

An Evaluation of the Interventionist Reforms by the Lagos State Government towards Achieving Millennium Development Goals (Mdgs) in Environmental Sanitation and Hygiene Practice

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Abstract

The paper evaluates reforms introduced by the Lagos state government to enhance environmental sanitation and hygiene practice, with a view to achieving MDGs. It makes use of the secondary data obtained from National Bureau of statistics affiliated office in the Federal Government Secretariat, Yola and from the consultants report number 812 of 2005. These secondary data are used in measuring the percentage of households with unconventional toilet and with unsatisfactory refuse disposal in Lagos state in the pre-intervention period (before the introduction of the reforms) and in the post-intervention period (after the introduction of the reforms). The evaluation of the reforms revealed that Lagos state government was able to reduce the percentage of households with unconventional toilet by 22.16 percent and the percentage of households with unsatisfactory refuse disposal by 1.53 percent.

1.0 Introduction

The twin problems of environmental sanitation and hygiene practice are worth examining in Lagos state. While one of these problems is closely related to access to the sanitary means of excreta disposal, the other is often discussed in relation to refuse disposal and associated problems. In a study carried out by the UN agency habitat in four major cities in Nigeria in 2003, it was found out that only about 2-3 percent of households in Lagos state are connected to sewage system.

The drainage patterns which is a contributory factors to environmental sanitation, is described as slippery in Lagos state. A large area of Lagos is water logged and is usually flooded during the rainy season. This provides breeding grounds for flies and mosquitoes, contributing to the unhealthy living environment. Unfortunately, drainage problem is not restricted to rainy season in most areas of the state. According to the consultant report number 812 of 2005, static water level is about 300mm above ground level in up to 40 percent of the area in Apapa/Iganmu during the dry season while the entire area is water logged during the rainy season. In another area such as Ajeromi/Ife-lodun, 50 percent of households have drainage in front of their houses, 69 percent of the households frequently have flooding in their streets of which 23 percent is knee deep and 14 percent waste deep and above.

Ajegunle is better in term of drainage. However, cases of flooding were recorded annually. This is attributed to the swampy nature of the area. Besides, drainage channels are sometimes blocked (Consultants Report Number 812, 2005).

Large number of Lagos residents are involved in open defecation practices which by implication means that they defecate in fields, forests, bushes, bodies of water or other open spaces (WHO/UNICEF joint monitoring programmes for water supply and sanitation; 2010). It is not uncommon for informal public toilets to sprout along primary drainage channels wherever commercial ventures exist (consultants report number 812, 2005). This habit of defecating and urinating in the bush, close to home or settlements is among the most significant factors associated with high prevalence of diarrhea diseases in the affected communities of the state (NPC/UNICEF, 2010).

Another remarkable peculiarity of environmental sanitation challenges in Lagos state is the use of solid waste for the reclamation of land from the swampy areas and on the streets next to the canals. Such practice makes the whole area very filthy in appearance, smelling rather foul due to the decomposing wastes materials (consultants report number 812, 2005).

For years, the state has adopted alternative system of refuse disposal in order to rid Lagos streets of solid waste, but outcome of different choice of alternatives is rather calling for a better organized and result oriented approach to refuse disposal. Most of the adopted approaches had not worked well, resulting in the accumulation of solid waste in the streets. Most of these accumulated solid wastes end in drains, causing the blockage, the end result of which is uncontrollable flooding with its attendant damage.

The main objective of the study is to evaluate the interventionist reforms undertaken by the Lagos State Government towards achieving Millennium Development Goals in environmental sanitation and hygiene practice. Other specific objectives include the following:

- i. To examine environmental sanitation challenges in Lagos State.
- ii. To determine the percentage of households with unsatisfactory refuse disposal in Lagos State.
- iii. To determine the percentage of households with unconventional toilets in Lagos State.
- iv. To assess how effective are the interventions.

1.1 Conceptual Framework/Literature Review

The two major concepts that are used as the indicators of the study are:

Unconventional toilets and unsatisfactory refuse disposal. The two indicators are defined as follows:

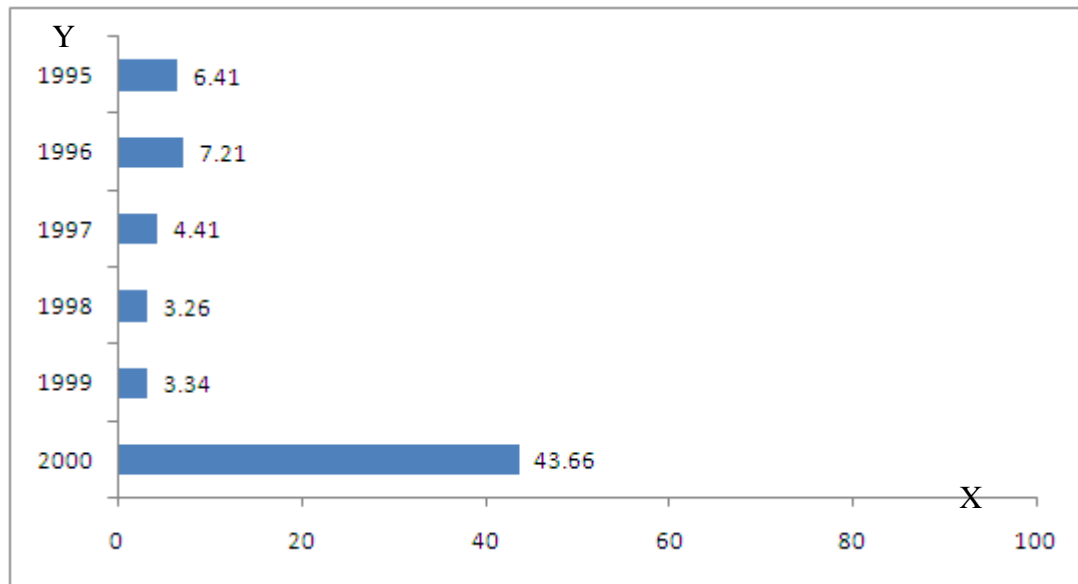
Unconventional toilets: This indicator derives its definition from “Access to sanitary means of excreta disposal” which is given as follows: the percentage of the population that use any of the following: water flush toilets linked to septic tanks or a sewage system ventilated improved pit (VIP) latrines and covered pit latrines (Mabogunje; 1999). Unconventional toilets, therefore, refer to the toilets that do not conform to the aforementioned facilities.

Unsatisfactory refuse disposal:- This indicator derives its definition from an “organized solid waste management” which is given as follows: A system of refuse collection including HH bin collected by government, HH bin collected by private agency and collection through government bin or shed/UNICEF/NPC; 2001). Unsatisfactory refuse disposal, therefore, refer to any form of refuse collection that do not conform to the above disposal system.

1.1.1 The Condition of Environmental Sanitation and Hygiene Practice in Lagos State before the Newly Introduced Reforms (1995 - 2000).

As it has been made clear in the introduction and methodology, this study is designed to examine the percentage of households using unconventional toilets and percentage of households with unsatisfactory refuse disposal in Lagos state at two different times within a decade. The first time, being the pre-intervention year of 2000 and the second time, being the post intervention year, 2007, which is chosen because it is the mid-way to the Millennium Development Goals (MDGs) targeted year of 2015. For the study to be focused, the definition of unconventional toilet and unsatisfactory refuse disposal are given in the introduction (see full definitions of both in the introduction). A task before this study is to determine if there is any change involving the two indicators between the pre-intervention year (2000) and post-intervention year (2007). Another task before the study is to identify the factors that are responsible for a change (if any). The starting point therefore will be to examine the conditions of environmental sanitation and hygiene practice in Lagos state in the pre-intervention period. This examination is facilitated by the use of figures 1 and 2. Figure 1 elucidates the percentage of households with unconventional toilets in Lagos state before the introduction of the reforms. On the other hand, figure 2 is concerned with the percentage of household with unsatisfactory refuse disposal in Lagos state in the pre-intervention period.

Figure 1:- percentage of Households with unconventional toilets in Lagos state (1995 - 2000).

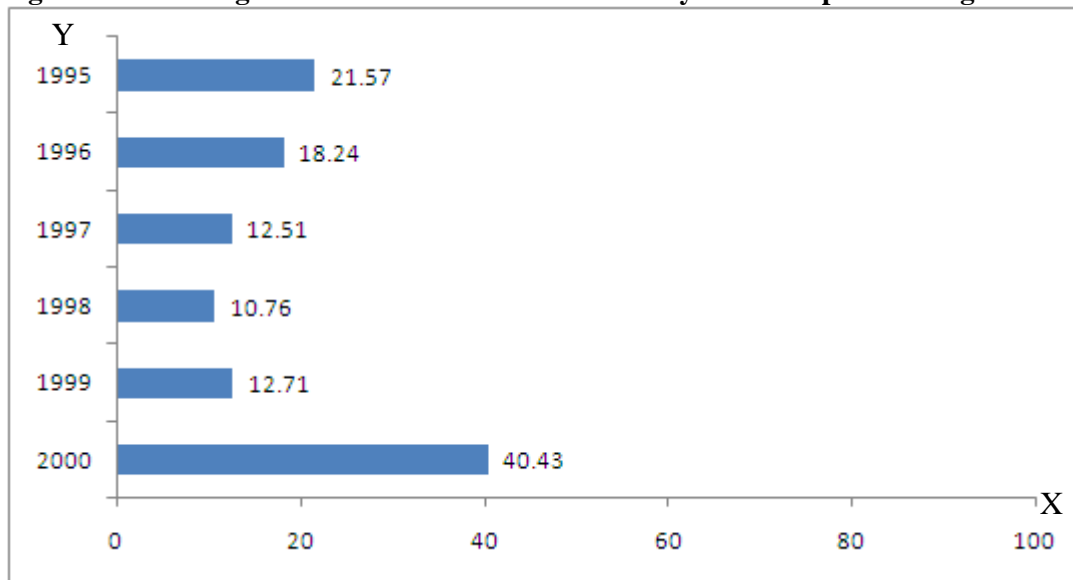


Source: NBS (General Households Survey Report, 1995-2000)

If the average of the households with unconventional toilets in the pre-intervention period in Lagos state is computed, it will be found out that it hobbles around 11.38 percent. The lowest within the period being, 3.26 percent (1998) and the highest, being 43.66 percent (2000).

The average of 11.38 percent is worrisome because it translates to over one million households in a state populated by over ten million people. And Lagos, being a metropolis, a mega-city sort of a settlement, makes open defecation practices difficult because the metropolis is deficient in Bush-paths and open spaces that can facilitate open defecation practice. Here in lies the problem and the urgency of the situations.

Figure 2: Percentage of Households with unsatisfactory refuse disposal in Lagos state (1995 - 2000).



Source: NBS (General Households Survey Report, 1995-2000)

As revealed by figure 2, percentage of households with unsatisfactory refuse disposal constitutes, on average, 19.37 percent, the lowest, being 10.76 percent (1998) and the highest, being 40.43 percent (2000). This average percentage translates to about two million households in a state populated by over ten million people.

These are the households whose refuse disposal methods do not conform to HH bin collection system by the government, HH bin collection system by the private agency and collection through government bin or shed (see the full definition of “organized solid waste management in the introduction”).

1.2 Methodology of the Study

This study covered three large areas of Lagos State. These are Ajegunle, Apapa-Iganmu and Ajeromi/Ifelodun. The sample of the three areas were selected through the process of stratified randomization.

With the focus on the two main indicators, secondary data on the percentage of households with unconventional toilets and unsatisfactory refuse disposal in Lagos state were collected from the General Households Survey Report of the National Bureau of Statistics in Federal Government Secretariat Yola, for a period spanning six years (1995 - 2000). This six year period is noted by this study as the pre-intervention period. Then, secondary data on the reforms introduced by the Lagos state were also collected from (Consultant Report Number 812) through the internet. The introduction of the reforms to environmental sanitation management and hygiene practices between the pre-intervention year (2000) and year 2007 were understudied. Then, fresh secondary data on the percentage of households in Lagos state with unconventional toilets and with unsatisfactory refuse disposal in year 2007 were collected from national bureau of statistics on social statistics in Nigeria and compared it with the percentage of the households in Lagos state with unconventional toilets and unsatisfactory refuse disposal in the pre-intervention year of 2000 in order to establish how effective are the reforms. In doing these, the neighbouring states in the south western zone of the country are used as the control.

1.3 The Newly Introduced Reform by the Lagos State Government to Address Environmental Related Problem (2000 - 2007).

Environmental sanitation and hygiene practice reforms by the Lagos state government is built on two-pronged approach. A section of the reforms is aimed at curtailing open defecation practices while the other section is oriented towards an organized solid waste management.

- Curtailment of open defecation practices is facilitated through the following:
- i. Proliferation of sanitary facilities
 - ii. Deregulation of sanitary facilities ownership and management.
- On the other hand, an organized solid waste management is facilitated by two measures:
- (a) Establishment of Lagos waste management Authority (LAWMA).
 - (b) Introduction of Private Sector Participation (PSP).

i. Proliferation of Sanitary Facilities

The nauseous aspect of environmental pollution in Lagos state is open defecation practice i.e. the act of defecating in fields, forests, bushes, bodies of water or other open spaces (WHO/UNICEF joint monitoring programme for water supply and sanitation, 2010). In a passing vehicle, it is not uncommon to see people defecating along the railway lines, along the primary drainage channels, hidden enclosures in markets and commercial centers and open spaces in neighbourhoods, all of which had serious health implications. The hitherto preventive measures embarked upon by the successive administrations in the state was to invite both the electronic and prints media to film and photograph the culprits in order to discourage them from the act. But in the absence of the waiting alternatives, Lagosians have perfected ways of avoiding the press men and their cameras.

However, in order to enhance the use of improved sanitation facilities, the Lagos state environmental sanitation reforms provides for the proliferation of multi compartment ventilated improved pit (VIP) latrines with a capacity to accommodate many users at a time. The locations of such latrines are in densely populated areas such as markets, commercial centers, recreation grounds, high ways and other public places. By this proliferation of sanitation facilities, members of public, who are pressed to indulge in open defecation practice as a result of systemic failure, could now defecate in more relaxed facilities, protected against the prying eyes of the media houses. But the cheery conclusion is that it has increased the percentage of Lagos population with use of improved sanitation facilities.

ii. Deregulation of Sanitary Facilities Ownership and Management

Another progressive aspect of environmental sanitation reforms in Lagos state is that, facilities could be established and managed privately like any other business or commerce. A private individual can own a facility at a desired location without any interference on the part of government in so far the location of such facility does not conflict with the public interest. A modest fee is charged for operation and maintenance costs. Routine inspection is carried out by the government agents to ensure that members of public are not exploited and that their security is not compromised. It is not uncommon to see public and private facilities located in the same vicinity. The private ownership of facilities has the same objective as the proliferation of sanitary facilities by the state government. That is, to discourage open defecation practice by the members of public. Like the latter, it has contributed tremendously towards increasing the percentage of Lagos population with the use of improved sanitation facilities.

(a) Establishment of Lagos Waste Management Authority (LAWMA)

If the proliferation of sanitary facilities and deregulation of its ownership was to discourage open defecation practice and to enhance the use of improved sanitation facilities, the establishment of LAWMA was aimed at an organized solid waste management in Lagos state. It was not uncommon for the decomposing heaps of solid waste to be competing with the vehicular movement along the high ways, in market places, commercial centers and other public places. Solid waste containers were mere decorations as they were usually over-filled and spilled over and the heaps of solid waste surrounding the containers were usually ten times the capacity of the containers. The reorganization of LAWMA by the civilian administrations in the state was an aspect of environmental sanitation reforms aimed at an organized solid waste management. The responsibilities of LAWMA are threefold; solid waste collection, solid waste disposal and solid waste disposal sites management.

LAWMA plays the primary role of collecting solid waste from the grassroots through the private sector. The collected solid waste is transported to the disposal sites by LAWMA agents. The disposal site is to be properly managed to ensure that the up-coming solid wastes do not accumulate to constitute environmental hazard.

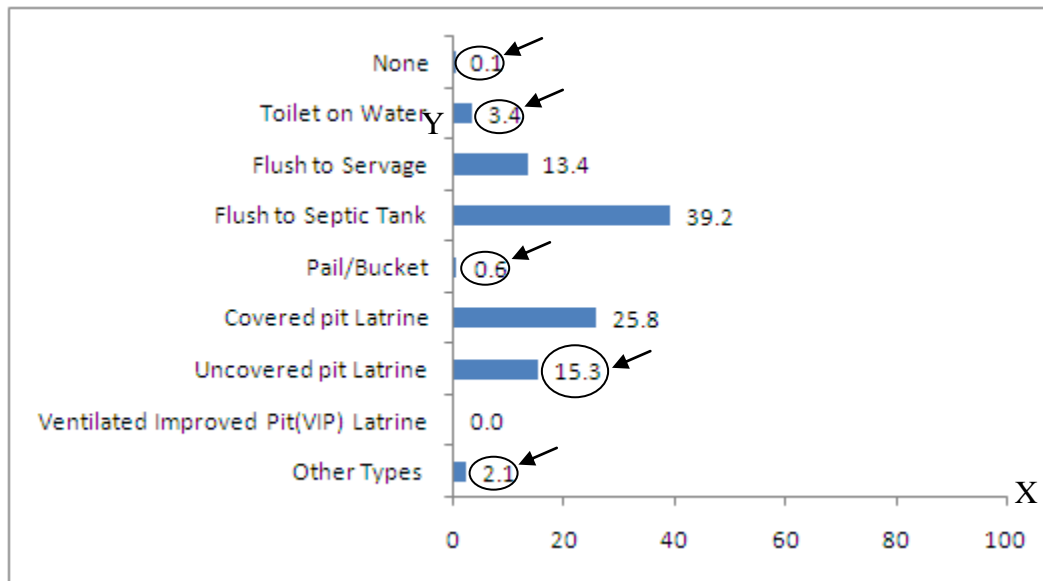
(b) Introduction of Private Sector Participation

Lagos environmental sanitation reforms provide for private sector participation in solid waste management. The role of the private sector is to provide a link between the households and the LAWMA. The private sector participants collect solid wastes from households and get it deposited at designated points from where the LAWMA agents transports the wastes to the disposal sites. The relevance of private collectors in the chain of solid wastes management cannot be over emphasized. Being a government parastatal, the staff strength of LAWMA is meager and there is no way it can possibly reach every household for solid waste collection. The vacuum created by this inadequacy is what the private collectors serve to fill.

1.4 Discussion and Findings

Have the reforms gone far enough to achieve the desired purpose? The desired purpose in this context implies reduction in the percentage of households, using unconventional toilets and percentage of households with unsatisfactory refuse disposal in Lagos state between the pre-intervention period, year (2000) and the period when Lagos State implemented MDGs (year 2007). In order to enhance the evaluation process, the full definition of the two indicators are proffered earlier (see full definitions of both in the introduction). In order to facilitate evaluation, therefore, we obtain information on the percentage of households with unconventional toilets and with unsatisfactory refuse disposal in the post-intervention period. This information is supplied by figures 3 and 4. Figure 3 supplies information on the percentage of households by types of toilet facilities in Lagos state in the post-intervention period, while figure 4 provides information on the percentage of households by type of refuse disposal in Lagos state within the same period.

Figure 3: Percentage of households by type of toilet facility in Lagos State (2007)



Source: NBS (Social Statistics in Nigeria, 2007)

If unconventional toilet derives its definitions from “access to sanitary means of excreta disposal” which is defined as the percentage of households that use any of the following: water flush toilets linked to septic tanks or a sewage system, ventilated improved pit (VIP) latrine and covered pit latrine (Mabogunje, 1999), the percentage of households using unconventional toilets in Lagos state in 2007 is arrowed in figure 3 and if added together constitutes 21.5 percent. This is to be compared with the percentage of households using unconventional toilets in Lagos state in the pre-intervention year of (2000). This comparison is facilitated by reference to figure 1. It is clear that, the percentage of households using unconventional toilet decline from 43.66 percent in year (2000) to 21.5 percent (2007). It is safe to conclude that this decline was achieved courtesy of the reforms introduced by the Lagos state government in the sector. This is beyond reasonable doubt, if we compare the percentage of households using unconventional toilets in the neighbouring states of Ekiti, Ondo and Oyo states (all of which are in the south-western zone of Nigeria, as Lagos state) in 2007 with the percentage of households using unconventional toilets in those states in year 2000. This comparison is facilitated by the use of table 1.

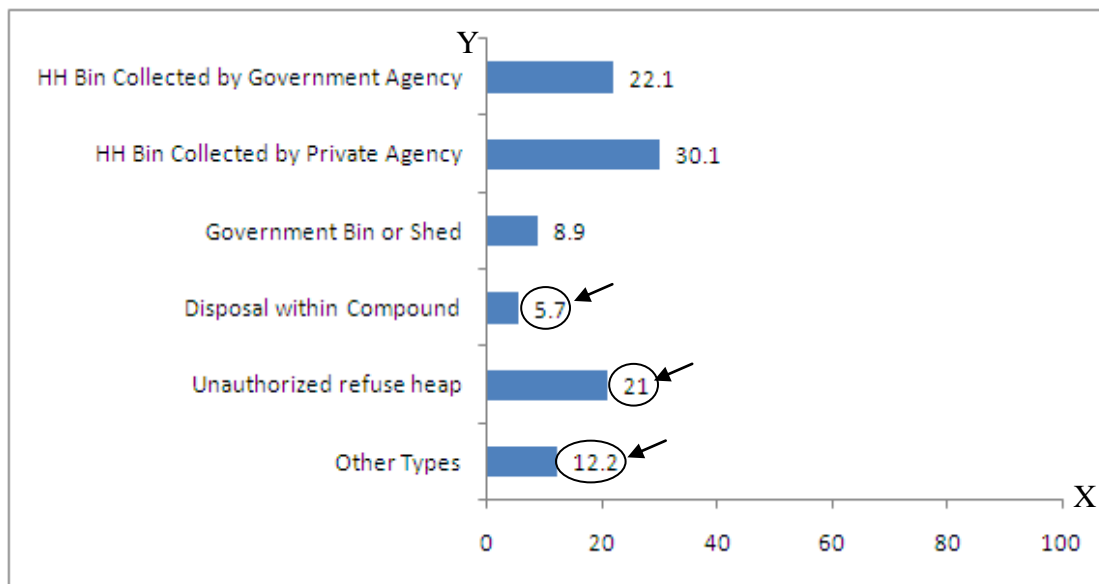
Table 1: Percentage of households with unconventional toilets in some selected states of south-western zone of Nigeria in 2000 and 2007.

State \ Year	Year		Change in absolute term between 2000 and 2007
	2000	2007	
Lagos	43.66	21.5	22.16
Ekiti	31.63	61.8	-30.17
Ondo	52.77	55.7	-2.93
Oyo	48.99	47.9	1.09

Source: Field Survey, 2011

Information in Table 1 reveal to us that the reforms introduced by the Lagos state government had impacted positively on environmental sanitation in the state because it brought about a decline of 22.16 percent in the percentage of households, using unconventional toilets in the state. That is, it decline from 43.66 percent (2000) to 21.5 percent (2007). A typical decline is not recorded in the neighbouring states of Ekiti, Ondo and Oyo that are used as the control. In the case of Ekiti and Ondo state, environmental sanitation deteriorated rather than being ameliorated between year 2000 and 2007. The situation of environmental sanitation is a bit stabilized in Oyo state within the period even though an increase in absolute term is insignificant (see Table 1).

Figure 4: Percentage of households by type of refuse disposal in Lagos state (2007).



Source: NBS (Social Statistics in Nigeria, 2007)

If unsatisfactory refuse disposal derives its definition from “an organized solid waste management” which is defined as “a system of refuse collection including HH bin collected by government, HH bin collected by private agency and collection through government bin or shed (UNICEF/NPC; 2001), the percentage of households with unsatisfactory refuse collection in Lagos state in 2007 is arrowed in figure 4 and if added together constitutes 38.9 percent. If this is compared with percentage of households with unsatisfactory refuse disposal in Lagos state in the pre-intervention period (2000) in figure 2, it is visible that this indicator declines by 1.53 percent. That is, it reduces from 40.43 percent (2000) to 38.9 percent (2007). This decline can be attributed to the reforms introduced by the Lagos state government within the period. This conclusion becomes faultless if we compare the percentage of households with unsatisfactory refuse disposal in the neighbouring states in year 2007 with the same in year 2000. This is facilitated by the information in table 2.

Table 2: Percentage of households with unsatisfactory refuse disposal in south-western states of Nigeria in year 2000 and 2007.

State \ Year	2000	2007	Change in absolute term between year 2000 and 2007
Lagos	40.43	38.9	1.53
Ekiti	99.24	99.6	-0.36
Ogun	78.87	92.1	-13.23
Ondo	94.89	97.8	-2.91
Osun	95.59	98.8	-3.21
Oyo	85.32	89.5	-4.18

Source: Field Survey, 2011

Information in table 2 reveals that of all the states in the south-western zone of Nigeria, only the Lagos state government was able to arrest the growth of percentage of households with unsatisfactory refuse disposal between year 2000 and 2007. This indicator was in the upward trend in other states within the zone. The stability achieved by the Lagos state can only be attributed to the reforms introduced by the Lagos state to enhance environmental sanitation and hygiene practice within the period.

1.5 Conclusion and Recommendations

Like in most states of the federation, defective environmental sanitation and unhygienic ways of life are twins’ problems, staring the Lagos State Government in the face. This study, however, reveals to us, how the political will and focused approach, can assist a government in turning an embarrassing situation around.

With the focused reforms introduced by the Lagos state government, the percentage of households with unconventional toilet decline from 43.66 percent (2000) to 21.5 percent (2007). This sharp reduction of 22.16 percent could only be made possible by radical reforms, typical of the ones introduced by the Lagos state government.

Another critical issue covered by this study is the problem associated with the refuse disposal. Despite the series of reforms introduced in the state, the government could only stabilize the problem associated with haphazard refuse disposal. Before the reforms were introduced, the percentage of households with unsatisfactory refuse disposal constituted 40.43 percent (2000). In the post-intervention year of 2007; this indicator has declined to 38.9 percent (a decline of 1.53 percent). This may be considered to be insignificant but if the situation in the neighbouring states which are used as the control is taken into consideration, Lagos state has taken a giant stride.

It is recommended that other states in the south-west geo-political zone of the country mark out strategies, measures, policies or reforms in the mould of the reforms that was introduced by the Lagos state government in order to enhance environmental sanitation and hygiene practices by the citizens of their respective states.

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