

Dimensions of Urban Environmental Health Hazards in Ilorin, Nigeria

Orire, I.O and Abdulraheem, M.O

**Department of Geography and Environmental Management
University of Ilorin, Ilorin.
Email: isorire@yahoo.com**

Abstract.

The research examines the various scope of environmental health hazards prevailing in the metropolis. The study aimed therefore to explore the ecological history of the city of Ilorin to identify the social geography of different kinds of health hazards which may be confounded with disease exposures. Of importance also is to examine how health and environmental conditions are connected with poverty in cities and how these conditions have been (or can be) aggravated by the trend of global environmental change. Data used was based on both primary and secondary sources. Simple statistical tools like frequency tables, Percentages, Graphs and Plates were used to analyze the generated data.

Keywords: Urbanization, environmental health, hazards, poverty, Ilorin.

Introduction:

Cities are the engine of economic growth and development but environmental implication of such growth need to be thoroughly managed because, the consequences are numerous and hazardous (Ahmed, 2003). Cities in Africa, Asia and Latin America contain some of the world's most life-and health threatening human environments. Environment related diseases and injuries cause millions of preventable deaths each year. In many squatter settlements, children are 40 to 50 times more likely to die before the age of five than they would be in Europe or North America and most such deaths are environment-related (Hardoyet.al, 2001). Within the global context, Africa is generally assessed as a rural and least urbanized continent with the antecedent high rate of slum development, crime, underdevelopment as well as overpopulation. However, in most recent time, current trends suggested that Africa's rate of urbanization is two times faster than Latin America and Asia (Tannerfeldt, 1995; UNCHS, 2007). Globally, rapid

urbanization is a major public health challenge for the 21st century and in Africa urbanization appears not to have translated to proportionate economic growth and better welfare for the citizens (Kjellstrom and Mercado, 2008). World Bank estimates during 1985 stated that there were 330 million urban poor in the developing countries. It was equally reaffirmed by Wratten (1995), that in the developing countries, the rapid growing urban population is synonymous of the growth of urban poverty.

Within Sub-Sahara Africa for example, there are well over 166million urban slum dwellers, which also represent about 71.9 percent of its total urban population, and thus there is increasing urban poverty and low life expectancy in the region (UN-HABITAT, 2005); Adedjei and Eziyi, 2010). It is also suggested by demographic experts that the high rate of urbanization put at about 5.3 percent in Nigeria which is among the highest in the world has the tendency of spurring up environmental degradation (Goldstein, 1990; Adedjei and

Eziyi, 2010). In- the social context, environmental problems pose serious threats to the social wellbeing of a majority of urban residents in Nigeria. Apart from general health implications of environmental problems, there are tendencies of the problems affecting the psyche of the people. For instance, residents of urban slums are known to show deviance attitudes, apathy to government programmes and anti-social values (e.g. prostitution, crimes, and juvenile delinquency) Adedeji and Eziyi, 2010). Inequitable distribution of natural resources leaves the poor with few alternatives but to exploit the ecosystem in their surroundings whenever the opportunity is available. This exacerbates resource degradation problems, and promotes certain forms of pollution.

Urban environmental problems are of different dimensions and are mostly due to geologic, climatic and cultural factors. However, the cultural factors which is the major focus of this study in Ilorin metropolis, seems to be more pronounced in the Nigerian context because most of the identified urban environmental issues are so much associated with the way of life of the people either as reactions to urbanisation or their spatial heritage. In Nigeria, Mba et al. (2004) identified several types of environmental problems classified as

ecological, poaching and habitat loss, increasing desertification and soil erosion. These are further subdivided into pollution, deforestation, global warming and slum development, e.t.c. Nigeria's coastal regions are currently experiencing widespread contamination from petroleum exploration (gas flaring, oil spillage), while the general poor living conditions in urban areas in the country constitutes an affront to human dignity. This fact was equally corroborated by the World Health Organization (WHO) and the United Nations Centre for Human Settlements estimates of 1990, that 600 million urban dwellers (42%) of urban population in developing countries were living in "life and home threatening" surroundings. A condition which according to Hardoy et al. (1992), can have serious effects on human health and welfare, particularly for the poor.

Apart from poverty, other contributing factors to poor health among the urban poor is the low awareness and practice of recommended health practices and high cost of health facility and accessibility (Mulgaonkar et al. 1994). In very large cities; the slums in which the poor lives are often inaccessible to health-care worker

The aim of this paper is to explore the dimensions of urban environmental health hazards prevailing in Ilorin.

Study Area:

The research study was conducted within the metropolitan city of Ilorin, Kwara State capital. Ilorin is situated in a transition zone between the northern and southern Nigeria on latitude $8^{\circ} 31' N$ and longitude $4^{\circ} 35' E$. Site covers a land area of approximately 100sq.km comprising parts of 3 of the 16

LGAs of the state, (Ilorin west, east, south); and with a population of 572,178 (NPC, 1991) and 777,667 (NPC, 2007). Ilorin has been described as a socio-cultural, religious and political meeting of Nigeria (Oyebanji, 1997).

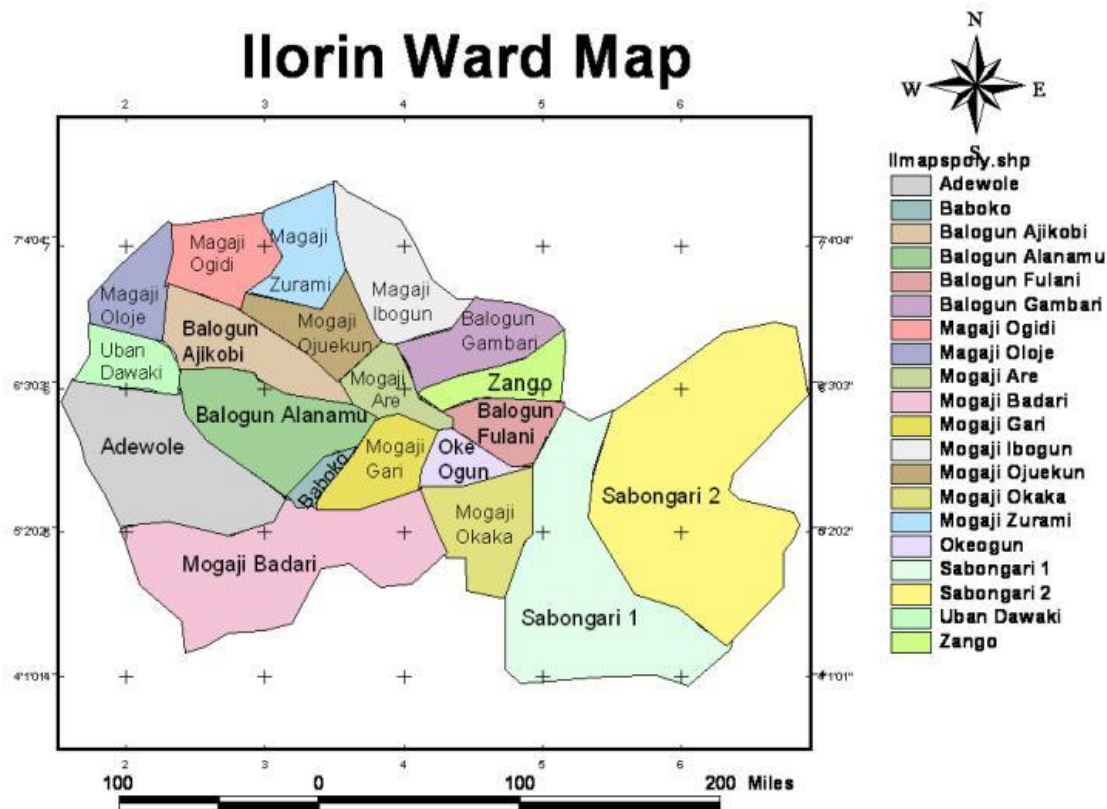


Fig. 1: Ilorin Ward Map.

Source: Kwara State Ministry of Lands and Housing, Ilorin (2009).

People of varying ethnic and social backgrounds inhabit the city. The majority are Yoruba speaking tribe with Hausa, Fulani and Nupe as other groups forming significant proportions (Raheem, 2006). Ilorin metropolis is comprised of 20 political wards (see fig.1) and has therefore been described aptly as the “Gateway City” between Northern and Southern Nigeria (Mohammed, 2006). Due to this geographical proximity; she plays some key roles in the socio-economic development of the surrounding towns and cities (Ahmed,

2006). The socio-economic activities have increased tremendously from agricultural

practices of growing food crops, to local craft of cloth weaving, leather works, pottery, embroidery, tie and dye, mat making etc, to modern commerce with viable trading, industrial and administrative activities (Olorunfemi, 2001)

Results and Discussion

Socio-Economic Characteristics of Respondents

This section presents characteristics of the respondents as it relates to their socio-economic life styles in the metropolis. These can be seen in Tables 1 – 8. Respondents' ages range from 15 years and beyond. Although about 88 % of the respondents were between ages 25 and above, while those in the age range 35 and above formed the bulk (43%) of the surveyed, (Table 1(a). These age groups are important because they are adults, parents and mostly head of households. Hence, they are likely to provide the study with more informed and accurate responses especially as it concerns common household ailments, health histories and personal incomes. Table 1(b)

also gives the respondents gender, with both males and female respondents almost of equal proportions. This will probably give a diversified and balanced shade of opinions. About 46% are males and 54% females. Literacy level in any society has long been acknowledged as having greater influence on a populations' lifestyle, habits, health and ultimately on their wellbeing. In this light, the importance of respondents' literacy level in the study was acknowledged. About 47% of respondent are graduates of the university, while only about 8.1% were with basic and Quranic (Madrassa) certificates (Table 1(c). 20.4% and 22.4% respectively were with a secondary/post basic and diploma certificates as can be seen in Table 1 (c).

Table 1. Socio-economic Characteristics of Respondents.

A	AGE GROUP (Yrs)	FREQUENCY	PERCENTAGE (%)
	15 – 19	2	2.0
	20 – 24	10	10.2
	25 – 29	26	26.5
	30 – 34	18	18.4
	35 – Above	42	42.9
	Total	98	100
B	GENDER	FREQUENCY	PERCENTAGE (%)
	Male	45	45.9
	Female	53	54.1
	Total	98	100
C	EDUCATION	FREQUENCY	PERCENTAGE (%)
	Quranic	6	6.1
	Primary	4	2.04
	Secondary	20	20.4
	NCE/OND/HND	22	22.4
	University	46	46.9
	Total	98	100
D	MARITAL STATUS	FREQUENCY	PERCENTAGE (%)
	Single	26	26.5
	Married	72	73.5
	Divorced	-	-
	Widowed	-	-
	Separated	-	-
	Total	98	100
E	OCCUPATION	FREQUENCY	PERCENTAGE (%)
	Unemployed	12	12.2
	Civil / Public Servant	42	42.9
	Trading	14	14.3
	Company Staff	4	4.1
	Others	26	26.5
	Nil	-	-
	Total	98	100

Source: Author's Fieldwork 2011-2012

Other findings from the respondents' marital status discovered most were either married or single. About 74% are in a legal union as can be seen in Table 1(d), while 26% reported not yet in any union. By implication, with majority being in a married union and probably with few other family members, the tendency for more waste and effluent generation in their household is high. Hence, the potential for more of air, environmental and water

pollution is rife, which could ultimately cause ill health and disease epidemics.

Almost half of the respondents, about 47% can be categorized as salary earners. These are those in the civil/public service and company staff. 14.3% are into commercial trading like road side petty traders, owners of stalls in the markets, supermarkets, etc. Also about 27% were found engaged in other jobs like the artisan, farmers and drivers, See Table 1(e).

Table 2. Distribution of Respondents' Levels of Income

INCOME RANGE (#)	Frequency	Percentage (%)
Less than 10,000	32	32.7
20,000-40,000	36	36.7
40,000-60,000	2	2
60,000-80,000	2	2
80,000- Above	22	22.5
Nil	4	4.1
Total	98	100

Source: Author's Fieldwork 2011-2012

Table 2 reveals respondents' income range, with about 33% earning less than #10,000 per month and 26.5% earns in the range #40,000 - #80,000 and above. By implication, with 69.4%, almost about ¾ of respondents earning less than #41,000 a month, grossly inadequate infrastructure and the over burdening inflationary trends in the

cost of stable foods, rent and transportation all push the citizenry into a vicious poverty circle. In addition, individual income level exerts a lot of influence on individual / family's water and energy supply sources, household waste and sewage disposal methods and finally healthcare and environmental choices.

Table 3. Distribution of Respondents' Household Sources of Water Supply

Source	Frequency	Percentage (%)
Tap Water	38	38.8
Bore Hole	12	12.2
Stream	-	-
Open Well	48	49
Others	-	-
Total	98	100

Source: Author's Fieldwork 2011-2012

Household domestic water supply sources were looked into. A pictorial view of this is

shown in Table 3 with about half of respondents relying mostly on household

and community open wells for their domestic water uses (See plates 1 and 2). This is due to the inefficient and irregular water supply from the public water works among others. About 39% and 12% of respondents have access to public tap water and both private and communal boreholes found around their neighbourhood (see plate 6). Fetching of water from streams and

rivers are virtually non existent in most areas. Although few areas around flowing water bodies, i.e. Alalubosa area, G.S.S, Maraba, Amilengbe areas etc (see plates 3 and 4); use the stream water for various needs like car washing, laundering and irrigation purposes. Rainwater harvesting is also very common household water sources as can be seen in plates 5a and 5b.

Table 4. Mode / Medium of Household Cooking

MODE OF COOKING	Frequency	Percentage (%)
Electric Cooker	10	10.4
Gas Cooker	8	8.3
Kerosene Stove	64	66.7
Charcoal	8	8.3
Firewood	6	6.3
Total	96	100

Source: Author's Fieldwork 2011-2012

Plates Showing Common Domestic Water Supply Sources To Ilorin Residents



Plate 1



Plate 2



Plate 3



Plate 4



Plate 5a



Plate 5b



Plate 6

Plate 1.A public/household well at Ejiba Street, Stadium Road, Ilorin.

Plate 2. Children standing by a compound well at ItaAdu Area, Ilorin.

Plate 3.OdoOkun Stream flowing along the canal at Ejiba Street, Stadium Road, Ilorin

Plate 4.Alalubosa Stream, along Maraba/GSS Area, Ilorin.

Plate 5a. Rainwater Harvesting at Apatayakuba village, Ilorin.

Plate 5b. Rainwater Harvesting at UnilorinSnr. Staff Qtrs (Main Campus), Ilorin.

Plate 6.An overhead water storage tank at CBNQtrs, Ilorin for their resident staff.

The use of kerosene stove for domestic cooking and heating is quite popular amongst the residents. Majority (about 67%) claimed to its use which could be due to its seemingly affordability to most low income earners, ease of usage, availability and erratic public electric power supply to most household. In addition, 10.45% claimed to use electric cooker, while utilization of firewood and charcoal for cooking drops to just about 6% and 8% of respondents. This could be due to the over-stretched and scarcity of fuel wood sources around it. See Table 4.

Also, because of the campaign against the destruction of forest vegetation, loss of biodiversity and climate change, felling of tree is now discouraged and unattractive again. Hence, the price for the few available goes out of the reach of the masses, leading to over reliance on kerosene and other sources. Because of the high cooking gas price of about #3,200, most resident prefer other less costly sources, leaving just about 8% of respondents who probably could afford to use

Table 5. Distribution of Type of Household Toilet Facility

TOILET	Frequency	Percentage (%)
Pit Latrine	4	4.2
Bucket System	4	4.2
Water Closet (WC)	80	83.3
Open Toilet	8	8.3
Others	-	-
Total	96	100

Source: Author's Fieldwork 2011-2012

Numerous toilet types were in existence in various neighbourhood and households in

the traditional and modern sections of the city of Ilorin. As seen in Table 5, although

with the epileptic public water supply, the use of the modern water closet (WC) type of toilet is quite paramount. Here, about 83% of respondents use the type, while open defecation (open toilet) in the surrounding bushes and dumps is still a common site (see plates 7 and 8a & b). Pit latrine (known locally as “salanga”), makeshift bathroom and bucket system (locally known as “kpo” or “putty”) is quite common, about 8% of respondents still could manage these systems (see plates 9 and 10).

It is noteworthy to say that, the popular use of the water system can be linked to the influence of both modernization and urbanisation which rendered other toilet forms less fashionable. Also, the sanitary level of homes and living environment is equally enhanced, since the toilet is flushed after every usage which eliminates any foul odour unlike in the case of open defecation, the pit, makeshift baths and bucket latrines.

Plates Showing Refuse/Waste Generation And Disposal Methods In Parts Of Ilorin



Plate 7 Plate 8a Plate 8b



Plate 9 Plate 10

Plate 7.A Makeshift latrine at Pakata Area, Ilorin.

Plate 8a,Refuse dumping into street drainage and Aluko stream along Oja-Iya/Aluko Area, Ilorin.

Plate 8b.An Unofficial Open neighbourhood dump at Pakata Area Ilorin.

Plate 9.An Open sewage water at Pakata Area, Ilorin.

Plate 10.An Open sewage water from a makeshift bathroom at Pakata Area, Ilorin

The general health condition of Nigerians has been described by Laah and Mamman, (2007) as highly deplorable. The consequence of this, Oyebanji, (2000) listed

some of the most common diseases in Nigeria as malaria, pneumonia, measles, typhoid, diarrhoea, tetanus, guinea worm, tuberculosis, chicken pox and the Acquired

Immune Deficiency Syndrome (AIDS). It is noteworthy that, presently respite has been found against diseases like tetanus, chicken

pox, and guinea worm nationally and locally in the state.

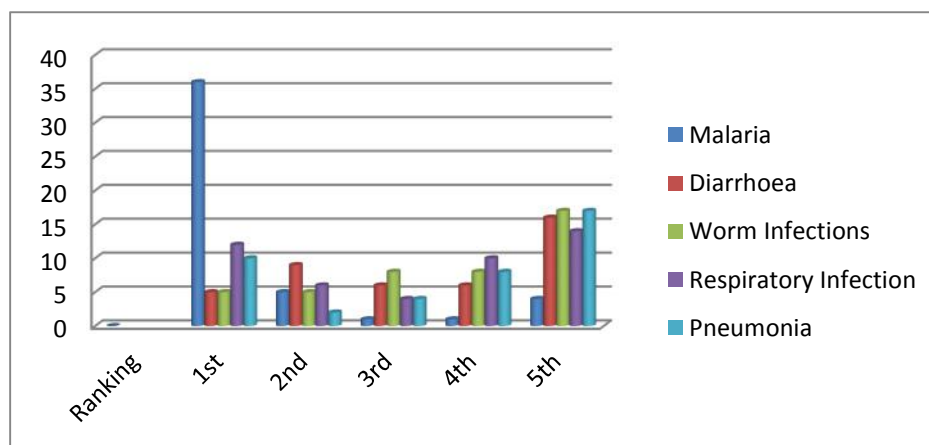


Figure 3. Common Household Ailments in Ilorin metropolis.

Source: Author's Fieldwork, 2011-2012.

Jegade (1998) noted that the traditional concept of disease influences health behaviour in any socio-cultural environment; this is the extent that the decision to use health service or facility is related more to the perception of target disease, sometimes, than the quality of the service or facility. It was therefore said that a functional relation exists between the citizens' perception of a disease and their treatment response (Raheem, 2006). In this light, five common household ailments were provided in the questionnaire filled by the respondents. The study tried to discern which according to the respondents' are the most common forms of disease in their

households. These were ranked accordingly from the most to the least frequent, as can be seen in Figure 3.

About 52.9% ranked malaria as the most prevalent (1st) in their household, 17.6% ranked Respiratory Infections, 14.7% pneumonia and 7.4% each for diarrhoea and worm infection. While looking at the least ranked ailment according to the respondents, pneumonia and worm infections were the least common or ranked household ailment in matter of occurrence. Each having 25% of the surveyed ranking them lowest. Diarrhoea (23.5%); Respiratory Infections (20.6%); and 5.9% ranked malaria fever the least in the scale of occurrence as seen in Fig. 3.

Table 6. Respondents' Household Refuse Disposal Methods

METHOD OF DISPOSAL	Frequency	Percentage (%)
Open Burning	16	16.3
Incineration	6	6.1
Burying	6	6.1
Open Waste Dump	32	32.7
Government Waste Bins	24	24.5
Nil	14	14.3
Total	98	100

Source: Author's Fieldwork 2011-2012

The increase in the volume of solid waste generated in Nigeria generally is attributable to urbanization, population increase and higher level of socio-economic activities (Yusuf et al., 2007). Household waste burning is widely practiced in Nigeria especially in the drier seasons as a form of reducing the volume of combustibles in solid wastes. Ologhobo, (1997); stated that incineration reduces the weight of solid wastes to between 50-80%, the volume to between 70-80%, and the residual ashes are utilized in land filling. Refuse disposal methods seen around the study area are as seen in Table 6. About 33% said they normally just dump the household garbage

into the surrounding open dumps (see plates 11, 12,13,14,15 and 16). 22.4% openly burn or incinerate their refuse, which is not only environmentally dangerous but even aesthetically unpleasing.

Official or approved disposal sites in most parts of Ilorin city and the country at large are conceived to be unsanitary and uncontrolled, (see plates 17 and 18). These disposal sites are sources of leachate, smoke and odour which pollute the air and environment. Scavengers are also found salvaging useful items from the comingled wastes thereby exposing themselves to health hazards (Aremu and Sule, 2010).

PLATES SHOWING REFUSE/WASTE DISPOSAL METHODS AND COMMON ENVIRONMENTAL HEALTH HAZARDS SOURCES IN PARTS OF ILORIN.



Plate 11 Plate 12 Plate 13



Plate 14

Plate 15

Plate 16



Plate 17

Plate 18

Plate 19

Plate 11. Goats Scavenging on an unauthorized Neighbourhood Open dump site at Pakata, Ilorin.

Plate 12. An unauthorized refuse dump site at Ejiba Street, Stadium Road, Ilorin.

Plate 13. Blocked and collapsed bridge on Okun Stream at Ejiba Street, Stadium Road, Ilorin.

Plate 14. Abandoned uncompleted building overgrown by weed along Stadium road, Ilorin

Plate 15. An unauthorized refuse dump site around residential buildings at Pipeline Road, Gaa Akanbi, Ilorin

Plate 16. A typical automobile mechanic shed along Unilorin GRA Staff Qtrs, Fate Road, Ilorin

Plate 17. An authorized Government Refuse Collection Bin along University Road, Tanke, Ilorin.

Plate 18. An Overflowing Government Refuse Collection Bin, along Flower Garden Road, Ilorin.

Plate 19. Air/Environmental Pollution from human and vehicular congestion at Emir's Market (Oja Oba), Ilorin.

Table 7. Distance Travelled to Nearest Public Hospital and Time Spent

(A) DISTANCE (km)	Frequency	Percentage (%)
Less than 1km	18	18.4
1 – 2	16	16.3
2 – 3	20	20.4
Above 3 km	44	44.9
Total	98	100
(B) DURATION OF TIME	Frequency	Percentage (%)
Less than 15 mins	30	31.3
15 – 30	20	20.8
30 – 45	14	14.6
45 – 1 hr	26	27
Above 1 hr	6	6.3
Total	96	100

Source: Author's Fieldwork 2011

Tables 7a and 7b, shows the distance travelled to nearest hospital and the time spent by respondents in accessing healthcare facilities around them. About 45% of resident travels from 3 kilometres and above, while 18.4% have their travel distance to the nearest hospital to be below 1 kilometre. Furthermore, 6.3% of respondents spend above an hour while trying to access Medicare, while about 35.4% spend between 15 - 45 minutes before gaining access to treatment (see table 7b).

Conclusion and Recommendations

As earlier affirmed by Ahmed, (2003), cities are the engine of economic growth and development but environmental implications of such growth need to be thoroughly managed because, the consequences are numerous and hazardous. Health status, according to Wilkinson (1996) in any setting is determined by the general socio-economic, cultural and environmental conditions which comprises of the living and working conditions, social and community networks and individual lifestyle factors. It is now accepted that, in addition to direct hazards from infectious diseases and environmental toxins, human behaviours also play a critical role in determining human health. Every person has a stake in environmental public health, and as environments deteriorate, so does the physical and mental health of the people who live in them.

However, when these factors are ignored or poorly executed, the ecosystems in our communities collapse and people suffer the consequences. Thus the relevance of this study therefore, has been in identifying urban hotspots of environmental health hazards within the city. The study therefore recommends a proactive environmental health management strategy where by both government and individual citizenry operates a symbiotic relation. Government should pursue policies that would help to ameliorate the current adverse environmental conditions for all to survive.

Through taxes and regulatory laws, government could control environmental pollution by allowing private polluters to share in the pains, or by forcing them to share in the costs of cleaning up pollution caused by them (i.e. following the polluter pays-principle). Citizen environmental health education should by fostered, and the habit of dumping of household refuse in flood water which blocks drains, litters highways and pollute aquatic ecology should by severely discouraged and sanctioned. Finally, the monthly general sanitation exercise (known locally as 'WAI') should not be jettisoned. Hand washing and personal hygiene at individual and public environmental levels are therefore advocated. Adequate governmental funding, supervision, patronage and consistency in laws and policies should by strictly adhere to.

REFERENCES

Adedeji, D. and O.I. Eziyi (2010): Urban Environmental Problems in Nigeria: Implications for Sustainable Development. *Journal of sustainable Development in Africa*, 12(1): 124-145.

Ahmed, Y.A (2006): Under-Age Children and Street Economy in Nigeria: Examples from Ilorin and Offa, Kwara State. *Geo-studies Forum*, 3(1&2): 156-168.

Ahmed, Y.A (2003): "Waste Generation and Management Techniques in a Third World Environment". In H.I. Jimoh (ed) *Techniques in Environmental Studies*, Ilorin. Adex Publishers.

Aremu, A.S and B.F. Sule (2010): Policies, Practices and Challenges of Municipal Solid Waste Management in Nigeria. *Environmental Issues*, 3(1): 1-10.

Goldstein, G. (1990): "Urbanization, Health and Wellbeing: A Global Perspective. *The Statistician – Special issue: Health of Inner Cities and Urban Areas*, 39(2): 121-133.

Hardoy, J.E; Mitlon, D and D. Satterthwaite(2001): Environmental Problems in an Urbanizing World. Finding Solutions in Cities in Africa, Asia and Latin America. 2nd Edition.

Hardoy, J.E; Mitlon, D and D. Satterthwaite (1992): Environmental Problems in the Third World Cities. London, Earthscan.

Jegade, A.S (1998): African Culture and Health. Stirling-Horden Publication, Ibadan, Nigeria.

Kjellstrom, T. and S. Mercado(2008): "Towards Action on Social Determinants for Health Equity in

Urban Settings". *Environment and Urbanization*, 20(2): 551-574.

Laah, J.G. and M. Mamman (2007): Analysis of Reported Deaths from Notifiable Diseases in the Coastal States of Nigeria. *Ilorin Journal of Business and Social Sciences (IJBSS)*, 12(1): 95-105.

Mohammed, A.Y (2006): Social Values and Youth Crime in Ilorin, Nigeria. *Ilorin Journal of Business Social Sciences(IJBSS)*, 11(1&2): 306-324.

Mulgaonkar, V.B., Parikh, I.G., Taskar, V.R., Dharap, N.D, and V.P, Pradhan (1994): "Perception of Bombay Slum Women Regarding Refusal to Participate in a Gynecological Health Programme". In: Joel Gittelsohn, M.E. Bentley, P.J. Pelto, M. Nag, S. Pachauri, A.D. Harrison, L.T. Landman (eds.). *Listening to women talk about their health issues and evidence from India*, New Delhi, India. Har-Anand Publications, pp.145-167. Accessed online: <http://www.popline.org/node/291075>. 19/4/2013

NPC(2007): "National Population Commission". Official Gazette of Federal Republic of Nigeria; National Bureau of Statistics.

Ologhobo, O. (1997): "Disposal of Household Solid Wastes". In Proceedings of NEST Annual Workshops (1991-1995), Nigeria Environmental Study/Action Team, Ibadan, Nigeria.

Olorunfemi, J.F (2001): "Better By Far". 51st Inaugural Lecture, University of Ilorin, Unilorin Press.

Oyebanji, J.O. (2000): Health, Water and Housing Conditions in Federal Ministry of

Information, Nigeria: *A People United, A Future Assured*, Vol. 1: pp. 281-290.

Raheem, U.A (2006): Diarrhoeal Occurrence Among the Under-Fives in Ilorin Metropolis: Perception as Diagnosis. *Geo-Studies Forum*, 3(1&2): 176-185.

Tannerfeldt, G. (1995): Towards an Urban World: Urbanization and Development Assistance. Stockholm; Swedish International Development Agency.

UNCHS(2007): Urbanization: A Turning Point in History. Global Report on Urbanization. www.unhabitat.org.

UN-HABITAT (2005): African Cities Driving the NEPAD Initiative. An Introduction to the NEPAD Cities Programme. www.unhabitat.org

Wilkinson, R.G (1996): Unhealthy Societies: The Afflictions of Inequality. Routledge, London and New York.

Wratten, E. (1995): Conceptualizing Urban Poverty, *Environment and Urbanization*. 17(1): 11-36.

Yusuf, S.A., Salimonu, K.K. and O.T, Ojo (2007): Economic Analysis of Solid Waste Management in Oyo State, Nigeria. *Research Journal of Applied Sciences*, 2(3): 240-243.

