

Land pollution in dar es salaam urban city assignment



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The concept of land pollution by government is so wide and complex because it has been conceptualized differently by different actors such as organization, government itself and private sectors through over time. This includes responsibility of the government and non-government actors about the cause, effects and solution to land pollution problem.

Land pollution is said to be a threat to urban dwellers in both developed and developing countries. As a population growth rate and arbitration become increased, solid and chemical waste is generated due to different activities including industrial and human activities. Arbitration as argued by Dubbed (1990: 17) defines arbitration as a community consisting of a large concentration of population in a relatively limited geographical area.

This is activated by the production of manufactured goods and distribution of various types of goods and services involving high degree of specialization and complicated technology. The main objectives of this research paper are to explore the industrial activities to land pollution problem in relation to urban city change in Dar es Salaam Tanzania. The study is generally aimed to explore Dar es Salaam urban city planning for solid waste management system and the currency of land pollution in areas of Leila, Kingdom and Teemed municipal.

The study was done through library research on land pollution, internet search about the root cause of land pollution, its effects and solution in Dar es Salaam city among the other cities in East Africa and Africa at broad. Land pollution is seriously in areas of all, Teemed and Kingdom municipal where planning and sewage system are poorly developed. Today the

garbage and other solid waste appears to be much in these areas and other urban dwellers and visitors in the country where plastic bags and cans are being used.

More data about this study have been collected through internet search, library search where few literature have been written little about land pollution in urban cities and other data were primarily obtained through oral and observation through naked eyes like poor toilet systems, sewage system, even here at university Dar es Salaam particularly main campus and Mambo hostel where sewage system are poor due to frequent leakage and pollutes environment while others are secondary data related to the research topic.

Other waste generated around this area including water bottles and plastic gas which are being used by almost all students and thrown everywhere around these areas. Few data were collected by relating solid waste management, water resource management and energy resource management where quantitative and qualitative approach is used in this study. Other scholars argue that 'rural-urban migration in Tanzania is high' and the urban population increased from 15 % of the total population in 1980 to 33% in 2001 (World Bank, 2003) and it has been estimated that by 2025 more than half of the population in Tanzania will live in urban areas.

Today the urban planning is inadequate. Consequently, the urban expansion lacks consideration of environmental issues (land, water quality and supply, sanitation and solid waste management) or urban-rural development effects.

The current population growth rate according to Macomb, (2008 p. 14) is 4.9

per annum. This means that there is an increased rate of solid and chemical waste generation in Dar es Salaam urban city with its three municipalities of Leila, Kingdom and Teemed where solid and chemical wastes are being generated.

The city is bound to come up with effective strategies for land pollution control for sustainable future generation. Various sources of land pollution show that industrial activities which are carried out in urban cities including Dar es Salaam creates land or soil pollution, Jeanne Meager (2011) contents that the amount of waste produced by human societies is increasing. Pollution being a major problem in urban areas of Tanzania is due to improper treatment and disposal of solid and liquid wastes that contribute to urban area pollution.

The combined result of these problems on land is that both air and water also have been contaminated with pollutants from land environment which are detrimental to human health. In Dar es Salaam, for example, less than 5% of the population is connected to a sewage System. Where a sewage system exists, raw sewage is discharged directly into the Indian Ocean without prior treatment. The following are the suggested methods which are advised to be used; Dumping process and refineries of wastes, Sanitary landfill, Compost method and Incineration/burning of waste, but these methods have failed to set land free from pollution.

Therefore land pollution means degradation or destruction of the earth's surface and soil directly or indirectly as a result of human activities.

Encyclopedia Britannica define land pollution as deposition of solid or liquid

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waste materials on the land or underground that threaten the public health and cause unsightly condition and nuisances. In Dar es Salaam urban city landfill and land reclamation have led to land deterioration through landfill contents.

Although different strategies for land pollution control are being suggested and drafted, land pollution is still a problem in Dar es Salaam city due to population increase that according to Jeanne Meager (2011), the amount of waste produced by human societies is increasing which creates industrial effluents discharged from chemical industries, paper and pulp mills, tanneries, food processing industries, power plants like Bungu power plant in Morogoro municipal which generate 'fly ash' and among the others.

To manage land pollutants in the city is very costly and therefore the city at one stage is experienced mushrooming heaps of uncollected garbage, this waste produces smell which attracts flies that cause health problems to the city dwellers. However, presently there are some signs of improvements although generally Tanzania has no culture of sorting out solid waste before disposal. Solid waste is collected and transported by contracted private companies to the dumpsites.

It should be noted that all dumpsites in the city generate a lot of health and environmental problems. Encyclopedia Britannica contents that, deposition of solid or liquid waste materials on land or underground leads to threaten of public health and cause unsightly condition and nuisances. The idea of introducing sanitary landfill is ever talked about but never implemented by

the government, Living (1999) contents that urban pollution is a major problem in urban where solid and liquid waste is a major contributor.

Also the Daily Newspaper sometimes back carried a story entitled, ' Garbage dumps mushroom in Dark streets' but this situation is not gloom as such because private and public agencies play a part to collect garbage and transport them to dumpiest by trucks while some waste are often burned. Therefore, Ajar N (2011), argues that ' all substances or compounds that enter the soil/the land are potentially contaminants'; therefore we should recycle, reuse or reduce them. Some settlements such as Bunting and Hangnails are located along the Amazing River which cuts across Dark-sees-SIAM city from East to West dividing the city into two parts North and South). The river's basin is mainly vegetated by mangrove swamps'. The area is popular in Dark sees Salaam because of the role it plays in the urban economy. Most of the fresh vegetables, I. E. Macho (spinach), sold by street vendors in Dark-sees-Salaam are produced there and their residues are thrown away improperly, this leads to land pollution. In order to meet human needs like food production, manufacturing and processing of finished goods and packaging industries are established and increased rates of use have raised the rates of waste generation and regrettably the present technologies Anton cope with the increased rates of disposal.

Industrialization process therefore contribute to land pollution through by products of food stuffs and chemicals which are highly toxic are being generated, poor sewage system treatment contributes to land pollution through solid waste and liquid waste is being left during sand mining sites or overcrowded sand mining agricultural products (food stuff remain), municipal <https://assignbuster.com/land-pollution-in-dar-es-salaam-urban-city-assignment/>

and house hold waste such as papers, ashes, glass, metals bottles and plastic are some sources of waste or pollutants in areas of all, Kingdom and Teemed municipals.

Several industries located along Pug Road industrial area discharge their waste materials like factory rubbish, packaging waste material, organic waste, scrap metals, tars, dyes, slag's, batteries and other heavy metals into land (Stonewashed).

The situation is environmentally unacceptable, other waste can be generated from shops, homes like bags, empty cans, glass, bottles, Waste paper, diaper, cloth or rags; bio medical Waste like pathological and anatomical waste; construction/demolition waste like concretes, debris, woods; horticulture waste like vegetable parts, residues and remains of laughter animals like bones are also discharged to land. In Tanzania, some of the root general causes for environmental land degradation are unsustainable farming and mining, overgrazing, uncontrolled forest clearing and wild fires.

Other drivers include: inadequate alternative energy sources; a lack of financial institutions that provide credit to farmers to acquire or develop land; LACUNA annual report (201 2/ 201 3) contents that rapid population growth resulting in pressure on land resources. Therefore land pollution in Dark sees Salaam urban city is as a result of industrial activities, unman activities, poor urban planning and population growth rate. Sand mining for construction activities is being undertaken within the Dark sees Salaam City in areas which are not designated for such activities.

This phenomenon has created conflicts between residents and city authorities and ultimately undermined principles of urban planning. It has created big holes which essentially affect the aesthetic features of the area. This activity has potentially exacerbated soil erosion and resulted into a loss of productive land. The Government passed the Environment Management Act of 2004 for effective and sustainable management of the environment. Hence, enforcing of special laws pertaining to environmental management is emphasized.

Meaningful and effective environmental law must be clearly understood and treasured by the communities and individuals whom it is aimed. The legislation sets out standards and procedures, duties and limits, create obligations for all stakeholders, which will fit human activities and govern land resource sustainable. Waste transportation and collection according to Encyclopedia of environmental pollution and its control Volvo. IV (1989), involves lit modal combination of public and private agency like trucks, walking and head carrying depending on accessibility.

These trucks some are owned by government and others by private trucks where bottles for cooking oils, local liquids are being collected and recycled. Also some metals like aluminum are collected to be recycled; crude oil is refined to produce usable diesel, gas and petrol. In the process of waste treatment some waste are biodegradable and easily dumped while others are non-biodegradable and are difficult to recycle, this cause land pollution. In developed countries nuclear waste nutrients to land pollution by generating radioactive materials that contain chemicals which affects human health and land environment.

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It is believed that with strong government and institutional framework which is well coordinated all the above environmental problems could be resolved. The major sources of land pollution in Dark sees Salaam City are motor vehicles that believed to be the primary source affecting ambient land quality, industrial pollution and residential burning of fossil fuels is another source for pollution. Automobile oil spills on land is a growing problem in Dark sees Salaam City and as such it needs immediate attention before it goes Out Of control.

Environmental expenditure review PEER (2004) reports that large amount of waste particles such as woods, metals, bricks, electronic wires and plastics are generated during road construction, rail ways and houses. Classification of solid waste in these areas includes; garbage or decomposable waste, rubbish which can be combustible and non-combustible waste like paper, wood, cloth, rubber leather and garden waste, ashes, industrial solid waste and agricultural waste among the others.

The simplest method which have been seed to collect these waste includes crude tipping or open dumping like at Tab dump site, this method is commonly used to those cities found around Indian Ocean and other method adopted but never implemented in Dark sees Salaam city is landfill for solid waste. Inadequate urban planning is a significant driving force behind rising pollution levels, because residential and commercial centers are often far apart, forcing mass movement of workers on a daily basis by using motor vehicles.

Soil pollution; soil is being polluted as a result of land degradation through chemical fertilizers which are in liquid while others are in soil form, this weakens the soil quality. Therefore water or wind can easily remove top soil part. Another effect is the change in climate patterns due to global warming as a result of deforestation and on the other hand poor urban planning and other human activities contribute to an ecosystem that in turn leads to climate change because of ozone layer depletion as harmful gases are generated due to the smell of garbage.

Land pollution also leads to public health problems like diseases because it encourages the growth of flies which transmit typhoid fever, cholera, dysentery among other diseases. Directing sewage disposal from land to the ocean leads to the death of marine organisms and burning of waste leads to soil acidity. Various ways should be employed by government and private agencies on how to solve the problem of land pollution in rapidly growing urban cities in Africa including Dar es Salaam in Tanzania.

The ways to be followed include; Education to the people should be provided so as to be aware about the concept of reduce, recycle and reuse products; the use of pesticides, insecticides and agricultural chemical fertilizers should be reduced in favor of using gardening or organic foods, the government and land managers should encourage buying or importing biodegradable products that do not affect land by either direct or indirect means; and the government or private agencies should encourage selection of open dumping sites which is a cheap method and providing public sanitary facilities for general environmental management like trucks and dustbins, introduction of national sanitary landfill, development of physical

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infrastructure and proper chemical waste disposal. Research paper writing as process of doing critical reading has been limited with time and books material about the topic.

Time constrain ND lack of money for travel contributed this research paper to be conducted through telephone interview, internet search, email and library where very few readings related to research topic are found. The study attempts to cover a cross section of land pollution in Dark sees Salaam urban city and their surroundings with a varying action/cause, effects of pollutants or pollution as well as regulatory measures to overcome the problem. The main concerns in waste management are proliferation of plastic in waste streams, industrial waste, oil pipe leakage and sewage leakage. Engineering option for waste espousal in Dark sees Salaam is limited due to poor land planning and urban city planning, many open dump sites are not used properly and lack of national sanitary landfill.

In different literatures, waste generation from various source is viewed to be disadvantageous and harmful to land and human health as it pollutes and contaminate the environment and attract flies which health leads to diseases like dysentery, diarrhea and typhoid but in the other side, waste if treated properly can be useful especially biodegradable waste can be used as sources of composite manure. It is not only all pollutants are harmful o environment but also some are useful as they save some microorganism in land. Land pollution in urban cities in developed and developing countries is generally as a result of different factors such as industrial activities, human activities, mining and agriculture activities. In Dark sees Salaam urban city, pollution is due to rapid population increase versus poor urban planning.

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Tanzania government has proved failure in urban planning in Dar es Salaam city hence it is difficult for land managers to control land pollution, 'the natural environment has always been exploited to fulfill human needs but in this century the scale of our demands has grown so large that we are degrading the ecosystem upon which our health and livelihood depends' World Bank, (1998) Pl. Technologies from outside has led to challenge in land management policy because it generates solid and liquid waste that pollutes the land environment as they are deposited inland. There should be land saving technology (LAST) in order to save environment from pollution.