

# **EVOLUTION OF PRIVATE SECTOR PARTICIPATION (PSP) IN WASTE MANAGEMENT IN LAGOS STATE, NIGERIA – THE JOURNEY SO FAR.**

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## **Abstract:**

Lagos the commercial nerve centre of Nigeria is the smallest in size with a land area of About 3577 Sq. Km (0.39% of Nigeria's 923,773 Sq. Km), with an approximated population of about 22.5 million people. The state presently has a very high population density of over 4,000 persons per square kilometre. According to U.N estimation by 2015, Lagos became the 3<sup>rd</sup> largest mega city in the whole world. The state is currently transiting into a Smart City.

As expected the above statistical data and realities of population explosion, serious urbanization and rapid industrial growth will have direct effect on general waste management systems in the state. The volume of waste generated by this large population and the industrial sector was so enormous and overwhelming to all government agencies involved in the collection, transportation and disposal of solid waste in the state at that time especially in the 1980s.

The inability of government owned agencies to adequately cope with the upsurge in the volume of municipal solid waste generated led to the creation of a “**vacuum**” in the collection, transportation, recovery, recycling and disposal of solid waste in the state. The vacuum that was created by selective services and irregular management of solid waste was filled by both the formal and informal private sector in solid waste management, while the formal private sector is made up of Registered Companies / enterprises who have the financial strength, some level of technical know-how/experience and are generally mechanized, the informal private sector on the other hand is made up of the **locals** (who constructs carts in large quantities for rentals), **the cart pushers** (who are involved in House-to-House waste collection transportation and recovery), **the scavengers** (This group is involved in the on-site waste recovery or scavenging, they are also known as **waste pickers**), **the resource merchants** (This group is involved in the purchase of all recovered recyclables and re-usable waste materials, they are also called itinerant waste buyers) and **the recyclers** (This are micro and small scale recyclers that converts recovered materials like paper, aluminium, animal by-products, plastics, scrap metals etc to valuable materials and raw materials for the consumption of the industrial sector).

It is pertinent to emphasise that, the incursion of the private sector participants (PSPs) into waste management industry in Lagos was as a result of irregular and epileptic

services of government owned agency responsible for waste management in the state. The nuisance caused by the uncleared waste within the communities led to the public themselves seeking for alternative waste disposal system, hence the entrance of the private sector into solid waste management stream in Lagos State “*necessity they say is the mother of invention*”.

This paper, highlights the evolution of the Private Sector Participants in Waste management in Lagos state and the all-important roles played by the group in moving Lagos from one of the dirtiest cities in the world to one of the cleanest cities in Africa by 2015. It also x-rayed how the group interrelated with other actors (The informal sectors, Non State actors, academia and state actors) within the waste management industry, most importantly, the roles the group played in the near attainment / achievement of some of the Millennium Development Goals (MDGs) of environmental sustainability, eradication of extreme poverty and hunger etc, through jobs creation, poverty alleviation and reduction. *(This paper was first written in 2008 and presented at CWG/WASH Workshop on Capacity Development and Advocacy for improved solid waste & Resource Management in Ouagadougou, Burkina-Faso, in December 2008. This is a modified version)*

**Keywords:** PSPs, Public, Association of PSPs, Recyclers, Cost Recovery, Capacity Development, Informal private sector, formal private sector, integrated solid waste management, Lagos state, MDGs

### **Introduction:**

Lagos state is one of the 36 states of Nigeria, though the smallest in size, it is the commercial nerve centre of the country and by extension the entire West African sub-region.

As earlier stated in the abstract, the population of this small state is put to about 22.5 million people. The state presently has a very high population density of over 4,000 persons per square kilometre. According to U.N estimation by 2015, Lagos became the 3<sup>rd</sup> largest mega city in the whole world. The state is currently transiting into a Smart City.

The state is presently divided into 20 local government and 37 local council development areas (LCDAs) totalling 57 municipalities. It is pertinent to mention here that, under the present constitution of Federal Republic of Nigeria it is the function /responsibility of the local (municipal) government to manage the waste generated within their respective localities. However, the peculiarity of the metropolitan status of Lagos could not allow this constitutional framework to operate.

### **Waste Management Structures in Lagos state**

### **The Local government**

Waste management is the responsibility of the local governments (municipalities) in Nigeria, as contained in the constitution of the Federal Republic of Nigeria. (Section 7, 4<sup>th</sup> Schedule: H – “Provision & maintenance of public convenience, sewage and refuse disposal)

At the local government level, as the third tier of government, solid waste management is handled by waste / environmental monitoring unit, with a chief environmental health officer (CEHO) *a.k.a WOLE-WOLE* at the helms of affairs under the direct supervision of the executive chairman or head of the local government. An environmental health officer is responsible for policy formulation, implementation, inspection, monitoring and prosecution of defaulters of any environmental offences at that level.

### **The state government: Ministry of the Environment.**

The state government through the ministry of the Environment has been overseeing the overall cleanliness and the entire sanitation of the state. It has several departments (like Environmental services, Drainage, Signage and advertisement, Finance, Waste monitoring unit etc) through which it carries out her statutory responsibilities. The ministry is responsible for overall policy formulation, implementation, monitoring, inspection and prosecution of defaulters of all environmental offences throughout the state.

The ministry is also directly involved in the policy implementation through her various dedicated parastatals like Drain ducks- *responsible for the clearance and maintenance of all drainage network in the state*, Lagos state waste management authority (LAWMA) –*Initially responsible for general waste management like waste collection, transportation, storage, disposal and the management of all government owned disposal facilities. Lagos state Environmental Protection Agency (LASEPA) – Responsible for general management / control of both liquid and gaseous waste and all pollutions.*

In Lagos in the past, the management of waste has oscillated among several state government agencies and the local governments. Table 1 shows that solid waste management in the state has oscillated from the local governments to one ministry or the other, even to the office of the Deputy Governor of the state.

These changes could be attributed to incessant political interferences in the past which resulted in solid waste management functions been moved around several ministries and agencies over time. As expected the changes bring about imposition of different institutional solutions to waste management problems. The operational and institutional instability denied the relevant management agencies the benefit of accumulated experience in the management system, which equally dampens staff morals.

Table 1: Institutional changes in the state solid waste management (Modified after the 2006 publication)

<b>Years</b>	<b>Name of institution</b>	<b>Supervising Authority</b>
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1977 -	Lagos State Refuse Disposal Board (LSRDB)	Ministry of works and Transport
1980 -	Lagos State Waste Disposal Board (LSWDB)	Ministry of works and Transport
1991 -	Lagos State Waste Management Authority (LAWMA)	Ministry of the Environment and Physical Planning (MEPP)
1994 -	Local Government Councils and LAWMA	Local Government and MEPP
1997 -	LAWMA and PSP pilot scheme in Somolu & Kosofe Local government areas	Ministry of the Environment and Physical Planning (MEPP)
1998	Private Sector Participation (PSP) in domestic waste management state-wide and LAWMA handling Industrial Waste	Ministry of the Environment and Physical Planning (MEPP) / Local Governments
1999	Private Sector Participation (PSP) in waste management	All local Governments/ Ministry of the Environment/ Office of the Deputy Governor.
2004	Mega/ major PSP in waste management	Ministry of the Environment/ Office of the Deputy Governor
2007	Mega PSP in waste management	LAWMA / MoE
2009	Franchised Mega PSP in waste management	LAWMA / MoE

### **LAWMA as an institution**

This institution was created around 1977 as Lagos State Refuse Disposal Board [LSRDB] with responsibility of collection and disposal of refuse generated in the State. However, between 1977 and 1991, the agency had undergone several changes both in the name and the functions; it then metamorphosed into what is now known as Lagos State Waste Management Authority (LAWMA). The change in name and status brought more responsibilities/functions to the organization, these include; collection, transportation and disposal of all waste vis-à-vis the Industrial and domestic waste, garden and agricultural waste, construction waste, clinical and commercial waste etc. Above all the organization has the responsibility of managing all government approved landfill sites throughout the state.

However, as Lagos became urbanized and industrialized with serious population explosion expected of a commercial nerve centre of the largest black African nation. The volume of waste generated on daily basis by this high population, the Industrial sector, etc was so enormous and overwhelming to this agency alone to cope with.

The upsurge in the volume of solid waste generated in the State led to the adoption of selective services by the agency and after which the services became epileptic. As such a vacuum was created.

### **Pre 1999 era - The humble Beginning:**

At the early stage of private sector involvement in solid waste management in Lagos State in the 1980s, the neighbourhood structure determines the type of private sector involved in the collection, transportation and disposal of their waste. For instance, the formal private sector operated in high-income low population density areas, while the informal private sector like cart pushers operated in low-income high population density areas. This was attributed to the social stratification and wealth distribution of the society. While the high-income neighbourhoods can afford to pay the high cost of the formal private sector whose operation is mechanized, the low-income neighbourhoods can only afford to pay the cart pushers whose operation is manual and very cheap.

However, with time all that has changed now, as both the formal and informal private sectors operate in both areas now.

**The Pilot Scheme:**In 1996/1997, the Lagos state government through the Ministry of Environment and Physical Planning (MEPP) commenced a programme of recognising and formalisation of the private sector, most especially the formal private sector by introducing a programme tagged “Pilot Scheme Project on Private Sector Participation in Solid Waste Collection and Disposal in Somolu and Kosofe Local Government Areas of Lagos State”. The project was aimed at test-running the capacities of the private sector and also to test the willingness of the public to pay for the collection, transportation and disposal of their waste, which hitherto had been a social service. The pilot scheme project which involved twenty-two (22) Private companies (*including the author of this paper*) marked the beginning of the formalisation of the private sector in waste management industry in Lagos, Nigeria. This also led to the formation of an association amongst the practitioners called “Waste Pilot Scheme Operators’ Group” (WAPSOG). This group/association has metamorphosed into several names; the very last is the Association of Waste Managers of Nigeria (AWAMN).

### **The Asiwaju Bola Ahmed Tinubu Influence**

In 1999 when His Excellency Asiwaju Bola Ahmed Tinubu was elected the Executive Governor of Lagos, mountains of waste dotted the landscape of the length and breadth of the state. Waste was competing with both vehicular and pedestrian movement on the major roads. It took the doggedness of his Excellency and unparalleled love for his people that made him believed in their capacity and capability to clean the city of Lagos, even though it was a known fact that Asiwaju was under intense pressure to award the cleaning of Lagos to a foreign company. He told those who cared to listened that he will empower the locals to clean the city of Lagos. He said “If my people cannot clean their state, what else can they do?” He then launched a new programme named PSP – Private Sector Participation in waste management. The acronym PSP became very popular especially when the group came to the rescue of cleaning the state when the state civil service including LAWMA staff joined a national industrial action. Asiwaju was having a weekly meetings with the PSP Operators then at Adeyemi Boro hall encouraging the Micro, Small, Medium Entrepreneurs (MSMEs), through this he taught the Operators Dignity in Labour. He also empowered many operators financially to be able to acquire more equipment. It was during this period that the first empowerment of the PSP was carried out, His Excellency bought and donated waste collection equipment to all the PSPs on local Government basis to enhance their operations. This paid off in the long

run as the then dirtiest city became clean. The achievement was a collective one as several offshoot of PSPs were created, like Highway Managers etc.

### **The Mega PSP Programme:**

During the second term in office of His Excellency Asiwaju Bola Ahmed Tinubu, he appointed a new commissioner for the Ministry of Environment – Barr. Tunji Bello, he and the then Deputy Governor – His Excellency Mr. Femi Pedro were assigned the responsibility of further improving the waste management sector in the state.

As expected there was improved service delivery in the industry, more major or mega players came into the industry with lots of unprecedented investment. By 2007 Lagos state waste management authority (LAWMA) was equally restructured and charged with the responsibility of regulating waste management in the state, and the activities of the private sector participants (PSP) in the collection, transportation and disposal of solid waste.

### **New investments in waste management sector:**

Between the second term of His Excellency Asiwaju Bola Ahmed Tinubu and the two termed period of his successor – His Excellency Mr. Babatund Raji Fashola there was massive investment both by government and the Private Sector Participants (PSPs) in Integrated Solid Waste Management (ISWM) covering waste containerisation, purchase of fairly used and brand new TATA compacting trucks, investments in waste recovery, recycling facilities, Material Recovery Facility (MRF), Waste to organic fertilizer, rehabilitation and construction of Transfer Loading Stations (TLSs), investment in small waste handling equipment etc:

The formal private sector otherwise known as PSPs played pivotal roles in effective and sustainable ISWM service delivery in Lagos in particular and in Nigeria in general like in most developed countries of the world. They are found operating mostly in major urban centres of the country. Below are some of the activities of the formal private sector in waste management in Nigeria;

- o Waste collection and transportation – This is the very humble beginning of the private sector participation (PSP) in waste management in Nigeria. It started with using converted vehicles to collect waste from house to house or from communal bins and transport to disposal sites. For instance in Lagos, the PSP has moved from using rickety trucks to the purchase of brand new compacting trucks for waste collection and transportation. There was investment in equipment used for Street Cleaning too. His Excellency Mr. Babatunde Raji Fashola successfully brokered a funding arrangement for the purchase of over 100 Brand new compactors
- o Investment in Recycling: Some PSPs have expanded and invested into waste recycling activities, recycling plastic waste like PET, Polyethylene like Pure waste sachet, paper, aluminium etc.
- o Investment in waste aggregation: There are a lot of waste aggregators who are socio entrepreneurs, they are involved in waste recovery, segregation and sales.
- o Cost Recovery – The private sector is also involved in direct cost recovery for waste management service delivery in Lagos. Several cost recovery systems had been tested by government, still experimenting.

- o Management of disposal facilities – The formal private sector is also involved the management of government owned disposal facilities.
- o Investment in Waste to Compost Facility – During Asiwaju’s tenure there was a PPP arrangement with an American firm that sited a waste to compost / fertilizer facility at Odongunyan, Ikorodu. It cost over \$20 million USD. The facility convert about 850MT of organic waste to 250 bags of organic fertilizer daily when it was in operation.
- o Management of TLS/MRF – The formal private sector was involved in the management of Transfer Loading Stations. There was also a massive investment by a private company in the construction of a Material Recovery Facility at Igando, Lagos state. The administration of His Excellency Mr. Babatunde Raji Fashola successfully constructed and commissioned 2 additional Transfer Loading Stations (TLSs) in Oshodi and Agege.
- o Healthcare Waste Management - Investments in HealthCare Waste (HCW) management- There was an investment in a fully automated Hydroclave machine that shreds & reduce waste by 80%, The machine uses steam on HCW at temp of 135°C. The final product is safe for disposal with general waste

**The Role of the Association:**

The first Association of PSP Operators was formed in 1996/1997 in the office of one of the operators at 424, Ikorodu Road, Ojota, Lagos, during the Pilot Scheme Project on Private Sector Participation in Solid Waste Collection and Disposal in Somolu and Kosofe Local Government Areas of Lagos State. The twenty-two (22) Private companies (*including the author of this paper*) were the pioneer members of the Association called “Waste Pilot Scheme Operators’ Group” (WAPSOG). This group/association has metamorphosed into several names; the very last and current name is the Association of Waste Managers of Nigeria (AWAMN).

Table 2: Changes & Names of the Association of PSP since 1997.

<b>Years</b>	<b>Names of the Association</b>	<b>Government Scheme/Project</b>
1997 -	Waste Pilot Scheme Operator’s Group (WAPSOG)	Waste Pilot Scheme in Somolu & Kosofe Local Government Areas
1988/99 -	Waste Privatization Scheme Operator’s Group (WAPSOG)	Private Sector Participation (PSP) in domestic Waste Management State-Wide
1998 -	Lagos State Waste Management Operators (LAWMO)	Private Sector Participation (PSP) in domestic Waste Management State-Wide
2001 -	Association of Licensed Private Waste Managers (ALPWAM)	Private Sector Participation (PSP) in Waste Management
2004 -	National Association of Waste Managers of Nigeria (NAWAMA)	Mega/ Major PSP in Waste Management
2007	Association of Waste managers of Nigeria (AWAMN)	Mega PSP in waste management

## **,The Association in brief**

As stated earlier, the Association was ab-initio formed<sup>1</sup> during the first formalisation of the activities of the private sector in 1997, during the implementation of the pilot scheme project. However due to several reasons amongst which are disagreements with government, institutional and policy changes on the part of government, the Association has metamorphosed into several other groups and names.

## **Membership & Voluntary contributions**

Membership of the Association started with the first 22 Waste Pilot Scheme Operators' Group, however with several institutional and policy changes by government and the attendant effect on the formation and re-formation of the Association, the new Association now has about 250 membership. *(The institutional and policy changes were explained in Table 1. Each of the supervising ministries imposed different policies which affect the operations and the activities of the operators)*

Membership is voluntary<sup>2</sup>, however it is expected that every Private Sector Participant in waste management industry must be a member.

The Association has a structure headed by the Executive Council (EXCO), which functions through several committees of the Association *(One of these committees is the Capacity Development & training committee)*

There are also paid employees of the Association at the secretariat, while other staffs were employed to complement the activities of government officials at the various dumpsites<sup>3</sup>.

## **Financial contributions**

Members are obligated to pay a registration/application fee at the time of joining the Association, while monthly dues are paid as a monthly financial commitment to the Association. Occasional levies are imposed by the EXCO when the need arises.

Just like any other voluntary Association, there are cases of few members who are not up-to-date with their financial contributions. However the major tool deployed by the EXCO/Association is that the Association will only cater for or defend only financial members<sup>4</sup> whenever they have problems with the regulatory authorities- *which sure were rampant*<sup>5</sup>. Equally, it is only the financial members that can enjoy any benefit from the Association; they can vote and be voted for. **Conflict Resolution**

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<sup>1</sup> The main motivation for forming the Association was to have a common front in discussing with government and also to share ideas amongst operators. An outside body was not involved; it was a collective decision of some more experienced operators.

<sup>2</sup> The membership of the Association is absolutely voluntary, operators are at liberty of either joining or not, but because of some protection that operators enjoy from being a member, every operator wants to identify with the Association. Even though they may not be up-to date with their payments.

<sup>3</sup> The Association's employees at the dumpsite take inventory of the member's trucks that visit the dumpsite on daily basis. This is necessary since operators are paid by the numbers of trips/tons of waste deposited at the dumpsites, before they were introduced to the sites, there were cases of arguments between government and the operators on the volume/ tonnage deposited.

<sup>4</sup> A financial member is someone who has paid something into the purse of the Association, most especially a registration fee. He may not be up-to-date with his payments.

<sup>5</sup> There are different disagreements between operators and the regulators, which includes; Disagreement on the volume/tonnage of waste deposited at the dumpsite, cases of short or under payment for services rendered, unwarranted punishment of operators for an un-investigated allegations



Whenever there is any conflict amongst members either caused by competition or operational encroachment, the Association has a committee called “Reconciliation Committee”. This committee settles all conflicts amongst members on one hand and reconcile members with government agencies on the other hand. Decisions taken by this committee is binding.

### **PSP and Capacity Development Needs**

Private Sector involvement in solid waste management industry in Nigeria is an emerging sub-sector of the Nigerian economy with a lot of potentials and capacity development needs.

The manner in which the private sector involvement in solid waste management industry in Lagos evolved did not give room for thorough screening of the practitioners, until recently when the stakes were raised. Only very few professionals were involved at inception, however many investors have over the time learnt on the job and have therefore perfected their operational capabilities.

The following are the capacity development needs of the private sector participants in solid waste management industry in Lagos, Nigeria;

- i. **Regular Training:** The practitioners (Owners & Managers) require regular training on the latest methodologies of waste management, most especially in relation to planning, collection, transportation, monitoring, treatment and disposal<sup>6</sup> – **Internationally acceptable best practice.**
- ii. **Exposure:** There is a need for the practitioners to be exposed to these best practices and models through orientation visits<sup>7</sup> (O.V) to the developed and more experienced countries for practical & technical exchange.
- iii. **Technical Training:** There is a need for the training of the technical staffs, most especially the engineers and mechanics that handles the repairs of the modern equipment required in the industry.
- iv. **Access to long term loan facility:** This is also a very vital capacity development need of most operators. Access to long term loan facility with single digit interest rate cannot be overemphasised (*Unfortunately this is not available in Nigeria as most banks will rather give short term loan with very high interest rate*). The facility will enable the operators purchase modern equipment required for the job.
- v. **Infrastructural Development:** The need for the establishment of more waste management infrastructures like the landfills, transfer stations and recycling centres cannot be ignored.
- vi. **Contractual Agreement:** The government should sign proper contractual agreement with the companies to protect their huge investment in the industry.

*It should be noted that items I, ii, & iii listed above are being met by the Association, as training programmes had been organised, while plans for orientation visit and study tours are on the way. Discussions are also on-going with government for items v & vi.*

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<sup>6</sup> Some private sectors are involved in the management of government owned dumpsite, while other are involved in recovery & recycling activities

<sup>7</sup> OV's will expose operators to countries that have better waste management practice both within the developed countries and low/middle income countries. Operators are expected to see best models and practices. We believe it will make a difference.

*The Association is also discussing with financial institutions and government for the actualization of item iv.*

### **Training as a Tool for Effective & Improved Service Delivery**

The then professional and training committee of the Association in 2008 worked with a consulting firm in collaboration with LAWMA to organise a training programme for over 200 companies with their CEOs/Top managers, it was a 3-day residential extensive training for the CEOs..

Topics like; how to deliver effective services delivery and how not to service a customer were thoroughly discussed, other subjects treated includes; Operational Efficiency, Sustainable Business Approach, Financial Planning/management, Sustainable service delivery, Risk Management, Human Resources and Development.

Another training tagged “train-the-trainer workshop”<sup>8</sup> was equally organised by the committee for over 600 operatives, which included the supervisors, drivers & evacuators (waste handlers).

The operatives were also trained on how to improve on their health and safety, improve customer service, how not to service a customers, how to foster behavioural change amongst themselves as a key integral part of their various companies and also to believe in the dignity of their labour.

Various experts, consultants and motivational speakers were used as resource persons; these also include high-ranking officials of government.

### **Assessment of the Impact of the Training Programme**

The training programmes were very successful as participation was very high and encouraging. The first training was a 3-day residential extensive event i.e. participants (CEOs/Top Managers) were taken to a very conducive environment at the outskirts of the city. The second training for the operatives was a one day event.

Other participants are the Lagos state Ministry of the Environment, Lagos state Waste Management Authority (LAWMA) and some of the financial institutions in Nigeria.

The major impacts of the training programme on the industry are:

- i. The training changed the perception<sup>9</sup> of the investors and the practitioners<sup>10</sup> on the industry.

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<sup>8</sup> Each company involved in waste management have an average of 20 -25 operatives (The breakdown is as follows each truck has a driver, a supervisor, 3 evacuators = 5 operatives on each truck & each company has at least 5 operational trucks, this exclude the manager and other staff). The idea therefore is to train 4 operatives from each company, while they will in turn re-train others in their companies, hence the name “train-the-trainers”. Over 200 companies participated.

<sup>9</sup> The investors and the practitioners before the training programme were very careful with the level of their investment in the industry.

- ii. It brought about an increase in the volume of investment in the industry, with companies investing more on the purchase of compacting trucks<sup>11</sup> as against the usual open tipping trucks.
- iii. The increased investment on more specialised equipment in the industry brought about effective and improved service delivery within the waste management system in Lagos state.
- iv. The usage of compacting trucks also eradicated occasional waste dispersal experienced amongst some operators when transporting waste to the final dumpsite.
- v. The training programme led to the exposure<sup>12</sup> of the emerging industry to the Nigerian financial institutions, this also led to the industry/companies gaining the confidence of the financial sector.
- vi. The confidence of the financial industry in the waste management sector vis-à-vis the private sector brought about the provision of funds into the industry for capacity building in the area of equipment and infrastructure acquisition.
- vii. Government perception towards the private sector also changed, as they began to see them as more organised and serious organisation. (Government-LAWMA was so impressed that it promised to co-sponsor the next training programme).

### **Lessons Learnt**

- i. It was learnt that the industry is a multi-million dollar industry waiting to be explored.
- ii. It was also learnt that companies can also diversify<sup>13</sup> into other components of Integrated Solid Waste Management (ISWM) like; resource recovery, treatment and recycling instead of the collection and disposal of waste alone.
- iii. Business owners/CEOs learnt how to manage risk and how to manage their health, most especially high blood pressure when things are not going as expected.

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<sup>10</sup> In some cases the practitioner himself is the investor and the business owner, however, there are some investors who only invest in the industry and employ managers to manage their business- some of these are staying abroad.

<sup>11</sup> Unfortunately, the government (the regulator) claimed to embark on a reform that will see operators use modern equipment for waste collection in Lagos (an emerging Mega City). Ultimatum was given to operators to get compactor compliant or be booted out of business. The major problem that will be faced in the immediate future is that of the technical know-how for maintenance of the compacting trucks most of which are fairly used. However, that is the standard set for operators in Lagos State.

<sup>12</sup> Before the training programme, no financial institution in Nigeria sees the waste management industry as a serious sector. They also could not grant any loan facility to the industry, because they believed that the industry was not viable enough.

However, after the training programme which also served an advocacy programme, the financial institutions began to grant loan facilities to the operators most especially for the purchase of compactors, which was very expensive. Other investors both within the country and abroad began to pay more attention to the industry, these led to inflow of capital/investment into the industry.

<sup>13</sup> Most members of the Association are only involved in the collection and disposal of waste to the dumpsite, however the training programme exposed them to other components of waste management which includes resource recovery, treatment and recycling which was being done by the informal sector in Lagos state. Some of the operators knew about these activities, but they never thought/believe it could enhance and increase their income. (It should be noted that only about 2% of the operators are however involved in recycling activities- including the writer of this paper).

- iv. The banks learnt that there is a need to give out loan facility to the private sector for capacity building.
- v. The government equally learnt that the operators require contractual agreement to protect their huge investment.
- vi. The operatives learnt how to have good relationship with their clients and also to know & meet their expectations – **Tailor made services.**
- vii. The operatives especially the evacuators learnt to desist from sitting on top of their waste trucks.
- viii. The investors learnt to change the dilapidated and unfit vehicles used for waste collection.

The lessons learnt are too numerous to mention, however, the summary of the entire lessons is that new approach to effective and improved waste management by the Private Sector Participants (PSP) was learnt, while it also brought about the exposure of a vibrant industry to other sector of the economy – Advocacy for capacity development and resource management.

#### **The Association’s additional output:**

1. The organisation of the very 1<sup>st</sup> National Waste Management & Environmental Conference, with a theme Partnership for Effective solid waste management in Nigeria. It held between 14<sup>th</sup> -16<sup>th</sup> of September, 2008. in collaboration with the Federal Ministry of the Environment, Housing &Urban Development.
2. The organisation of the 2nd National Waste Management & Environmental Conference with a Theme Professionalism in waste management, prelude to waste to wealth. It held between 13<sup>th</sup> -15<sup>th</sup> of September, 2011.
3. The organisation of another robust Capacity Development & training for all the operatives involved in waste management in Lagos. This training exercise was aimed at revamping waste management services in the state after the unfortunate setback experienced between 2015 and 2019. The training held between 2<sup>nd</sup> and 4<sup>th</sup> 2019.

#### **Conclusions**

In conclusion, I will like to use the Lagos experience as a guide and benchmark, it is pertinent to emphasise that **Political WILL** is key to a sustainable partnership for effective & efficient integrated waste management system in Low & Middle income countries. The PSP system of Lagos state became a model for other states within Nigeria and other African countries, should therefore be sustained and improved upon. I will also like to recommend the following to the African governments;

**Stakeholders** –In an attempt to develop a Waste Management model for communities, municipalities and states, every identified stakeholder must be carried along. A sustained Public Enlightenment & Education must be carried out by the implementing agency/government to achieve high compliance.

**Regulatory & Institutional Framework** - Creation of enabling environment through legislation & institutional frameworks are very important.

**Adequate Funding** – Effective waste management practice is highly capital intensive, therefore any government that desires sustained effective waste management system should increase her budgetary allocation on Waste Management.

**Adequate contractual Agreements** – To equally encourage achieve adequate Private Sector (PSP) investment in the industry, the government must enter into irrevocable long term contractual agreements with the private sector.

**Local Technology** – It is also important to develop local technology for Waste Management (Think Global - Act Locally), this will not only increase the know-how of the locals, it will also reduce poverty and create jobs.

**Funding & Development agencies** – The funding and Development agencies including both local and international financial institutions should support both the public and private WM initiatives through sustained funding.

**Capacity Development and Training** – The various capacity development programmes embarked upon by the Association has proved to be a potent tool that led to an effective and improved solid waste management by the private sector participants in Lagos, Nigeria.

Finally, it is important to state here that Asiwaju Bola Ahmed Tinubu laid a solid foundation for effective and sustainable Private Sector Participation (PSP) in waste management in Lagos, His worthy successor His Excellency Mr. Babatunde Raji Fashola sustained and improved upon the programme by taking it to an enviable status. This was a sustained Political Will that must be emulated.

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