Communities' Assessment of the Quality of Niger Delta Development Commission (NDDC) Road, Water and Electricity Projects in Selected Communities in Imo State Nigeria

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Abstract

Niger Delta Development Commission (NDDC) is a Commission set up by the Federal Government of Nigeria in 2000 with a mandate to"facilitate the rapid, even and sustainable development of the Niger Delta into a region that is economically prosperous, socially stable, ecologically regenerative and politically peaceful". Based on this mission, the Commission since inception has been handling a lot of developmental projects till date though some of their projects lack acceptability and while many are abandoned till date. This study examined the communities' assessment of Niger Delta Development Commission (NDDC) public utility projects on water, electricity and roads in the selected communities of Ohaji/Egbema, Oguta and Obowo in Imo State with a view of evaluating the satisfactory quality of these projects. The much publicized issue of low quality jobs handled by NDDC contractors, high rate of abandoned projects here and there makes it necessary for evaluation of the few projects the commission was able to complete. The assessment here is based on the perception of the citizens living in these communities and this gives a true and first hand assessment of the quality of these projects which in most cases differs from the contractor's, the commission's and the government's report. A mixed method approach was used in this study and survey design technique adopted. A total of 400 questionnaires were distributed to the participants, five telephone interviews and nine face to face interviews were conducted. The results from the data indicated that many of the projects on roads, and electricity were below the normal acceptable standards while the water projects were rated better and of good quality compared with the other sources of water in the study area which were mainly streams, rivers, wells, and underground man made water reservoirs.

Keywords: communities' assessment, Niger Delta Development Commission, Quality of projects

Introduction / Literature Review

The assessment of the quality of projects is multi-dimensional as each of the stakeholders assesses the projects from different views so as to satisfy his own interest. Therefore to have a comprehensive assessment of the quality of projects, there is need to collate the various views of all the stake holders. This then calls and justifies the need and result of this study as the quality of these projects under reviewed by the communities or end users proves more reliable than the contractor's or Commission's assessment, as the saying goes that "He who wears the shoes knows where it pains". This was the views of (Li et al 2012) in their degree of consensus and conflict amongst stake holders in community projects and participation. The International Institute for Environment and Development (iied 2005) defined stakeholders to "includes interested parties as well as affected parties. Some prefer to restrict the term to those who have a 'stake', claim or vested interest – those who provide something of importance to the organisation, and expect something in return" and these people includes individuals, communities, social groups, or organisations.

Also The level of success and quality in in handling a project development activities most times depends on the quality of the managerial, financial, technical and organizational abilities of the respective parties, while taking into cognizance the associated risk management, the business environment, and economic and political stability (Takim et al 2002).

Project quality is nothing but satisfaction with the appearance, performances, and reliability of the project for a given price range, coupled with durability and sustainability. Identifiable reasons for project success were project manager's competence; top management's support; monitoring and feedback by project participants; interaction among project participants; and owners' competence. Alternatively projects failures were attributed to conflict among project participants; hostile socio-economic environment; harsh climatic condition; ignorance & lack of knowledge; faulty project conceptualization; and aggressive competition during tendering (Jha et al 2006).Public perception and acceptability play a very vital role in determining projects success (Huang et al, 2009). Also Enshassi et al (2009) attributed project failures to unavailability of resources; low level of project leadership skills; escalation of material prices; unavailability of highly experienced and qualified personnel; and poor quality of available equipment and raw materials.

In the same vein, (Callistus et al 2014) identified factors as primary causes of poor quality of projects and these included; fraudulent practices and kickbacks, lack of coordination between designers and contractors and; poor monitoring and feedback. Also lack of training on quality for staff, lack of management leadership and lack of previous experience of contractors contributes to project failures. The quality of projects executed is a factor of the expertise knowledge of the contractor, the financial and other resources available, the timing of the projects etc. In his own studies on the perceived factors contributing to project delays, it was observed that contractors financial difficulties, material shortages, labour, site management, equipment, and professional ability affects project quality and completion (Ali (no date), Aibinu, 2012) and these issues are applicable to the NDDC projects and the communities perceived these factors as having affected the poor quality of work done in these communities especially on roads and electricity.

Adeleye et al (2014) examined the perception of housing quality by residents and non-residents of Ibara housing estate, Abeokuta Nigeria. After analyzing questionnaires distributed to a total of 85 residents and 85 non-residents households in their location of study, their findings were that the residents and non-residents were satisfied with the dwellings and environment while the building elements were perceived by the residents to be good while non-residents saw it to be fair.

The perception of communities on infrastructural development has various dimensions depending on the location and the projects. Positive impacts included increase in employment, economic impact such as increase in income, social impact such as increased sanitary environment, increased information through the watch of televisions and more, while some negative impacts are perceived by the communities like the non-compensation for the land and economic crops destroyed.(Diduck et al 2013). Also Organisation for Economic Co-operation and Development (OECD), (2002), explained that perceived benefits of transportation projects are reduction in travel time, vehicle operating costs and safety. Travel time savings are usually regarded as the largest economically perceived benefits.

Table 1.1: Reasons why the Projects are Needed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Roads are in bad shape and need renovation	53	17.7	19.1	19.1
	No tarred roads to major cities	75	25.0	27.0	46.0
	People mostly fetch water from wells clothed with crude oil	75	25.0	27.0	73.0
	Bad drinking water has caused various diseases	32	10.7	11.5	84.5
	Oil spillage has contaminated our drinking water	43	14.3	15.5	100.0
	Total	278	92.7	100.0	
Missing	.00	22	7.3		
Total		300	100.0		

Adedeji et al (2014, Akintola, 2007, Matawal 2013) emphasized that the inequality in the provision of infrastructures and the poor nature of the roads has manifested in the low level of development in Nigeria which transcends to negative effect on agriculture and community wellbeing. This finding is in line with the findings in the communities under study as the low quality of the roads affects the benefits derivable form these roads by road users and affects the development of the localities. Also as the case of the study area, (Aderamo el al, 2010) utilized indices like surface condition, Road Width, number of lane and reliability in all season in assessing the quality of roads in communities.

The people's perception of low quality roads in the communities under study was supported by the findings of Osadebe et al (2013) in their study of the road pavement failures, they asserted that "due to the infiltration of both surface and groundwater into the plastic shale sub-grade soil and overloading, cracks and potholes and structural base failure were very common for the whole stretch of the road". Absence of good road infrastructure especially paved roads may undermine productivity and retard economic growth. Also communities with good road infrastructure tend to benefit more from the provision of social amenities than their counter parts with bad road conditions. There is need to improve the quality of roads in the rural communities so as to attract developments and easy flow of goods and services (Umoren et al, 2011).

Aghamelu et al (2011) supported the problems of road quality and failures and contributed it to issues including inadequacy of construction materials and poor quality of construction.

In consideration of quality of projects, the issue of risk factors also came up as some researchers has connected risk factors on performance and quality of the contracts done, and the risk here are grouped into human and natural risks (Ajeet al., 2009, Harinarain et al., 2008, Chileshe, 2012) . This implies that good control of the risk factors is a good indicator of quality projects. Also in line with Atubi (2012) poor road construction is a contributory factor in road accidents in Lagos Nigeria and this findings supports the result from the communities under study as the poor quality of roads such as narrowness, no pavements, no road marks and signs, use of less materials which leads to road potholes few months after construction etc leads to accidents and this is why the communities complain of the low quality of NDDC roads.

Osariemen et al (2012) examines road facility availability such as traffic light, street light and culvert; and the conditions of the roads in terms of smoothness, presence of potholes, and cleanliness. They concluded in their study that most roads in Lagos lack such good qualities and hence there are lots of negative effects on the road users and their vehicles.

Table 1.2 Satisfactory Level of Roads in Terms of Availability of Service Lane

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	19	6.3	6.4	6.4
	Somewhat dissatisfied	9	3.0	3.0	9.4
	Highly dissatisfied	271	90.3	90.6	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

Table 1.3 Satisfactory Level of Roads in Terms of Smoothly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly satisfied	43	14.3	14.4	14.4
	Somewhat satisfied	85	28.3	28.4	42.8
	Somewhat dissatisfied	137	45.7	45.8	88.6
	Highly dissatisfied	34	11.3	11.4	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

Table 1.4 Satisfactory Level of Roads in Terms of Appearance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	4	1.3	1.3	1.3
	Highly satisfied	51	17.0	17.1	18.4
	Somewhat satisfied	16	5.3	5.4	23.7
	Somewhat dissatisfied	145	48.3	48.5	72.2
	Highly dissatisfied	83	27.7	27.8	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

Table 1.5 Satisfactory Level of Roads in Terms of Travelling Time between Urban and Rural Areas

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	15	5.0	5.0	5.0
	Highly satisfied	17	5.7	5.7	10.7
	Somewhat satisfied	56	18.7	18.7	29.4
	Somewhat dissatisfied	92	30.7	30.8	60.2
	Highly dissatisfied	119	39.7	39.8	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

Mustapha (2008,) emphasized the importance of water quality in every society and community and stated "the changes in physical characteristics like temperature, transparency and chemical elements of water such as dissolved oxygen, chemical oxygen demand, nitrate and phosphate provide valuable information on the quality of the water, the source(s) of the variations and their impacts on the functions and biodiversity of the reservoir". Adeoye et al (2013) also highlighted the importance of good quality water both for rural and urban dwellers which they see as a necessity for policy makers. His study in Kwara state Nigeria showed that these rural dwellers are still not benefiting from rural water supply schemes whether from Government or Non- Governmental Organizations and this is in line with the current study as this lack of good drinking water motivated NDDC to embark on borehole water projects in the selected communities of Ohaji/Egbema and Oguta communities in Imo State.

Chinedu et al (2011) also explained the quality of drinking water from their study on the Borehole at Canaan land Ota Ogun State Nigeria and their result showed that the water was of high quality and good from drinking and domestic use "results indicate that potable water at Canaan land is safe for human consumption whereas Iju River is not suitable for domestic, industrial or agricultural uses". Alternatively, in their own study of the water quality in Gombe state Nigeria, Sabo et al (2013) concluded after their analysis that the water was not good for drinking because of the discovery of some hazardous elements hence they concluded "as a preventive measure to control the health threat associated with consumption of nitrate (NO3 -), nitrite (NO2 -), phosphate (PO4 3-) and iron from the water source, wash-borehole water in Gombe Metropolis should only be used for bathing and washing. The study therefore, stresses on the need that public should be provided with an alternative water source for drinking and cooking purposes".

Onwughara et al (2013) analyzed the borehole water samples from 12 boreholes from 12 different communities in Umuahia North Local Government Area, Abia State, Nigeria using the World Health Organization standards, and found the water to be unfit for human consumption. "These results indicated that the water sources were contaminated and unfit for human consumption. This therefore, calls for appropriate treatment measures before the consumption of these waters by the populace to avoid long term accumulative health problems of these pollutants. Recommendations on the strategies to reduce/eliminate some of these pollutants were made".

Adumanya, O. C. U et al (2013) analyzed the heavy metal contents (mg/l) manganese (Mn), lead (Pb) and cadmium (Cd) of twenty borehole water samples in Umuagwo Ohaji, Imo State, Nigeria.

Their result showed that ”Mn and Pb contents were within the limit allowed by World Health Organization (WHO). But the Cd (from 0.003 – 0.02mg/l) levels were high compared to the WHO limit of 0.003mg/l”. they then recommended the effective control of deposits of waste around the boreholes and the treatment of the water for effective human consumption.

Unfortunately in the study area, there was no empirical evidence to ascertain the quality of the water contracts supplied by NDDC, but based on the oral interviews conducted in the study, the greater percentage of the respondents said that the water quality were good compared to the stream water and their other sources of water.

Table 1.6 What is your Source(s) of Water before the NDDC Water Projects?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stream/River Water	190	63.3	63.3	63.3
	Well/Rain Water	80	26.7	26.7	90.0
	Private Boreholes/Water Vendors	30	10.0	10.0	100.0
	Total	300	100.0	100.0	

Table 1.7 How would you Rate the Quality of your Water Source(s) after the NDDC Water Projects?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Clean & fit for drinking	283	94.3	95.0	95.0
	Clean but not good for drinking	10	3.3	3.4	98.3
	Coloured& Hazardous	5	1.7	1.7	100.0
	Total	298	99.3	100.0	
Missing	System	2	.7		
Total		300	100.0		

Shyu (2013) studies the user experience in electricity supply from a stand-alone mini – grid power station in western China and the findings were that the people (users) were not satisfied with the supply as the household electricity needs were not taken into consideration while constructing the power station. This study is relevant to the Niger Delta region especially the communities under this study as the data from the participants shows they were not satisfied with the electricity projects provided by NDDC. The major difference here is that in the case of my study area, the power supply was highly fluctuating and even when supplied comes in low currents. The communities complained that they stay for months without electricity supply. The issue of social acceptability of renewable energy has been studied by many authors (Rio and Burguillo 2008, Yuan et al. 2011 and Wüstenhagen et al. 2007) and they have elaborated on the importance of social acceptability of renewable energy and the level and usefulness varies from each location.

Usman, A. (2013) examined the determinants of electricity consumer’s satisfaction in Nigeria using the customer’s satisfaction indexes (CSI) which is mainly used by most countries to measure user’s satisfaction while the producers’ are most often interested in the of measure consumer loyalty and acceptance of their products. He utilized the various theories in their analysis such as the product based approach which looks more into the economic value of the products or services, the user’s based approach tries to see how the quality appeased the consumer, the manufacturer’s approach that looks at the product specification and the value based approach which considers the quality and satisfaction in comparism with price of the product / services. Finally he deduced that Nigerian electricity consumer’s satisfaction is based on the product (accuracy, value, and guaranty), the service (distribution, quality, respond and feedback), the network (safety, reliability, accessibility and operability) and willingness to pay (accuracy of bills and tariff, payment method and facility).

He concluded that majority of "respondents are highly dissatisfied with the various aspect of the power service from product quality, to the attitude of staff, the system network and this made them highly unwilling to pay" and this conclusion supportive of the response from the participants in the area under study as they were highly dissatisfied with the quality of service rendered in NDDC electricity projects and the National electricity services since the electricity power supply in Nigeria is monopolized by the Power Holding Company of Nigeria. What NDDC electricity project does is to lay the poles, the wires, install and energize the transformers which are then connected to the national grid. The communities under study reviewed that NDDC contractors at times use substandard materials that result in the cables burning under heavy current flows.

Methodology

Mixed method and survey technique was adopted in this study. This means quantitative and qualitative methods were used and the survey technique involved the distribution of four hundred structured open ended questionnaires to participants. Oral face to face interview was conducted on nine participants randomly selected from each of the communities and telephone interviews on five respondents were also utilized in getting the data used in the analysis. Krejcie and Morgan (1970), stated that for a sample to be valid, the size has to be reasonable enough and he suggested that for a sample population of 75,000 to 1,000,000, 382 questionnaires is recommended as a sample size.The total population of the study area is 443,660 (Nigerian census 2006), hence the sample size used was reasonable. The secondary data were collected from journals, books, magazines internet and published materials including previous research by scholars and all acknowledged accordingly in the quoted references.

Analysis and Findings

The result from table 1.2 shows that 90.6% of the participants were highly dissatisfied with the road projects on the ground of non-availability of service lane while only 3.0% were somehow satisfied. On the satisfactory level of the roads in terms of smoothness (Table 1.3), 45% were somewhat dissatisfied while 11.4% were highly dissatisfied. Invariably a total of 57.2% were dissatisfied while 42.8% were satisfied. Total of 76.3% were dissatisfied with the road appearance while 22.5% were satisfied with the road appearance (Table 1.4). Respondents on the satisfactory level of the roads in terms of travelling time between the rural and urban indicated that 70.6% were not satisfied while 24.4% were satisfied.

Table 1.6 shows the sources of water before the NDDC water projects in the communities and respondents indicated that 63.3% was stream/river source, 26.7% was through well/rain water while 10% were through private boreholes and water vendors. Table 1.7 explains the quality of water source after the NDDC water projects. As high as 95.0% explained that the NDDC water projects are clean and fit for drinking, 3.4% claimed that the water were clean but not good for drinking while 1.7% said the water were coloured and hazardous.

The non-provision of service lane and pavements is a lapse on the road and dangerous for other road users. One has to take into consideration the fact that these are rural communities where the residents just need to have tarred roads irrespective of the standard and this forms some opinion on what a standard road should be. The non-satisfactory traveling time indicates that the roads are not smooth and wide enough hence drivers have to delay as they move at a slower speed to avoid damages to the vehicles and head on collision since the roads are narrow.

The Obowo community lamented on the low quality of the NDDC road projects in the area and the lots of abandoned projects which has caused serious erosion problems in the communities. The abandoned Alike – Umuosochie – Umulogho road contract is causing a lot of gully erosion hence the communities have resulted to self-help projects to check the erosion and if care is not taken many houses would be cleared by the menace of the erosion. For the case of Umulogho- Okwuohia – Isinweke road, the lousy contractor started a bridge and abandoned it since 2010 and this has broken the linkage between the two communities making it impossible for vehicles to commute through the two communities which were motorable before the NDDC contract for the tarring of the road. This has actually affected the socio- economic and political life of these communities.

These water sources especially the stream/river and well/rain were not fit for consumption due to the activities of oil mining and spillage and environmental pollution in the area. The high percentage that said the water projects are clean and fit for human consumptions are indications that the borehole projects were well executed and perceived by the communities as high quality . This was also emphasized in the oral and telephone interviews as participants were happy as these water projects they said helped to reduce stress on the women and children who used to trek long distance to fetch water from the stream and rivers.

Also they explained that it increased socio-economic and environmental life in the communities and incidence of water diseases has been reduced and modern toilet facilities now available. The oral interviews also threw more light on the low quality of electricity in the communities as some part of Ohaji/Egbema claimed they have not had electricity for over one year. The low quality of the electrification projects were also explained in the non-installation and energization of transformers donated by the Commission in Okwuohia community in Obowo and the community have not had electricity in such locations.

The finding shows that the quality of NDDC roads and electricity in these communities were below standard and necessitates the probe on the competency of the contractors used for such projects. Also the lot of abandoned projects by the commission does not speak well of them and explains why few of their completed projects are of low quality. The communities where the water projects were executed spoke well of the quality of the projects but only complained of the non-availability of electricity to power the boreholes. Some of the boreholes in Ohaji/Egbema and Oguta with installed solar energy to power them are functioning well while some have generators installed to power them.

Conclusion

This study then concludes that the quality of NDDC sponsored projects in these communities fell below the acceptable standards especially the roads, and electricity projects while the boreholes has been given pass mark by the communities where they are existing. This study also concludes that the quality of contractors handling these projects needs to be investigated and competent contractors with proven records of performance should be utilized for the Commissions projects. The commission should be mandated by the Federal Government of Nigeria to stop awarding new contracts until all the abandoned projects are completed and commissioned as there is no gain awarding new contracts each year by the new Board of the Commission when lots of abandoned projects litter all over the Niger Delta Region. Vanguard Newspapers Nigeria (Tuesday March 10th, 2015) stated that "The Niger Delta Development Commission, NDDC, is in a pitiable state it may never recover from, if it continues operating in its current ways. The 14-year-old interventionist agency, while defending its 2014 budget, claimed it had 4,000 uncompleted projects".

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