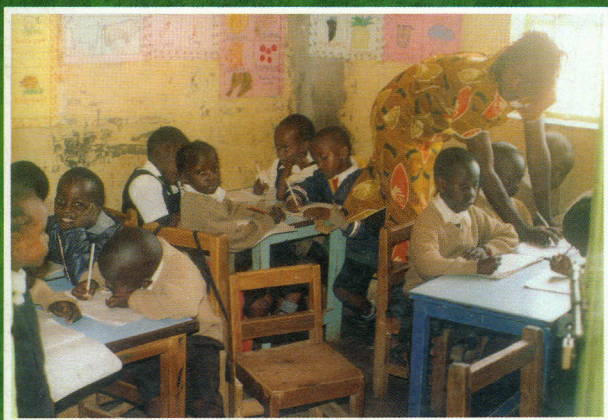


STATUS OF ENVIRONMENTAL HEALTH EDUCATION IN THE EASTERN AFRICA REGION: OPPORTUNITIES, CHALLENGES AND THE WAY FORWARD



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2004

Community Participation in Environment Health Education: A Case Study of Two Residential Estates in Nairobi, Kenya by S. R. Ondigi, M. Nyakora And S. G. Abaya

Abstract

Geographers and environmental scientists have marveled at the nature of cities round the world and the rate at which environmental degradation is eroding the beauty of the earth. The provision of basic urban services has not kept pace with the rapid urban population growth. This study was designed to investigate environmental sanitation in two sprawling residential estates in Nairobi. The findings indicated that although the communities had each pulled their efforts and resources together to improve the environmental conditions and participate effectively in educating the residents on environmental health measures, the problem of sanitation is far from being solved. It concludes that the problem of environmental sanitation need to be tackled by combined efforts of both the residents and the government to avoid any possible outbreak of environmentally related diseases.

Introduction

The state of the environment in the urban areas and the provision of basic services have not kept pace with the rapid urban population growth. The vast majority of urban poor do not have access to the most essential services such as clean water, modest housing or a waste disposal facilities including, a well organized drainage systems with surface run-offs and sewage system. Where they do exist, they are inadequate and poorly maintained.

Urban populations in most countries in the world have more than doubled in the recent past, yet infrastructural development has proceeded far more slowly. Where development is taking place, some houses are hurriedly built with poor sanitary conditions due to individualistic monetary gains and lack of concern for the well-being of the less fortunate in the society.

Historically, racial segregation was promoted during colonial time in most parts of Nairobi. This resulted essentially in ethnic tripartition of Nairobi; with the whites overwhelming inhabiting the north western and western areas of Nairobi, the Indians predominating in the north eastern parts, while the African population was relegated to the densely populated areas east and south of Nairobi, which are commonly characterized by slums such as: Mathare, Kariobangi, Muthurwa, Embakasi and Kibera. This status quo was maintained long after independence. The very rich moved to the east lands predominantly owned by working class residents. Today however, sons of the royal families

and a few from poor families who have broken the vicious circle of poverty are struggling to establish themselves in the new upcoming estates in Fedha estate, Mountain View, Runda, Buru-Buru and Kahawa Sukari, among the few.

Nevertheless, urban sprawl is associated with a rapidly deteriorating quality of life with particularly adverse impacts on the urban poor. They have the poorest access to existing facilities within rich neighbourhoods. These estates are characterized by lack of clean water supply, established sewage systems and designated places for the disposal of solid waste, leave alone, the dilapidated transport system for emergent health cases and environmental dangers posed to motorists and pedestrian. The enhanced problems of surface run-off, chemicals used in vegetable gardens and for spraying pets and perfumes have worsened the environmental problems in the area.

The objectives of this study were to identify:

- The state of the sanitary conditions
- The condition of infrastructure
- The community role and participation
- The processes of implementation, management tools and the factors affecting the implementation processes.

Methodology

This study used both quantitative and qualitative approaches in collecting and analyzing data. The two estates – Kilometer (Km) and Kahawa Sukari were purposively chosen for this study, and the two hundred respondents were randomly selected. The researchers developed a survey questionnaire with open and closed ended questions for this study.

Findings of the Study

The findings of this study indicated that the range of problems experienced in the two estates under study [KM and Kahawa Sukari] included:

[a] Sanitary conditions

The findings indicate that residents in Kahawa Sukari were averagely satisfied with the sanitary conditions than the residents in KM. When asked if they were satisfied with the manner of disposing off the solid waste, 60% directed their solid waste to open places such as undeveloped plots, roadsides or let the solid waste flow naturally find their way out; whereas 40% used soak pits tanks. The environment is not badly polluted due to the fact that there are no many factories around, but for those that were not satisfied, they attributed the problem to open smell from garbage in

open grounds, solid waste, bathroom and kitchen water or open sewer water directed to the open places. Noise problem originated from loud music played by residents, drunk individuals and idlers.

[b] Infrastructure

The state of infrastructure in the two estates is in a very deplorable condition as the local authorities for these two estates have not addressed the condition of the roads, street lights, telephone facilities, drainage systems, service facilities such as hospitals and clinics, social halls, open markets and adequate shopping centers. The roads are impassable during the rains and too dusty during the dry seasons.

Due to lack of proper drainage systems, solid waste and sewer water are a menace along the roads within the two estates and sometimes the unlawful dumping sites within the estates have compounded the problem of a safe environment. The clinics around here are privately owned, whereas there is no government hospital or clinic established within the estates. The bushes and the swamp along Kenyatta University sewage increases the incidence of pests and rodents among others, posing a major threat to the human health.

The type of diseases the residents have suffered due to environmental conditions are as indicated in table 2 below.

Residents indicated that they are trying to overcome these problems through: boiling water, clearing bushes

in the neighbourhoods, redirecting the stagnant water in the neighbourhood, going to hospital or clinics in town or Githurai, cleaning raw food and practicing good hygienic behaviours.

[c] The Role of the Community

On the role of the community towards achieving a sound environment, the respondents (70%) indicated that there should be concerted efforts to establish good and well maintained toilets and sewer system, 85% indicated that the issue of solid waste must be addressed by residents digging soak pits, or having a sewage system, and above all have individuals participate in cleaning up their environments. Some of the resource used in educating the community on how to maintain the environment, are as indicated in Table 3 below.

[d] Role of the Government

When asked about the role of the government in providing a safe environment, Majority of the respondents, (73%) indicated that the local government has failed in its duties of providing essential services to the community which include clean water, sewage system, garbage collection, solid waste management, proper housing and infrastructure – roads, lighting and clean air. The issue of security was a concern among all the respondents and the government needs to address the issue. It was noted that there is no government hospital or clinic established to serve the residents or offer hygienic workshops to the residents.

Table 1: Showing Sanitary conditions

KM Estate			Kahawa Sukari Estate		
Description sanitation	Good	Bad	Good	Bad	Comments
Clean and treated water	30%	70%	80%	20%	City council water/not adequate, buy water from kiosks, tap rain / river water
Sewage facilities	30%	70%	75%	25%	State of Septic tanks, pit latrines not adequate and well maintained.
Drainage systems	20%	80%	60%	40%	Soak pits or septic tanks, rain water contribute to surface run-offs
Waste disposal	20%	80%	68%	32%	Open ground disposal 50%, Burn waste 20%, Dust bin/bags 20% and Hole in compound 10%
Clean air	60%	40%	80%	20%	Smell from garbage in open grounds, no many in dustbins, dust from roads, Smell from open dirty water, Garage and workshop disposal.
Noise environment free	40%	60%	90%	10%	Quiet and sound in Kahawa Sukari Noise from loud music, drunk people, idlers cause concern.

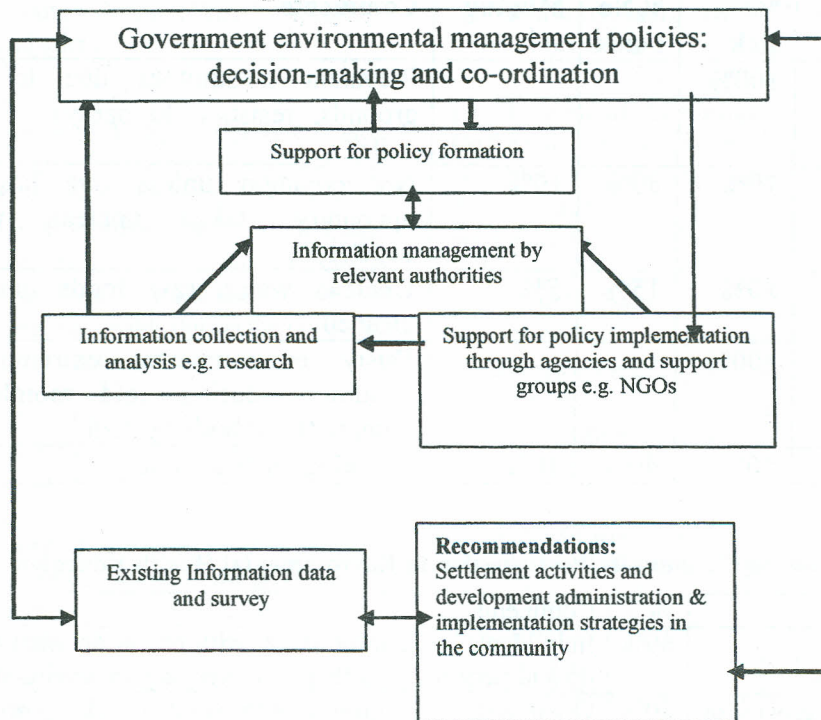
Table 2 showing the diseases suffered by community members

Description of sickness	% sick	%Not sick	Missing	Comments
Malaria	100%	-	-	Prevalent mosquitoes due to dumping grounds, resistant to sprays or mosquito coils
Cholera	10%	80%	10%	Not common unless one has traveled upcountry, taken unclean water or vegetables.
Typhoid	80%	15%	5%	Unclean water, raw foods not properly cleaned
Common colds	100%	-	-	Dusty environments, extreme weather conditions during cold months and a compromised body system
Amoeba	50%	40%	10%	Drinking unclean water

Table 3: Showing Community Participation in Environmental Health Education

Description	%	Comments
Individual responsibility	60%	Individuals share information with others on what they know, do and personally participate in keeping the environment clean.
Community groups or projects	70%	Organized zonal groups with various tasks geared towards enhancing a safe environment e.g. security groups, water group projects, clean up campaigns every 3 months, frequent collection of garbage through financial contributions.
NGOs and community churches, schools	50%	Organized clean-ups once in a while, community meetings to sensitize people, community campaigns to mobilize individuals towards clean-ups and digging trenches to assist in surface run-offs.
TVs & Radio programs on environmental sanitation, pamphlets and posters	50%	Though varies due to households with TVs, radios and pamphlets available, the community attended called meetings for sensitization at church halls, public places.
Private clinics	80%	In treating those who afford to see the doctors or nurses, supply some reading materials and community or public health officers offer information.

Figure 1: Model showing the working relationship among environmental stakeholders



Source: Adopted and modified from UNEP & UNCHS (1987:40)

Discussions of Findings

As evidenced in the two estates, there are a variety of environmental concerns that need to be addressed. But an effective management of urban environment such as sewage systems, managing surface run-offs, solid waste management among other issues require carefully instituted environmental strategies based on a sound integrated decision-making policies outlined in figure 1.

This model outlines an established and visible step-by-step strategy of enhancing a workable approach to a sustainable environment; workable responsibilities and well defined functions to be followed, understood and appreciated by both participations, that is, the government and the community to reach the common goal of maintaining a sound environment; exhibits accessibility to both resources and services provided by the government and the public's responsibility in upholding the environmental. This has co-operative links between the public and the private sectoral, regional and national agencies that produce pertinent information, have relevant expertise, make and/or implement related policies or policy coordinating roles.

In essence, if this model is adopted as in this study, the two estates will obviously achieve remarkable environmental policy that will guarantee better sanitation. But, unifying residents in residential areas

owned individually or rented poses diversifying views that are difficult to agree on. The issue of institutional capacity building is also essential for the sustainability of any solution to halt urban environmental deterioration. However, the major weaknesses is when no efforts are made to institute discipline or to bring residents together to participate on common goals aimed at preserving the ecosystem.

The Community participation in environmental Health Education

The residents in both estates have indicated that they participate in community activities aimed at improving the environmental conditions of their estates. Nevertheless, the participative process in place needs to be examined to see whether or not there is a power imbalance among those involved to achieve the expected outcomes. The manner in which priorities are defined based on the individual needs and exasperating poverty among the residents greatly defines the priorities in place and the impact on the success or failure of the implementation of the suggested measures that guarantee equal if not perfect participation. Motivation and interaction with the parties responsible will bring tremendous change within the environment, and according to Richard (1982) this entirely will depend on the type of leadership in place and the commitment envisaged by both partners, that is, the community and the government.

Recommendations

All the stakeholders need to adopt the model proposed model showing the working relationship among environmental stakeholders. In addition, there is need to establish community social welfare like the collapsed Kahawa Sukari Welfare Association, youth groups to work with the community and the church in assisting the clean up of the environment. There is also need to develop environmental committees, who should make efforts in a general process of 'awareness-raising' to encourage the interested partners both to instill a greater concern for environmental problems and to make the connections in the minds of the public between these problems and the relevant environmental authorities. The government should facilitate the development and implementation of a sound environmental health policy framework that will help reduce environmental risks.

Conclusion

Given the complexity of the urban environment and the need to sustain a healthy environment, it is clear that proper planning and management through equitable participation by all stakeholders is necessary for sustainable development. It is also important for the communities to meet the necessary specific conditions: house construction specifications, septic, solid waste and drainage system within their plots and also adhere to the environmental laws for success in maintaining a clean environment. In addition, a political commitment through a participatory approach and the availability of resources are necessary to better coordinate a programme aimed at sustaining healthy environment.

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