

Infrastructural Vandalism in Nigerian Cities: The Case of Osogbo, Osun State.

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Abstract

Vandalism of infrastructural facilities is a persistent social problem in all the major Nigerian urban centres today. Despite the inadequacy in infrastructural provision, the available facilities have been consistently vandalized by criminals and mob. This has undoubtedly strained the limited resources of the governments at federal, state and local levels. This paper examines the nature, types, location and costs of vandalism as well as identifying the various actors involved in vandalism of infrastructural facilities in Osogbo, the capital city of Osun State, Nigeria. Questionnaires and interview scheduled were used in eliciting information from the residents of the city and the concerned security agency. Descriptive statistics were used in analyzing the data obtained. The paper revealed a preponderance of male teenagers engaging in vandalism. Also, water pipelines, electricity cables, electrical transformers and telecommunication equipment are more vandalized than other facilities. This has cost the governments and the communities, substantial resources to effect the replacement of repair of the vandalized infrastructure. The paper recommends adequate security to be spearheaded by the inhabitants themselves for the facilities. Provision of employment opportunities to effectively engage the youths of the city is equally considered necessary.

Keywords: Vandalism; infrastructural facilities; vandals; electricity cables; water pipelines

1. Introduction

Infrastructural facilities are central to the rapid socio-economic development of any country. It provides the environment for productive activities to take place and facilitates the generation of economic growth thereby reducing or eliminating urban poverty. Infrastructural availability reduces urban decay, limits slum development and makes urban environment livable. Thus, with good infrastructural base sustainable urban development is easily attainable (Ola, 2010). However, that Nigeria is facing acute urban infrastructural deficit is widely recognized (NBS,2009; UN-Habitat,2009; Ola,2011). In many cities, potable water, roads and drainages, electricity and so on, are in short supply. But the problem seems to have been compounded by vandalism of the available facilities in most of these cities (Badiora and Obadiora, 2011).

Infrastructural vandalism refers to willful or malicious destruction of public infrastructure which effectively disrupts the normal functioning of the facilities and consequently requiring an emergency repair response (Wikipedia, 2012). Vandalism takes many forms: Graffiti on public infrastructure which is common in many inner cities as part of a gang culture; other more serious forms of vandalism may take place during public unrest such as rioting; it could be perpetrated by individuals in the course of his business or with the intention of stealing public property. Vandalism has been identified as one of the accompany problems of unrelenting urbanization in Nigeria as studies have demonstrated that the higher the level of urbanization, the greater the level of criminality including vandalism (Agbola, 2004; Okoko, 2008). As observed by Uzoigwe (2014), vandalism of Power Holding Company of Nigeria (PHCN) installations and facilities accounts for more than 60% of blackouts recorded across the country. Also, a leading telecommunication company (MTN) loses an average of 2 giant generating sets a week to vandalism. These consequently result in intermittent service disruption (Okwuke, 2014).

Given the problem of infrastructural vandalism as defined above, the questions arising are: who are these vandals; what propel them into vandalism; and how can their nefarious activities be curtailed? These are the questions this paper seeks to address using Osogbo as example. The paper has the objectives of examining the state of infrastructural development in the city; determining the types, location and costs of vandalism; identifying the various actors involved in vandalism; as well as suggesting sustainable measures to curb the act.

2. Conceptual Anchor

There are no known theories or models in the literature which specifically focus on infrastructural vandalism. However, the closest available conceptual approach to a study of this nature is the one which normatively focuses on preventing vandalism and other crime through spatial manipulation. This is known as Crime Prevention through Environmental Design (CPTED). The concept, developed by Jeffrey (1972), is based on the premise that proper design and effective use of the built environment can reduce crime and improve the quality of life. It is basically concerned with manipulation of the physical environment in order to deter crime. The manipulation is not intended to create an impenetrable fortress, but merely to make penetration more difficult and

time-consuming (Agbola, 1997). To deter crime and protect public facilities, CPTED proposes five strategies for changing the physical environment. These are: Surveillance; Access Management; Territoriality; Activity Support; and Maintenance.

Surveillance refers to the ability of legitimate occupants or management of an area to exercise a high degree of visual control over the entire area (Agbola, 1997). It is a principal weapon in the protection of a defensible space in the sense that vandals or criminals are least likely to act when there is a high risk of their actions being witnessed. There are two forms of surveillance: natural or informal and artificial or formal. Natural surveillance is achieved by designing the placement of physical features, activities and people in such a way as to maximize visibility and foster positive social interaction among legitimate users of private and public space. Designs that minimize visual obstacles and eliminate places of concealment for potential assailants offers the most protection against crime and vandalism (Wikipedia, 2012). Artificial surveillance refers to the use of various security devices/personnel to ensure visual control over space (Agbola, 1997). It is basically mechanical and organizational measures which include the use of fixed guard or human guard posts, organized security patrols such as vigilante groups and the use of trained animals such as guard dogs or security dogs. The primary purpose of this is to alert the residents of any strange occurrence or intruder within the guarded space and quickly contact the police. Also, in artificial surveillance is Electronic Monitoring. This is the use of electronic gadgets like cameras, which are posited in a concealed environment within the guarded space to record all activities that take place within viewing range and send signals into a terminal located within or outside the area. The most sophisticated of these electronic monitoring devices is Closed Circuit Television (CCTV).

Access Management involves using properly located entrances, exits, fencing, landscaping and lighting to control access and discourage crime. In addition, barriers are used to restrict access to the target area to people who have valid reason for being there. Agbola (1997) identified two types of barriers: physical and symbolic. Physical barriers are substantial in nature and physically prevent movement/access. Examples include fencing, burglar proofing, heavy metal doors, unbreakable glass windows and some form of landscaping. Symbolic barriers are less tangible. It only defines boundary and may not prevent physical movement. What it does is that it leaves no doubt as to who should have access and when access should be made. Examples include the use of low decorative fences, flower beds or prominent use of signs which can be cultural, traditional or universal e.g No Trespassing, Beware.

Territoriality involves an individual's perception of and relationship to his or her environment. It is based on the premise that a strong sense of territoriality encourages an individual to take control of his or her environment and defend it against attack. A sense of territoriality is fostered by architectural design that allows easy identification of certain areas as exclusive domain of a particular individual or group (Atlas, 2008).

Activity Support increases the use of a built environment for safe activities with the intent of increasing the risk of detection of criminals and undesirable activities. It involves encouraging legitimate activity in public spaces to discourage criminal behavior. It is expected that when illegitimate activities are allowed in public facilities such as neighbourhood parks or sports arena, there is possibility and the very likelihood for vandals to be encouraged (Crowe, 2000).

Maintenance is an expression of sound property management while deterioration indicates less control by the intended users of a site and indicates a greater tolerance of disorder. Maintenance and repair of infrastructural facilities, to facilitate a sense of caring and ownership, and encourage proper use of the facilities (Casteel and Peek-Asa 2000).

3. Osogbo: A Contextual Profile

Osogbo, the capital of Osun State, is located within latitude $7^{\circ}48'N$ and $4^{\circ}35'E$. It is bounded in the East by Ilesa, in the West by Iwo and Ede, in the South by Ile-Ife and in the North by Ikirun and Iragbiji. It is situated on an extensive undulating plain that lies within the Yoruba upland regions. The landscape is dissected by many rivers principal among which are Osun, Okoko, and Erinle. These rivers serve as major sources of water supply for the inhabitants.

The climate of Osogbo is influenced by two major winds: the Tropical Maritime Air Mass which is predominant between March and October and the Tropical Continental Air Mass which also predominant between November and February. This give rise to two major seasons: the wet and dry seasons. The wet season starts in April and ends in early October, while dry season starts in November and ends in March. The highest precipitation usually occurs between June and July while the mean annual rainfall is about 1,202 mm. the mean annual temperature is $26.6^{\circ}C$ and the relative humidity for the area is between 92-99%.

The vegetation of the area constitutes a transition between the rain forest and tropical equatorial in the South and Guinea and tropical Savannah in the North. Hence, the vegetation of the area is described as derived savannah characterized by gallery of forest along stream sides and tall grasses with scattered perennial trees over land.

Osogbo is adequately connected with good network of roads. The Lagos-Kano rail line passing through Osogbo greatly enhances the movement of people and goods to and from the city. The city largely depends on water

supply from the state-owned water corporation. In addition, boreholes and wells are sunk by private establishments and individuals. Other infrastructural facilities available in the city include telecommunication, fire stations, post office, banks, and other financial institutions, electricity supply as well as police stations. Educational facilities in the city include primary and secondary schools, school of nursing and midwifery, the main campus of the Osun State University and a private university. Health facilities include 7 dispensaries, 8 maternity centres, 8 out-patient clinics, 15 private hospitals, a general hospital and a teaching hospital.

4. Methodology

The data used for this study were collected from both primary and secondary sources. Questionnaire and interview guide were used in gathering primary data. Osogbo is made up of two local government areas (Osogbo and Olorunda LGAs). A total of 156 and 114 households were randomly selected for questionnaire administration, in the 14 and 17 localities that constitute Osogbo and Olorunda LGAs respectively with the household head or any adult member of the household being the target for questionnaire administration. Thus, the total questionnaires administered in the study area were 270. Interview guide was used in eliciting information from the management of the Power Holding Company of Nigeria, MTN, the Nigerian Security and Civil Defense Corp, and Osun State Water Corporation. Information sought through the questionnaire and interview guide include the inventory of infrastructural facilities in the area, the facilities that have been frequently vandalized, those that are more susceptible to vandalism, the category of people involved in vandalism, the effects of vandalism on the well-being of the city, among other issues. The data collected were analyzed using descriptive statistics to establish the spatial dimension of vandalism in the city, the class of people involved and the reasons for vandalism. The secondary sources of information include journal articles, textbooks, newspaper articles, Newsletters, unpublished materials such as dissertations, monographs and mimeo.

5. Literature Review

Vandalism has been described as a wanton or deliberate destruction of public or private property resulting from vengeance in the case of dissatisfaction against an authority, or an attitude of abysmal disregard and ignorance in the proper use and handling of public and private properties (Colin, 1973). It has been observed that vandalism and other petty crimes are rampant among the youths most especially the jobless ones, students of post-secondary schools and graduates (Agbola, 2004). The act of vandalism according to Mukoro (1996), ranges from stepping on flower beds (lawns) to destruction of structures during crisis. It also includes uncontrolled bush burning, improper handling of public amenities, theft of electrical and telecommunication cables, improper and careless construction (laying) of water/oil pipe across the roads without proper mending of the latter as well as destruction of exposed oil pipelines.

Salisu (2003) has observed that oil pipeline, electricity and telecommunication cables, and roads are the most susceptible to vandalism among the infrastructural facilities. For instance, Lukman and Salisu (2003) reported that 131 cases of oil pipeline vandalism were recorded in Nigeria between 1991 and 1995. However, the agitation for resource control by the Niger-Delta region of the country which took a violent dimension in the year 2000 resulted in increasing rate of oil pipeline vandalism. Consequently, 497 and 507 cases of pipeline vandalism were recorded in 2001 and 2002 respectively. Between 2003 and 2009, about 1450 cases were recorded in the Niger-Delta and other parts of the country (Okolo and Etekpe, 2010). Although, the implementation of amnesty programme in 2010, and the positive engagement of Niger-Delta youths, in productive ventures, have drastically reduced pipeline vandalism in the country. As at December 2011, the total number of reported cases of this act stood at 85. Pipeline vandalism has great socio-economic implications for the country. For example, the country loses over \$10 billion annually to this nefarious act (Oteh and Eze, 2012). This is in addition to the frequent oil pipeline fire outbreak that has claimed thousands of lives and loss of biodiversity which cannot be quantified in naira or dollars. The cases of Agbado/Ijaye (Lagos) in December 2006 and Kolokuma/Opokuma (Bayelsa) in 2003 are instructive of the monumental havoc pipeline vandalism have wrecked in the country.

Also, electricity installations have equally been a subject of attack by vandals in virtually every part of the country. In April 1996, the removal of the bolts, nuts and metal bars by vandals at Lambatta village between Minna and Suleja of the two towers hosting 132kv transmission lines supplying electricity to Abuja and Suleja led to the collapse of the towers, throwing the area into five-day blackout (Bala, 2001). In December 2002, there was the vandalization of towers 114 and 117 along Benin-Ikeja West 330kv line 1, and carting away of towers 217 and 220 conductors and insulators on the Benin-Ikeja West 330kv line 2 greatly reduced power supply to Lagos and Benin, for several days (Igboanugo, 2013). In February 2005, vandals carted away 600 metres of aluminium cables from the network of PHCN installations in Abuja, valued at over #11,000,000 (Lami, 2013). Vandalisation of PHCN installations constitutes a serious drain on the country's resources. For example, between 1990 and 2003, Nigeria lost over N20 billion to vandalism (Igboanugo, 2013).

Telecommunication installations are not spared of this nefarious act. A leading telecommunication firm (MTN) loses an average of two giant electricity-generating sets per week, besides the vandalisation of its base stations and other facilities (Abubakar, 2013). Similarly, in July 2008, NITEL cables linking the Emir's palace in Minna and the cables linking the houses of two former heads of state were vandalised. In addition, the NITEL generators at Zugurma and kwakuti, Niger state, were removed by vandals (Okwuoke, 2014). It is equally pertinent to note that, the violent demonstrations that usually accompany some unpopular government policies especially the hike in pump prices of petroleum products always lead to destruction of infrastructural facilities especially road infrastructure and public buildings.

6. Research Result

6.1 Socio-Economic characteristic of the People: Analysis of the sex of respondents indicates that 60% are males while female respondents constitute 40% of the sampled residents (Table 1). The age distribution of the respondents is equally presented in Table 1. Those between fifteen and twenty-four years of age were 11.8%; those between twenty-five and thirty-four years accounted for 22%; some 23.3% were between thirty-five and forty-four years of age; some 29.6% were between forty-five and fifty-four years; those between fifty-five and sixty-four years accounted for 10%; some 9.1% were between sixty-five and seventy-four years; while those above seventy years accounted for 5.5%. The age structure of the sampled residents as revealed by the above data indicated a high percentage of economically active population in the city.

Analysis of the educational status of the respondents shows that they have benefited either from one from of education or the other. Majority of the respondents have educational qualifications higher than secondary school level. Notably, holders of HSC/OND/NCE/HND/B.Sc accounted for 47.2% of the sampled population. Those with secondary education accounted for 23%; those with primary education accounted for 15.6% while those with vocational education and Quranic education represent 6.9% and 2.5% respectively. Some 4.9% have no formal education (Table 1).

This undoubtedly accounted for the large number of respondents in public service (45.6%) and formal private establishment (20%). Artisans constituted 17.2%, while trading, apprentice, students and unemployed accounted for 13.4%, 1.2%, 2.0%, 0.6% respectively (Table 1).

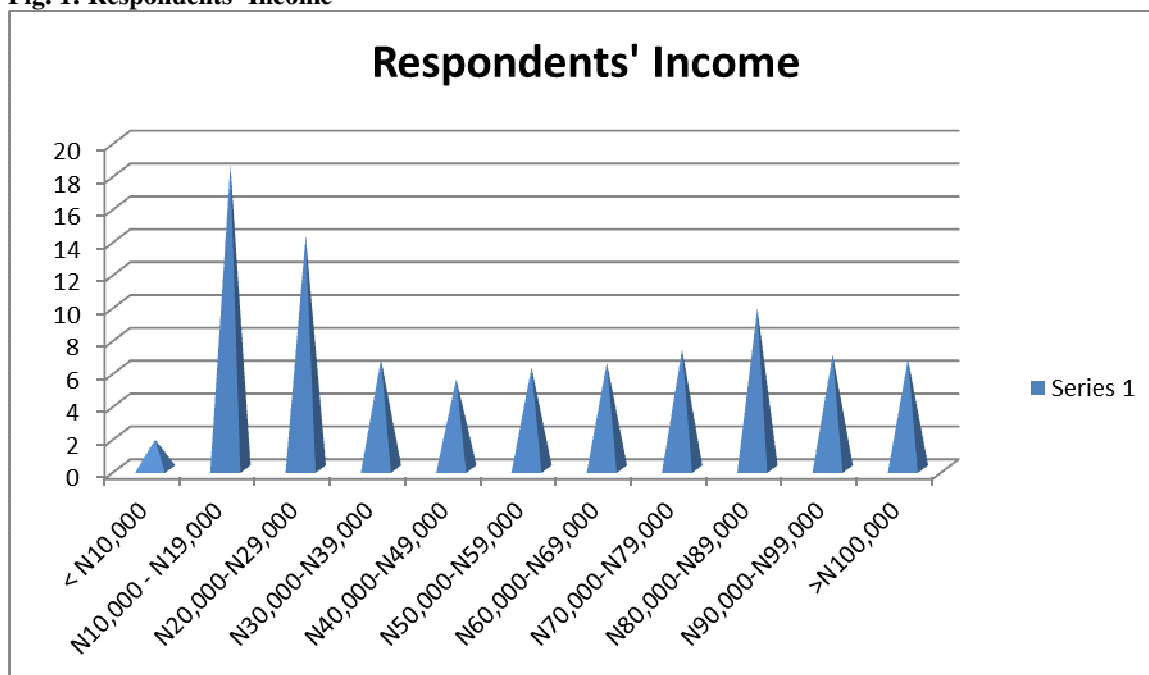
Closely related to the residents' occupation is the income. The general categorization of income into low, medium and high was adopted in analyzing the income structure of the residents. Income below N20,000 was categorized as low. This is because the current federal minimum wage is N18,000 while in Osun State, it is about N15,000. The monthly income between N20,000 and N30,000 was regarded as medium, while monthly income above N30,000 was grouped as high. The low income earners (less than N20,000) accounted for 20.3%; middle income earners represented 14.2%; while those in the high income bracket accounted for 55.7%. This was disaggregated as follows: some 1.8% earn less than N10,000 monthly. The modal income group is between N10,000 and N19,000 per month (18.5%). This is followed by those in N20,000 and N29,000 income bracket (14.2%). Those receiving N30,000 to N39,000, N40,000 to N49,000, N50,000 to N59,000, N60,000 to N69,000, and N70,000 to N79,000 accounted for 6.7%, 5.5%, 6.2%, 6.5%, and 7.3% respectively. Some 9.8%, 7.0% and 6.7% of the respondents earn N80,000 to N89,000, N90,000 to N99,000 and above N100,000 respectively (Fig. 1). Thus a larger percentage of the sampled residents are high income earners.

Table 1: Socio-economic Characteristics of Respondents

Sex Distribution of Respondents		
Sex	Frequency	Percentage
Male	162	60.0
Female	108	40.0
Total	270	100.0
Age Distribution of Respondents		
Age	Frequency	Percentage
15 – 24	32	11.8
25 – 34	59	22.0
35 – 44	63	23.3
45 – 54	49	18.3
55 – 64	27	10.0
65 – 74	25	9.1
Above 75	15	5.5
Total	270	100.0
Education of Respondents		
Education	Frequency	Percentage
Primary	42	15.5
Secondary	62	23.0
Tertiary	127	47.2
Vocational	19	6.9
Quranic	7	2.5
Informal	13	4.9
Total	270	100.0
Residents' Occupation		
Occupation	Frequency	Percentage
Civil Servants	123	45.6
Formal Private Establishment	54	20.0
Artisans	46	17.2
Trading	36	13.4
Apprentice	3	1.2
Student	6	2.0
Unemployed	2	0.6
Total	270	100.0

Source: Authors' Field Survey, 2012.

Fig. 1: Respondents' Income



6.2 Availability of infrastructural facilities: Majority of the respondents (94.8% have their houses connected with public electricity supply. This can be explained by the fact that Osogbo is one of the national transmission stations of the PHCN. Also, 41.9% of the sampled residents have access to pipe borne water supply, 17.8% rely on bore holes while 39.6% sourced their water from wells. Thus vandal of water pipe in the area will have adverse socio-economic consequences due to the reliance of substantial number of residents on piped water supply. The GSM revolution in Nigeria has enhanced peoples access to telephone services especially in the major Urban centers .This explains why all the sampled respondents have access to telephone services with 72.7% having private GSM lines while 27.3% rely on public telephone services Moreover, although modern day internet facilities have reduced the popularity usage of P.O Boxes but notwithstanding, there are still surface mails (printed materials) that cannot be sent through electronic mails. This makes it absolutely necessary for people to still patronize the post offices for mails. The city is however fortunate to have a general post office which account for all the respondents having access to postal services. However, 50.4% of them have P.O Box or PMB while 49.6% do not. There is also a sports complex (stadium) in the city apart from various schools playing grounds and private sports/recreation centers. About 34.8% of the sampled residents patronize these facilities while 55.2% do not.

6.3 The Vandals: It is pertinent to note that vandals are not spirits, but human beings who have continuously used the cover of darkness to perpetrate their heinous crime. While the act of vandalization is visible in Osogbo, no appreciable arrest of the vandals has been made. As confirmed by 84.8% of the sampled residents. However, 11.9% of the respondents indicated that vandals have been arrested in their neighborhoods while committing the act with 10.4% of this group of respondent insisting that the arrested vandals were actually residing in their neighborhoods. Moreover the age of the vandals range from 12years to 13 years with majority in the teen age (12-14years) according to 15% of the respondents. While 5.8% of the sampled respondents observed that the arrested vandals in their neighborhood are between 20-31years (Table 2). Equally, analysis of the sex distribution of vandals indicate that majority of them (95.6%) are males while 4.4% are females (Table 2). They are mostly jobless youths (46.7%) who take to this act in order to escape poverty. Some of them are however petty criminals (28.3%) who live not only on vandalisation but other criminal activities such as pick-pocketing, gang violence etc.

Table 2: Age and Sex Distribution of vandals

Age	Frequency	Percent
10-14	14	5.2
15-19	26	9.8
20-24	6	2.4
25-29	5	1.7
30-34	5	1.7
No response	214	79.2
Total	270	100.0
Sex Distribution of Vandals		
Sex	Frequency	Percent
Male	258	95.6
Female	12	4.9
Total	270	100.0

Source: Authors' Field Survey, 2012

Further analysis shows that majority of the vandals engage in the act in order to escape poverty (51.4%), some of them do it to sabotage government efforts at achieving adequate infrastructural facilities provision (4.4%) while some vandalized these facilities as a way of venting their anger on the society (33.7%) (Table 3).

Table 3: Reasons for Engaging in Vandalization

Reasons	Frequency	Percent
To escape poverty	139	51.4
Anger	91	33.7
Sabotage	40	14.9
Total		100.0

Source: Authors' Field Survey, 2012.

6.4 Vandalism of Infrastructural Facilities: As noted earlier, infrastructural vandalism has been on the increase in Nigeria, and no state or city in the country is spared of this nefarious activities. Osogbo is equally experiencing infrastructural vandalism as confirmed by 84.8% of the respondents who claimed to have witnessed vandalism of infrastructural facilities in their various neighborhoods. However, water pipe vandalism appears to be rampant in the city as claimed by 40.4% of the sampled residents. This was followed by the vandalism of roads (21.9%), electricity cables vandalism (19.3%), transformers vandalism (9.3%) as well as telecommunication cables vandalism (9.3%) (Table 4). This was corroborated by the data obtained from the Nigeria Security and Civil Defence Corps (NSCDC). A little deviation in the NSCDC data as presented in Table 6 is that road infrastructure vandalism which was ranked second in the data obtained from the sampled residents was not included in the NSCDC data. This may be as a result of the Corps preoccupation with securing electricity and telecommunication cables, as well as oil and water. Also, oil pipeline vandalism did not reflect in the data provided by the residents. This is because oil pipelines vandalism usually take place at the outskirts of the city as shown in Table 6. It should be noted that Dagbolu is the northern outskirt of Osogbo.

The acts of vandalism are mostly perpetrated at night as observed by 75.5% of the sampled residents. While those who gave daylight as the time of vandalism in their neighborhood represents 10.2% of the respondents.

Table 4: Facilities Frequently Vandalized

Facilities	Frequency	Percentage
Water Pipe	109	40.4
Road	59	21.9
Electricity Cables	52	19.3
Transformers	25	9.3
Telecommunication	25	9.3
Total	270	100.0

Source: Authors' Field Survey, 2012.

Meanwhile, Ota-Efun (Osogbo LGA) recorded the highest rate of vandalism (30.6) with roads, water pipe, PHCN and Telecom installations having being damaged at one time or another in the area. This is followed by Power line (22.4%) who has witnessed the vandalism of water pipes and roads. Igbona has equally experienced the vandalism of PHCN equipment (15.5%), while Ayetoro has recorded the vandalism of roads and water pipe (10.5%). Other areas who have experienced infrastructural vandalism in Osogbo include Dugbe who have witnessed road vandalism (8.4%), while Oniti, Owode, Oluodo, Ago-wande, Dagbolu, Oke-ayeye, Oroki, Jolayemi and Alekuwodo have witnessed both water pipe, PHCN and Telecommunication equipment vandalism (17.6%) (Table 5).

Table 5: Vandalism by Areas

Communities	Vandalized Infrastructure	Frequency	Percent
Ota-Efun	Water pipe, road, electricity and telecom installations.	83	30.6
Power line2	Water pipe, road	60	12.4
Igbona	Electrical installations	42	15.5
Ayetoro	Road, Water pipes	28	10.5
Dugbe	Road	23	8.4
Oniti and others	Water pipes, roads, Telecom installations	34	12.6
Total		270	100.0

Source: Authors' Field Survey, 2012.

Table 6: Vandalism Cases in Oshogbo between January and June, 2013

Date	Vandalized Facilities	Location
January 14, 2013	Water Pipeline	Sabo
January 21, 2013	Telecommunication Cables	Ogo-Oluwa
January 24, 2013	Water Pipeline	Alekuwodo
January 24, 2013	Water Pipeline	Ayetoro
February 06, 2013	Electricity Cables	Ota-Efun
February 20, 2013	Water Pipeline	Ota-Efun
February 21, 2013	Water Pipeline	Kobo
February 12, 2013	Electricity Cables	Oniti
March 09, 2013	Transformer	Oke-Fia
March 21, 2013	Water Pipeline	Dugbe
April 17, 2013	Electricity Cables	Igbona
May 10, 2013	Transformer	Dada Estate
May 13, 2013	Transformer	Stadium
May 14, 2013	Electricity Cables	Power-Line
May 16, 2013	NNPC Oil Pipeline	Dagbolu
May 21, 2013	Electricity Cables	Abere
May 23, 2013	Electricity Cables	Iwo-Road
May 24, 2013	Electricity Cables	Isale-Osun
May 29, 2013	Water Pipeline	Ajegunle
May 31, 2013	Transformer	Old-Garage
June 04, 2013	Water Pipeline	Oke-Fia
June 04, 2013	Water Pipeline	Dada-Estate
June 05, 2013	Electricity Cables	Kobo
June 10, 2013	Water Pipeline	Ajegunle
June 15, 2013	Transformer	Oroki
June 16, 2013	Electricity Cables	Dugbe

Source: Nigeria Security and Civil Defence Corps, Osun State Command, 2013.

6.6 Repair of Damaged Facilities: Infrastructural facilities are part of the (urban systems) city's artifacts that make living in an urban Centre more conducive. Without these facilities a city is mere a glorified village. Once a particular facility is damaged it automatically exerts spiraling effects throughout the urban system. For instance, a damaged PHCN Cable ultimately brings socio-economic activities in the affected areas (neighborhood) to a halt. This could trigger social unrest s leading to vandalism of other infrastructural facilities. That is why a speedy repair of a vandalized facility is usually sought by the relevant urban actors. We sought to know those who are responsible for the repair of vandalized facilities in Osogbo. It was revealed that government (State and Local government) are still the major actors in the repair efforts as claimed by 51% of the sampled residents. This was followed by the CDAs or Landlord Association (25.7%), the Organization that supplied the facilities (10.5%), the NGOs (8%) and Individuals (3.4%) (Table 7).

Table 7: Responsibility for the Repair of Vandalized Facilities

Those Responsible	Frequency	Percent
State Government	119	44.0
Local Government	22	8.1
CDAs	69	25.7
Private Facilities Providers	28	10.3
NGOs	23	8.5
Individuals	9	3.4
Total	270	100.0

Source: Authors' Field Survey, 2012

In sourcing for funds to effect the repairs, the leaders in the affected Communities stated that the financial contributions by the Landlord and tenants as well as occasional donations from philanthropists contribute to the major source of the funds. Expectedly, government use public funds to finance the repairs while the NGOs rely on donations by members of the organization and international financial donors to effect the repairs. The organization that supplied the facilities sourced the fund from their common pool fund.

Furthermore, the repair of a vandalized Road according to the State Ministry of Works and Transport normally gulp between #50,000 and #2m depending on the extent of damage. While vandalized water pipe requires an average of #20,000 for repair according to the State water Corporation Board. A vandalized PHCN equipment (such as wire, Transformer etc.) Normally gulp an average of #200,000 as stated by the PHCN, Osogbo Service station. The repair of Telecom equipment requires an average of #500,000 as stated by the Telecom Service Providers in the city (Mtn and Globacom)

6.7 Efforts at Protecting Infrastructural Facilities in the City-There are no notable efforts on the part of the government to safeguard public infrastructure in the city. However, some communities such as Jolayemi, Oleyo, and Owode have vigilante groups that patrol the areas at night to ensure safety of live and properties as explained by 43% of the respondents. Although in some of these communities (Jolayemi, Owode) the existence of vigilante group does not eliminate or reduce the act of vandalism. Also the private establishments providing some of these infrastructures especially Telecom Facility do not have effective security arrangements for these facilities. Majority of them rely on the benevolence of the community vigilante groups to help them protect the facilities. This is the case with PHCN facilities as well. Although PHCN have realized the fact that electrical supply impact on people directly. Therefore any act that will jeopardize uninterrupted power supply will be met with stiff resistance from the public. Thus the security of PHCN installations (especially transformers) often left with the communities in which these installations are located. Furthermore, the multiplicity of transformers may not permit the company to personally monitor them because of the cost implications of such endeavours. Police patrol at night in some areas especially the central districts like Powerline, Oke-fia, Alekuwodo, Oja-oba and Isale-Osun also contributes to the security of infrastructural facilities in the affected areas(12.1%).

7. Discussions and Implications of Findings-

There is a modest provision of basic infrastructural facilities in Osogbo, although, adequacy of these facilities could not be ascertained because it's beyond the scope of the study, but a good number of the residents of the city have access to this facilities. However, there is high level of vandalism of these facilities, with water pipe being the most vandalized, followed by roads, electrical cables and telecom facilities. The incessant vandalism of water pipe is due to the fact that the vandals are mostly teenagers who do not possess the necessary skills required to tamper with electrical telecom cables hence, their attack on less dangerous facilities (water pipe). Roads are equally susceptible to vandalism because of the activities of some building contractors and water pipe Technicians who in attempt to lay pipes across the roads embark on digging the roads and left it unattended to after they might have completed their mission. The status of Ota-efun as a suburban district where security is more relaxed and less eyes to watch over the facilities is observed to be responsible for the high rate of vandalism recorded in the area, while Oke-Fia, Isale-Osun and Oleyo with police Patrol and active vigilante services recorded low vandalism. The vandals are mostly male teenagers who usually operate at night. Some of them are driven into the crime as a result of poverty or for the purpose of venting their anger on the society or the providers of the facilities. While some deliberately vandalized public infrastructure just to sabotage government efforts at achieving adequate supply of infrastructural facilities. Moreover, there is an indication that some of the vandals may not be living far from the scenes of vandalism. This undoubtedly put the security operatives and the security conscious residents at advantage of speedy apprehension of the vandals. The protections of the facilities are mostly shouldered by the community. The governments rely on police patrols while Private facility providers do not care about safeguarding them. They usually rely on the benevolence of the community to protect the facilities for them. The direct and spontaneous impact a vandalized facility will exact on a community well-being is responsible for the prominent role of the community in providing security for the facility. Also other notable effort at protecting public infrastructure is the existing act of the National Assembly limiting the sales of electricity equipment and materials. However government plays prominent role in the repair of damaged facilities especially public infrastructural facilities. The private facility providers such as telecommunication companies naturally bear the responsibility for the repair of their vandalized installations and they speedily effect this because of its financial implications on their businesses. The community Development Association/Landlord Association equally effect the repair of damaged/vandalized facility especially PHCN transformers and in some cases roads and water pipes. The question arising from these findings is how do we evolve sustainable strategies to combat the menace of infrastructural vandalism in Osogbo considering the fact that infrastructural facility is an integrated part of the urban system, and its destruction automatically calls to question the potency of the system?

8. Conclusion

Infrastructural facilities occupy a central place in the socio-economic development of the country. For Nigeria to achieve the goal of being among the top twenty economies in the world by the year 2020 as envisioned by its leaders, its infrastructural development must keep up with the pace of urbanization. As noted earlier in the paper,

a major clog in the wheel of rapid and sustainable urban infrastructural development in Osogbo and Nigeria in general is vandalism. Thus all hands must be on deck to combat the menace. Vandalism constitutes a serious drain on government limited resources, it destabilizes socio economic activities and has strong debilitating effects on the livability, serviceability and manageability of the city.

Based on the findings of the study and to stem the tide of incessant vandalism of infrastructural facilities in Osogbo, the following recommendations are made:

- The state and the municipal government need to encourage the police to intensify the patrol of every nook and cranny of the city especially at nights. This can be done by assisting them with adequate patrol vehicles and other necessary materials.
- The governments should also coordinate all relevant stakeholders in safeguarding the infrastructural facilities in the city. The traditional chiefs of the communities, Community vigilante services, the police, the private providers of infrastructural facilities, and other relevant urban actors should be brought together for the purpose of achieving joint efforts at securing the city's infrastructures.
- The provision of street lights in both major and minor streets will go a long way in reducing the menace of vandalism in the city.
- There is the need for the community to organize effective neighbourhood watch otherwise known as vigilante group in those areas that are lacking this with a view to properly policing the area and protect the infrastructural facilities in the communities. Furthermore, as revealed in the paper, some communities with vigilante services are still experiencing infrastructural vandalism. This suggests that probably the vigilantes are ineffective or there are clandestine activities going on between them and the vandals or they themselves are the vandals. Thus, there is the need for the leaders of the affected communities to see to the re-organization of their vigilante services and ensure that credible people are appointed as members of the group.
- There is the need to embark on serious sensitization for the people of Osogbo on the need to be security conscious. Both print and electronic media, the NGOs, Civil societies, CBOs and the CDAs should be involved in this exercise. The people should be made to realize the imperativeness of reporting any suspicious movements or activities around the facility and within their neighborhoods to the appropriate authorities i.e. either police or the CBOs and CDAs.
- The government should intensify efforts at creating job opportunities for the youths. The introduction of Osun Youth Empowerment Scheme (OYES) which presently has absorbed more than ten thousand youths in Osogbo and environs is a step in the right direction. Engagement of youths in productive ventures will ultimately reduce the incidence of vandalism and other social vices in the city.

References

- Abba-Gana, S. (2003) "Vandalization of NEPA Installation" www.amanonline.com/articles.
- Abubakar, S. 2013. "Nigeria: Telecom Infrastructure and Challenge of Service Delivery" Daily Trust, October 27.
- Adedeji, W. (2004) "NEPA Vandalization" Business News, April 21, Pp 12-13
- Agagu, O. (2003) "Vandalisation-The Real Danger" NEPA Review, September, Pp 56-59
- Agbola, T. 1997. Architecture of Fear: Urban Design and Construction Response to Violence in Lagos, Nigeria, IFRA, Ibadan, Nigeria.
- Anene, M. (2003) "N3Million NEPA Installations Vandalised in Ilorin" NEPA News, Oct. Pp 11 and 16.
- Atlas, R. 2008. 21st Century Security and CPTED: Designing for Critical Infrastructure Protection and Crime Prevention, London: CRC Press, Taylor & Francis Ltd.
- Badiora, A. and Obadiora, J. 2011. "Graffiti Vandalism of Public Facilities in Schools and Colleges: The CPTED Approach" International Journal of Development Studies, Vol. 2, No. 3, Pp 39-45
- Bala, A. (2001) "Hope and Despair in the Nigerian Telecom Market" Paper Presented at the Annual Conference of the South African Communication Association, Pretoria.
- Bisi, A. (2001) "The Activities of the Osun State Ministry of Water Resources since May 1999" Press Conference Held at Osogbo
- Casteel, C. and Peek-Asa, C. 2000. "Effectiveness of crime prevention through environmental design (CPTED) in reducing robberies." American Journal of Preventive Medicine 18(4): 99-115.
- Colin, H. (1973) "Ethics of Vandalisation" in Colin, H. (ed) Vandalism, London: Architectural Press, Pp 14-31
- Crowe, T. 2000. Crime Prevention Through Environmental Design. 2nd edition. Boston: Butterworth - Heinman.
- Igboanugo, S. 2013. "Nigeria: Battling Vandalism of Power Facilities" ThisDay, December 9.

- Igbokwe, T. (2001) "NITEL Cables Vandalisation" Business News, Sept. Pp 21-22.
- Igolo, C. (2003) "Vandals Threaten Completion of Multi-Billion Naira Shiroro-Abuja Line" NEPA News, October, P. 5.
- Iroakasi, I. (2003) "Suspected NEPA Vandals Arrested" NEPA News, October, P. 17
- Jeffery, C. R. 1971. Crime Prevention Through Environmental Design. Beverly Hills, CA: Sage Publications.
- Lami, S. 2013. "Nigeria: Contractors Blame Rise of Cable Vandalism on Motorcycle Ban" Daily Trust, September, 30.
- Lukman, R. and Salisu, O. (2003) "Tracking Vandalisation in Oil Industry" Nigerian Tribune, February 9, P. 29
- Manzo, E. (2003) "Senators Tour Vandalised NEPA Sites" New Nigeria, July 28, Pp 24-25
- Mukoro, A. (1996) Curbing Residential Burglary through Environmental Design - A Prospect in Warri. Unpublished MURP Dissertation, CURP, University of Ibadan, Ibadan.
- Muogbo, O. (2003) "Nigeria Lost N76 billion to Pipeline Vandalisation in 2002" Nigerian Tribune, July 15, Pp 3-4
- National Bureau of Statistics. 2009. Annual Abstract of Statistics. Abuja: NBS.
- Okoko, E. 2008. "A Time Series Analysis of the trend of Urban Violence in Akure, Nigeria" Journal of the Nigerian Institute of Town Planners, Vol. 21, No. 1, Pp. 165-183.
- Okolo, P. and Etekepe, A. 2010. "Oil Pipeline Vandalization and the Socio-Economic Effects in Nigeria's Niger Delta Region". Available at SSRN: <http://ssrn.com/abstract> retrieved on Jan. 08, 2014.
- Okwuke, E. 2014. "Making ICT Facilities Critical National Security Infrastructure" Daily Independent, January 21.
- Ola, A.B. 2010. "Urban Infrastructural Development and Vision 20-2020" Paper presented in the Department of Urban and Regional Planning, University of Ibadan. May,3.
- Ola, A.B. 2011. "Fiscal Federalism and Urban Development in Nigeria" International Journal of Development Studies, Vol. 6, No. 3, Pp 76-84
- Ola, A.B. and Jimoh, U. 2010. "Sustainable Rural Infrastructural Development in Nigeria: Challenges and Prospects" International Journal of Sustainable Development, Vol. 3, No. 8, Pp 130-134.
- Oteh, C. and Eze, R. 2012. "Vandalization of Oil Pipelines in the Niger Delta Region of Nigeria and Poverty: An Overview" Studies in Sociology of Science, Vol. 3, No. 2, Pp. 54-68.
- UN-Habitat .2009. Planning Sustainable Cities Global Report on Human Settlements, UN Human Settlements Programme. London, Earthscan.
- Uzoigwe, M. 2014. "Nigeria Ranks World's Number One in Power Assets Vandalism" Daily Independent, January 22.
- Wikipedia. 2012. Crime Prevention Through Environmental Design. Retrieved on December 18, 2012.