

Public Health and National Environmental Policy

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The Sector's Interaction with Environment

Tanzania is a developing country and disease patterns are, therefore, those related to under-development - poor sanitation, inadequate safe water supplies, and unhygienic personal habits. Countless incidences of diseases in the community are associated with problems of economic stagnation and hence low income per capita, resulting from poor living conditions and poor nutritional status. Various types of diseases, like droplet infections and faecal oral diseases are persistent.

This is a situation in which the majority of the people in this country find themselves in. The diseases found in the country are not different from those in the developed countries before the 18th century. The leading causes of morbidity and mortality can be classified into four categories:

(a) Faecal Oral Diseases

Of all the categories of diseases, this is the most threatening. As a class, it leads in morbidity and mortality. Children under five years of age are particularly vulnerable to diarrhoea with an average of five episodes in a year.

These diseases are now becoming more common in urban areas due to the insanitary nature of the environment, especially in the unplanned areas. As more people come to settle in towns without an increase in water supply and sanitary facilities faecal oral diseases are becoming rampant.

The problem of low income per capita in the urban areas has resulted into a boom in street food vending but without proper or adequate sanitary facilities.

(b) Water Washed Diseases

These diseases arise from inadequate availability of water in a community. Skin and eye diseases are common in semi arid regions such as Dodoma and Singida. It is difficult to maintain houses in hygienic condition, through

plastering in order to make them uninhabitable to vermin like fleas or jiggers so as to eliminate the problem of relapsing fever and other ailments.

It is also difficult to promote good personal hygiene practices like the washing of hands after visiting toilets or before eating. Faecal oral diseases seen are mainly a result of water scarcity.

(c) Penetrating Skin Diseases

Worm infections and schistosomes which are common in almost every region, affect mainly children but especially those of school going age. These infections basically result from the non use of latrines. Indiscriminate defecation in the bush and water sources is the main cause. Although the fatality rate of these diseases is negligible, they are responsible for the high incidence of anaemia and poor nutritional status leading to poor growth and lowered body defence mechanism to diseases.

(d) Water Borne Diseases

Malaria, one of the water borne diseases, is normally common where pools of fairly clean water are found such as swamps, pot-holes and discarded tins and tyres. Incidences of malaria are more common in the rural areas than urban areas. Deteriorating environmental management in the urban areas has created an environment conducive to the breeding of mosquitoes. A few of such examples are pools of water from unrepaired leaking water pipes, swamps of water caused by blocked storm water drainage systems, water found in pits intended for domestic refuse disposal, water trapped in banana leaves which are now becoming increasingly common in the urban areas.

These diseases which account for about 70% of the cases reported in our health facilities are the result of poor management of the environment. Non communicable diseases resulting from industrial and indoor pollution have not been covered above. Indiscriminate disposal of industrial wastes is very common. Industries do not exercise enough care in handling wastes. The Raskazoni area of Tanga, the Msimbazi valley of Dar es Salaam, the Karanga River of Moshi are heavily polluted. One day Tanzania may experience what happened in the United States of America (Love Canal) where mutations, miscarriages and cancers turned to be major health problems to residents. This happened as a result of unsafe methods of disposal of industrial wastes assumed to be harmless.

Problems and Constraints

As mentioned above most of the communicable diseases encountered have a link to the inadequate supply of safe water. The current coverage of safe water supply stands at about 50% country wide. The water sources include gravity schemes, boreholes, protected wells or springs. By nature water is very safe. Contamination takes place immediately it touches the ground surface. Since man is the only host to most of the disease organisms, it is apparent that it is

man who is responsible for making the water hazardous. Constraints encountered in the provision of safe and adequate water supply to communities are varied and many. The most significant ones include:

- (i) Poor hygiene practices which lead to the contamination of water sources;
- (ii) Inadequate funding for operation, maintenance and expansion of water schemes;
- (iii) Application of sophisticated technology which villagers can not operate and maintain;
- (iv) Inadequate trained personnel for the operation and maintenance of the schemes; and
- (v) Inadequate involvement of the community and the private sector in financing and running of the water schemes.

Solid Waste Disposal and Sewage Treatment

That our environmental sanitation has considerably deteriorated can not be disputed. Littering of both liquid and solid wastes is a common phenomenon around many habitat. The traditional source of funding, the government, is now meagre. Beneficiaries do not readily support the government efforts. As a result there is almost a total collapse of the solid and liquid waste management. The situation is worse in the urban areas where currently there is an influx of people coming from rural areas to look for employment.

Whereas in the early eighties the urban population was about 5% of the total population, it is now estimated to be 15%. This influx of people contributes significantly to the burden of unattended liquid and solid wastes. It is estimated that 60% of the waste generated daily is neither collected nor disposed of.

Improper solid waste disposal has brought with it problems of attracting, harbouring, and breeding of vermins and rodents; spontaneous fires resulting in smoke pollution with nauseating smell; scavenging; and pollution of underground water.

The constraints encountered in the sanitary disposal of solid wastes and treatment of sewage can be divided into four groups:

- (i) Inadequate funding due to the unfavourable economic situation and the depreciation of the energy;
- (ii) Urban communities not being motivated enough to seriously take maintenance of the urban environment as their responsibility. The majority have a feeling that the levy they pay is enough to pay for all the services.
- (iii) The legislation in force is not explicit enough in about the roles of the communities in the upkeep of the sanitation. The penalties imposed for breaching them are very mild.
- (iv) Some of the technologies employed for the treatment of sewage can not be sustained given the costs involved.

Food Hygiene

The hygienic status of food commodities very much depends on the surroundings in which they are grown, stored, prepared, cooked or served. Contamination of food takes place through contact with dirty water, flies, rats, dirty working conditions, crockeries or food handlers.

Many incidences of food poisoning have been traced to storage or preparation under poor sanitary conditions coupled with the unhygienic practices of food handlers. Given the prevailing situation of inadequate and unsafe water supplies, insanitary facilities and environment and uncontrolled use of pesticides, most foods - if sampled and examined - would be declared unfit for human consumption because of bacterial load or chemical residues.

Under Nutrition

The state of the environment also has a bearing on the nutritional status of the community. Heavy worm infection, frequent illnesses such as diarrhoea or malaria are well documented. Malnutrition, particularly in children, contributes to the spread of these diseases. While worms feed on the already ingested food, diarrhoea has a tendency of purging out food from the intestines before they have had time to be assimilated and absorbed in the body cells. All in all, infections have a tendency of reducing the appetite of the victims, thereby leading to inadequate food intake for body nourishment.

It is basically the insanitary environmental conditions which lead to infections. Other factors include lack of nutritious food, poor feeding habits; inability to grow food crops because of droughts and desertification caused by indiscriminate felling of trees, poor farming methods or uncontrolled animal grazing.

Primary Health Care

The Primary Health Care (PHC) concept is a strategy towards achieving health for all by the year 2,000. It emphasizes equitable distribution of health services in the community; a multidisciplinary approach and collaboration; application of appropriate and affordable technologies; and full involvement and participation of the community in all stages of planning, implementation and evaluation of programmes.

The attainment of good quality health in a community depends on the contributions of many different sectors, including:

- ⇒ the Ministry of Water, Energy and Minerals for adequate and safe water supply;
- ⇒ the Ministry of Tourism, Natural Resources and Environment for game, fish, honey etc
- ⇒ the Ministry of Agriculture for household food security and nutrition;
- ⇒ the Ministry of Labour, Youth and Community Development for community mobilization, etc.

It is not, therefore, the responsibility of the Ministry of Health alone to ensure that the community is healthy. The PHC committees which, on paper, exist at

various levels of administration - from the village to the national level - do not meet as frequently as expected except in the event of an outbreak of diseases or epidemics.

Urban Infrastructure

The soundness of the urban environment depends on the infrastructure and constant servicing, repair and management. The problems in most of the urban areas are related to neglect and mismanagement and, to some extent, lack of funds. Going through most urban areas one can observe that there exists such things as: (i) master plans which provide for good parks, play grounds, markets, industrial areas etc; and (ii) fair piped water supply system.

The obvious signs of the existence of good storm water drainage, and sewage treatment systems are tarmac roads. But to the disappointment of many, all these are now in a mess. Master plans are neither followed nor respected any more. Most of the systems are not maintained. Surveys for new building plots are not done. People have, therefore, resorted to building without following building plans and regulations. Open spaces and dangerous areas such as swampy or flood prone zones have been invaded. The underlying causes for these problems are:

- (a) Inadequate funding for operation and maintenance;
- (b) Over-dependency on government funding and inadequate community involvement in the management and financing of the services; and
- (c) Laxity in the enforcement of the legislation.

Community Involvement

Over the years the government had assumed complete responsibility for meeting the full cost of providing social services; water, health and education. Although this approach was well received by the community, it has had its own pathological consequences, namely:

- ◆ The culture of self reliance has been eroded;
- ◆ It has not been possible to instill a sense of ownership of the facilities installed be they water pumps which provide people with clean and adequate water within easy reach or school buildings where children get education. Instances of vandalism or thefts committed by the beneficiaries of these facilities are common.

With the deep rooted assumption that communities are passive recipients of government provided 'free' services, the new advocated strategy of cost sharing and private sector involvement aimed at ensuring sustainability of services, has not been well received by the people.

Institutional and Administrative Consideration

There are some issues, which if adequately and appropriately addressed, could lead to some improvements of the environment, not least of them being:

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- (ii) Environment, strategies for the health sector should include:
 - (a) involvement and mobilization of the community to actively participate in the planning and implementation of environmental health programmes and activities in terms of labour, funds and other resources;
 - (b) encouragement of the private sector to undertake various programmes aimed at providing services to the communities to complement the government efforts through enactment of legislation to;
 - (c) identification of appropriate and affordable technologies for the collection and safe disposal of solid and liquid wastes and at the same time train communities on operation and maintenance of the sanitary facilities;
 - (e) intensification of personal and home hygiene education to the community to reduce incidences of diseases resulting from ignorance;
 - (f) strengthening of educational programmes to the community for safe storage, handling and use of chemicals;
 - (g) strengthening of supervisory skills and monitoring of workplaces, in industrial and agricultural settings to ensure the workers are free from occupational hazards;
 - (h) review and enforce health legislation for purposes of protecting the communities against deleterious effects in the living and working environment; and
 - (i) Operations research.

- (iii) Effective instruments for the implementation of the policy include:
 - (a) guidelines which clearly define the roles of different actors involved in the promotion of environmental health;
 - (b) Primary Health Care Strategy which spells out the role of committees (multisectoral) at various levels enhancing the health of the communities in both rural and urban areas.
 - (c) Health education literature with well identified communication channels aimed at creating awareness to the communities on health issues thereby enabling them to take measures against diseases and other health risks.
 - (d) Legislation empowering the private sector to participate fully in the promotion of sanitation.
 - (e) Well trained personnel with appropriate equipment capable of meeting the challenges of modern technologies.

- (iii) Effective measures for the mitigation of environmental problems include:
 - (a) Development and distribution of environmental health guidelines and strategies to relevant actors charged with the responsibilities of promoting the sanitary conditions of the environment (including places);

- (b) Strengthening of the PHC Committees at all levels;
- (c) Identification and training of community artisans and animators for the promotion of appropriate and affordable technologies;
- (d) Mobilization and management of local resource for sustenance of environmental programmes;
- (e) Identification of appropriate latrine designs and simple water supply sources for improvement;
- (f) Conducting of health and hygiene education campaigns and distribute Information, Education and Communication (IEC) materials to communities;
- (g) Encouraging central and local authorities to give priority and budget for tools and equipment for the implementation of environmental health programmes;
- (h) Utilisation of the private sector in the proper management of solid and liquid wastes in the urban areas to complement the efforts of the local authorities;
- (i) Regular supervision and monitoring of workplaces to ensure their safety for workers and farmers;
- (j) Identification of all sources of pollution and take appropriate measure for their abatement;
- (k) Developing standards of food premises and code of conduct;
- (l) Review or formulate and enforce environmental health legislation.