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GHANA

Changing Urban Environmental Ills in Slum Communities

by Julius N. Fobil* and Raymond A. Atuguba**

Ed. Note: Against the background of the recent CSD-12 session (see page 146) and its issues of water, sanitation and human settlements, the following article paints a vivid picture of the many problems to be overcome at community level if even a little progress is to be achieved.

Taking Ghana as an example it shows that, at the present pace, the goal of halving by 2015 the proportion of people without access to safe drinking water and basic sanitation and to improve significantly the lives of at least 100 million slum dwellers by 2020 would appear unattainable.

BACKGROUND

Many countries within sub-Saharan Africa have experienced urbanisation on an unprecedented scale in the last 30 years (Fobil, 2001, 2002). The major cities have expanded rapidly in space and have grown in resident population numbers at such a pace that it has become literally impossible to plan any effective programmes with respect to the provision of basic social amenities such as water supply, sanitation and housing. Urban population growth within this period has been so spontaneous that the existing urban infrastructure and other social amenities have been overstretched beyond their capacities, and have either broken down completely or exist in a bad state of disrepair. The rapid population explosions in urban centres have often resulted in slum creation as many urban residents have taken individual and often uncoordinated steps to provide shelter for themselves and their families. This has resulted in the mass erection of inappropriate and often precarious structures for purposes of shelter.

Planning authorities have generally been compelled or induced into condoning or proactively assisting urban developers (mostly private ones) in their quest to provide shelter for themselves and their families as well as to reap huge profits. Thus, they have failed to provide properly planned housing for residents and generally lost control over and perspective of the direction of urban planning. The sporadic erection of structures by private individuals has created an extensive array of inappropriate structures leading to confused, unstructured and congested conglomerates of urban settlements in the sub-region. The impact of such urban sprawls on the provision of other social amenities such as sanitation and urban water supply is dramatic and immense (Fobil, 2001, 2002). Under such conditions it has become difficult to construct sewers and pipelines for the removal of waste water and the provision of potable water, respectively. Access to the neighbourhoods for the purpose of removing solid waste is also inhibited and/or compromised in such circumstances.

The immediate implications of the combination of urban sprawl, poor sanitation and inadequate water supply are a deterioration in the urban environment, poorer-quality urban life and a severe public health crisis, especially in low-income urban neighbourhoods (Fobil et al., 2002). For example, the Southern African Research and Documentation Centre (SARDC) has identified unplanned rapid urbanisation as a health hazard which leads to conditions that spread serious diseases. These diseases, according to the Centre, stem from environmental problems such as contaminated water, poor sanitation, smoke-polluted indoor air and exposure to mosquitoes, along with other illeffects of crowded living conditions (Madava, 2000). The same report quotes the United Nations Environment Programme (UNEP) as having previously reported that these environmental health problems in developing countries are now exacerbated by emerging problems of industrial and agricultural pollution.

The problems of urban sprawl and housing in the sub-Saharan region can be linked to original planning models in the colonial period. Most African cities were developed as colonial administrative and trading centres, rather than industrial and commercial centres equipped to support large populations. As a result, well-serviced expensive city centres are often surrounded by underdeveloped and inadequately serviced settlements supporting the majority of the population (Fobil, 2001). The quality of housing and services in these two categories of settlements varies greatly. Indeed, the communities of Nima, Mamobi and New Town were developed by migrants from poorer regions in Ghana and Sahelian Africa who provided cheap labour to the colonial administrators and African élite living in areas such as Ridge in Accra. Urban authorities have been unable to keep up with the explosive growth of squatter communities and shanty towns. A survey of many African countries reveals this important point.

According to another report by SARDC, in Zambia for instance, water-borne diseases such as cholera and dysentery are prevalent due to poor sanitation and a lack of access to clean water. Also, in Mozambique, more than

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half of the urban population lives in unsanitary and unhealthy conditions, and the levels of urban unemployment are extremely high. These unhealthy living conditions are putting a huge strain on the country's health system. In Malawi, the urban population increased from 5 per cent in the 1960s to 13 per cent in 1995. Three-quarters of this urban population reside in the major urban centres of Blantyre, Lilongwe, Mzuzu and Zomba. The urban growth rate is currently estimated at 5.6 per cent per annum (Madava, 2000). In Nigeria, Lagos State alone has a population of about 6 million, of which more than half live in urban areas (Dosunmu & Ajayi, 2002). In Ghana, the urban population is estimated to have grown at an average annual rate of 4.6 per cent between 1960 and 1970, and 5.5 per cent between 1984 and 1990 (Benneh, 1990; Nabila, 1990). The urban proportion of the total population rose from 23 per cent in 1960 to 32 per cent in 1990 (Benneh, 1990), an outcome of rural-to-urban migration acting in sympathy with the rapidly rising fertility rates of urban populations. Thus Ghana's urban population of 1.5 million in 1960 rose to about 4 million in 1990 and it is estimated that if current growth trends continue, the urban population will grow nearly six-fold from 1960 to 2020 (Benneh, 1990; Nabila, 1990). The UNEP estimated that nearly half of the world's population lived in urban centres at the end of the twentieth century; of these, between 30-60 per cent were in low-income countries, and lacked adequate housing with decent sanitation facilities, drainage systems and clean piped water.

The provisional results of the 2000 population and housing census estimates that about half of Ghana's population lives in substandard structures. According to the census reports, 50 per cent of the total housing structures have mud/earth/mud brick as their outer wall construction material and only 38 per cent have cement/concrete walls. This means that under half of the housing units in Ghana are decent, durable and of acceptable standards. The average habitable life of these structures is under five years.

PHYSICAL AND NON-PHYSICAL IS-SUES OF URBANISATION

There are many definitions of the process of urbanisation. Generally, it is the process of altering land uses to create and/or further develop urban centres, which are the centre of large aggregates of populations and intensive human activity and interactions. The effects of urbanisation are numerous and depend on the socio-economic and cultural characteristics of the populations inhabiting the urbanised centres.

Urbanisation can be more broadly understood as a process of social and economic change, which accompanies industrial development.

Urbanisation may have direct effects on the built environment, the natural environment and human populations, and its environmental impacts may occur at local, regional and global scales by way of pressures on land use. The impacts of urbanisation are interrelated. For example, land-use patterns within urban areas can influence transportation options, while the modes of transportation chosen by residents can affect air quality and noise levels. Urbanisation also affects housing, road networks, potable water pipelines and sewerage systems (all physical issues), which may in turn influence the state of urban environmental and public health.

Urbanisation can affect the environment in several complicated non-physical ways. These may be regarded as socio-economic issues of urban areas. For example, urbanisation results in high urban unemployment as the number of people available to work exceeds the number of jobs available by a wide margin. The scarcity of jobs also means that a large proportion of the urban populations is under-employed, with corresponding low income and weak purchasing power. Therefore, the majority of urban populations are unable to afford basic social amenities, including decent housing. Many low-income households do not have access to institutional housing finance, because their income-earners work in the informal employ-



ment sector and do not have a fixed income. Owing to these socio-economic factors, areas settled by the urban poor are often unsuited for housing, for example, flood-prone, and the greater concentration of population contributes to the degradation of the urban environment (see Photo 1). Their populations continue to face life-threatening risks of eroded environments and health hazards.

Photo 1: Sections of the Nima-Mamobi area – A Degraded Urban Slum Photograph by Michael Donovan

THE WASTE PROBLEM IN ACCRA

Environmental health and sanitation have become the turf on which political lives are made and unmade in Accra.

An example: It is 22:00 GMT. The voice of the newsreader is clear and distinct. It is "News in Brief", and the radio station is "Unique FM, 95.7 MHz", one of the many radio stations that have sprung up in the ten years of democratic constitutional rule in Ghana. The authorities have decided to divide Accra into four zones for the purpose of dealing with the dreadful environmental and sanitation situation in the city. The newsreader says that the authorities blamed "non-compliance with sanitation regulations" for the mess. They have to, because their 'consultants' had told them to do so, several years earlier. In advising the city council on environmental health, the consultants had written:

"We have in this study, and in accordance with our TOR, examined the legislative and institutional frameworks for the provision of environmental health in the Accra Metropolis... We have examined the constitutional and legislative frameworks for environmental health in Ghana, as well as the institutional framework of the AMA in the light of its environmental health functions. We have made certain far-reaching proposals towards the enhancement of the provision of good environmental health in the Metropolis. We have in this regard, proposed for adoption a set of by-laws that address pertinent public health concerns such as the environmental health aspects of mortuary and funeral homes. We have also proposed for consideration and adoption what we consider ought to be the contents of a National Environmental Health legislation. This is a matter that deserves serious and urgent consideration if Accra, and for that matter Ghana, is to take its pride of place amongst environmentally conscious nations of the twenty-first century.

As regards the time frames for the implementation of the legislation and the by-laws, these have to take into account the processes to be gone through for their adoption. As regards the by-laws, these have to be considered/discussed by the Assembly and recommended for approval to the Minister through the RCC. We think in view of the nature of the by-laws and the urgency of the matter, 3 months should suffice.

As regards the proposed legislation, this would require a period of much longer duration: the processes leading to the adoption entails approval by Cabinet, drafting, submission to Parliament for consideration, etc. Having regard to the nature of the subject, this is a matter that deserves wider public input/participation in spite of the far and wide reaching consultations and interviews that we have had to undertake in this assignment. In the circumstances, one year should suffice. The implementation of the legislation, programmes and policies suggested in this Report require resources from the AMA and Central Government. Expenditure on matters that address environmental health are, however, worthwhile. As the saying goes, 'a sound mind lies in a sound body'.

Above all, the implementation of the measures ought to enable savings to be made from resources that would otherwise be spent on the treatment of the sick and other curative measures.

Finally, we wish to stress that provision of laws *per se* will not resolve the problems; they require the will to enforce them. This is the challenge that the AMA faces as it enters the twenty-first century." (Sarpong, 2002)

Law and its enforcement, the command of the sovereign enforced as such, is seen as the panacea to all ills.

The Problem in Nima-Mamobi Suburbs

The Nima-Mamobi area, where the Legal Resources Centre (LRC)'s health campaign project is focused, has been described as "a sprawling slum", "a migrant shanty town, the chief red light district of the city's lower classes, and a criminal 'badlands' only sporadically policed from the outside" (Hart, 2000: 177; Bane *et al.*, 2003; Fox & Edmiston, 2000). And this is how it is thought of by many. But it is more than that.

In January 2001, the Legal Resources Centre, a community-based human rights organisation, organised a community leaders forum in Nima and Mamobi. During the forum, Imams, Chiefs and other community leaders were requested to outline the major issues affecting them as residents of an urban slum. The following were identified in that order of importance:

- 1. Access to affordable healthcare facilities,
- 2. The absence of proper and accessible educational facilities for residents of the communities; and
- 3. Health problems resulting from poor housing and sanitation conditions.

Major constraining factors implicated as militating against the provision of decent and suitable housing were identified among others to include irregular land tenure arrangements; scarcity of land, low-incomes and underemployment, and the high cost of building materials, for example, the market price of a bag of cement/concrete is 35,000 cedis (ϕ).

These factors, combined with high rents in urban centres, compel residents to opt for cheap but almost always poorly constructed structures (Hart, 2000; Fox & Edmiston, 2000). In Accra, for example, the monthly rent for a single room ranges between ϕ 60,000 and ϕ 100,000¹ and landlords insist on up to three years' advance payment. Low-income suburbs in the major cities in sub-Saharan Africa are best described as poorly developed communities rather than developing cities. Agyei (2000) states that the government's inability to tackle housing problems is attributable to poor perception of the problems, which leads to a poor or wrong definition of the problems. In the major cities in Ghana, housing provision has been left to private estate developers whose charges per housing unit are so high that even the comparatively affluent in Ghana cannot afford them.

Residents have reported that they were vulnerable to malaria and other water-borne diseases caused by the existence of large pools of sewage and waste water. Summarised below are the main activities that the communities undertook with the assistance of the LRC to deal with environmental health issues in the community in the course of the last three years.

The strategies for the various activities are planned, sequenced and implemented to meet broader goals beyond community-based collaborative efforts at dealing with environmental health issues. These include: raising consciousness about human rights, democratic participation, and human development; catalysing reform in Ghana's domestic legal institutions by bringing rule of law and human rights norms more fully into routine institutional practices; and furthering an emerging conception of human rights in which building the capacities of institutions and citizens for democratic governance and realising substantive human rights guarantees are understood as inseparable endeavours.

WHAT HAS LAW GOT TO DO WITH ALL THIS?

The Final Report on the Legislative Review component of the Accra Metropolitan Environmental Health Initiative (AMEHI), a Department for International Development (DFID) of the United Kingdom and Accra Metropolitan Assembly (AMA) initiative was presented to AMA in July 2002, complete with the backbone of new legislation for managing environmental health in Accra and the wider area. The overall goal of the project is the improvement, protection and promotion of environmental health in Accra. The objectives of the initiative are to be achieved through several other initiatives, including institutional strengthening and capacity building within the AMA; community capacity-building and participation in environmental health; the development of information systems to guide decision-making, monitoring and information to the public on environmental health issues.

The Legislative Review component of AMEHI addressed anomalies in the current legislative and institutional frameworks for environmental health, and made recommendations for the enhancement of the existing regime for the provision of environmental health and the creation of an enabling environment for health officers to work effectively. Some of the anomalies identified in the terms of reference are:

- Fines specified in pounds sterling or US dollars rather than cedis.
- Policy changes such as the move towards private sector provision of sanitation services that require a regulatory framework that earlier legislation could not envisage.
- Inflation and its impact on levels of fines.
- Outdated provisions in direct contradiction to current policies such as those relating to pan latrines.

To enable the AMA to address these and other obstacles that obstruct the provision of effective health and sanitation delivery, the consultants were asked to:

- Identify, catalogue and review:
- All laws, by-laws, regulations and other legal instruments that relate to environmental health and sanitation in Accra.
- All legal provisions for environmental health and sanitation that specifically affect the operations of AMA departments.
- Outdated legislation.
- Shortfalls in legislation in the context of current policies and institutional framework.
- Gaps in the regulation and monitoring of environmental issues.

• Assess, advise and make recommendations:

- On the relevance of the current legislation for environmental health and sanitation to the demands of the city in the twenty-first century.
- On how gaps and shortfalls can be remedied.
- On the processes and timescales involved in implementing legislative changes.
- Review and make recommendations on:
- The legal status of the Accra Metropolitan Assembly and technical effectiveness for carrying out functions in relation to environmental health and sanitation.

- The effectiveness of the machinery for processing sanitary cases.
- Whether the Metropolitan Public Health Department (MPHD) has the technical capabilities to deliver [under the] provisions of the current environmental health and sanitation legislation and what improvements could be made within the current institutional framework.

The consultants then used all the information they gathered to conduct a legislative and institutional review of AMA, and identified gaps and made recommendations towards the enhancement of the institutional and legislative frameworks to address these gaps/shortcomings.

The study also examined existing by-laws on environmental health in the metropolis, and proposed changes to improve them. If law were enough, the print and broadcast media would not still be emphasising, day in and day out, the reality of the environmental health crisis in Accra and other cities (Sarpong, 2002).

The legislative review was broken down into six broad areas: Public Health and Sanitation; Town and Country Planning; Health and Safety at Work; Other Related Health Hazards; The Common Law; and By-Laws.

The exercise itself revealed the maze of laws and the plethora of institutions involved in environmental health issues.

OVERVIEW OF THE INSTITUTIONAL AND LEGAL FRAMEWORK ON ENVI-RONMENTAL PROTECTION

Institutions

There are several institutions, both state and parastatal institutions, that are responsible for the protection of the environment and the promotion of environmental health in Ghana. These include many government departments, agencies and ministries such as Waste Management Departments (WMDs), the Environmental Protection Agency (EPA), Ministry of Environment Science and Technology (MEST) and the Ministry of Local Government and Rural Development (MLGRD) which oversees all Municipal and District Assemblies (MDAs) in the country. These institutions function in a coordinated fashion in order to realise Ghana's environmental protection action plans and objectives. The MEST is largely a political body with political functions and its minister receives advice from the Executive Director of EPA on political matters that relate to the environment. Ghana's national environmental protection came into sharp focus soon after the 1972 UN Conference on the Human Environment, which saw the establishment of the national Environmental Protection Council (EPC) by the Environmental Protection Council Decree, 1974 (NRCD 239). The functions of the then EPC were advisory and it advised the Government of Ghana on matters relating to the environment (Acquah, 1996). Following the creation of a ministry, the MEST, to be responsible for the management of the environment, it became increasingly necessary to redefine the role of the EPC, especially since the environmental policy-setting function moved to the MEST (Laing, 1994; Acquah, 1996).

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The EPC then became the Environmental Protection Agency (EPA) of Ghana, and its functions extended to include both regulatory and enforcement roles in addition to its previous advisory role, by the EPA Act of 1994 (Act 490). The EPA is a legal entity which can sue and be sued, and is largely responsible for setting and enforcing environmental standards in Ghana.

Through its MDAs, the Ministry of Local Government and Rural Development is responsible for waste management in Ghana (Laing, 1994). Section 7(1) of the Local Administration Act, 1971 states: "A District Council shall be responsible for the administration of its area of authority and for the provision of public services in that Area." Public services, as defined in section 14 of the Act, include refuse collection, storage, transportation and final disposal. When District Councils were transformed into District Assemblies under a Local Government Act, they assumed the functions of the Local Councils. The MLGD sets guidelines for waste management in Ghana and the guidelines are implemented by its MDAs with modifications that have bearings on existing local and assemblyspecific conditions. The institutional framework of all MDAs operates under the "Decentralisation Concept" set forth by the following Acts:

- National Development Planning Commission Act, 1994 (Act 479)
- National Development Planning (System) Act, 1994 (Act 480)
- Civil Service Law, 1993 (PNDCL 327)
- Local Government (Urban, Zonal and Town Councils and Unit Committee) Establishment Instrument, 1994. (LI 1589)
- District Assemblies Common Fund Act, 1993 (Act 455)
- Local Government (District Tender Boards) Establishment Regulations, 1995 (LI 1606)
- Local Government (Accra Metropolitan Assembly) Establishment Instrument, 1995 (LI 1615).

The institutional problems that characterise the decentralised system of government are basically structural and include the lack of qualified personnel, the lack of funds, uncoordinated development initiatives and the absence of unit committees which form the basic units of the decentralised system (Sarpong, 2002).

Legislation

The 1992 Constitution enjoins the state to take appropriate measures to protect and safeguard the natural environment for posterity and to cooperate with various institutions for the purpose of protecting the wider international environment for mankind. An injunction is also placed on every Ghanaian citizen to protect and safeguard the environment (Constitution 1992: 37(9) and 41(k). These provisions, however, are contained in Chapter 6 on the directive principles of state policy, which are widely regarded as non-justiciable by and of themselves unless they are read together with other enforceable parts of the Constitution. The statute books, however, contain various

enforceable provisions on the environment, environmental health, and town and country planning.

One of the most comprehensive pieces of legislation in this regard is the Local Government Act, 1993 (Act 462). Under this Act, District Assemblies are enjoined to initiate programmes for the development of basic infrastructure and provide municipal works and services in the district. They are to be responsible for the development, improvement and management of human settlement and the environment in the district. The District Planning Authority, a department under each District Assembly, is mandated to develop building by-laws providing for the control of the construction of buildings, streets, fences, signboards, drainage and sanitation, among other things. Section 63 of the Act also mandates the minister responsible for works and housing to promulgate national building regulations.

In exercise of the power conferred by Section 63 of the above Act, the National Building Regulations (LI 1630) were enforced in 1996 to regulate any erection, alteration or extension of any building within the country. The law is not applicable to buildings existing before it came into force. However, if such buildings are to be extended or altered, then the law becomes applicable to them. The LI also contains salient provisions on sanitation and public health. It states in section 116 that every building shall be provided with an adequate hygienic system for the disposal of construction foul water, surface water and subsoil water. All drains are required to be discharged into an outfall approved by the District Planning Authority. Soakaways are required for the disposal of very large volumes of waste water, provided soil permeability allows for their use. Section 135 of the law requires all plans of a new building or extension to a building to show an adequate and satisfactory water closet where water is available or an earthen closet or chemical closet where there is no water. Under section 138, urinals are supposed to be provided with an effective flushing apparatus. But in areas where there is an acute water shortage, urinals with soak-away pits are recommended.

Section 129 of LI 1630 provides that the method of waste water disposal shall be such that no stagnant pools of water are formed and no other nuisance is created in the compound or outside the house. Section 145 also provides that a building for residential, commercial, industrial, civic or cultural use shall have a facility for refuse disposal. Each dwelling unit must have a standardised dustbin or other receptacle approved by the District Assembly in which all refuse generated shall be stored temporarily. The refuse container which must be positioned at an approved location is supposed to be emptied not less than twice a week by the District Assembly or by its appointed agents. In a situation where door-to-door collection is not feasible, the refuse shall be taken daily to the approved transfer station in the neighbourhood by the residents of the dwellings. Transfer stations are to be located at vantage points within cities, towns and villages and the walking distance from one's house to a transfer station should not exceed 200 metres. The stationary transfer stations are to be constructed in the form of permanent structures and in such a way as to minimise spreading and scavenging. Each container at a transfer station is supposed to be protected from rain and must be emptied at least every other day.

This law, LI 1630, and its predecessor, LI 1500, both enjoin the AMA to promote and safeguard public health and for this purpose to assign medical officers and health inspectors to the area within its jurisdiction. Other functions of the AMA detailed in LI 1615 include the following: causing its area to be inspected regularly for the detection of nuisance or any condition likely to be offensive or injurious to health and to cause all proper steps to be taken to secure the abatement of the nuisance or the removal of the condition; to build, install, maintain and control public latrines, lavatories and urinals; establish, install, build, maintain and carry out services for the removal and destruction of all refuse, filth and carcasses of dead animals from any private or public place.

The Mosquitoes Ordinance (Cap 75) also authorises sanitary and medical officers to enter any premises to take immediate steps to destroy mosquito larvae and render any accumulation of water unfit for mosquito breeding. It is an offence under the ordinance to allow water to be kept on premises for a period exceeding three days without the receptacle being emptied and cleaned.

In the area of planning, there is the Town and Country Planning Ordinance (Cap 84). This ordinance enjoins the planning authorities to propose a scheme in respect of lands in both urban and rural areas aimed at controlling the development of land, securing proper sanitary conditions and conveniences, enhancing the coordination of roads and public services and protecting and extending the resources of the area. There is also the Towns Ordinance (Cap 186), which provides for the better regulation of towns and for the promotion of towns and public health. It empowers the District Chief Executive to regulate the line in which any house or building may be built or rebuilt where any building or house situated in a street or the front thereof

- The Constitution, 1992
- The Mosquitoes Ordinance (CAP 75)
- The Infectious Diseases Ordinance (CAP 78)
- The Quarantine Ordinance (CAP 77)
- Vaccination Ordinance (CAP 76)
- The Beaches Obstructions Ordinance (CAP 240)
- The Rivers Ordinance (CAP 226)
- The Towns Ordinance (CAP 86)
- The Criminal Code, 1960 (Act 29)
- The Local Government Act, 1993 (Act 462)
- Environmental Protection Agency Act, 1994 (Act 490)
- The Town and Country Planning Ordinance (CAP 84)
- Local Government (Accra Metropolitan Assembly)
- The Factories, Offices and Shops Act, 1990 (Act 328)
- National Development Planning Commission Act, 1994
- (Act 479)
 National Development Planning (system) Act, 1994 (Act 480)
- Civil Service Law, 1993 (PNDCL 327)
- Local Government (Urban, Zonal and Town Councils and Unit Committee) Establishment Instrument, 1994 (LI 1589)
 District Assemblies Common Fund Act, 1993 (Act 455)
- District Assemblies Common Fund Act, 1993 (Act 455)
 Local Government (District Tender Boards) Establishment Regulations, 1995 (LI 1606). Establishment Instrument, 1995 (LI 1615) etc.

has fallen. He may also order the removal or alteration of any projections or obstructions to safe passage along any street; for example, porches, projecting windows, sheds and verandas. He is also empowered under the law to take any remedial action necessary to secure any buildings that he considers dangerous or ruinous. The minister of local government is also empowered by the law to regulate the erection of buildings in any part of any town in the interest of public health.

The Towns Ordinance also prohibits the offer or exposure for sale of any article of merchandise except in public markets, dwelling houses or shops and in accordance with the terms of a license granted for that purpose. It prescribes, *inter alia*, the following as nuisances:

- overcrowding of houses so as to be dangerous to the residents;
- pools, ditches, gutters, wells or ponds in an offensive state or injurious to health.

The district chief executive is empowered to issue a notice requiring the owner or occupier of such premises in question to abate the nuisance. Contravention of such notice may lead to prosecution.

As well as the above laws, there is the Environmental Protection Agency Act, 1994 (Act 490), which establishes the EPA and entrusts it with the function of monitoring good public health and sanitation standards; the control and prevention of the discharge of waste; the issuing of environmental permits and pollution abatement notices; and generally to protect the environment.

The criminal code also contains provisions on public health and sanitation. Section 296 criminalises a whole range of activities inimical to public health such as placing filth, refuse or rubbish in any street, yard or open space; committing acts of nuisance in any public or open space; obstruction of public ways, and failing to keep premises free of dirt. Any person found committing any of the above acts may be arrested without a warrant by a public health officer and tried before a court within 48 hours. Section 286 of the code also prohibits the preparation and/or offer for sale of food and any drink which, because of adulteration, is likely to be noxious to health. This constitutes a misdemeanour, and is therefore punishable upon conviction by imprisonment for a term of three years. Section 287 criminalises such acts as carrying on any noxious, offensive or noisy business at any place; causing or permitting any noxious or offensive matter to be collected or to continue at any place; keeping animals at any place as to impair or endanger the health of the public, and so on (Sarpong, 2002).

A major tool available to the District/Metropolitan Assemblies for the regulation of environmental health is the power to make by-laws. The subject is addressed in sections 79 to 83 of the Local Government Act. Under the Act, these by-laws are made with the approval of the Minister responsible for local government and enter into force after publication in the gazette. They may be enacted in respect of any function conferred upon the Assemblies under the Local Government Act or any other enactment. In pursuance of this, several by-laws have been en-

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acted to address a wide range of issues on environmental health: drainage of waste water; public markets; abatement of noises; solid and liquid waste management; control of swine, cattle, sheep, goats etc. They are widely scattered throughout the various Local Government Bulletins, a fact which makes access to them rather laborious.

If law were enough, the combined effect of the following legislation on urban environmental health would have sufficed to solve the problem in Nima and Mamobi (see box page 211).

All the above laws come with a corresponding plethora of institutional forms charged with implementing them (Sarpong, 2002: 30–35).

Sarpong notes that the problem lies with the following inadequacies and drawbacks of the laws – outmoded formulations, limited scope and coverage, definitions that are too narrow or specific, inattention to occupational diseases and complex legal procedures, fragmentation of enforcement efforts, inconsistencies between the laws and an absence of overall strategy and coordination. We agree with this. But dealing with these inadequacies and drawbacks top-down, by enacting new legislation or amending old ones at the District Assembly level, will not solve the problem. The very process of problem diagnosis, deliberating on the appropriate solutions, and implementation of same, including law making, must be decentralised to the subsub-district levels. The Nima/Mamobi project provides some experience of how this may be done effectively. Environmental problems can be best solved by people working at the level at which environmental problems are created, exacerbated, replicated, fester and are most felt the grass-roots level.

COMMUNITY ACTION TO IMPROVE URBAN ENVIRONMENTAL HEALTH

On account of the constant struggle for survival in urban centres, any communal and cooperative spirit among urban residents has eroded, leaving individuals caring only about themselves. A spirit of togetherness and group initiative is no longer operating in urban communities, leading to mistrust and petty squabbles among residents. Therefore the community will first have to pool its resources in order to build collective community livelihood systems and common social security to enable them to undertake group projects for community development. The community revival initiatives of the LRC in the Nima-Mamobi area sought to restore communal spirit among the largely low-income residents, in order to encourage them to pool their energies together to help rebuild the community. The key strategies adopted in pursuit of these objectives were to employ proactive, community-led, organising and advocacy interventions for the solution of environmental health problems. Several meetings and community events were organised to draw up and implement a strategic plan for better housing and sanitation in the communities. The following activities were agreed upon at these meetings, now fully initiated, and are ongoing:

• Initiatives to lobby Parliament and local government authorities for substantial budgetary allocations to deal

with the systemic sanitation problem that threatens to erode many houses in the community. A nascent development is the mobilisation of landlords in the area to explore housing conditions and landlord-tenant issues as they relate to environmental health in the Nima Mamobi area.

- Research to examine, in detail, budgetary allocations to the district assemblies, sub-districts, town and area councils and unit committees. This is for the purpose of monitoring the use of monies that are specifically allocated to sanitation in the budgets of the relevant local government bodies. It is possible that the sum total of all resources that stand against the sanitation budget from all sources, both governmental and non-governmental, will be sufficient to carry out major structural works for the improvement of sanitation and housing in the communities.
- A "demand letter" has been written to the Accra Metropolitan Assembly (AMA) outlining community demands with regard to proper maintenance of public toilets, rubbish containers, drains and liquid waste tanks. The letter also notified the AMA that the community may file a lawsuit to compel it to perform its statutory duties in the area of housing and sanitation.
- Groups of youth leaders have been formed to monitor the AMA's performance since the demand letter. For a year, they have checked the frequency with which the AMA or its agents have performed their statutory responsibilities.
- A series of sketches and dramas have been initiated for the purpose of mobilising the communities for action in the area of housing and sanitation. Two key things take place during these sessions: first, the community is brought together for the purpose of assessing the environmental health campaign and planning the next steps; second, the sketches introduce issues relating to the campaign which are then discussed in an open forum.

RESEARCH AND DOCUMENTATION

Between May 2001 and February 2002, the team undertook research and documentation activities, the purpose of which was aimed at, among other things, to provide scientific evidence to back up the opinions and experiences expressed and narrated at the Community Leaders Forum relating to healthcare and sanitation and to beginn the process of gathering documentary evidence that will be useful for administrative hearings, litigation, advocacy, community mobilisation etc.

With these scientific surveys and the resulting data, the stage was set for addressing the environmental health issues of the communities through the use of legal, advocacy and organising strategies. For example, to provide evidence of the AMA's failure to comply with demands to maintain existing drainage networks, public toilets and dumpsters, photographs were taken of these violations (see Figure 2). These photographs will accompany future letters of complaint to the AMA and form evidence for potential litigation.



of paying each morning for each member of the family to use the public toilets. Others find it too inconvenient to queue for indefinite periods awaiting their turn. A number of residents regard the politicisation of the control and management of toilets and the resulting rev-

ing that much of the sewage does not come from the Nima-Mamobi community, but has been channelled through Nima-Mamobi from the wealthier Airport neighbourhood and adjacent communities. Nima-Mamobi was a beneficiary of Urban

A Footbridge Across an Open Drain in Nima-Mamobi with Poor Housing Units. Photograph by Michael Donovan

KEY FINDINGS

Photo 2:

A group of youth leaders aided the team in mapping out the environmental and social impact of poor housing structures, sewage run-off, overflowing rubbish in dumpsters, and poorly maintained public toilets (see Photos 2 and 3). These interviews were recorded to provide the basis for affidavits in potential litigation efforts. enue nauseating, and will have nothing to do with them. This politicisation led to a protest in Nima in August 2001 when a section of the community took over the management of some public toilets. The survey also established that the burden of family's human waste disposal activities fell disproportionately on women and children.

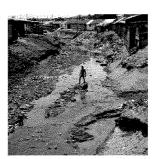
Drainage is largely inadequate, as is evidenced by the fact that there is only one primary drain that cuts through Nima-Mamobi. As noted earlier, the most vulnerable residents are those who live next to the gutter. It is worth not-



Photo 3: An Open Drainage Channel in a Low-income Neighbourhood Photograph by Michael Donovan

'Inadequate sanitation' was broken down into four components: (1) sub-standard using (2) public toilets, (3) drainage, and (4) rubbish removal. In the case of housing, the photographs say it all. Most of the houses are structurally weak and are located in the midst of the squalor generated by poor sanitation and the absence of effective drainage systems. The most vulnerable residents are those who live next to the big drain, as their homes are susceptible to frequent flooding and erosion from the sewage flows (see Photos 3 and 4).

Most houses in the area do not have toilet facilities. The community therefore depends on the few public toilets in the area. It is common in the mornings to see long queues of people waiting to take their turn to use the few available public toilets. Rather than take their children a half-kilometre to wait in long queues to use poorly maintained public toilets, many people resort to defecating in plastic rubbish bags. These bags are then deposited in rubbish bins or thrown into "the big gutter" shown in Figure 4. This is dehumanising, especially for such people as the bed-ridden elderly, who cannot walk to the public toilets or use black polythene bags for the purpose of defecation. The private options developed by residents as alternatives to using the public toilets are a consequence of the commercialisation of the management of public toilets through high user-fees. It is cheaper to use polythene bags instead IV (Urban Environment and Sanitation Program; UESP) funds that were dedicated to cementing a few gutters and installing streetlights. Urban IV did not, however, provide tertiary drainage to link homes with the drains that were



built. As a result of inadequate maintenance of gutters, many youth groups are forced to clean the gutters on a weekly basis, often with little suitable equipment, only to see them filled to capacity almost immediately as waste and sewage flow in from other areas (see Photo 4).

Photo 4: Community Youth Clean-up of a Major Drain in Nima-Mamobi Photograph by Michael Donovan

A survey of 1,000 households and tests of water quality and air pollution in 200 households have shown that up to 77.8 per cent of the wealthiest quintile had in-house piping, while only 6.3 per cent of the poorest quintile on the same public tax scale did. A similar disparity was found in relation to access to flush toilets – it was observed that while 77.3 per cent of the wealthiest quintile used flush toilets, only 6.8 per cent of the poorest quintile did. Also, 47.5 per cent of the poorest residents defecated outdoors, compared to only 12.1 per cent of the wealthiest families in Accra. The results of poor sanitation have created a situation in which poor children are nearly three times as likely to suffer from diarrhoea as are children of wealthy families who have better sanitation services. The table below outlines Songsore and McGranahan's findings.

Indicators	Poorest Income Quintile (%)	Wealthiest Income Quintile (%)
In-house piping	6.3	77.8
Flush toilet	6.8	77.3
One toilet shared between more than ten household members	e 68.8	12.1
Outdoor defecation by neighbourhood children	47.5	12.1
Two-week prevalence of	22.3	8.8

Source: Songsore, Jacob and Gordon McGranahan. "Environment, Wealth and Health: Towards An Analysis of Intra-Urban Differentials Within the Greater Accra Metropolitan Area, Ghana", *Environment and Urbanisation*, Vol. 5, No. 2, October 1993, pp. 10–34.

The survey also established that apart from physical illness, the lack of toilets in homes placed a large psychological burden on homemakers in Ghanaian families.

THE MONITORING EXERCISE

The monitoring exercise is key to the set of activities being undertaken. Like affidavit gathering, monitoring has generated a powerful body of evidence for the LRC to use when it asserts that the community's right to a healthy environment has been violated. Also, because no professional skills are needed to carry out ordinary monitoring of rights violations, monitoring allows a wide range of community members who might not otherwise be able to become involved in other aspects of the LRC's work to contribute in an extremely meaningful way. Moreover, monitoring allows participants to become involved in the campaign in a continual and ongoing way. Monitors therefore think about environmental health issues every single day as they monitor the community's conditions. In this way, the campaign becomes a normal part of their everyday routine.

The Youth Clubs decided to monitor some of the public toilets, rubbish containers and gutters. Based on the trial attempts presented at the hearing, and the enthusiasm for them showed by both participants and hearing attendees, a more structured monitoring plan was implemented and expanded to cover a six-month period. The youth leaders and students interns at the LRC divided into four geographically based groups: Mamobi East, Mamobi West, Nima East and Nima West. After locating all of the rubbish containers in each area, the groups mapped out the environmental and social impact of overflowing refuse by drawing and taking photographs of activities taking

place around the containers. Each youth leader then chose between one and three containers to monitor daily. Youth leaders, students and the LRC field staff met after the first week of monitoring to compile all their data and to prepare a testimony for the public hearing that described their activities and the results they had found.

Representatives from the monitoring team have been meeting with law student interns and LRC lawyers to structure a series of meeting with the AMA on environmental health issues. These preparatory meetings are aimed at increasing the capacity of community groups to engage in constructive dialogue with government entities about public policy issues, but they are also aimed at advancing the monitoring work in a concrete way. At a general level, the meetings will discuss the viability and sustainability of innovative

waste management techniques piloted by the LRC and the communities, in the context of the development of a governance structure for the management of environmental health in the communities.

As the campaign progresses, the Youth Leaders will adapt and expand their monitoring to meet new needs and objectives. For instance, if the LRC is successful in getting the AMA to promise to take certain actions, then the Youth Leaders will begin to monitor the AMA's compliance with these promises.

NEXT STEPS

The technical meetings between the LRC and the community groups have yielded very specific next steps. There is the need to involve various stakeholders in the project communities for the purpose of discussing various initiatives for managing the environmental health problems in the communities; collate stakeholder views on general waste removal in these communities; identify community resources for waste removal and management; initiate research on the regulatory and governance structure for the management of waste in the communities as a basis for facilitating collaborative waste management; continue a micro-compost project initiated by a number of youths in the communities, as a possible income generation venture; and conduct research into viable market segments (such as willingness-to-pay) for the marketing of compost.

At a broad level, these next steps will impact positively on livelihood capabilities and contribute to poverty reduction in some segments of the population, such as the young people who are now employed in waste removal and/or in compost-making. It is hoped that the project will foster new learning and practice in sustainable environmental management in low-income urban communities and streamline the local governance structure and community participation in the management of waste.

The LRC and the community groups believe that part of the solution to the urban environmental problems, particularly waste disposal in urban communities, lies in streamlining the governance structure for waste management and the incorporation of significant community participatory approaches. This will involve a pragmatic application of the waste governance rules, taking into account the needs of the communities in which they operate.

At the end of the project it is expected that the collaborative community-based process of environmental health management will leave everyone better off. The project will develop capacities and build community energy for collaborative waste management; communities will be highly mobilised to manage at least some of the waste they generate; community dependence on central government and local authorities for waste management will decrease; community youth members will acquire employable skills to generate income for themselves through waste collection and micro-compost activities; and the local government authorities will be more accountable to the communities they serve.

There are even more beneficiaries under this project: a cross-section of the community members whose household refuse is removed; local authorities, which will now save some of the component of the budget used for waste collection and management to use it for other purposes; and the community youth groups, who may be able to claim part of the cost savings made by the local government authorities on waste management. The project hopes to sustain itself through the marketing of compost and a percentage of these cost-savings. There is a risk of nonsustainable marketing of the compost generated, but this risk can be attenuated if the research into viable market segments is well conducted.

CONSTRAINTS

The activities listed above are ongoing. However, several hitches have been encountered in the process of the housing and environmental health campaign. They include:

- 1. The difficulties of researching the policies, laws and practices relating to housing and environmental health;
- 2. The multi-layered nature of the problems of environmental health which necessitate a multi-disciplinary approach to the issues; and
- The array of institutions international, national and local – that are closely connected with the issues of housing and environmental sanitation in local communities.

CONCLUSION

Legislative review and stricter enforcement have, on their own, always had poor results in the area of environmental health management in Ghana, as in many areas.

We have learned that the deployment of law, in its 'soft' form, to help innovative community-based methods of developing a governance structure for the management of environmental health (as also shown in other areas) is the best way of plugging the legislative and policy loopholes using the resources that flow from social capital mobilisation. We conclude, therefore, that the law has never been, and will never be, enough, and we believe that well planned and carefully thought-out social plans will have to be added to existing laws in order to make them more context-relevant and workable.

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Note

 $1 \quad US\$1 = $\varphi 9300.00$