INFRASTRUCTURE AND SUSTAINABLE DEVELOPMENT
THE CASE OF THE NIGER DELTA REGION IN NIGER DELTA

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*P*URPOSE
SEVERAL strategies have been employed by the Nigerian government to address the challenges of infrastructure deficiency in the Niger Delta region of Nigeria which is the mainstay of the country's revenue, however, nothing meaningful has been achieved. It has been established that unless there is adequate understanding of the operations and functions of a system, the government would continue to encounter developmental challenges. Due to this, the study, therefore, examines strategies for sustainable infrastructure development in the Niger Delta region of Nigeria.

Design/Methodology/Approach: *The study employed an in-depth face-to-face interview to elucidate information from the key informants of the surveyed communities in the Niger Delta region. Several interviews were conducted with the key informants from six (6) selected oil producing communities in the Niger Delta region namely; Akassa and Oloibiri, Afiesere and Koko, Omoku and Bonny from Bayelsa, Delta and Rivers states respectively who were selected through purposive/convenience sampling method. In all, Nineteen (19) community members consisting community opinion leaders, community development committee chairman (CDC), opinion leaders, youth leaders and women leaders were selected from the six communities in the Niger Delta region in Nigeria.*

Findings: *Data collected were analyzed using the NVivo 10 software. The results from the interviews were generated through the coding frames which consist of conceptualized frames that capture the activities of the Niger Delta Development Commission (NDDC). Overall, the study found that there are no sustainable infrastructure developments in the Niger Delta despite the huge capital investment in infrastructure development especially in the rural communities. Further, findings revealed low participation of community members, assessment of community needs, lack of community involvement of community members, enlightenment of community members, and inaccessibility of community members to developmental agency as the key factors hindering the success of sustainable infrastructure development in the Niger Delta region of Nigeria. The study concludes that participation of community members, community involvement, assessment of community needs, enlightenment of community members etc. play a crucial role in the achievement of sustainable infrastructure development in the Niger Delta region of Nigeria.*

Practical Implications: *The findings from the study would assist developmental planners and policy makers to better understand the need to involve the target population in developmental initiatives as a tool for sustainable practices. It will further enhance their scope in developmental initiatives by putting into consideration those factors that can enhance community participation in developmental*

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projects for its sustainability. Theoretically, it will contribute to existing body of knowledge by building on developmental frameworks that will advance the field of sustainable development.

Originality/Value: *Although, other studies have employed participatory approcah as a tool for sustianble development.However, this study is likely to be the first that have methodically examined how community paticipation can be enhnaced to faciitate sustainabe development using the Nvivo 10 software for data analysis in appraising the activities of the NDDC in the Niger Delta*

Key Words*: Sustainable Development, Niger Delta, Host Communities, Development Strategies and Community Involvement.*

Introduction

The Nigerian government since transition to civilian rule has excerted much effort in stimulating developmental initiatiatives especialy in the area of infrastructure in the Niger Delta due to the deplorable condition of the region as a result of the activities of oil exploration (Akpan, 2010). The Niger Delta region contributes over 95% to the Nigeria's foreign exchange and 85% to the internally generated annual income (Babatunde, 2012; Ebegbulem, Ekpe & Adejumo, 2013). This gave Nigeria international recognition amongst oil producing nations of the world. Moreso, this also attracted the presence of oil multinational companies who are involved in oil explorations in the region. It is expected that with the huge finiancial commitment of the Nigerian government and the presence of the oil companies through their corporate social responsibility, the region should exeprience economic regeneration, enviromental rejuvinationand social well-being.However, there is no commensurate impact compared to what the region generates especially in the area of infrastructural development (Akniwale, 2010; Obi, 2014; Kaur, 2013). Although, the Nigerian government has made delibrate effort through the establishment of the Niger Delta Development Commission (NDDC) to adequately address the developmental failures and lapses in the region that were left unresolved by past administration;and also to facilitate rapid and sustainable developmentwithin the region particuarly in the area of ecological and infarstuctural development (Akpomuvie, 2011). More recently, the Niger Delta Ministry was also established to assit in the formulation and co-ordination of developmental policies and security issues in the region (Ogege, 2011). All these establishment were meant to create an environmnet that is socially, politically, economically and ecologically peaceful and stable,yet the region is still faced with environmntal issues such as oil spillage, unrest due to constant kidnapping and constant agitaions. According to Agbiboa (2013); Duru & Ogbonnaya (2012) and Ibaba (2011), the continous agiataion and unrest in the Niger Delat region is as a result of the failure of the Nigerian government in adeqautely addressing the root causes which can be traced to unemployement, poverty and infrastrutaural defeciency in the region.

While Uzoh (2013), suggested there is need for goevrnment to engage in sustainable infrastructural development that will not only facilitate economic growth but also improve the well-being of its citizens. Moreso, Wilson (2011) asserted that the strategy employed by government through the NDDC is not suffceient enough in meeting up with the socioeconomic challenges of the Niger Delta region and therefore suggested for an all embracing startegy that will include community members in developmental initiatves. Also, Akpomuvie (2011a) affirmed that, it is not enough for government to make infrstaructure available, however, people should be given the opportunity to make meaningful contributions in issues that positively affects their environment. Singh (2013) has presented vision of sustainable development by 2050 keeping in mind the report of World Business Council on sustainable development. The direction of development must be in line with the broader vision of the world.

More recently, Okolo (2014), emphasised that the NDDC is capable of resolving the infrastructural challenges in the Niger Delta region if only the commission is can re-strategize her developmental approaches for in developing the oil poducing communities. Based on the above description, this study therefore, exploresthe strategies for sustainable infrastructure development in the Niger Delta region of Nigeria. It also inqures how community involvment can play a part in the designing and implementation of developmental initiatives that can enhance sustainability of developmental projects.

Singh & Malhotra (1998) emphasized the need for adequate incentive for investment in infrastructural sector due to long gestation period.

Literature Review

Infrastruture and sustainable development in the Niger Delta Region

The need for infrastructural development in any nation cannot be over emphasized due to significant role not only in economic growth but also general well-being of the people. This suggests that infrastructure is a basic requirement to facilitate the socioeconomic activities of a country. However, it is not enough to provide infrastructure, people should be given access to the utilization of such facilities. Brenneman and Kerf (2002) stated the fundamental assumption of the link between infrastructure and economic well-being captured in a review for the World Bank on the impact of infrastructure on poverty alleviation through access to water, clean environment, electricity, information and transportation. They concluded that poor infrastructure can hamper economic growth and development.

The Niger Delta region has been faced with developmental challenges especially in the area of infrastructure due to the prolonged activities of oil exploration. This has led to the destruction of the natural environment, pollution of land and water and displacement of the local people from their natural setting (Baghebo *et al.,* 2012). This scenario made the local communities demand for resuscitation and rejuvenation through provision of basic amenities that will boost social, economic and improved living conditions of the people (Ugoh & Ukpere, 2012). The Nigerian government in response established the Niger Delta Development Commission to facilitate rapid and sustainable projects particularly on ecological and infrastructural advancement of the region.

According Emerhi *et al.,* (2001), the predominate system of development by NDDC in the Niger Delta is based on the promotion for sustainable development that will facilitate rapid socioeconomic activities needed in transforming the region. The basic foundation upon which this development initiative was founded is premised on the assumption that significant investment in infrastructure is a vital tool that would bring about a high increase not only on economic growth and development of a country but also on improved standard of living of its citizenry (Zhattau, 2014). Thus, the NDDC in trying to achieve its set goal and objectives, came up with a developmental master plan to serve as a guide for implementation and execution of developmental plans (NDDC Master Plan, 2005). Therefore, the NDDC since its inception in the year 2000 has recorded major achievements in infrastructural development in the area of roads, bridges, hospitals, canalization, schools and water supply (Akanji & Oyitso, 2012). However, most of the developmental activities executed by NDDC were unresponsive to the people's needs and aspirations and also ad-hoc in nature (Ebeku, 2008). A meaningful development is achievable when people are given opportunity to make decisions in matters that affects their environment positively. Paki and Ebienfa (2011), in their analysis of the operations of most of the intervention agencies in the Niger Delta, observed that most of the developmental initiatives are alien to the existing culture of the people. This suggests that there is need to understand the perception, views and working system of structure such as community in other to sustain developmental projects.

Dodge (2012) noted that the developmental initiatives adopted by NDDC in the Niger Delta lack strategic approach and implementation. Similarly, Aghalino (2012); Kadafa *et al.,* (2012) reiterated that the NDDC development strategic master plan lacks relevant theoretical underpinning and community collaboration in formulation and implementation of developmental initiatives. While Wilson (2011) asserted that the NDDC strategic master plan is not adequate enough in meeting the developmental challenges of the region, therefore calls for an-all-encompassing systematic strategy.

More so, Ikelegbe (2013), Orubu *et al.,* (2004), suggested that NDDC master plan is capable of resolving the infrastructural challenges in the Niger Delta, if only the commission can adopt a more strategic approach that will incorporate the values and operational system that is unique to a community.

There is therefore the need for a new developmental approach that puts into cognizance the importance of community members at the core of developmental initiatives with particular focus on the pattern of development that is peculiar to that community.

Theoretical Underpinning
(Stages Model of Community (Peck, 2010), The 6 I's of Community Development (Eckel, 1994); Marginality and Mattering (Schlossberg, 1989)

To underpin this study, three major theories namely; Stages Model of Community (Peck, 2010), The 6 I's of Community Development (Eckel, 1994), Marginality and Mattering (Schlossberg, 1989) are adopted and used to explain the relevance of community development in the Niger Delta. These theories provide adequate understanding of the community development issues and challenges in the Niger Delta region of Niger. For instance, Peck (2010) theory first differentiates the different functionality concept in a community. It provides a balanced philosophical believe on how sustainable development can be achieved in a community. Peck (2010) proposed that community can be developed when there is adequate understanding of the four stages namely pseudo community, chaos, emptiness and authentic or true community. In pseudo community there is general feeling that things are okay and the people are content with the level of development whereas opposite is the case. However, government and other agencies try to avoid conflicts by propagating that the people are content with the level of development.

Accordingly, the 6I's of Community Development theory by Eckel (1994) depicts that community development can only be achieved when community members collaborate and are committed to the design and implementation of such developmental plans. The theory defined authentic community as a true and healthy community where components like common interest, joint purpose, self-determination, social interaction and social influence are obtainable. The six factors are introduction, interaction, involvement, influence, investment and identity. These six factors ensure that control is vested on community members in order for them to have sense of belonging and valve to be able to contribute positively to the sustainable development in their community (Eckel, 1994). Also community members are expected to be more receptive to changes that will affect their life positively. The need for honest communication and rewards becomes vital in ensuring sustainable development in the community.

Furthermore, Schlossberg (1989) theory of marginality and mattering postulates that the success of any developmental plan is based on the sense of belonging of the host community. The theory further emphasizes sense of belonging that determines participation which positively influences performance and achievement. The success of any developmental plan is based on the sense of belonging of the host community. In this model, sense of belonging is represented with mattering which is the feeling that one belongs to a community. While he further explains marginality as the feeling that one is odd or not fit to a community. He concluded that when community members feel that they are part of the community, they tend to be more zealous and persistent with development and the sustainability of such development. In addition, Also, Cavaye (2006) posited that community development is based on the planning strategy of the community. He maintained that planning is vital to effective community development and community members usually show commitment in such developmental plan before giving up if it fails to benefit their lives positively.

Research Methodology
Research Setting
The study includes three States that mostly experience oil company's exploration activities in the Niger Delta region of Nigeria. Niger Delta region is one of the areas located in the South-South geopolitical zone of Nigeria with the area of about 70,000 square kilometers. It covers the 560 km coastline of Nigeria which is about two-third of the entire coastline with a population of over 10 million people (Ebegbulem *et al.,* 2013). Its topography is distinguished by wetlands and dry lands with a unique ecological zones, mangrove swamps, freshwater swamps and lowland forest inhabited

by many rural communities that highly dependent on the environment for survival. The region is endowed with many natural resources such as crude oil, rubber and palm. Although, the initial occupation of the people were fishing and farming as a means of their economic sustainability, however, with the discovery of crude oil, less attention is given to fishing and farming. Unfortunately, the activities of the oil companies that engage in crude oil exploration have resulted to displacement and disorganization of the people and their natural environment.

Niger Delta Communities in Nigeria
The Niger Delta community includes nine States namely; Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers as shown in Figure 1.It was in one of these States that the first crude oil in Nigeria was discovered in 1955. And even since then, crude oil exploration has increased. Unfortunately, the adverse effect of crude oil activities has out weight the benefit to the people of Niger Delta region. For instance, the area has continued to experience oil spillage and destruction of natural environment which has now drastically altered the socio-economic life of the people leaving them with no farmland to farm and water to fish (Duru & Ogbonnaya, 2012; Okonta & Oronta, 2001; Oluduro & Oluduro, 2012; Omadjohwoefe, 2011). The people of Niger Delta region has expressed their displeasure and dissatisfaction over the negative activities of these oil companies through series of agitation, protest and disturbances of it has drew the attention of international communities that stirred the Nigerian government in taking drastic action in addressing the Niger Delta problem (Osuoka, 2007).

In attempt to resolves these problems, the region has been accorded some special recognition by the Federal government of Nigeria by establishment of various developmental agencies, among them are Willinks Commission in 1957, the Niger Delta Development Board (NDDB) in 1960; Niger Delta Basin Development Board established in 1965 and Oil Minerals Producing Areas Development Commission (OMPADEC) in 1992. The most recent ones are the establishment of the Niger Delta Development Commission (NDDC) in the year 2000 and the Niger Delta Ministry Commission. All of these are to address the problem of underdevelopment in the Niger Delta (Jack-Akhigbe & Okouwa 2013 and Okumagba & Okereka, 2012), yet these agencies and commissions have failed to leave up to expectation of the people due to several factors such as bad mismanagement, lack of adequate funding, corruption and poor project implementation all which led to underdevelopment in the Niger-Delta (Adesote & Abimbola, 2013; Omotola, Patrick, 2010).

Figure 1: Map showing states in Niger Delta

Research Design and Approach

Flyvbjerg (2006) and Yin (2013) alleged that case-study research design with interview approach is very important in community development studies that required an adequate and in-depth understanding of a phenomenon. Therefore, toeing this line, this study utilized a case-study research design with a face-to-face interview approach. For this study, several interviews were conducted with the key informants from six selected oil producing communities in the Niger Delta region namely; Akassa and Oloibiri, Afiesere and Koko, Omoku and Bonny from Bayelsa, Delta and Rivers states respectively who were selected through purposive/convenience sampling method. In all, nineteen community members consisting community opinion leaders, Community Development Committee (CDC) Chairman, opinion leaders, youth leaders and women leaders were selected from the six communities in the Niger Delta region in Nigeria.

All qualitative data collected were analyzed thematically using Nvivo 10 software. Results from the interviews were generated from the coding frames consisting of conceptualized features that explained the NDDC developmental activities in the Niger Delta.

Community Relationship with Developmental Agency

To successfully achieve a sustainable community, it is crucial to network and build relationship based on mutual understanding, trust, equity and respect with community members. This network would create a platform arouse the members of the community work as a group with the developmental agency in the attainment of their expected goals (Dale & Sparkes, 2010). Accordingly, relationship like this is stronger if the level of community involvement in contributing to matters and decisions that concern their lives (Beehler, 2011). In line with this, evidence from this study's interview revealed that all the interviewees were of the view that mutual relationship between the community and the development agency significantly affect the building of a sustainable community development. From the responses, six major factors were identified as impediment to communal relationship between community and developmental agency as shown in Figure 2 above.

Low Participation of Community Members

Community participation entails community members' inputs, contributions and involvement in any matter affecting their living and the environment. Community participation provides opportunities for the members of the community to air their views and opinions on issues concerning their living and at this same time, creates positive attitude and commitment in the accomplishment and sustainability of developmental activities. Findings from the study has shown that the participation of community members in developmental initiatives is crucial to increase out-put and productivity and its sustainability. In support of this, interviewee 11 youth leader from one of the communities surveyed commented that, "…the only thing we do in NDDC project in this community is minor jobs given to us by the contractors". Reiterating this claim, interviewee 17, opinion leader revealed that;

> …It is zero, NDDC do not plan with us before coming to do any project in our community, and we are not part of their planning. The only thing we do is assist the contractors when they come here to do any work (Int. 17).

> While interviewee 1, community development committee (CDC) chairman, suggested that; "The only way NDDC can make us enjoy what they are doing is to make us part of all these projects they are doing, this will make us cooperate with them and make the work faster".

> Buttressing this assertion, interviewee 8, community opinion leader emphasized that; "Like I said before, the only way all these projects done by NDDC can be useful to us is when we are part of what NDDC is doing not coming here to impose things on us". He further added that; "Participation is the engine that speed up development in any society, so NDDC should use this approach and things will work out well. For now, all these projects have not helped to improve our condition".
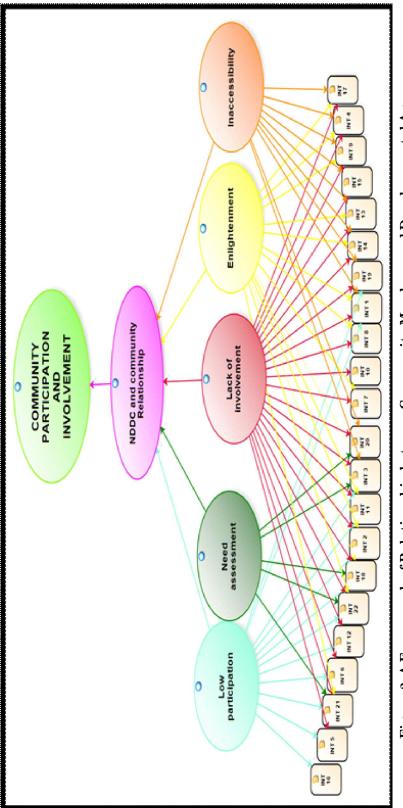
Figure 2: A Framework of Relationship between Community Members and Developmental Agency

On the other hand, interviewee 20, NDDC officer divulged that:

> As a commission, we draw the plan of projects with the budget but we don't approve. The only thing we do is that once the budget is out, we go to the communities and meet with their leaders to officially inform them of our projects (Int. 20).

He further noted that; "…yes we involve the youths by giving them some minor jobs like supply of some materials available within their environment and also some small jobs they can do with the contractors (Int. 20).

While interviewee 22, another NDDC officer suggested that; "The commission is trying but we need to do more especially in the area of working with community. People will embrace and appreciate you more when you partner with them; this is what I call partnership development. You cannot just go to a community and impose something on them, they may not appreciate it because you don't know if that is what they want (Int. 22).

The findings from the study depict that community members are not part of the formulation and implementation process of NDDC developmental initiatives. Whereas, studies have established that Community participation is a catalyst that enhances community acceptance of developmental projects and at the same time increases their level of commitment to such projects. Community participation therefore, is crucial for sustainable community development and enhancement of community livelihood.

Assessment of Community Needs
The study through the respondents revealed that it is very possible to achieve developmental plans towards sustainability especially when the needs and demands of the people are properly recognized via proper consultation and involvement of community members (Lovejoy & Saxton, 2012). For instance, interviewee7, one of the opinion leaders related that:

> NDDC should also ask us what we want, not just sending contractors down to the community without even informing us and even asking us if that's what the community need. Not just coming to impose anything on us. It is not good at all (Int. 7).

Likewise interviewee 14, women leader emphasized the need to consult with community members in identifying their needs. She noted that, "NDDC do not consult with us before bringing any project, If NDDC want us to value what they are doing they should ask us what we want, that is only when their programmes will be useful to us". Also inferring from the approach employed by NDDC in project implementation, interviewee 5, one of the youth leaders lamented that; "how can we feel the impact of NDDC when they don't ask us what we want before doing their thing"? In the same way, interviewee 3, the women leader disclosed that:

> Here in Akassa community, NDDC has never come to ask community what they need before doing anything. The only people we see are the contractors' when they want to do project which we are not even aware of before their coming. So how will they know what we want if they don't come? (Int. 3).

In the same way, Interviewee1, a CDC chairman stressed that: "We are not interested when it comes to NDDC activities because they are not in line with what we really need at the moment"

More so, interviewee 4, opinion leader emphasized the need to for NDDC to liaise with community members to identify their needs. He therefore noted that:

> The only way all these projects done by NDDC can change our living is for NDDC to come to community, ask us what we want , then we can list out all we want, then they will tell us the ones they are can do. That is the way I see it (Int. 4).

In the same way, interviewee 19, one of the women leader divulged that; "Here in Omoku, NDDC has never come to ask us what we need before doing anything. They do not come here; they send the contractors here without even coming to ask us what we want, the only time we see them, not even NDDC staff but contractors' when they want to do any project which we are not even aware of before they come. So how can they know this is what we want? I don't understand (Int. 19).

Confirming this assertion, interviewee 21, NDDC officer commented thus: "As a commission we are doing our best but sometimes we do not doing give communities exactly what they need". He further suggested that; "What we need to do as a commission if we must meet community needs is to go to them get their need and list them in order of preference. This is what i termed as need assessment".

This assertion was confirmed by interviewee 20, another NDDC officer thus:

> To be sincere with you, their urgent and immediate needs are not what we are doing, even as a commission, we also have our challenges of selecting projects because of the interference of the politicians who most times alter the list of projects we sent to Abuja for approval (Int. 20).

Lack of Community Involvement of Community Members
Incorporating members of the community in to the developmental plan is very essential for successful and rapid sustainable community development. This is based on the fact that individual is center of the development. In this case, the role of the community members is crucial since they are the beneficiaries of the developmental agenda. Apart from that, they also possess adequate knowledge and insight on the way to manage their socio-cultural environment for the progress of the community Eversole (2012). Accordingly, Thomas *et al.,* (2012) demonstrated that if the community members are given the chance to air their views and take decisions on matters positively concerning their lives, there is tendency that new ideas will be generated and will also be committed to the goals of the development. On the opposite, developments are bound to fail especially if the community members are adequately incorporated into the developmental plans and strategies.

According to interviewee 18, one of the opinion leaders reported thus; "We hardly see NDDC, so how can we work with them? We are not involved in all the projects NDDC have been doing in our community, we don't even have a say on how and where projects should be located".

This claim was evident in interviewee 16, one of the youth leaders who emphasized that:

> We don't have any idea how about NDDC programmes. What I mean is that; we are not involved in what NDDC is doing. The only time we are involved is when the contractors come to our community to do any project (Int. 16).

Similarly, interviewee 19, one of the women leaders reaffirmed thus; "most of us here especially the women don't even NDDC as an agency because they do not involve us in their activities". She further added that; we are ready to work with NDDC to make things go well only if they carry us along".

Buttressing communities views, interviewee 22, NDDC officer revealed that; "What we do as a commission is that whenever the plans are out from wherever the board has drafted it from, we go to the communities, appeal to the to accept whatever is given to them now and be patient".

Likewise, interviewee 20, another NDDC officer re emphasized that:

> Like I said when you make community to be part of what you are doing, they tend to have a sense of belonging and responsibility. This will make them participate and want to be part and parcel of the project, but when you don't plan with them and carry them along, they will not be interested. NDDC though has not farewell in this regards due to some of the constraints I told you (Int. 20).

Enlightenment of Community Members

It is identified from the study that enlightenment which in this study connotes awareness is one of the means of accessing activities taking place in the community by the community members. Enlightenment creates opportunity for the local people to be aware and better appreciate the need to fully embrace developmental initiatives. It equally encourages them to positively contribute as a group in enhancing their community (Abugu, 2014). For this, interviewee 2, youth leader stated that; "In terms of information, most community members are not adequately informed especially in developmental activities. The government has not done well in this area".

In the same way, one of women leader, interviewee 6, stressed that; "Most of us are not aware of NDDC programmes, here in Afiesere community, most people don't even know if NDDC exist except the executives who have the opportunity to interact with people outside the community".

Likewise, interviewee 15 a community opinion leader shared that:

> Initially when NDDC was first established in the year 2000, they were coming to community to enlighten them on their programmes but for a long time now, we have not seen them. That is why most people do not know if they still exist (Int. 15).

Consequently, another opinion leader interviewee 7 further reiterated that:

Information is the key to bridge up communication gap. When people are not properly informed, it goes a long way to affect the way the react to situations. I think this is one of the reasons why most of the youths in the Niger Delta are still agitating because the government is not carrying them along (Int. 7).

> While interviewee 13, youth leader maintained that; "You can't enhance the participation of a community if they are not informed; you must make them know before doing. You cannot do without knowing. And so they need to know".

Nonetheless, interviewee 20, NDDC officer although affirmed the community views on the need for enlightenment, yet criticize community leaders for not playing their role in the area of dissemination of information. He argued that:

> Enlightenment of community members is very important especially in resolving conflicts. The commission has really tried in this regards by indulging in enlightenment campaign and sensitization. Although we have our won constraints, but you see, the community leaders are not helping matters t in this regards because most times they don't adequately inform their people after attending any sensitization forum (Int. 20).

Likewise, another NDDC officer interviewee 22, revealed:

In all fairness, the commission has really tried in sensitizing communities but recently has not been able to do all of that due to financial constraints because we need money to do all these programmes and the commission for now doesn't have that kind of money (Int. 22).

However, interviewee, 21 NDDC officer noted that:

> If given the opportunity to execute any project, the first thing I will do is to inform community leaders the nature of the project to be executed, the need to corporate with the people in charge and why they should embrace such a project. This is the sensitization we are doing as a commission but for now we cannot reach out to all the communities due to insufficient funding (Int. 21).

More so, interviewee 22, NDDC office reaffirmed the need for community enlightenment thus; "As a commission, we usually organize workshops and seminars for community leaders comprising of

all the executives on how the NDDC operates and the need for them to corporate with us. This is the sensitization I have been talking about". She further pointed out that:

> "…for example, after sensitizing a group of people, those that attended go back to their various communities to inform them what they have learnt and the next meeting you see more people attending. This kind of forum is where we educate them about NDDC activities (Int. 22).

Hence, this study maintained that enlightenment increases community members' perception and understanding of developmental process and also enhances their level of participation. Moreover, it enhances community collaboration and unity towards a common goal. Community enlightenment therefore, is the pathway through which developmental initiatives are better understood and fully embraced for meaningful community development.

Inaccessibility of Community Members to Developmental Agency
As demonstrated by Zhou (2011), that access to information and issues that concern the people guarantee the relationship the members of the community and the developmental agency. However, community people in the Niger Delta region seem to find it difficult in gaining access to developmental agencies on issues that concerns their community and well-being thus, creating room for bitterness, disloyalty and doubt. This was further elaborated by interviewee 2, the youth leader who lamented thus:

> … we have lost hope in getting through to NDDC, because most times when we go to their office in Port-Harcourt we are not given attention at all, no way to even see the NDDC officials. That is why nobody wants to go there again. This is really affecting us and making the youths to react the way they are not supposed to (Int. 2).

This claim was buttressed by opinion leader interviewee 8 that; "we cannot access NDDC office to present our complaints, you need to see the way the soldiers at the gate treat people, they don't care to ask why you are there and even listen to you. This is what we have been experiencing (Int. 8).

While interviewee 15, another opinion leader noted that:

> This is one of the reasons why the youths are always protesting because they are not given attention and the only way you can do this is for NDDC to open up communication and free access to discuss with the youths (Int. 15).

However, one of the NDDC officers argued that:

> There is no way you can satisfy most of these community people. You see different groups coming from the same community to make different request to the extent that you get confused at the end of the day. So what we do is to listen to the one we can take and ask the rest to come back another day.

Yet, another NDDC officer revealed that; "In NDDC we have a department that handles community complaints but most times because of the way the youths behave, they are not allowed to enter the premises. But at the end we still listen to them".

Discussion of Findings
The core objective of this study is to examine strategies for sustainable infrastructure development in the Niger Delta region of Nigeria. The study employed the in-depth face-to-face interview to elucidate information form the key respondents from the surveyed communities in the Niger Delta region. It also examined the strategies adopted by the Nigerian government in addressing the challenges of the infrastructure development in the Niger Delta. Overall, the study found that there are no sustainable infrastructure developments in the Niger Delta despite the huge capital investment in infrastructure development especially in the rural communities. Additional, the study equally revealed the absence of the involvement of host communities in the pre and post implementation of development strategies.

Further finding in this study also revealed low participation of community members, assessment of community needs, assessment of community needs, lack of community involvement of community members, enlightenment of community members, enlightenment of community members and inaccessibility of community members to developmental agency as the key factors hindering the success of sustainable infrastructure development in the Niger Delta region of Nigeria. Generally, the findings of the present study have to provided empirical evidence that participation of community members, community involvement, assessment of community needs, enlightenment of community members etc. play a crucial role in the achievement of sustainable infrastructure development in the Niger Delta region of Nigeria as postulated by the theory of Stages Model of Community by Peck (2010). The 6 I's of Community Development theory by Eckel (1994) and the Marginality and Mattering theory by Schlossberg (1989). For instance, Peck (2010) posited that community can be developed when there is adequate understanding of the four stages namely pseudo community, chaos, emptiness and authentic or true community. Accordingly, the 6 I's of Community Development theory by Eckel (1994) depicts that community development can only be achieved when community members collaborate and are committed to the design and implementation of such developmental plans while Schlossberg (1989) theory postulates that the success of any developmental plan is based on the sense of belonging of the host community. Also, Cavaye (2006) posited that community development is based on the planning strategy of the community. He maintained that planning is vital to effective community development and community members usually show commitment in such developmental plan before giving up if it fails to benefit their lives positively. In all, the findings suggest that government and its developmental agencies responsible for the sustainable infrastructure development in the Niger Delta region of Nigeria should increase the community members' participation, give adequate consideration to assessment of community needs, encourage community involvement of community members, enlightenment of community members and increase access of community members.

Conclusion and Recommendations

The study concludes among others that:

> There are no sustainable infrastructure developments in the Niger Delta despite the huge capital investment in infrastructure development especially in the rural communities. Also, that there is absence of the involvement of host communities in the pre and post implementation of development strategies. Further conclusion show that participation of community members, community involvement, assessment of community needs, enlightenment of community members, etc., can play a crucial role in the achievement of sustainable infrastructure development in the Niger Delta region of Nigeria.

With respect to the above, the study recommends as follows:

– That government and its developmental agencies should as a matter of fact embark on sustainable infrastructure developments in the Niger Delta region of Nigeria.

– That government should re-examine their present strategies for sustainable infrastructure development in the Niger Delta region of Nigeria.

– That government should employ sustainable practices as a strategy for achieving sustainable infrastructure development in the Niger Delta region of Nigeria

– Those subsequent strategies for sustainable infrastructure development in the Niger Delta region of Nigeria should involve participation of community members, community involvement, assessment of community needs, enlightenment of community members, etc.

Limitations of the Study and Directions for Future Research

The data utilsed in this study represents only the Niger Delta region of Nigeria without taking into account other areas (Ondo, Imo, etc.) or countries (Libya, Oman, Saudi Arabia, etc.) where oil exploration activities are being carried out. It is possible that the consdieration of these areas or countries on this

issue could produce a different pattern of insight and understanding. Therefore, subsequent studies should endeavour to replicate this study with cosideration of other similar environments or countries.

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