQ1 means question 1 in part B and this continues to be applied throughout other questions depending on the part/section the questions fall in.

From part A; comes demographic information about the respondents experience and the housing authority. The respondents were asked in AQ1 (*how long has their authority/organisation been providing public housing management in Nigeria or in the Niger delta?).* Eight (8) interviewees remarked that their organisations have been providing the housing management service for more than twenty-five years while only two (2) confirmed that they have been in the business for more than ten years and less than twenty-five years. Of the eight, four interviewees are from the federal and state government housing authority, two from the professional group, one from the tenant and one from the housing estate host community. This indicates that the social (public) housing authority have long been involved in the maintenance management of the housing estates provided by their organisation such as the federal and state housing authority in the Niger delta region.

For AQ2 (*what areas of public housing management is your organisation /authority experienced in?*). Six (6) interviewees responded that their authority is instrumental to the development and post-construction management of the social (public) housing estates; while the other four (4) interviewees from the tenant and host community group stressed that their experience is limited because they are hardly, in practice, allowed to participate in either the development or in the post-construction management of the housing estates; rather a series of promises are made in principle by the agency for inclusion in the project but such failure is a perpetual thing in this scenario. They further commented that what goes in and out of the social housing estates in the context of the development and management thereafter is beyond their knowledge and understanding and most of the time all they see is a housing estate development going on in the community. This shows that only the staffs of the public authorities is experienced in the development and post-management of social housing estates because all activities and services to be provided are bureaucratic to the authority rather than the end users, which is the primary intent of the housing estate development and management.

With regards to AQ3 (*how many public housing estates (and houses) are under your management?*); the four (4) interviewees from the federal and state government housing authority observed that the authority is responsible for all the government housing estate development and post management with the in-house estate management department; but, the exact number they cannot say as the authority is still in the process of establishing a comprehensive database for all the government social (public) housing estates. The tenants/residents, community representatives and the professionals (6Nr) commented by completely declining knowledge of how many there are; and have seen and heard of situations where a housing estate is allocated to a person, after some years, without due process and becomes the property of the person, and how this occurs is unbelievable. This should indicate that there is fragmentation in the proper accounting, monitoring and reporting on the social housing estate stock within the various authorities, and therefore it may be difficult to state the exact social housing estate provided for the less privileged citizens of the Niger Delta.

Regarding part (B) which assesses the current housing estates maintenance management practices; relevance and the level of stakeholder involvement; and the need for sustainable management of social (public) housing estates, the interviewees were asked the following questions.

BQ1 (*can you briefly explain the current housing estate maintenance management practice their authority use in the management of the social housing estates?*). The two interviewees from the state housing authority commented that once the housing estate development is completed and allocated with delivery of keys to a resident after accepting and authenticating the terms and conditions set out, the post-construction management practice is down to when faults and damage occurs and also on how serious it is affects the housing estate, tenant and the built environment. The interviewees further added that the residents within the social housing estate are encouraged to form a common association which will fight to combat some minor defaults and provide certain infrastructural facilities by themselves in the built estate environment. They acknowledged that there is no known guideline or template stipulating how the social (public) housing estates will continuously be maintained or

managed. The interviewees' professionals commented that for the entire period of their involvement, the housing estate maintenance management has no common practice stipulated. Rather, it depends on whenever a scheduled inspection of the housing estate is made and faults are noticed, that the thinking on how to repair the fault starts. Also, they are not aware of guidelines governing the maintenance management requirements and standards for housing/building maintenance in Nigeria. For the four (4) tenants and community representatives, the observation was that they "have no idea of what method is used by the authority" as their participation is excluded in the business case. This shows that the maintenance management practice currently used by the authorities for the social (public) housing estates is an unplanned maintenance management strategy. This will be ineffective in social (public) housing estate sustainability in the region.

On BQ2 (*why most public housing estates appear to be unoccupied;, not completed; abandoned; and vandalised in certain case?*). All the interviewees commented that there are no strong government policies supporting project continuity in the region including Nigeria as a whole, with a lack of fund budgeting for social housing maintenance, lack of understanding of the housing estate project environment, exclusion of the community perceptions in the management, little understanding of the social benefits of the housing estate, lack of implementation, monitoring, evaluation and reporting. The two professionals remarked that most social housing estates are provided and located without a "need assessment", which ascertains whether the housing estate is at the right location and at the right time with the right market and infrastructural facilities. The interviewees also noted that political instability and personal aggrandisement on the part of the government leaders is a major cause to social housing estate abandonment and vandalisation in the Niger Delta. From this, it is clear that the social, economic and environmental issues of sustainable development are left out in the current management practice of social housing estates because all the problems highlighted by the interviewees are a subset in each of the sustainable development principles (social, economic, environmental).

BQ3 (*briefly identify the stakeholders, level of involvement and their relevance in the authority social (public) housing estate management practices*?) The two (2) interviewees each of the federal and state government housing authorities remarked that the government itself, tenants/residents, professionals/consultants/contractors, community and any other individual or organisation that contributes toward the housing estate is a stakeholder. Therefore, they remain the stakeholders to the government that owns the social (public) housing estate. For the level of involvement and relevance, the respondents from both government housing authorities noted that it is all through the housing estate development and post-construction management phases that the stakeholders are involved because they are significant for the success of the housing estate project which is obvious to the government and the agency. The professionals, community representatives and the residents interviewed concurred to these stakeholders identified by both housing authorities. However, they observed that no involvement in practice is ever seen on the part of the housing authority except in principle and thereafter making them irrelevant to the housing estate development and post-construction management activities. They further commented that it is this lack of involvement and recognition that they are significant to the success of the social housing estate benefits; this creates the opportunities of material prowling in the housing estate project sites and subsequent vandalism of the property by some

individuals from the community. This shows that the stakeholders are not fully involved in the current management of social (public) housing estate and account for the failure of the benefits accruable from the social housing estates when in the proper course of its management.

BQ4 (*relate to the awareness of the sustainability issues and the integration in the management practice*). All the interviewees remarked as being aware of sustainability and the issues in a general perspective but in the context of social housing estates, it is context specific. The professionals commented further by inferring the point from the "Bruntland report" and Agenda 21, which emphasises that all development must be that which meets the needs of the present generation without endangering the ability of the future generations to meet their own needs. They also stated that monitoring, evaluation and reporting is the mortar to sustainable management but this has been neglected in most housing authority's social housing estate management practice today. The tenants and community representatives noted that the housing authority cannot monitor, evaluate and report the dilapidated nature of social housing estates. With regard to the integration and interlocking of the sustainable issues, the interviewees remarked that it is a challenge, although the environmental aspects are been integrated into the current housing estate management practice via regular environmental sanitation monitoring, evaluation and reporting. But the social and economic issues to sustainable management, such as, social services provision are "nothing to talk about" as most social housing estates do not have the social services provided. All interviewees commented the need to merge the sustainable issues (social, economic, environment) into the current social housing estate management practice is very, and highly significant, if the government social (public) housing estate is to be sustainable. This indicates that there is fragmentation f the awareness and understanding of sustainability issues and the attempts to incorporate the principles solely lie within the environmental context of sustainable development.

CONCLUSION

From the discussion of this pilot study, it is clear to deduce that stakeholder involvement; effective housing/building maintenance management practices; appropriate estate management approaches; and sustainability issues are vital in social (public) housing estate sector of the Niger Delta region of Nigeria. It is also acknowledged that these themes should be merged, operating as a whole when managing social (public) housing estates in a sustainable manner. All the interviewees to this study are actively targeting towards achieving the global sustainability agenda but there is fragmentation of the awareness and understanding of the sustainable issues in this sector, for instance, the participants from the tenants and housing estate community. The respondents have also decried the inactive involvement of the stakeholders and the adoption of "whenever default occurs" practice in the social housing estate management (unplanned maintenance management) than the planned maintenance management that will aid housing estate sustainability. Amongst all the interviewees, there was a consensus that there should be a guideline stipulating the method by which the housing estate can be managed in a sustainable manner despite the differing interests, beliefs and cultures in Nigeria. This study recognises research in this housing sector even though the studies are focused mainly on housing estate provision, neglecting the post-construction management aspects which determine the continuity of social housing estates. It is apparent that a framework is needed in this

context which interlocks the sustainability principles/issues in combination with effective building/housing maintenance management practices, stakeholder inclusion and good estate management practices. Therefore, the pilot study recommends that further work is undertaken in this context, to ensure the development and modification of the framework.

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