

## Research Article

## Stakeholders Roles in Improving the Current State of Public Secondary Schools Infrastructure in Rivers State, Nigeria

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**Abstract:** The study ascertained the roles of stakeholders in improving the current state of public secondary school infrastructures in Rivers State, Nigeria. The purpose of this paper is to assess the current state of public secondary school infrastructures and to ascertain the functions of each stakeholder as to solving the problems in terms of sustaining and maintaining schools infrastructures. This study sampled 120 stakeholders in selected 6 public secondary schools built in 1970's in 6 Local Government Areas of the state with purposive sampling method. Questionnaires were administered to the 120 sampled but 78 questionnaires were retrieved representing 65% response rate and the collected data were analyzed using descriptive statistical tools. The findings showed that 70% of respondents admitted that the existing conditions of the schools were in a deplorable state. The result also showed that inadequate funding, lack of government intervention, lack of maintenance, delayed maintenance, vandalism, neglect, no sense of ownership by stakeholders, lack of community's involvement, and overcrowding as the factors influencing the present condition of existing school infrastructures. It is observed that the public secondary schools are in a deplorable state of dilapidation that needed collective efforts of various stakeholders to improve them. This paper concludes that if proper attention is given to school infrastructures by the stakeholders there will be improvements in the public secondary school buildings in Rivers State and the study proposes a multi-stakeholders function framework for the proper maintenance of public schools infrastructure to eradicate the existing poor conditions.

**Key words:** Disrepair, infrastructure, maintenance, public schools, secondary schools.

### INTRODUCTION

In order to prolong the life span of building, maintenance is essential as it enhances the quality of building structure to meet modern requirements and to ensure the safety of the building occupants. There are increasing demands on maintenance programme to provide tools that will support maintenance planning (Shohot and Straub, 2003).

Olagunji (2011) stated that lack of appropriate tool for predictive maintenance of existing public buildings and infrastructures can have a detrimental effect in the future. It is essential that maintenance works be carried out for the safety of the end-users and facilities provided in the public buildings. It is also the process of preserving the physical conditions of the building and supporting the infrastructure to be in its operational state at all times. Maintenance issues play a vital role in the performance of public secondary schools in our communities, whereby these standards can be achieved by providing maintenance tools that the various stakeholders of our public secondary schools would function as well. The array of abandoned and epileptic function of facilities in public secondary schools in Nigeria is due to poor or lack of maintenance (Zubairu, 2010). This underscores the need for studying the roles of stakeholder's maintenance responsibilities and the various factors affecting public secondary school building maintenance with the view to assign specific functions to the various stakeholders managing

public school buildings.

According to the National Centre on Education Statistics (NCES, 2003) public school facilities affects the physical, educational, and financial foundation of the school as an organization and should therefore be the concern of the government and the communities to focus on both its day-to-day operations and long range maintenance practices.

Society assets and infrastructure such as public school buildings that they could use for a longer time. According to Lyons (2001) most buildings started deteriorating rapidly from 40 years, and even if all the original components are replaced. Emphasis had been placed on age of building as a reliable indicator that caused the students illness and poor performance and several authors have found evidences to support the influence of building age on infrastructure performance (Earthman, 2004; Keith, 2008; Shohet, 2003 and Kaplan et al, 1996).

It is considered that Public Secondary School education is the most effective means that brings about changes that would boost the economic and National development for the country (Asiyai, 2012). One of the greatest issues affecting the educational sector in different localities of Rivers State is the poor state of school infrastructures. Public secondary schools in the past were institutions of admiration to the other kinds of secondary schools within the living environment.

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Unfortunately, the reverse is now the case as those public secondary schools were left to decay and become shadows of themselves while the private schools keep improving on their infrastructures and academic standards so much that there have been a shift from what we used to have in the past to what is obtainable today.

Existing public secondary schools in Rivers State lack adequate maintenance attention are now in a very poor and deplorable condition. While considerable researches have been carried out on maintenance of these schools and offices in Nigeria, but only scanty attention has been given to the key parameter affecting the infrastructures in public secondary school buildings in Rivers State. There is therefore a need to establish the role of the stakeholders in the maintenance of in public secondary school buildings.

### **The Aim and Objectives of the Study.**

The aim of this study is to assess the present condition of public schools infrastructure in terms of maintenance and management of available public secondary schools facilities in River State with the view of improving the existing conditions. The objectives are to assess the present maintenance conditions of public schools and propose a multi stakeholders functions maintenance management framework for the maintenance and management of public schools infrastructure.

### **LITERATURE REVIEW**

No building is maintenance free, so every structure, either heritage or new requires care to limit deterioration. As part of the construction process; maintenance has an important role to ensure long life of the constructed building. It is worthy to mention that the demands in the educational sector globally are on institutions that has produced high performing students (Odigwe and Eluwa, 2013). As such, great importance is laid on the provision, maintenance and management of available school infrastructures to enhance learning (Geoffrey and Chuks, 2010), which is not the case with the current condition of Rivers State public secondary schools built in the 1970's as the resources for school planning, design, construction, operation and maintenance are the constrained.

Craig (2009) stated that the challenge for Government is high quality schools that would function efficiently and stand the test of time that focuses on the quality of the students entire academic experience that led to a greater emphasis on their school life activities and facilities, in response to many learning institutions renovating, expanding and creating new buildings that support their goals and objectives. Vaughan (2008) and Vandiver (2011) emphasize that school facilities whose primary function is teaching and learning have a profound impact on their occupants more than other types of buildings. These authors believe that the design and layout of school facilities should possess features that will aid learning and teaching. They stressed that the design and layout of the learning environment should be taken into consideration in the various stages of development including maintenance

programs. Nationally and locally, officials recognize that school facilities and the physical buildings are important to their program success.

Odofofokam (2011) and Olaley (2012) noted that over the last two decades, the management of public schools had been experiencing some problems as a result of policy gaps in Nigeria as schools are not well-maintained and facilities are not adequately provided due to the fact that the management of public schools were used as political gambling between the local Government, State Government and Federal Government. Ijaiya (2001) opined that based on the unstable situation that the worth of any management is found on its ability to produce quality facilities that would satisfy client and other stakeholders. The tasks of such entity would include identifying and solving any problem that militates against quality delivery. It is believed that such a problem solving should be directed at taking preventive measures.

Bumhan (1994) cited in Odigwe and Eluwa (2013) posited that prevention is the basis of preventing waste as contested to support "Quality Assurance Management or Total Quality Management" showing that many school systems, particularly those in urban and high poverty areas are plagued by decaying buildings which threaten the health, safety, and learning opportunities of students. Best facilities in public appear to be an important pre-condition for students' learning, provided other conditions are met which support a strong academic program in schools.

Izobo-Martins et al (2014) suggested that infrastructural development is a vital tool towards increasing the value and usefulness of public buildings and facilities with the provision of portable water, electricity, drainages, sanitary facilities, sewage disposal and access roads essentially to complement the buildings in such public schools while contributing to the proper functioning of the physical development. Jijac et al (2009) argued that the maintenance of public infrastructure is a complex task that is even more difficult with decision taking to prioritized aspects of building to be maintained. Mojela (2003) identified several factors that contribute to the deplorable conditions of public schools infrastructure in South Africa as inadequate government intervention, no sense of ownership by stakeholders, inadequate funding and Vandalism. Furthermore, lack of maintenance, neglect, deferred maintenance and overcrowding were also identify. A multi-stakeholder framework for the proper maintenance of public schools infrastructure is proposed to eradicate existing poor conditions.

Adeni (2010) stated that assurance of sustainable quality in secondary education is a continuous process of the best practices in the management and utilization of human and material resources, facilities finance and development of positive corporate culture and strategic supervision of maintenance, teaching and learning activities for the achievement of the set goals in the schools. Assurance of sustainable quality in an institution is possibly made when every stakeholder of the educational sectors contributes their

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quota to the quality process (Zuhari and Suparman, 2002). All these requirements ensure a complete well-rounded education and production of quality students and consistent improvement in secondary school system.

The roles of stakeholders (Government, Parent Teachers Association, Communities, Multinationals and NGO's) are needed in the sustainability of public secondary schools in Nigeria, as the school system has the function of interacting with the stakeholders in setting standards for maintenance works, providing how standards would be achieved and actually carryout maintenance work and resources employed. According to Kotivde et al (2014) the successful implementation of policies for educational development in schools rely on government to plan ahead and develop strategies to address issues of maintenance to each area will increase the likelihood of successfully implementing the planned programs and reorienting the physical conditions of schools to achieve sustainability.

Stakeholders must be fully concerned with the physical environment and other facilities around the school premises with dilapidated buildings, leaking roof, abandoned projects, over-grown trees and lawns, dingy and dark buildings that were abandon by government have demoralizing effects on people, especially the adolescent (Obidoa, 2006). Abdullahi (1996) reported that the PTA complements governments efforts in the provision and maintenance of infrastructure in the schools. Despite the laudable roles of PTA in secondary schools it appears that the problems of maintenance of the schools still thrive and it therefore presupposes that the roles of the PTA can be strengthened in order to enhance better community participation in the schools

### METHODOLOGY

This study used the action research design, and the area of study was River State public secondary schools buildings built in 1972-1979. The population of the study covers 58 public secondary schools built by the Rivers State Government in the 1970's and the sample consist of 6 public secondary schools representing 10.3% of the schools from 6 local government Areas representing 25% of the 23 local Government in the state using the purposive sampling method. The purposive sampling method was adopted due to convenience for the researcher. A total of 120 questionnaires were distributed and 78 were retrieved from the respondents which include principals, Parents and Teachers who are the primary users of these selected public secondary schools buildings. The data collected was analyzed using descriptive statistics.

### Results and Discussion

The results of data analysis using simple percentage are as shown below.

**Table 1: Data Retrieved statistics**

Respondents	Frequency	%	Frequency	%	Frequency	%
Parents	54	45	36	46.15	18	42.9
Principals	12	10	12	15.35	0	0
Teachers	54	45	30	38.5	24	57.1
Total	120	100	78	100	42	100

**Table 2: Existing Current Condition of the schools Infrastructure**

Rated Condition	Frequency	Percentage %
Very Poor	32	41.0
Poor	19	24.4
Fair	12	15.4
Good	10	12.8
Very Good	5	6.4
Total	78	100

Table 2 showed that 41% of the respondents said that the existing current conditions of the schools infrastructure are very poor, while 24.4% agreed that the current conditions of the public schools are poor. Although 15.4% of the respondents indicated that the infrastructures conditions are fair. However, the table also showed that 12.4% rated the conditions of schools infrastructure as good, while 6.47% rated the conditions as very good. This good rating must have resulted from Rumuokwuta Girls Secondary School which is currently undergoing renovation. It is obvious from the results that the general existing condition of infrastructure in the public secondary schools is very poor.

**Table 3: Causes of Present Infrastructure Conditions**

Causes of Present Conditions	N	Sum	R11	Rank
Inadequate funds by Government	78	1,451	0.97	1st
Delayed maintenance	78	1,400	0.936	2nd
Lack of maintenance	78	1,302	0.931	3rd
Vandalism	78	1,389	0.929	4th
Lack Maintenance planning	78	1,308	0.874	5th
Fund raising by school	78	1,194	0.798	6th
No school commitment	78	1,108	0.742	7th
Lack of community Involvement	78	1,008	0.674	8th
No maintenance legislation	78	1,002	0.67	9th
Overcrowding	78	926	0.619	10th

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Table 3 showed that the relative importance index (RII) ranked Inadequate funds by Government first with an RII value of 0.97, delayed maintenance ranked second with an RII value of 0.936, lack of maintenance ranked third with an RII value of 0.931, vandalism ranked fourth with an RII value of 0.929 and maintenance planning ranked fifth with an RII value of 0.874. However, fund raising by school is the sixth cause with a value of 0.798, no school commitment ranked seventh with a value 0.741, lack of community involvement was ranked eighth cause with 0.674, no maintenance policy was ranked ninth with an RII value of 0.670 and overcrowding ranked 10th with an RII of 0.619. The finding revealed that adequate funding is required to improve and achieve sustainability of public school buildings and facilities.

### DISCUSSION

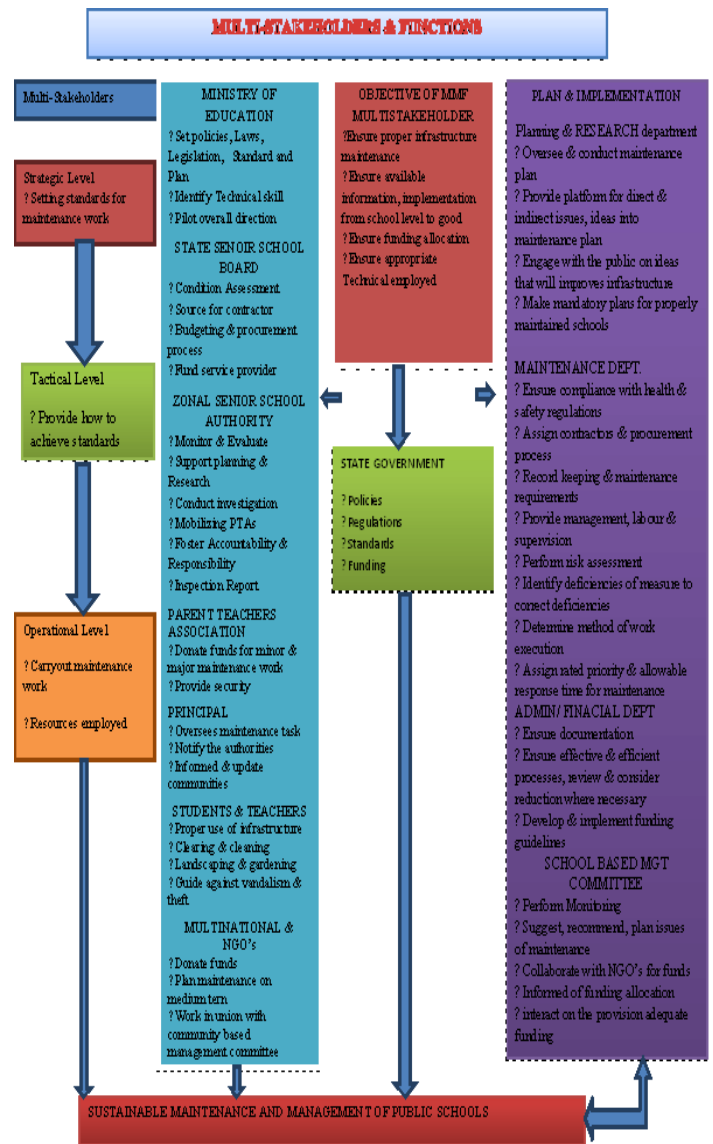
The study shows the existing current conditions of public secondary school infrastructure in Rivers State. The output of the analysis in Table 2 showed that 41% of the present conditions of schools are in a very poor state and 24.4% admitted to be poor. The study revealed that majority of the public secondary schools buildings (65.5%) are in a very poor or dilapidated state. The outcome of this current study of which agreed with the findings of Odufowokan (2011), Vandiver (2011), and Olaleye (2012) should not be ignored.

The study also revealed that the relative importance index (RII) of lack government funding was 0.970 (1st), delayed maintenance was 0.936 (2nd), lack of maintenance 0.931 (3rd), vandalism was 0.929(4th), lack of maintenance planning was 0.874 (5th), funds raised by schools was 0.798 (6th), no school commitment was 0.741 (7th), lack of community involvement was 0.674 (8th), no maintenance legislation was 0.670 (9th) and overcrowding was 0.619 (10th). This is in line with the findings of Geoffrey and Chuks (2010), Ijayi (2001), Craig (2009) and Mojela (2013) that lack of stakeholder commitment has led to the poor state of infrastructure in public schools because importance is not laid on the provision, maintenance and management of available school facilities to produce the quality to satisfy clients and other stakeholders. And also the study is in line with the view of Grasmick et al (2005), for schools as well as for all types of facilities; corrective maintenance is necessary in order to address, observed deficiencies and preventive maintenance so as to protect against new deficiencies in order to greatly extend the useful life of the buildings.

The study has proposed a multi-stakeholders functions framework for the various stakeholders as to preserved and enhance the huge investment off Government use in the construction of the schools including the purpose the school buildings were met to served. This proposed stakeholders function is in an agreement with Mojela (2013) multi-stakeholder framework for the proper maintenance of public schools infrastructure as to eradicate the existing poor conditions.

Results from interviews and personal observation made during

the study were deduced from key informant's information to ascertain the various functions of the stakeholders at the three levels of strategic (settings standards for maintenance works), Tactical (Providing how to achieve set standards) and operational (carryout actual maintenance works and resources employed) s detailed the multi-stakeholders functions in figure 1:



### CONCLUSION AND RECOMMENDATIONS

The study has revealed the current existing conditions of infrastructures as available in public secondary schools in Rivers State built in the 1790's are in a very deplorable state which is below acceptable standards. It also identified the various factors that contributed to the deplorable conditions of public schools infrastructure in Rivers State, Nigeria. These include inadequate government intervention, inadequate funding, vandalism, lack of maintenance, neglect, delayed maintenance, lack of community involvement, no sense of commitment by stakeholders, overcrowding, etc. the study revealed 70% of the respondents agreed that the existing infrastructures has not been properly maintained, and this calls for concerted effort by all stakeholders to improve maintenance works and strategies towards the improvement of

these infrastructure. Most of the schools are more than 35 years old, but the conditions of the older missionary schools have better maintenance and functional infrastructure. There is need for quick response from the River State Government, Communities, Parent Teacher Association (PTA), multinationals oil companies, Non-governmental organizations (NGOs) and notable individuals that operate in the state to collectively improve and maintain the public secondary schools in Rivers State .

Base on the findings, it is recommended that efforts should be made by educational stakeholders in River State and Nigeria at large to develop sustainable maintenance and management plan for the sustainability of public secondary schools infrastructure. Secondly, the study proposed a multi-stakeholders functions framework for the proper maintenance and management of public secondary schools infrastructure to eradicate existing present poor conditions.

## REFERENCES

- [1] Oladunmi, Izobo- Martins,O. Oladipo, D. A and Ayo-Vaughan (2014). Infrastructure Conditions in Public Secondary Schools, Ogu State, Nigeria. International journal of Civil, Structural, Environmental Development (IJCSEIERD), Vol.4 (5) pp., 17-14.
- [2] Fsyaku, K.I (2002). The Status of Higher Education in Nigeria. The College of Education Perspective. A Lead Paper Presented at the National Summit on Higher Education Organized by the Federal Government of Nigeria at Abuja, March, 10th -16<sup>th</sup>.
- [3] Earthman, G.I (2004). Prioritization of 31 Criteria for School Building Adequacy .American Civil Liberties Union Foundation of Maryland. Accessed on March, 10, 2017 from [http://www.schoolfunding.info/policy/facilities/ACLU\\_facilities](http://www.schoolfunding.info/policy/facilities/ACLU_facilities).
- [4] Jajac, N, Knezic, S and Marovic, I(2009) Decision Support System to Urban Infrastructure
- [5] Kaplan, R.S and Norton, D.P (1996). The Balance Score Card: Translating Strategy into Action Harvard Business School Press, Boston. Access on March 10, 2017 from [www.irbfraunhafer.de/cib](http://www.irbfraunhafer.de/cib) library
- [6] Keith, A (2008). Usability: Philosophy and Concept .CONDACIB Library accessed on March 16, 2017.
- [7] Lyons, J. (2001). Do school Facilities Really Impact a Childs Education? A, Z: Scottsdale, A, Z: Council of Educational Facility Planner, International Maintenance Management Organization. Technology and Management in Construction, An International Journal, 1(2), 72-79.
- [8] Mojela, T.W (2003). Assessment of the effectiveness of public schools infrastructure maintenance system in the Gauteng Province. M. Tech. Thesis in Construction Management of the department of construction management and Quality Surveying of University of Johannesburg
- [9] Shohet, I.M and Straub, A (2003). Performance based Maintenance: a comparative study between Netherlands and Isreal. International Journal of strategic Property Management, n(2), 199-209
- [10] U.S Department of Education, National Center for Education Statistics- NCES (2003). The Condition of Education 2003 in Brief NCES 2003-068 by Andrea Livingston and John Wirt. Washington , D.C
- [11] Zubairu, S.N (2010). The National Building Management Policy for Nigeria: the Architects' Perspective. Compilation of Seminar Paper presented at the 2010 Architects Colloquium- Architecture and the National Development Agenda 111. Architecture Registration Council of Nigeria,1-12
- [12] Odigive, F.N and Eluwa, I. O (2013) Appraising the State of Maintenance and Management of Available Secondary School Facilities on Students Academic Performance in Cross River State, Nigeria Journal of Education and Practice, Vol.4 (24), 101-105.
- [13] Vaughan (2008). Effect of Design, layout and management of primary school facilities on Performance of pupils Accessed on March 16, 2017 from [www.academic.edu](http://www.academic.edu).
- [14] Vandiver, B (2011). The Impact of school Facilities on the Learning Environment. Accessed on March 16, 2017 from [www.acefacilities.org/RetrieveDocument.aspx?DocId=ebdOa](http://www.acefacilities.org/RetrieveDocument.aspx?DocId=ebdOa)
- [15] Olaleye, F.O (2012). Creating a Friendly School Learning Environment for Nigeria Children, European Scientific Journal, 8(8), 124-133.
- [16] Odufowokan, B.A (2011). School Plant Planning as Correlate of Students Academic Performance in Southwest Nigeria Secondary Schools. International Journal of Business Administration, 2(2), 41-45. Accessed on March 16, 2017 from [www.sciedu.ca/ijba](http://www.sciedu.ca/ijba)
- [17] Ijaiye, Y.(2001)from Quality Control to Quality Assurance: a panacea for Quality Education in Nigeria Schools. In Nwagw, N.A, Ehiamefor, ET. Ad Nwadiani, M (Eds). Current Issues in Educational Management in Nigeria. Benin City: Nigeria Association for Educational Administration and Planning.
- [18] Grasmick, N.C, Scott, A.E, Rutherford, B.K, Mclony, T, School Facilities in Maryland University. Maryland Printing Press.
- [19] Godfrey, O and Chuks, P (2010). Effects of Design, Layout and Management of Primary School Facilities on Performance of Pupils. Accessed on March 16, 2017 from <http://www.pge.com>.
- [20] Edwards, M.M (1992). Building Conditions, Parental Involvement and Studies Achievement in the D.C Public

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School System Master Thesis, Georgetown University, Washington, D.C (ED 264- 285).

- [21] Craig, K.S (2009). Relationship Between Educational Facilities and Achievement. Accessed on March 16, 2017 from <http://www.nvelop.gov/docs/fry080sti/31543.pdf>
- [22] Rotired, I.Y, Yunos. J.M.D and Sustain, Y.A (2014). The Role Principals in Sustaining/ Management of Quality Secondary School Education Nigeria GSE e-journal of Education, Vol.1 (2), 1-8. Accessed on March from <http://www.worldconferencece.net>
- [23] Zahari, Aand Susparman, A(2002). Managing Quality and Accessibility in Open and Distance Learning. In DKshit, H.P/(et al). Accessed and Equality (p.262). New Delhi Kogan page
- [24] Ayeni, A .J and Akinola, O.B (201). Influence of Principal Leadership Styles and Motivation of Teachers on Quality Assurance in Secondary School: A case study of Ondo State. Ife Journal of Theory and Research in Education, 11 (1&2), 167-170
- [25] Abudullahi, S.U (1996). Parent Teachers Association aas an Instrument of Community Participation in Education. Accessed on March 16,2017 from [http://www.zedang.org/agm\\_lectures/4\\_The.pdf](http://www.zedang.org/agm_lectures/4_The.pdf).