Developing Country Studies
ISSN 2224-607X (Paper) ISSN 2225-0565 (Online)
Vol.3, No.8, 2013

Waste Pickers and Urban Solid Waste Management System in Nigerian cities: Between Sustainable Policy gap and Survivalist Strategy

Christopher Anierobi * Kingsley Efobi
Department of Urban and Regional Planning, University of Nigeria, Enugu campus, PMB 01129,Nigeria
* E-mail of the corresponding author: christopher.anierobi@unn.edu.ng

ABSTRACT
The activities of waste pickers in Nigeria are beclouded with misconception and disregard. Though perceived as a survivalist strategy form of trade, the apparent contribution of these operators towards solid waste management cannot be overemphasized. Yet, the official denial of this reality and inaction towards feed backs from cities has resulted in their non inclusion in policies and in the organizational structure of waste management agencies in the country. This paper sought to looks at government response towards the increasing operations of the informal sector in the light of sustainable solid waste management techniques so as to determine ways of incorporating them into the urban solid waste management process. The survey revealed that the informal sector (waste pickers or scavengers) and their role in ensuring sustainable refuse management is worthy of commendation rather than condemnation thereby contradicting the general unsavory impression about their activities. In view of the above, it is therefore recommended that existing environmental management laws in the country be reviewed so as to evolve a public sector reform that would foster an effective integration and partnership with the informal sector as well as adopting proactive measures in order to develop a sustainable environmental management mechanism in urban solid waste management system in Nigerian cities.
Key words: Informal Sector; Organizational Structure; Solid Waste Management

1. INTRODUCTION

A critical view of solid the waste management system of most developing nations and that of Nigeria in particular show an inherent lack of accommodation for the informal sector. The organizational structures are characterized by bureaucratic bottle necks, role duplication and conflicts which manifest within the various departments and units therein. Poor and fragmented divisions of labour, poor involvement and partnership of other stakeholders such as the private formal and informal sectors, NGOs and CBOs are prevalent. This is majorly due to over emphasis on services rendered by government agencies which operate mainly by evacuating and dumping wastes at dumpsites; resulting to inadequacy and inefficiency in the general environmental management service delivery to the people (Anierobi, 2010; Onibokun, 1985; Umeakuka and Mba, 1999 ; Oyediran, 1997 and Madu, 2001). The factors above help create a gap as they do not make room for sustainable solid waste management techniques such as waste reduction and conversion of waste to wealth through sorting out for purposes of re-use and recycling which are grossly neglected. This paper seeks to examine the response of government agencies towards the increasing operations of waste pickers (informal sector) in urban solid waste management, so as to determine ways of incorporating them into the process for sustainable development.

2. Official Involvement of Waste Pickers in Solid Waste Management System of Developed and Developing Nations

Government agencies partnership with private formal agencies and the informal sector who are otherwise known as scavengers or waste pickers is common in Brazil, Egypt and India. This mixture of the involvement of the public with the private formal, informal sector and community was initiated through deliberate policy designs by policy makers (Anold, 1995). This has led to the forestallment of some environmental problems such as pollution and waste generation. The reduction, recovery and reuse techniques in waste management have also proved very efficient in Jakarta, Indonesia (Oepen, 1993). Similarly, the trend in Malaysia, San Paulo in Brazil and Rio de Janeiro have proved that partnership with the private formal and informal sectors are more cost effective and efficient in environmental management than the singular operations of the public or governmental agencies to as much as 13% higher efficiency levels, 71% cost effectiveness in terms of labour reduction, hence an increased use of machineries as well as 75% increase in area coverage. (Bartone et al, 1991).

Though in vogue, this partnership between public agencies and the private formal, informal sector and the community as is evident in Canada, Brazil, Malaysia, Rio de Janeiro and India is yet to be adopted in most developing countries especially in Nigeria where only government agencies operations solely dominate, thereby resulting in poor level of waste reduction, re-use and recycling techniques. This therefore provides insight into the increasing trend of environmental problems as seen in most developing countries where inadequate

environmental management policies and delivery systems are evident because a greater proportion of their service deliveries still reside with the government or public agencies (Valeria et al, 2008).

Evidence from South-America and South-East Asia also suggests that the organization of the informal sector is indeed a key factor for success and integration in environmental management when it is backed-up by government support. In Columbia, about 50,000 families (i.e. 1% of total population) earn their living from urban waste management. (Anold et al, 1995). Developing countries should therefore wake-up to what can be gained from government partnership with the private formal and informal sector in her environmental management delivery efforts. This will not only help save her economy, but will also provide income earning opportunities for her citizenry.

Many developed countries have tended to gravitate towards wealth creation, a sense of belonging and satisfaction in their environmental management delivery services to her people than in developing nations, (UN Habitat, DFID, 2001). This is chiefly due to their form of approach in partnering with the public, private formal, informal sectors and community as well as donor agencies in the management of the environment, thereby saving costs on government treasury; (Oepen, 1993, Anold et al, 1995) . In developing countries, the reverse is the case as government seems to shoulder the whole burden and even where there is any seeming partnership, it is usually in the form of contracts to the private formal sector; thereby putting very huge cost the government and less satisfaction for the people, (Valeria et al, 2008). In view of the above, there is need for government to have a rethink of their environmental management strategies so as to ensure a people-oriented, cost effective and efficient service delivery for her citizens.

3. Policy and Structural Formation of Environmental Management Agencies in Nigeria:

The structural formation of environmental management agencies varies from country to country. In Nigeria, the typical organizational structure of environmental management agencies reveals that the Ministry of Environment is usually at the topmost level for supervision and policy making, followed by its Board of Directors for policy making then the Managing Director for policy implementation through the heads of departments and unit heads. Its operations cover solid waste management, ecological/erosion control, pollution control and environmental health. Hence, the health, environmental pollution and control departments, ecological/erosion control as well as horticulture and landscaping departments which carry out these functions are manned by departmental heads as stipulated by law (FEPA, 1998, NESREA, 2007). Valeria et al, (2008) observed that the efficiency in service delivery is equally tied to this structural formation on the basis of the prevailing institutional framework of that country. Whereas the public agency usually has its tiers from the federal to the state and local governments, the departments and sections therein are composed of different headships and functions, which are mostly controlled by bureaucratic forces and have the ministers, commissioners, directors and so on in charge of their service delivery. Funding is usually from the government budgetary allocations and sometimes from internally generated revenues in form of levies and other service charges. (Federal Ministry of Housing and Urban Development, 2006; Anierobi, 2010).

As we all know, budgetary allocations are usually in short supply hence the failure of this agencies. The recent arrangement of partnership between government and the private formal sector developed as a result of the predominantly inefficiency and inadequacy in the environmental management service delivery of the public agencies (Anold et al, 1995).

The most recent break through, in environmental management has made waste reduction through re-use, recycling and restoration a modern technique that has provided a great anchorage to all environmental management efforts. It also reduces the incidence of deforestation and exploitation of the natural ecosystem, thereby preventing erosion, flooding and other menace. It prevents pollution and emission of green house gases that causes global warming hence reducing flooding, acid rains, deterioration of the built environment among others (Oepen, 1993 and Valeria et al, 2008). In view of the above, partnership with the private formal sector has gained a new impetus as it involves making use of the informal sector (Scavengers), donor agencies and community-based organizations (CBOs) thereby providing means of livelihood to many families (UNDP, 2001).

One can thus generalize that the structural frame work pursued by the present day environmental management agencies is thus the federal, state, local government, private formal sector, informal sector, donor agencies and community based organizations (CBOs). (UNDP, 2001, Oepen, 1993, Valeria et al, 2008 and Anierobi, 2010).Though this is mostly obtained in developed and some developing countries, it is a new trend in many developing countries like Nigeria, where less attention is paid to the private informal sector (scavengers), NGOs and the CBOs; hence the need for a more collaborative effort.

3.1 Response of Waste Pickers on their Informal Operations and Willingness to Participate in formal Solid Waste Management system of Nigerian cities:

The informal sector operators expressed a high willingness to participate in the solid waste management system of their environment in Nigerian cities. The result of a survey in the cities of Awka and Onitsha on a randomly selected sample of 380 operators at the dumpsites of each city revealed that informal operators in the cities expressed willingness to participate in the formal solid waste management system at 100% response rate as depicted particularly in the areas of partnership and direct employment. All the operators currently engage in sorting of waste materials such as metals, plastics, polythene, electronic devices, leather materials, aluminum and other valuables at 100% response in both cities. While re-use of materials is engaged by 43% in Awka and 45% in Onitsha; recycling is engaged by 57% in Awka and 55% in Onitsha. 13% and 20% carry out the three techniques in Awka and Onitsha respectively. This is depicted in Table 1.

Table 1: Waste pickers Response on areas of participation on Sustainable solid waste management activities

S/n	Sustainable Solid Waste Management Activities	Awka (%)	Onitsha (%)	Average Income per day (Naira)
1	SORTING	380(100%)	380(100%)	1,500
2	RE-USE	162(43%)	170(45%)	2,000
3	RECYCLE	218(57%)	210(55%)	2,000
4	ALL OF THE ABOVE	50(13%)	75(20%)	4,000
5	None	0 (0%)	0(0%)	0

SOURCE: RESEARCH SURVEY, 2013.

4. Discussions

In all, the survey result revealed that despite engagement in sorting, re-use and recycling of waste materials for income generation at an average income of two thousand five hundred naira(#2,000) per day and high willingness to participate in the solid waste management system of Nigerian cities, waste pickers face official disregard, neglect and exposure to health hazards. The organizational structure of government agencies in addition to being gagged by bureaucratic bottle necks and role conflicts did not provide for any accommodation of the informal sector. In addition, waste pickers are treated with contempt as they go about converting waste to wealth in order to fend for themselves and despite their efforts. Although their activities provide the needed avenue towards achieving sustainable solid waste management through waste reduction, sorting, re-use and recycling, they are yet to be harnessed and the gap remains both in policy and practice.

5. CONCLUSION AND RECOMMENDATION

Sustainable development is about an improvement in the living condition of citizens. This should be pursued by government for its citizenry. The conceptual model of sustainable development illustrated by Goodland and Dally (1996) in Nnodu et al (2009); outlined community development as one which represents the social element with characteristics of local self-reliance, basic human needs, equity, participation, social accountability and appropriate technology at a point of interlocking circle with economic and environmental development. This would help create maximum positive impact on the life of people. Thus, sustainable environmental management efforts by in Nigeria should seek to embrace the informal sector operators (scavengers or waste pickers) and incorporate them into the organizational structure of solid waste management system of our urban centers; here in Nigeria, where they are hitherto neglected. This will ensure cost effectiveness and efficiency; enhance re-use, encourage recycling and reduction techniques for sustainable waste management while still ensuring the health and operational wellbeing and equipment of the operators. Achieving this will require deliberate government decisions and actions in policy formulation and implementation which should be strong enough to fundamentally change the wrong misperception of waste pickers in the country and their value beyond a survivalist venture. This will also help key-start a new partnership strategy between government agencies and the informal sector operators (waste pickers) who are aptly working towards closing the gap between sustainable policy in urban solid waste management and the economic well being of citizens.

REFERENCES:

Anierobi .C.M. (2010): "An Assessment of Anambra State Environmental Protection Agency (ANSEPA) In Urban Environmental Management of Anambra State, Nigeria ". An unpublished Dissertation for the Award of Master of Urban and Regional Planning Degree, University of Nigeria, Enugu Campus.

Anold V.K and Inge L. (1995) "Community and Private (Formal and Informal) Sector Involvement in Municipal Solid Waste Management in Developing Countries". Waste, Netherlands: A Paper for the UMP Workshop, Ittingen.

Bartone. C.R.L, Leite .T. Triche and R. Schertenleib (1991):"Private Sector Participation in Municipal Solid Waste Service: Experiences in Latin America". Waste Management & Research, No. 9.

Federal Ministry of Housing and Urban Development (2006): Sustainable Urbanization and Urban Development In Nigeria; Challenges And Responses. Petra Digital Press, Abuja.

FEPA (1988): "Federal Environmental Protection Agency Decree No. 58", Lagos.

Howard G.,Bogh C., Istein G.G, Morgan J.,Pruss A., Shaw R. andTeuton J. (2002): Healthy Villages; World Health Organization, Geneva.

Madu .I.A. (2001): "Urban Solid Waste Management in Nigeria" in Emmanuel .O. Ezeani and Nnanta .N. Elekwa (Editors): Issues in Urbanization and Urban Administration in Nigeria. James Enterprises (Nig) page 126-138.

Nnodu V.C, Onwuka S.U, and Onyegbule P.(2009): Journal of environmental management and safety(JEM), Enugu, Nigeria.

Oepen .M. (1993): "Scavengers and Recycling in Indonessia". Gate No. 1.

Onibokun .P. (1985): Housing in Nigeria, Ibadan: Nigeria Institute of Social and Economic Research (NISER) Nigeria.

UN Habitat DFID (2001): "Implementation and Habitat Agenda in Search of Sustainable development"-Jenner print Ltd. U.K

UNDP (2001): "Global Report on Human Settlement", New York; Oxford University Press.

Umeakuka J.M and Mba H.C (1999): "Solid waste management practices,a case study of Anambra state". Journal of the Nigerian institute of town planners,vol_xii. Lagos.

Valeria et al (2008): Current Urban Environmental Issues, Global press, Awka.

Anierobi C.M and Efobi K.O (2013): *Factors Influencing Solid Waste Management in Nigerian Cities: An Empirical Analysis of Awka and Onitsha. Journal of science engineering and Technology (JSET), ISSN 1117-4196*, vol.20 (1), pp. 112282-11295. www.jsetjournals.org.ng

Anierobi C.M and Efobi K.O (2013): *Towards addressing urban environmental problems at Awka and Onitsha in Anambra State, Nigeria. Journal of applied sciences.* ISSN 1119-0965, vol.16 (1), pp. 10866-10874. www.jsetjournals.org.ng

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage: http://www.iiste.org

CALL FOR JOURNAL PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There's no deadline for submission. **Prospective authors of IISTE journals can find the submission instruction on the following page:** http://www.iiste.org/journals/ The IISTE editorial team promises to the review and publish all the qualified submissions in a **fast** manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

Recent conferences: http://www.iiste.org/conference/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar