



AgEcon SEARCH

RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Compliance with Planning Regulations in Hazardous Areas and its Impacts

A Case of Msasani Bonde la Mpunga in Dar es Salaam City, Tanzania

¹Najum Juma, ²Regina John

¹Master student, Department of Urban and Regional Planning, Ardhi University P.O. Box 35176, najum0124@gmail.com, Dar es Salaam, Tanzania

²Lecturer, Department of Urban and Regional Planning, Ardhi University P.O. Box 35176, reginajohn2000@gmail.com, Dar es Salaam, Tanzania

ABSTRACT

Most of the cities and urban centres of developing nations, Tanzania inclusive are faced with increased urbanization coupled with informal land development in non-designated areas including marginal and hazardous lands. This paper reports the findings of a study undertaken to assess the processes of land development and the associated impacts in Msasani Bonde la Mpunga, a flood prone area in the City of Dar es Salaam. Based on official and household survey, non-participant observation and documentary review, the study identified that the processes of changing the use of the land and developing the area were in contrary to the existing regulations including the Urban Planning Act, 2007 as well as the National Environmental Act of 2004. This has resulted into multitude of impacts including formation of temporary ponds surround the houses, physical inaccessibility of the area, prevalence of water borne diseases as impact on properties and local businesses. Marked improvements can be achieved by reviewing the detailed plan for the area to accommodated needs for provision of water ways for draining the area as well as provide development conditions taking into account the natural role of the area as a drainage channel of the city.

Keywords: None-Compliance; Planning Regulations; and Hazardous area; Land Use Change; Dar es Salaam City

1. INTRODUCTION

The world is currently facing major challenges related to urbanization where spatial development and expansion become inevitable process within cities and other urban centers (Thomas, Serwicka, & Swinney, 2015). In most of developing countries, Tanzania inclusive, urbanization is coupled with informal land development in non-designated areas including hazardous lands (Dodman et al. 2009; UN-Habitat 2010). This is mainly due to shortage of funds by the governments to provide enough serviced land for better housing, (Kombe and Kreibich, 2006; UN-Habitat 2010). As a results, the absence of enough surveyed and serviced land have encouraged some people in the urban areas to take self-initiatives to get access to land in either ways informally. For instance about 80 percent of population in the city of Dar es Salaam are living in the informal settlements, (Lupala, 2015). The informal access to land sometimes involves encroachment of reserved or hazardous areas, which are not suitable for human settlements (Kiunsi, 2013). Land development in reserved and or hazardous land mostly occurs in prime areas where rural to urban migrations have led many migrants succumb to challenges of poor and serviced plots. As such challenges pervade, areas close to CBDs have been under pressures of invasion from urban dwellers especially in the areas where responsible authorities for managing urban centers fail to enforce laws and ensuring development control.

The Tanzania Urban Planning Act No.8 of Planning, 2007, provides hazardous areas as those areas which are restricted for any built activities as they can pose to dangers. These areas includes, mangrove swamps and coral reefs areas, wetlands and offshore islands; land

designated or used for the dumping of hazardous waste; land within sixty meters of a river bank, shoreline of an inland lake, beach or coast and land on slopes with a gradient exceeding any angle which the Minister shall, after taking account of proper scientific advice, specify (URT, 2007).

In Tanzania planning permission for land use development in urban area is granted by Local Government Authorities (LGAs), which provide building permits for land use development. Also LGAs are responsible for preparing physical development plans for their respective areas and apply to the responsible Ministry, the Ministry of Lands, Housing and Human Settlement Development (MLHSSD) for approval of such plans. In other way, the MLHSSD is also responsible for granting permission for development by approving plans issued by the LGAs (URT, 2007). This is to say that if it happens that a development permission is granted in hazardous land then that is not an unconsciously activity, rather than a well organised and deliberate effort that is planned in advance and accomplished in a manner of precision and discipline.

2. BACKGROUND

2.1 Location of the study area

Msasani Bonde la Mpunga has a mixture of formal and informal land development comprising of commercial, residential as well as institutional land uses. It is situated in the north eastern part of the City of Dar es Salaam, about 6 kilometers from the Central Business District (Figure 1). The area covers an area of about 206 hectares; and is generally a low lying (flat) area, the highest altitude being 4 meters above sea level. Most of the area lies between 0 and 3 metres above mean sea level.

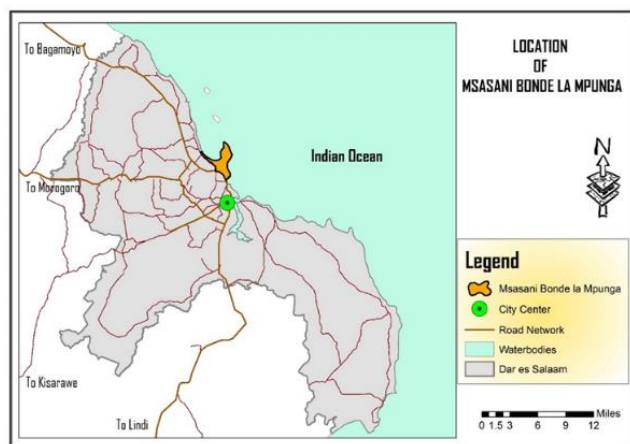


Figure 1: Location of Msasani Bonde la Mpunga in Dar es Salaam City

Msasani Bonde la Mpunga borders the old Bagamoyo road in the Western and South Western side, Maandazi road and the informal settlement of Msasani Mikoroshoni in the East and South Eastern sides, and the Indian Ocean to the North. The area is also close to the planned and high income residential area of Msasani and the USA Embassy.

The central part of Msasani Bonde la Mpunga is the lowest and is like a depression where water logging is experienced and thus experience flooding the most (Figure 2).



Figure 2. Bonde la Mpunga and the neighboring areas

Source: John (2015)

2.2 Historical development of the study area

Being close to the Indian Ocean, Msasani Bonde la Mpunga was historically one of the main drainage basins of Dar es Salaam City and an outlet of the Kijitonyama River that bisects the settlement. In the 1960s, the area was largely under farming.

The development of Msasani Bonde la Mpunga can be traced back to the 1970s, during when the area was mostly virgin with some few temporary huts that were built of mud and tree poles roofed by thatch or pieces of tins to provide shelter for paddy growers most of whom were residents of the nearby settlement. In 1979, some few residents started to elect permanent structures. In the same year, the Dar es Salaam Master Plan was produced and in recognition of the importance of the area as a drainage basin of the city, the plan designated the area as a “hazard land” (Kiunsi et al., 2009).

However, as pressure on land in the City increased, especially after the government adopted economic liberalisation policies starting from the mid 1980s, the demand to change the land use from a wetland to residential cum commercial use mounted. In the mid-1980s, the area started to change rapidly from wetland to residential and commercial areas. The responsible planning authorities were involved in the land use changes where in 1992, the Dar es Salaam City Council and the Ministry responsible for urban planning prepared and approved a local subdivision plan whose plots were allocated to both private commercial (e.g. Petrol station and shopping malls) and public institutional use (e.g. Tanzania Electric Supply Company (TANESCO) (Kiunsi et al., 2009). In 1996, the then Dar es Salaam City Commission prepared the Bonde la Mpunga Development Plan, which proposed the area to be used for construction of waste stabilization ponds for treating

wastewater from the surrounding areas, a plan which was not implemented. In 2001 the Municipality prepared another layout plan which accommodated two large commercial investments namely, a shopping mall and hotel apartments.

The development of the two large investments obstructed the main drainage channel which had for decades discharged storm water runoff from upland catchment areas into the Indian Ocean, and thus increased the risk of flooding in the area (John, 2015).

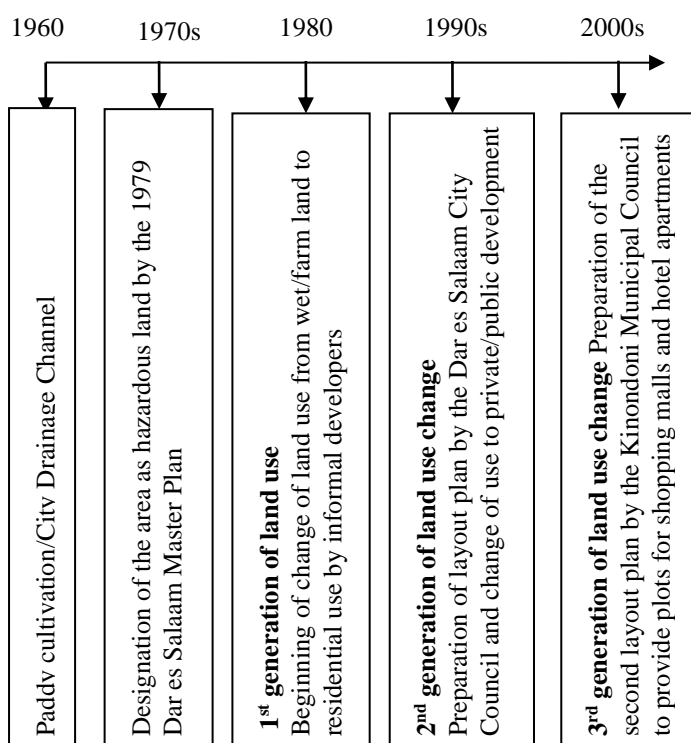


Figure 3. Major land changes in Bonde la Mpunga

Source, John, 2015

Currently, the settlement has been developed into up market residential, commercial and institutional land uses. Part of the low-lying area, which used to be an open area, has been filled up and is accommodating large buildings for institutional, commercial and residential apartments (John, 2015). There also exist low income residential buildings which are consistently being replaced by large commercial

buildings. Most of the buildings have been built on the highly flooded area with various physical implications including re-routing of the main storm water from its natural path to pave way for building development in the area as well as blocking of the natural water flow pattern. Other developments have reclaimed the wet land through back filing. While most of the low income residential buildings emerged informally the commercial and institutional investments received approval of the Planning Authority, i.e. the Kinondoni Municipal Council. The paper therefore discuss the processes of land development in the area including the changes of the use of the land and how it adhered to the existing land and planning regulations and their resulting impacts.

3. DATA AND METHODS

A mixed approach combining both qualitative and quantitative methods for data collection and analysis was employed. Quantitative data included spatial developments trend of the study site from 1982 to 2016. The spatial data were collected through GIS mapping and analysis of the satellite images of different years.

Qualitative data included non-spatial data such as land use types, household socio economic characteristics, factors and processes of developing the land as well as challenges faced. The qualitative data were collected through household and key informant interview with an aid of standard interview guides, one for the latter and another for the former. Key informants included officials from the MLHSSD, Kinondoni Municipal Council and from the National Environmental Management Council (NEMC) as well as the large investors.

Data and information collected through household and key informant interview as well as GIS mapping and analysis of satellite images were triangulated through non participant

observation. Documentary review was also used to capture secondary information regarding the development process of the study site as well as existing regulations guiding land use change and development.

4. RESULTS AND DISCUSSION

Currently Msasani Bonde la Mpunga has a total population of 17,553 comprising low, medium as well as high income individuals. John (2015) noted that income levels in Msasani Bonde la Mpunga vary significantly; with the lowest monthly income being less than Tshs 100,000 (~USD 45) and a highest income Tshs 8,000,000 (~USD 3636). The analysis shows that land use at Msasani Bonde la Mpunga has changed from hazardous to intensive formal and informal land development of different buildings structures and use including commercial, institutions as well as residential houses and apartments (Figure 4).

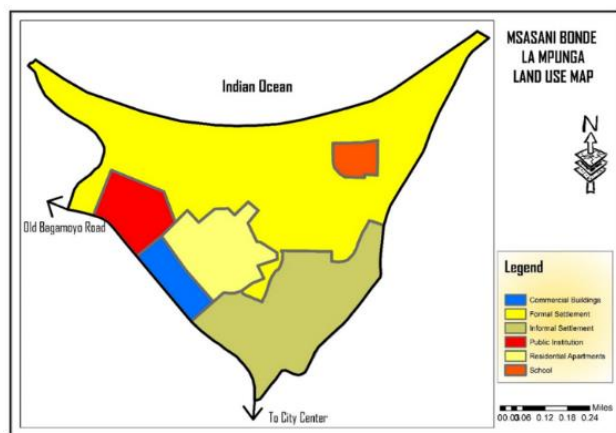


Figure 4. Land Use Map of Msasani Bonde la Mpunga

Household interview conducted to a sample of 130 households' living at Msasani Bonde la Mpunga revealed that, preference to reside in the area arose from two main reasons; one is availability of social services and second is the closeness of the settlement to the CBD (Figure 5).

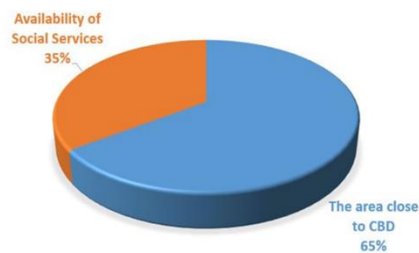


Figure 5: Reasons for Households' preference to reside in Msasani Bonde la Mpunga

It is therefore apparent that on the one hand, the desire of the individuals and households to stay close to the CBD as well as the easy access to various public and social services are among the factors for the change of the use from a wetland into a residential, commercial area.

On the other hand, interview with key informants including officials from the Central and local government authorities responsible for managing and controlling development of the area revealed developmental and economic reasons for changing the use of the land. It was noted that the change of use of the area aimed at controlling the development condition of the area as the area had already started to develop informally. Economically, the change of use was influenced by the proposed uses of the area which brought expectation of increasing land value of the area. The envisaged land value of the area was also expected to increase revenue to the Kinondoni Municipal Council, the LGA through plot selling to investors. The change of use also aimed at improving neighborhood compatibility of the area by harmonizing the major existing and proposed developments in terms of institutional, commercial and residential use.

4.1 The Process of change of the land use

The process of changing the land use at Msasani Bonde la Mpunga involved a number

actors including the private investors, land holders, Local Government Authority, as well as the Central Government. The process involved a varied number of activities and steps conducted by the different actors. The process was initiated by private investors/developers who acquired land from individuals who were the natives/paddy growers in the area. The stage of land acquisition involved largely the land owners and developers. The next step after land acquisition was application for the change of use by the private investors to the Kinondoni Municipal Council. The reviewing and processing of the applications of the change of use called for the submission (by the applicant) of essential attachments including the purchase agreement and the architectural drawings showing the proposed developments on the land. After reviewing and agree with the proposed changes, the Local government Authority prepared a layout plan of the area and a report, which were submitted to the Urban Planning Committee¹ for approval. The Urban Planning Committee included among others the Ward Councilors who are representatives of the residents, to ensure that the interests of the existing communities are taken care off. The Urban Planning Committee reviewed, discussed and approved the proposed changes. After being approved by the Urban Planning Committee the pan was submitted to the MLHSD for approval. It was not however evident as to whether the approval organs also considered the possible challenges that could result from the changing of the use from a wetland into a residential/commercial/institutional use. Figure 6 shows the steps and actors involved in the change of the use of the land.

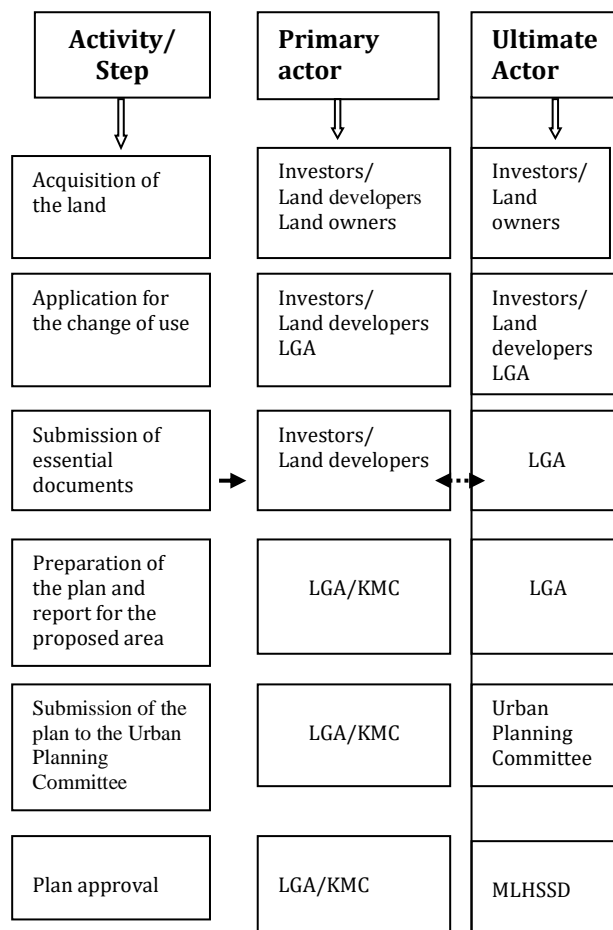


Figure 6. The process of change of use at Msasani Bonde la Mpunga

The foregoing depicts the process used to change the land use in Bonde la Mpunga. However, the Urban Planning Act No 8 2007 provides for the process for the change of use of any land in Tanzania. The Act provides for the manner and form in which an application to change use of land shall be made to the Planning Authority. These include

Section 32 subsection (2) of the Act clearly provides that in considering an application, the planning authority or the Director may, subject to the regulations made under the Act, grant consent to develop or approval to subdivide land or to change the use of land, as the case may be, either unconditionally or subject to such conditions as may be necessary or may

¹ Urban planning committee include among the Ward Councilors Town Planners from the Municipality and Ministry of Land Housing and Human Settlement Development

refuse the application. The Act further stipulates that in dealing with any application of the change of use of land, the Director shall act in conformity with the provisions of the general planning scheme and any other approved scheme (URT, 2007). This is to say that any change of use of land approved in Bonde la Mpunga ought to have conformed to the then 1979 Master Plan. Moreover, the Urban Planning Act 2007 provides that a general planning scheme shall be a guide to all persons involved in town planning. Therefore change of land use at Msasani Bonde la Mpunga ought to have been guided with the 1979 Dar es Salaam Master Plan. Table 1 compares the process used in changing the use of land at Bonde la Mpunga versus the provisions in the Urban Planning Act 2007.

Table 1. The process used to make land use change at Msasani Bonde la Mpunga versus the existing regulations

Process as provided by the Urban Planning Act No 8 2007.	Procedures used to make land use changes in Bonde la Mpunga
Initiate the process by passing a resolution of intention to prepare a detailed scheme	Process initiated by land developers/investors who acquired land from the indigenous/native land holders.
Convene a meeting of all stakeholders,	Application for land use changes- and submission of architectural drawings. No meeting was convened
Preparation of the detailed planning scheme; by the planning authority upon a positive resolution by the aforementioned meeting	Submission of ownership attachments and preparation of detailed planning scheme, albeit not informed by wide stakeholders consultation
Conduct a public hearing or hearings in the planning area the planning authority	Preparation of the Plan and report of the proposed site

within three months of the making of the scheme shall

Make alterations or modifications, if any, by taking into account the results of public hearing before submitting it to the scheme for its approval.

Approval of the plan

Presentation of the plan and report to the Urban Planning Committee

Approval of the plan

Table 1 reveals some incongruence's between the stipulations in the Urban Planning Act 2007 and what actually took place as far as change of use of the Land in Bonde la Mpunga was concerned. For instance, while the regulation requires the process to begin with a resolution by the Planning Authority to prepare a detailed planning scheme, in actual undertaking, the process was initiated by Land developers or investors. It thus implies that prior to the preparation of the detailed planning scheme, the planning authority; the Kinondoni Municipal Council (KMC) should have requested the Director of MLHSD to make amendment of the existing Master Plan to provide for the preparation of the detailed planning scheme. Kiunsi (2013) noted that the 1979 Dar es Salaam Master Plan identified the need to prevent or restrict residential developments in areas at risk from floods and erosion in Dar es Salaam but commercial and residential developments were subsequently approved in such areas.

The planning authority should have also conducted a meeting with all stakeholders who are seemed to be affected with the proposed plan including utility agencies and environmental commissions. If the meeting was conveyed and perhaps resolution passed, then development criteria could have been set with regard to environmental impact assessment that should be conducted by the National Environment Management

Commission thus these existing problems could be overcome. However, there are also higher chances that if the meeting was held the resolution could not have been passed because the area acted as drainage channel for the City. Kiunsi (2013) noted that

The 1979 Dar es Salaam Master Plan identified the need to prevent or restrict residential developments in areas at risk from floods and erosion; but commercial and residential developments were subsequently approved in such areas

4.3 Prevailing risks and impacts associated with the land use changes at Msasani Bonde la Mpunga

Data collected through household and key informant interview as well as field observations shows the flood risks have increased in both the planned and unplanned parts of the study area. It was revealed that large proportion of the households; more than 80 percents are affected by floods during different periods of the year (Figure xx)

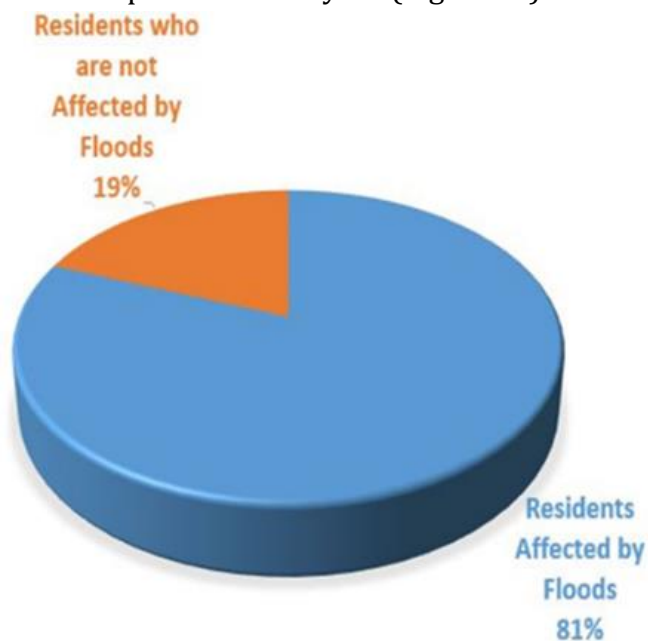


Figure 7: Flood effect

It was further revealed that the depth of flood waters reaches as higher as 1 and 1.5 meters

above the ground level. John (2015) noted that high inundation levels in Bonde la Mpunga makes many households suffer adverse consequences during flooding periods. The swampy nature of the area and the flooding problem makes some houses wet more or less throughout the year (Kabisch, et al 2015).

Severe floods result into multitude of problems including poor physical accessibility of the area due to inundation of roads and pathways. Plate 4.2 shows an example of a local street filled with mud resulting from flood waters la Bonde la Mpunga.



Plate 1: A local street in Bonde la Mpunga affected with floods

Stagnant water which results from blockage of storm water drainage channels also leads to occurrence of water borne diseases within the settlement. Data collected from one of the health facility in Bonde la Mpunga revealed a prevalence of water borne diseases especially to children. Figure 8 shows statistical results on number of individuals affected with water borne diseases between March and April 2016 in Bonde la Mpunga.

John et al 2014, noted that, apart from health problems, children and women are the most flood affected individuals due to a number of social factors including increased women burden related to taking care of sick children as well performing house chores in stagnant and contaminated water, while school going

children are forced to abandon classes due challenges related to physical inaccessibility.

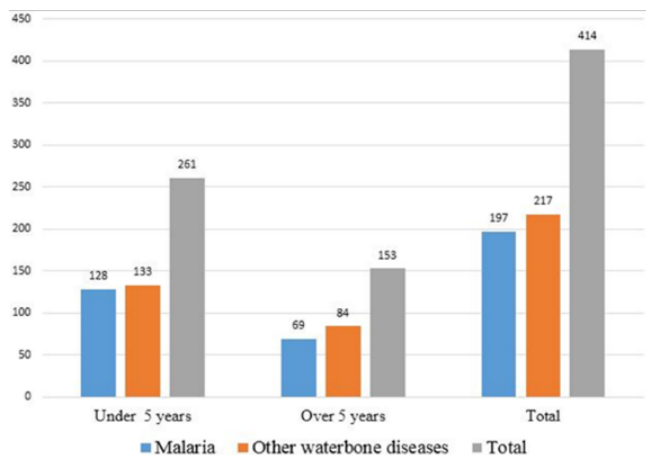


Figure 8: Number of individuals affected with water borne diseases in Bonde la Mpunga

Flooding also affect properties and local business as the stagnant water obscure access to the business facilities (Figure 9).



Plate 2: Effects of flood on commercial buildings

The findings regarding the impacts of flooding into buildings and other physical properties are in line with observations by Mbuya (2017) that urban houses are vulnerable to floods, which affects the properties themselves, occupants and livelihood lines, which increases the vulnerability in many folds. Jalayer, et al (2015) underscored that urban built structures and lifelines in African cities are particularly vulnerable to extreme weather-related events

such as flooding and with the current trends of uncontrolled urbanization and informal land development, building structures constructed in flood prone areas might require up to 30% of the costs of the building as an expected annual replacement costs.

Some impacts include collapse of adobe (mud and pole) houses, walls and floor cracks, water intrusion into buildings, indoor and outdoor inaccessibility, and loss of livelihoods most of which are home based.

The land use change at Msasani Bonde la Mpunga has led into loss of natural filtration ponds and wetland as a part of biodiversity which previously functioned as outlet of surface water to the Indian Ocean. The impact has been the formation of artificial ponds surrounding or close to residential houses (Figure 10)



Figure 3: Artificial Pond at House Backyards in Bonde la Mpunga

The formation of artificial ponds results from blockage of water ways which used to take the rain water to the Indian Ocean.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

According to the 1979 Dar es Salaam Master Plan, Msasani Bonde la Mpunga is a hazardous area, set aside to function as filtration area for surface water from different parts of Dar es

Salaam city towards the Indian Ocean. The development of the hazardous area into the unplanned as well as planned with the former resulted from changes of the land use approved by both the KMC and the MLHSD fell short of adherence to the Urban Planning Act of 2007. The change of land use was also in unaccordance to the Tanzanian National Environmental Act of 2004 section 52 (i) which provides for the need to protect all land declared under any written law to be environmental sensitive area or hazardous land.

As a result of the changes of the land use, Msasani Bonde la Mpunga has significantly changed from a wetland and drainage basin into a commercial, residential and institutional land. However, frequent flooding is a serious problem, which impacts the properties, local business and residents of the area. The impacts associated with flooding problems unfolds into cascading impacts which results into vicious cycle, especially to the low income households as they struggle to cope and or adopt to the impacts (John et al, 2013).

5.2 Recommendations

The change of the use of land in Msasani Bonde la Mpunga neither took into no account the natural functions of the area as a drainage basin for the City of Dar es Salaam and the associated negative impacts that could result from the changes. It is therefore recommended that there is a need to amend the detailed plan to take into consideration the need for provision of water ways so as to allow the rain waters to take its natural course to the Indian Ocean. In accordance to the Urban Planning Act of 2007, the amendment of the detailed plan ought to involve all the key stakeholders including the National Environmental Management Council, the MLHSD, The LGA,

the civil society organizations, the private sectors as well as the wider community. Furthermore, the plan ought to provide the guidelines and restrictions for developing the area, which have to apply both to the existing as well as to the future buildings.

It is also recommended that in order to ensure all hazardous areas within the City are identified and demarcated. In addition the Planning Authorities, specifically, the Kinondoni Municipal Council should adhere to the existing regulations and exercise development controls to ensure that all other hazardous areas, including undeveloped pockets at Msasani Bonde la Mpunga remain undeveloped so as to avoid negative consequences which may result from their development.

5. REFERENCES

- Jalayer, F., De Risi, R. Kyessi,A., Mbuya, E., and Yonas, N. (2015). Vulnerability of Built Environment to Flooding in African Cities, In: Pauleit, S., Coly, A., Fohlmeister, S., Gasparini, P., Jørgensen, G., Kabisch, S., Kombe, W., Lindley, S., Simonis, I., and Yeshitela, K. (Eds). *Urban Vulnerability and Climate Change in Africa: A Multidisciplinary Approach.* pp.76-106. Springer International Publishing, Switzerland.
- John, R. (2015). Vulnerability of households to climate change induced hazards. A case of flooding in the City of Dar es Salaam. Unpublished PhD Degree Dissertation, Ardhi University, Dar es Salaam Tanzania.
- John, R., Jean-Baptise,N., and Kabisch, S (2013). *Household Adaptation Strategies Towards Climate Change Induced Flood Hazards: The Case of Informal Settlements in Dar es Salaam-Tanzania.* Paper presented at the Workshop on Urban Poverty and Climate

- Change, ClimUrb, University of Manchester, Chancellors Hotel and Conference Centre 9-10 September 2013
- John, R., Jean-Baptiste, N., and Kabisch, S., (2014). Vulnerability Assessment of Urban Populations in Africa: The case of Dar es Salaam-Tanzania. In: Edgerton, E., Romice, O., and Thwaites, K., (Eds). *Bridging the Boundaries: Human Experience in the Natural and Built Environment and Implication for Research, Policy and Practice*. Pp. 233-245. Hogrefe Publishing.
- Kabisch, S., Jean-Baptiste, N., John, R., and Kombe, W., (2015). Assessing Social Vulnerability of Households and Communities in Flood Prone Urban Areas. In: Pauleit, S., Coly, A., Fohlmeister, S., Gasparini, P., Jørgensen, G., Kabisch, S., Kombe, W., Lindley, S., Simonis, I., and Yeshitela, K. (Eds). *Urban Vulnerability and Climate Change in Africa: A Multidisciplinary Approach*. pp.197-228. Springer International Publishing, Switzerland.
- Kiunsi, R., (2013). The constraints on climate change adaptation in a city with a large development deficit: the case of Dar es Salaam. *Environment and Urbanization* 2013 25: 321. Accessed at <http://eau.sagepub.com/content/25/2/321>
- Kiunsi, R., Kassenga, G., Lupala, J., Malele, B., Uhinga, G., & Rugai, D. (2009). *Mainstreaming Disaster Risk reduction in Urban Planning Practices in Tanzania*, (October).
- Kombe, W. and Kreibich, V., (2006). *Governance of Informal Urbanisation in Tanzania*, Mkuki na Nyota Publishers, Dar es Salaam.
- Lupala, J. M. (2015). *Resettling displaced residents from regularised informal settlements in Dar-es-Salaam , Tanzania : Challenges faced by house owners*. Current
- Marchand, Y. (1996). The Challenges of Urbanization. ,288, 4(December 1991), 12–19.
- Mbuya, E. (2017). *Vulnerability Analysis of Climate Variability On Building Structures*:
- Olajide, O. (2010). Reviewed paper *Urban Poverty and Environmental Conditions in Informal Settlements of Ajegunle, Lagos Nigeria* Oluwafemi Olajide. Real Corp 2010, (May), 18–20.
- The Case Of Flooding In Dar Es Salaam, Tanzania. Unpublished PhD Degree Dissertation, Ardhi University, Dar es Salaam Tanzania.
- Thomas, E., Serwicka, I., & Swinney, P. (2015). *Urban demographics Where people live and work*.
- UN-HABITAT, (2010). *The state of African Cities: Governance, Inequality and Urban Land Markets*. Nairobi, Kenya.
- Urban Studies*, 3(June), 71–81. <https://doi.org/10.4236/cus.2015.32007>
- URT 2007, United Republic Of Tanzania, *The Urban Planning Act, 2007*. Government Printer, Dar es Salaam, Tanzania.
- URT, 2004 United Republic of Tanzania. *The Environmental Management Act*. Government Printer, Dar es Salaam, Tanzania.

6. KEYTERMS AND DEFINITIONS

None-Compliance; failure to act in accordance with a wish or command.

Planning Regulations; these are directives that are set to guide planning and development process of the land.

Hazardous area; Hazardous areas are those areas which are restricted for any built activities as they can pose to dangers. These areas includes, mangrove swamps and coral reefs areas, wetlands and offshore islands; land designated or used for the dumping of hazardous waste; land within sixty meters of a river bank, shoreline of an inland lake, beach or coast and land on slopes with a gradient exceeding any angle which the Minister shall, after taking account of proper scientific advice, specify (URT, 2007).

Land Use Change; is defined as "the total of arrangements, activities, and inputs that people undertake in a certain land cover type.

Dar es Salaam City; is the largest city and economic capital of Tanzania. Located in a quiet bay off the Indian Ocean coast, the city has developed into an economic importance to become a prosperous centre of the entire East African region. Its bustling harbor is the main port in Tanzania.