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PLACE ATTACHMENT AND PRO-ENVIRONMENTAL BEHAVIOUR PARALYSIS: A STUDY OF HOUSEHOLD SOLID WASTE MANAGEMENT

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ABSTRACT

Solid waste management (SWM) in most developing countries has been a source of worry for city managers and concerned residents as heaps of refuse that dot the cityscape has increase drastically and become unsightly, thereby creating the impression that concerted efforts have not been made to address the situation. Various studies undertaken in most developed countries have consistently shown that there exists a strong correlation between place attachment (PA) and pro-environmental behaviour (PEB). One of the implications of this strong correlation is that household solid waste (HHSW) have been successfully managed. While individuals residing in cities of developing countries in places such as Nigeria are known to have strong PA, contemporary literature suggests that this nexus has not impacted positively on how HHSW has been managed. In this context, therefore, a disconnect exists between the two experiences. Drawing on recent fieldwork conducted in Urora, Benin City in Nigeria, which employed both ethnographic-based observation approach and the principles of participatory research, this study sought to understand the causal factors responsible for the disconnect between PA and PEB that continue to facilitate the indiscriminate disposal of HHSW. The result suggests that factors like: (1) strong PA exhibited by residents serve only social and personal interests that can hardly translate to PEB (2) with the indigenes out-numbered by the 'visitors' coupled with the belief that the 'visitors' have a home elsewhere, cooperation and oneness among residents is not guaranteed; and, (3) given the wet season of seven months coupled with lack of drainage facilities and results in submergence this situation encourages non-challant behaviours towards waste management as the area is almost degraded, forsaken and abandoned. These issues are explored within the wider theoretical debates involving PA and PEB from a developing world context.

Keywords: Place attachment, Pro-environmental behaviour, Paralysis, Household solid waste management.

1. INTRODUCTION

Water scarcity, inadequate housing, power outages, degraded environment and most importantly indiscriminate disposal of household solid waste (HHSW) have become associated with cities in developing countries (Wilson et al., 2015). Public health and external image are some of the reasons why solid waste management is essential. For example, uncollected refuse can block drains causing the spread of water-borne diseases and uncontrolled flooding at a higher rate (Wilson et al., 2013). It has been argued that a clean city is an indicator of good governance as the solid waste management apparatus is effective in such settlement (Wilson et al., 2013).

However, as cities of developing countries experience increasing urbanisation, population explosion without similar investment in social and physical infrastructures, the problems of solid waste management are bound to escalate rather than abate. In most of these cities, collection rates of HHSW are low and the reliability of collection services is poor (Chandak, 2010; Shekdar, 2008). The resultant effect is the indiscriminate disposal of HHSW in open public places such as school compounds, playgrounds, markets, roadsides, streams, vacant plots, and moats at an alarming rate. Unfortunately, for decades neither have the public officers been held accountable nor have the citizens/residents made sustained and concerted efforts to redress this problem. This situation can best be described as place attachment (PA) and pro-environmental behaviour (PEB) paralysis because the state of affairs contradicts the theorised relationship between PA and PEB (Wolf, et al., 2014; Scannell and Gifford, 2010a; Vaske and Kobrin, 2001). Perhaps the problem of PA and PEB paralysis could be more accommodated and given pride of place in particular disciplines one of which is psychology.

The fields of environmental psychology and environmental management provide an excellent review of the different strands of place attachment (PA) scholarship such as place identity (PI) and place dependence (PD). PA entails belongingness, nature bonding, community attachment, rootedness, familiarity, place effect, and place social bonding (Trentelman, 2009; Ramkissoon et al., 2014). Earlier studies centred only on PI and PD; this two-dimensional model received the attention of most researchers, the former (PI) referred to self, symbolic connection to the place to define whom subjects are. The latter, PD, reflect the working and goal-directed connections to a particular place of interest (Raymond et al., 2010).

Over time these studies have been considered separately contributing to a series of advancement in each of the elements while at the same time the literature has become richer with different areas of speciality. For example, in the study of social attachment, some researchers argue that the geographic and social contexts of place construct requires additional consideration in PA research and have proposed constructs like neighbourhood attachment and belongingness (Kyle and Chuck 2007, Larson *et al.*, 2015). The two-dimensional model of PA and PEB has been found by researchers to have a positive relationship between PI and the willingness to engage in PEB as direct relationships have been found to exist between the two constructs (Kyle *et al.*, 2014; Larson *et al.*, 2015).

PEB constitutes actions/behaviour by individuals, households or communities which are influenced by a high sense of inter-dependencies between human beings and their natural environments, which in turn ensures sustainable co-existence of such interactions over the long term duration, especially across generations (Larson *et al.*, 2015; Ramkissoon *et a*l., 2013). Early stages of PEB could be described as mitigation of environmental harm as a result of over-exploitation and other forms of degradation, whereas, direct interventions towards environmental regeneration and healing demonstrate a deeper level of PEB commitment.

HHSW (also known as domestic waste or residential sector waste) are waste types that originate from residential/domestic activities such as cooking, gardening, clothing, entertainment (with e-waste as a newly-emerged example). In the context under consideration, food remnants such as cassava/yam/plantain peels, worn-out clothing and other disposables such as packaging from small-scale and home-based businesses constitute specific examples (Ogu, 2000). Waste exclude large-scale commercial refuse from business activities such as restaurants, markets, and shops, or industrial processes. The management aspect refers to the generation, collection, storing, transfer, and disposal by the municipality as well as efforts (such as reduction, reuse, recycling, energy recovery, and disposal) to mitigate related environmental impacts of such waste (Khatib, 2011).

Without PA, bonding shared between people, community attachment and rootedness, belongingness and familiarity as mediated by rituals among residents will not exist; rather

the state of anomie will be the order of the day. If stretched further, real-life that keeps threatening may collapse into chaos and meaninglessness (Bell 1999). In this sense, the ritual is an attempt to model and instil coherence and unity within all human endeavours. Individuals residing in cities of developing countries in places such as Nigeria are known to have PA and PEB. However, contemporary literature suggests that this nexus has not impacted positively on how HHSW have been handled and discarded (Ojedokun and Balogun 2013). In this context, therefore, a disconnect exists between the two experiences.

Thus, this study sought to understand the causal factors responsible for the disconnect between PA and PEB that continue to facilitate the indiscriminate disposal of HHSW. To this end, the study empirically examined the residents who have spent not less than ten years (an attribute of PA) concerning waste management in Urora, Benin City, Nigeria. Using an ethnographic based observation that included field notes, interview with key informants on issues that pertain to the composition of PA and PEB as mediated by rituals, as well as the conformity and contradiction between PA and PEB. Each of these items is defined and discussed along with the various themes that emerged from the analysis of the data.

2. LITERATURE REVIEW

The present research on indiscriminate solid waste disposal is inscribed in frustration theory (Brown and Faber, 1951) and PA theory (Scannell and Gifford, 2010). The frustration concept deconstructs the hindering of the occurrence of response to physical barrier/extreme rigidity that presents itself whereby the actors are inhibited/demotivated. Under this condition, various types of behaviour may be exhibited; surmounting an obstacle through a trial-and-error, escaping from a frustrating situation to aggressive responses or disorganised responses towards a persistent activity that is varied and exploratory (Brown and Faber, 1951). For example, if one of the reactions is avoidance or the circumvention of the inhibitor leads to the goal/success, this kind of response becomes attractive and ultimately will be perpetuated with fervour.

Most residents at the fringes of some developing country cities, which have become part of the city as a result of urban expansion, suffer deprivation in infrastructural facilities and services. Specifically, waste bins, provision of transfer stations, and other waste management architecture are either grossly inadequate or conspicuously absent (Wilson *et al.*, 2006). From one generation after another, the situation has deteriorated, disenchanted. Demotivated, overwhelmed, and frustrated the residents have resigned their displeasure to fate while others have found alternative means to overcome the inhibitor as they dispose of their waste in surface water occasioned by rainstorms, public open spaces, moats, uncompleted buildings among other places (Wilson *et al.*, 2015 Chandak, 2010; Shekdar, 2008; Ogu, 2000; Khatib 2011; Sujauddin *et al.*, 2009).

Since the residents in cities of developing countries live in settlements where they exhibit PA features, several attempts have been made to effectively understand how their staying together influence and shape PEB. In this regard, attempts have been made to know and describe these concepts (Scannell and Gifford 2010; Kyle *et al.*, 2014). PA is subdivided into three different components place (social, physical, and behavioural), the person (cultural and individual) and process (affect and cognition) Scannell and Gifford (2010).

The cognitive component considers the memories, beliefs, knowledge, and thoughts of the places of interest (place identity). The affective component looks at someone's emotional attachment to place, and the conative or behavioural facet reflects an individual's drive/desire to maintain relationship/connections to place as seen in territorial/spatially oriented behaviour patterns (Scannell and Gifford 2010).

3. RESEARCH METHODOLOGY

3.1 Study area

Urora is situated in Ikpoba-Okha local government council (one of the 18 Local councils of Edo state) with headquarters at Idogbo, some 20 kilometres away from Urora, but have been engulfed by Benin City, the state capital due to urbanisation (See Figures 1, 2 and 3). The features and agencies at play in the larger city are present, specifically; while the neighbouring communities have Enigies (plural for Enogie) as their traditional heads, Urora has a traditional priest. This arrangement may explain the presence of the shrine close to the main entrance to the community and also the celebration of certain feasts and festivals at certain times of the year. Traditionally and for administrative purposes, the settlement is sub-divided into three-quarters namely; Urora I (Ohen quarters), Urora II (across the Benin-Okene-Abuja highway) and Urora III (Aideyanba Quarters). Each of these quarters has its local political head as chiefs or Ohen.

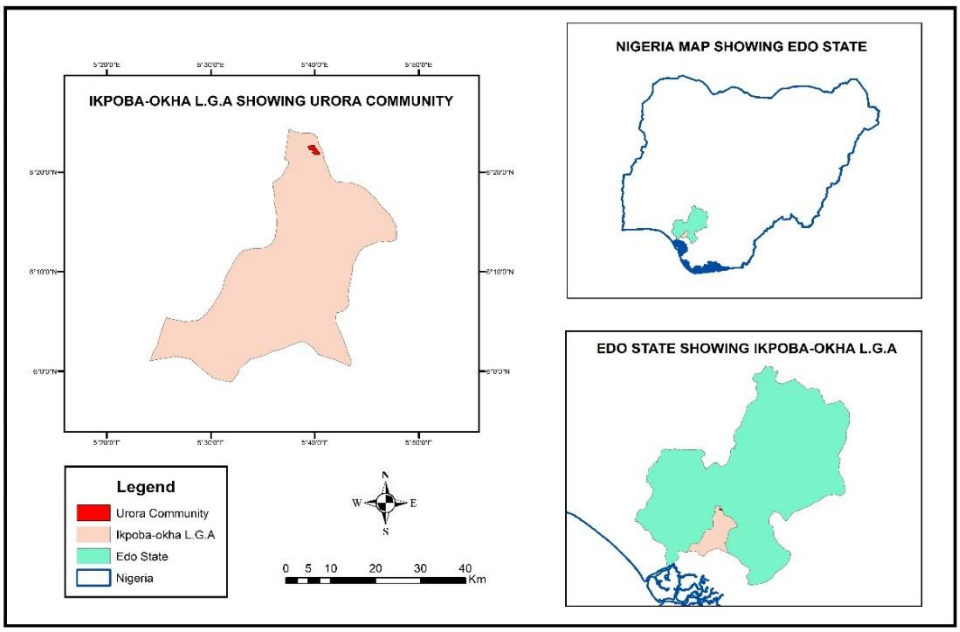

Figure 1: Map of Nigeria showing the study area

It can be argued that for a long time the area has been completely neglected and for this reason, it is tending towards an abandoned community. This neglect could be true because at the time the fieldwork for this study was conducted, enormous amounts of refuse dumps were visible in the backyard of old and derelict houses within the community. Other notable sites where the inhabitants of Urora have now made it customary to dump their refuse mainly food waste and garden debris include vacant lands and in borrow pits or moats. When the waste accumulates over time, after some random separation, the combustible items are set ablaze, which emits smoke that engulfs and pollutes the neighbourhood and contributes to a certain extent to greenhouse gases and ultimately to global warming. As a result, the atmosphere is polluted and makes living conditions unbearable for the dwellers. This practice makes such locations unattractive as the decomposing bio-degradable waste especially the putrescible waste (leftover of food substances) emit a pungent smell that could unsettle any visitor.

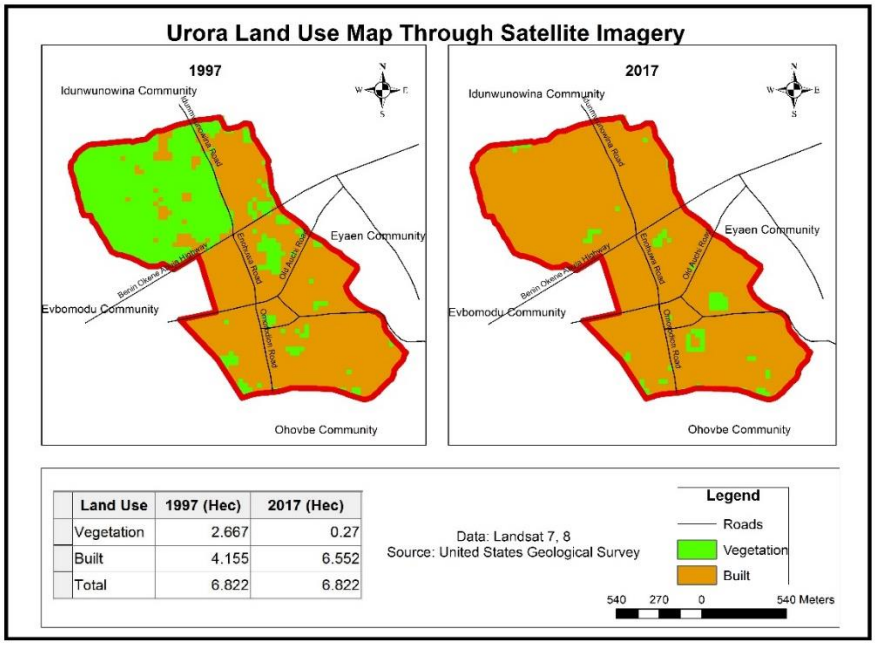

Figure 2: Map of Urora showing 20 years of expansion due to urbanization

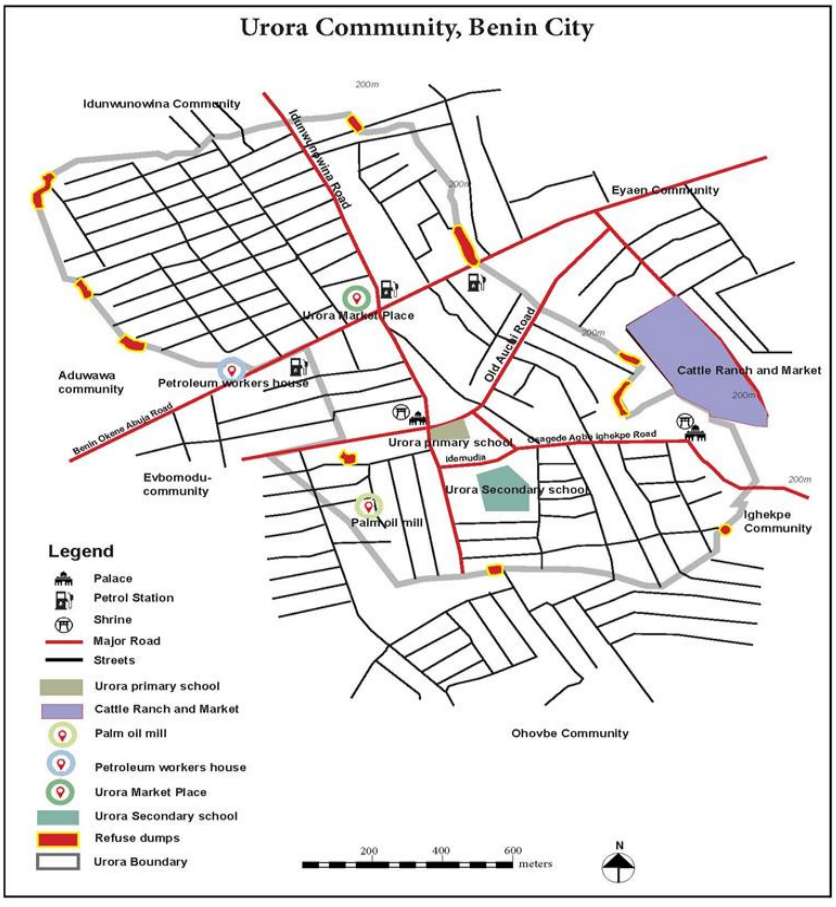

Figure 3: PA features of Urora community

Since the municipality and other agencies of government are overwhelmed with the multiplicity of problems associated with waste management, private waste managers were engaged by the state government to fill the vacuum. While some residents welcome this development (as 25% of the residents patronise it), the majority are yet come to terms with this initiative. A more disturbing occurrence at the study location is the presence of a formal cattle ranch/market towards the eastern part of the second segment of the settlement, whose activities have been a source of worry to the residents (see Figure 3). Apart from related air and noise pollution, the cattle led by their handlers, invade adjacent farmlands and neighbourhoods in search of pasture and edibles from the waste. Since most of the inhabitants live in unhygienic conditions, there is every possibility that they may likely be infected with gastrointestinal parasites, worms and related infectious bacteria which contribute to organisms like cholera, yellow fever, bacillary dysenteries or typhoid fever.

3.2 Methods

The data used in this paper were collected as part of a larger study conducted throughout sixteen weeks from November 2016 to February 2017. This study was conducted in three main stages. Stage 1 was the commencement of the study with readings, using a hand-held GPS with the intention to produce an updated base map as none was available. The production of the Map became necessary to show at a glance the PA features, the location/proximity of open and uncontrolled dumping of refuse to residential quarters and afforded the researcher the opportunity to be more acquainted with the locality (see Figure 3). Part of this study was made possible with the assistance of a local collaborator who took the researcher round to see the following; i) a dug-out moat that has witnessed series of encroachment and abuse, delineate the areal extent of the settlement. ii) Important PA locations like the *Oguaedion*, shrines and unauthorised dumpsites among others. Under this stage, (see Table 1 for details) thirty questionnaires were distributed/administered using a snowball sampling approach based on interactions with key informants and retrieved from residents who have spent not less than ten years (Kyle and Chuck, 2007) with the sole purpose of knowing their waste attributes/impression. This process made it relatively easy for the researcher to identify eligible participants for the second and third stages.

Stage 2, interview with key informants conducted during December 2016 to January 2017 with three personalities who were selected as a result of their skills, able to provide information and had a deeper insight into what is going on in the locality and beyond (Marshall, 1996). These personalities were asked to comment on attributes in these categories; place attachment (PA), pro-environmental behaviour (PEB), sub-questions/themes. Interviews period varied between 40 to 90 min with an average of 65 min for each participant. All the participants interviewed were married, for details of participants bio-data see Table 1.

In stage 3 of the study, there was a two-legged focus group discussion on PA and PEB attributes/questions. The two focus group discussions became necessary because during the first session some of the participants were unavoidably absent.

Participant information sheets (PIS) and consent forms (CF) were administered to participants after the necessary ethics approval was obtained from the University of the Witwatersrand, Johannesburg, South Africa. Few days before the interview, the participants were given the PIS informing them of the purpose, procedure as well as rights and privileges in participating in the study. The CF, which re-emphasises/re-affirms the contents of the PIS were administered on the day of the interview. The interviews were designed to cover the subject areas- PA, PEB, themes.

Regarding PA, the key informants were asked the following questions; what is individual and community rituals in which they as individuals and the community engage in? Why and what is the importance of engaging in ritual activities? These questions became relevant since ritual emotionally fosters/embed participants synchronous behaviour which aligns with the collective group consciousness in pursuit of coherence and harmony in the social functioning of the cooperative (Fischer et al., 2013).
Regarding PEB, participants were asked what, how and where do residents generate and dispose there waste? What type is most prevalent and why? Relate one or more experiences you have had due to indiscriminate waste disposal? From these questions, we were able to know their relationship/interdependencies with themselves and the natural environment towards sustainability.

Table 1. Summary of participants for the questionnaire survey

S/n	Variable/attributes		Frequency	Percentage%	Total
1.	Gender				
	i.	Male	23	76.7	
	ii.	Female	07	23.3 **100.0**	30
2.	Age				
	i.	Adult (25 years and above)	30	100.0	
	ii.	Youth (25 years and below)	-	**100.0**	30
3.	Religious affiliation				
	i.	Christianity	23	76.7	
	ii.	Cultural leader	05	16.7	
	iii.	Islam	02	6.6	
	iv.	Others		**100.0**	30
4.	Family size				
	i.	Less than 2	-		
	ii.	2-5	03	10.0	
	iii.	6-10	25	93.3	
	iv.	10+	02	6.7	30
				100.0	
5.	Level of Education				
	i.	Primary	12	40.0	
	ii.	Secondary	18	60.0	30
				100.0	
6.	Employment				
	i.	White-collar	07	23.3	
	ii.	Blue-collar	18	60.0	
	iii.	Unemployed	04	13.3	
	iv.	None/pensioner	01	3.4	
				100.0	30
7.	Waste generated				
	i.	Bio-waste	26	86.6	
	ii.	Non-biological	04	13.4	
	iii.	Don't Know	-	**100.0**	30
8.	Waste disposal				
	i.	Adequate	12	40.0	
	ii.	Inadequate	18	60.0	30
				100.0	
9.	Attitude/impression towards disposal				
	i.	Positive	07	23.3	
	ii.	Negative	23	76.4	
	iii.	Don't Know	--	**100.0**	30

4. FINDINGS AND DISCUSSION

For this study, interview analysis revealed that the interviewees gave their impressions on two broad areas/themes: PA and PEB. After reading all interviews, synthesising participant responses and complimented with field-notes the results were grouped under the two themes which appear in Table 2.

4.1 PA interests/dimensions:

The occasions of fast, feasts, festivals and ceremonies celebrated in the community which manifests in religious activities preceding a major event either in African Traditional Religion (ATR), Christendom or Islam take place with much reverence to the creator and respect for one another. Feasts of famous Saints in Christendom, Festivals: Easter, Christmas, *Eid el Fitri*, *Eid el Malud* and *Eki kpoleki* serve the collective interests of the adherents as these occasions afford them the opportunity of oneness, cooperation, solidarity, love and collaboration from authors' fieldnotes and Salamone (2007). Celebrations like naming, marriage and burial ceremonies take place with pomp and pageantry which in themselves generate refuse in the form plastics.

Strong PA exhibited by residents serves only social and personal interests that can hardly translate to PEB concerns of various shapes and sizes as biodegradable food substances increase the volume/quantity of refuse which ultimately compound the degraded environment (see Table 2 for details). The immediate consequence is the increase in vectors, typhoid/malaria fever. The preceding further implies that strong PA exhibited by residents serve only social and personal interests that can hardly translate to PEB concerns. Also, with the indigenes out-numbered by the 'visitors' coupled with the belief that the 'visitors' have a home elsewhere, cooperation and oneness among residents are not guaranteed.

Table 2. Key Informants' views/fieldnotes on PA and PEB dimensions in Urora, Benin City

Dimension	Comments and explanations
PA- Rituals:	Early morning prayers and at night, eating, and bathing on a regular basis. Sweeping the rooms and the immediate surroundings (with more than 60% participation). Marriage, naming and burial ceremonies are well attended. Of equal importance is community/religious feasts and ceremonies, the settlement can boast of 30 churches as well as prayer houses. These activities go to strengthen the fact that when it comes to PA, the residents are happy. Poor waste management attitude/behaviour as they dispose of waste indiscriminately. Given that the area is erosion-prone and moat that would have served as drainage channel has encroached upon there are bleak days ahead.
PEB- Waste management:	25% of the settlement have keyed into the services of the government-approved private waste manager, formal refuse bins are conspicuously absent as any form of containers from cut-to-size drums, empty paint buckets, used cement bags, and plastics are fashioned for this purpose. Open or uncontrolled burning, shallow burying, open dumping in vacant lands, moats and in stormwater flow are the disposal patterns/methods. The residents are interested in disposing of their waste in a communal way, but the government is yet to discern/design this idea. Since the area is erosion-prone as the terrain is relatively flat, there exists incidence of waterlogging and flooding during the wet season, given the seasonal nature of roads as there are no side drains, the residents are demotivated to journey any distance to dispose their refuse. Scavenging is limited to a few items such as Aluminium and Metals. Except resident farmers who through practice may have imbibe some basic principles of PEB, other residents are to come to terms with rudimentary PEB. Given the benchmark of the integrated sustainable waste management (ISWM) and wasteware indicators (Wilson *et al.*, 2015) the area is yet to satisfy the minimum of the physical signs.

4.2 PEB interests/dimensions

Source separation of waste is rare in this locality, so the conservation idea of reducing, reuse, composting and recycling is nonexistent. The absence of the provision of refuse bins, transfer stations among others coupled with the physical indicators corresponds with the findings made by Khatib (2011) Wilson et al., 2015: Sujauddin et al., 2009) which highlights the minimum benchmark for a waste management facility. The absence of these features in the study location has made PEB an unattainable option that should be explored.

Given the cultural/traditional heritage, which emphasises ritual cleanliness, individual compounds are clean and tidy on a regular bases. However, the roads leading to these residences are untidy with refuse of various shapes and sizes. This idea of cleanliness tallies with the ideals of the three most prominent religions practised in the locality which profess- 'cleanliness is next to godliness'. The religious/cultural/traditional idea could just be a myth considering the number of different churches and prayer houses without a corresponding increase in PEB. These activities contribute in no small measure to the near-collapse of the situation at hand, and until conscious efforts are taken to redress this trend, the worst is yet to come.

Perhaps a more appropriate example in this context was during the fieldwork the researcher was accosted by some of the residents, who by now had gathered some debris and set them ablaze, a common practice of disposal (the smoke which one could see at a distance attracted the fieldworker to the scene). The following was the account of a resident/house owner at the scene.

> "This (referring to the fire) is what we do on a regular basis. Since our area is low-lying, we suffer two major things; 1. Refuse transported by the wind and stormwater and 2. Waterlogging. During the wet season, our homes are submerged with accompanied debris. I have personally brought ITV radio and television (an outfit sympathetic to and in close affinity with the opposition party) with the sum of fifty thousand Naira to air what we are passing through in this locality so that the authority would be aware of our problems, yet nothing was done. ……. Since you said you are a researcher, wearing the burial cloth of our late chief, and that the Ohen has permitted you, …… if you were a government agent, we would have seized your camera and manhandled you, by so doing the government may respond adequately to our plight. Now that we are experiencing dry weather it affords the opportunity to remove the shrubs and to gather the cellophane (plastics of various colours and shapes) brought by the wind and stormwater and burn them. We do these things ourselves without assistance from the government. This road is the old Benin-Auchi road which brought development to this area and beyond, with the construction of the Benin-Abuja express, it has been allowed to degenerate". (Resident/house owner along old Auchi road, February 25, 2017).

The preceding appears to be a common feature in the locality. However, in less fortunate circumstances, where cooperation is not guaranteed partly due to submergence (from seven months of wet season) encourages non-challant attitudes from residents as they disposed of their waste indiscriminately. Consequently, the area is almost degraded, forsaken and abandoned.

4.3 Discussion

The study seeks to reconceptualise the lack of congruence/correlation between PA and PEB that results in indiscriminate waste disposal among the residents of Urora in Benin City and to contribute to the existing literature from a developing country perspective. From our fieldwork and also in the literature, it is evident that indiscriminate waste disposal causes diseases, flooding, pollution and environmental decay among other uncomplimentary happenings. A denominator common to all these instances is that the residents are frustrated

hence the use of frustration theory alongside PA theory which engages the resident's present strengths and weaknesses. In this section, therefore, our findings indicate dimensions in PA and PEB outlook in solid waste management. The questionnaire survey, key informant interviews and fieldnotes revealed that there exist religious, physical, social and economic contribution to the disconnect between PA and PEB.

It was the consensus of the key informants that residents want to dispose of their waste communally, but the government is yet to discern/design this idea other than to coerce the residents through the once-monthly environmental sanitation with all the legal and enforcement apparatus. The use of force further alienates the people from an exercise they were supposed to take the driver's seat, as they are mostly affected by the consequences of indiscriminate waste disposal. Our results support previous studies (for example Wilson et al., 2006,) who highlighted the ways informal sector waste recycling could harmonise with the formal waste recycling and disposal systems. The continuous paternalistic attitude of government serves to discourage the residents the more as they were not part of the exercise from conception to implementation.

In this era of the public-private partnership, the state government has engaged the services of private waste collection operators whose activities they restrict to certain localities through zoning, but collect refuse from door-to-door at a minimum of twice monthly (Edo state environmental and waste management board regulations 2006). However, their operations are at risk due to lack of waste management architecture including seasonal roads and the twice-monthly period of the collection is too far between as waste is allowed to accumulate at the expense of health and safety of residents. Perhaps the most important aspect in this regard is the inability of these waste operators (government and private) to positively engage the resident stakeholders through their local community heads to achieve success. A significant aspect is the extension/incorporation of ritual practices which bode well with the people, should be used to managing waste; through the internalisation of their day-to-day practices (prayers and sweeping of compound) to see them as one entity that is entwined and inseparable. This fact is tandem with one of the Habitat III core mandate of a "New Urban Agenda" to protect the earth from degradation through participatory, integrative and sustainable urban development.

Apart from the resident farmers, others are yet to imbibe the range of behaviours that benefit the natural environment or enhance environmental quality as uncontrolled littering, open burning, shallow burying and indiscriminate waste disposal has become prevalent. These practices harm the natural environment and contribute primarily to global warming, PEB in this context, which is at the primary stage is at risk as such behaviours amount to an affront on the human–natural environment coexistence. The economic downturn experienced by residents may have taken its toll as some heads of households are out of jobs, it has equally affected the quantity of waste generated by households, however, due to lack of opportunities, the ubiquitous plastic which constitutes a significant proportion of generated waste is ever-present.

The idea to engage more with the environment in the context of PEB regarding gain, normative and hedonic goals is yet to take firm root as the scavengers of the informal sector of the economy are quite a few and also interested in selected/limited items (aluminium/metal, and glass products). The limited number of the scavengers and outputs for gain (buying from households/pick-up items from dumpsites) could well correspond to the 2% of the population in this category in North Africa, Asia and Latin America cities (Wilson et al., 2006). On the normative goal, other than community street sweeping which happens to herald the Eki kpoleki festival, the once-monthly environmental sanitation (extreme case) and the area/street/location that has been degraded for which the community has taken a decision to address for the collective good of the community, it becomes somewhat difficult to achieve this goal. One of the difficulties stems from the fact that the

indigenes who exhibit much of the PA activities are less in population, so kinship ties (an essential attribute of cooperation and solidarity) is absent.

The identification of different conforming factors in the waste management enterprise has some important implications for PA and HHSWM paralysis. Contradictory factors as alluded to in Table 2, like residents from other tribes who have come to settle but still see themselves as visitors among other facts has propelled the incidence of powerlessness among the residents as there is a division, without a common voice or purpose. The few conforming factors as seen in Table 2 (the ritual of regular sweeping), which we could strengthen to get the residents out of the unpleasant state may align with the Quito 'new urban agenda' of sustainable urbanisation of the United Nations as it affects the provision of adequate needs of essential services (Habitat, III 2016).

When we appraise the study with the Integrated sustainable (Solid) waste management (ISWM) and the wasteaware benchmark parameters developed by Wilson et al., (2015), which made use of physical indicators; public health/waste collection, environmental control disposal, resource value (reduce, reuse, recycling, among others); and against the governance strategies of inclusivity, financial sustainability, sound institution and proactive policies, the compliance rate is astronomically low as the study site possesses no facilities to be used to assess the rate of compliance. Take the issue of waste collection, a fundamental aspect of the physical indicators that include the percentage of household which have access to a reliable waste collection service, our data in Tables 1&2 and supported by the fieldnotes shows abysmally low collection rate of compliance.

Strong place attachment (PA) and weak household solid waste management (HHSWM) may continue perpetually for as long as the municipal authorities continue to neglect the positive aspects of PA as seen from the context of rituals where the residents engage in sweeping on a regular basis. Rather than call for a stakeholders meeting and identify the areas of strengths and weaknesses of the resident's ethnoreligious affiliations, the continuous imposition of the once-monthly environmental sanitation and engagement of private waste managers will only perpetuate/worsen the present situation. We could embed the strong PA as mediated by rituals at the resident's convenience, this act which people take pleasure and delight in doing could result in a sustainable and resilient waste management/disposal outfit.

5. CONCLUSION

The purpose of the study was to understand the causal factors responsible for the disconnect between PA and PEB that continue to facilitate the indiscriminate disposal of HHSW. Our findings indicate that PA which is mediated by rituals remain strong among participants but can hardly be translated to PEB concerns on a general/community-wide basis, however, on an individual basis, there is a strong correlation between PA and PEB. Furthermore, with the indigenes outnumbered by the 'visitors' coupled with the fact that the visitor has a home elsewhere, cooperation, oneness and solidarity fostered by kinship nexus among residents cannot be guaranteed. More fundamentally, in as far as the roads are seasonal and nonexistent drainage pattern, residents are no longer motivated to keep the environment clean because the community is tending towards being forsaken, degraded and abandoned.

As long as municipalities fail to coordinate and harness the strong PA exhibited by residents with PEB, the practice of indiscriminate HHSW will continue to be a problem in the cities of developing countries. Moreover, the effects of abandonment, frustration and paralysis will become more and more evident for communities that present similar features as the study location. As our research has indicated, one of the greatest challenges facing these cities is this the lack of PEB, PEB is a resource and opportunity to demonstrate to the world that with strong PA these cities can resolve the waste problem among other issues.

With the emphasis on issues like innovations and resourcefulness as proposed by UN-Habitat in the 'New Urban Agenda', PA in these cities is a key consideration in this regard.

6. ACKNOWLEDGEMENT

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