SANITATION AMONG LACUSTRINE COMMUNITIES LIVING ON THE LAGOS LAGOON, NIGERIA - A CHALLENGE FOR SUSTAINABLE URBAN DEVELOPMENT

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Introduction

'Lacustrine' are wetlands associated with lakes. About 66 per cent of the world's population lives on coastal areas. This population is likely to double within the next two decades. Nigeria has a coastline of 853km bordering the Atlantic Ocean within the Gulf of Guinea. Of this, about 180 km is 'Lacustrine' in nature. Lacustrine communities are found in Ilaje-Bariga, Makoko, Aja, and Maroko in Lagos and in Ondo, Rivers and Delta States. .An estimated 25 million people (about 20 per cent of coastal zone population), actively involve in economic activities such as oil and gas exploration and exploitation, fishing, industry, shipping, agriculture and tourism. Fishing is an important economic activity in these communities, which is threatened by poor sanitation, pollution and waste dumping activities. This lacustrine community is characterized with dwellings of wooden structures and corrugated iron sheets built on bodies of waters. Residents of this community live and carry out their daily activities (sleeping, cooking, washing and bathing) on the lagoon. This settlement has been brought to the fore because of the increase in population of the Lagos mega city and other coastal zones and they contribute to economic activities of the State. Since colonial time, the Lagos lagoon served as a dumpsite for night soil conservancy in the City. The main objective of this study was to assess the sanitary situation among these communities and its impact on their health and well-being.

Methodology

The study area and study design. *The Lagos lagoon, the largest of the four lagoon systems of the Gulf of Guinea in West Africa is located between longitude 3°23' and 3° 22'; and 6°.38' and 3° 40' E and latitude 6° 22' and 6° 38'. Ago-Egun community occupies about 750km^2 on the eastern part of Ilaje-Bariga. A cross-sectional survey of all the houses (n=150) was carried out. Using a semi- structured questionnaire and an observation checklist, information was obtained from heads of households (male or female) on the social and demographic characteristics of the respondents, knowledge, attitude and practices towards environmental health issues by trained interviewers from house to house by canoes.*

Water samples (from 6 points) from the lagoon were analyzed for physico-chemical and microbiological quality covering dry and wet seasons.

Results

The survey revealed that nearly 85.7per cent of the houses in the community were built on the lagoon - half of them made of wooden and/or corrugated iron roofs. Most (62.8 %) houses were overcrowded with occupancy of 8 persons per house (4.0 persons/ room). Only a few houses had separate "kitchens" and food storage spaces. Some 52.1 % of the residents defecated directly into the lagoon, 47.9 % defecated into 'toilets' built on the water surface which empties faeces directly into the lagoon. These toilets also served as bath rooms. This survey revealed that the lagoon around Ago-Egun community (mean household size of 6 persons) received approximately 6-9 liters of urine and 2.16 Kg of human excreta/household/day. In a year, the community (n=150) contributes 118,286Kg of faeces excreta and 492,725 liters of urine to the lagoon.

Household wastes generated in the community were swept directly into the lagoon, dumped on the shores or burnt openly. They comprised of biodegradables (vegetables, food remnants and paper), and non-biodegradables (polythene bags, plastic, cans and bottles). The refuse is disposed directly into the lagoon because of absence of a proper waste disposal system provided by the Local Government. Polythene bags posed serious threat for fishing.

Mosquitoes, flies cockroaches, rats, beg bugs and head lice were predominant vectors found due to warm and humid climate; varying rain showers, and the surrounding water body. The most common diseases / ailments affecting these communities are malaria, diarrhoea, upper respiratory tact infections and worm infestations. These were reported more in the lacustrine communities than those communities on the mainland.

Conclusions

With rapid growth of cities, communities try to find any available space for their habitation. A typical example is lacustrine communities. These settlements migrate from rural areas in search of employment and better life. As available land is scarce in rapidly growing coastal cities, by tradition they try to settle on water bodies with no basic amenities like water supply, sanitation and waste disposal facilities. To promote healthy settlement of such communities, urban planners must provide sanitary excreta and waste disposal facilities and safe water supply. They should be discouraged from using the lagoon as a waste disposal sink. Such settlements are to be integrated into urban planning.