

The Causes and Consequences of the Informal Settlements in Zanzibar

Mohammed Haji ALI and Muhammad Salim SULAIMAN, Tanzania

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SUMMARY

Despite having a long history of physical planning, Zanzibar has been experiencing increasing problems associated with the informal settlements (IS). According to a recent study, over 70 per cent of urban residents live in informal settlements (GoZ 2005). A vast majority of the dwellers live in extremely poor conditions. A rapid increase in the urban population and the limited capacity of the government to meet the high demand for building plots has led to mushrooming of the informal settlements (Scholz 2006).

Urbanization is one of the root causes for the spread of informal settlements on the fringe of Zanzibar town. The land administration and planning policies, which have often been seen as rigid and inadequate to meet ever increasing demand for housing by the poor majority, have also been associated with the mushrooming of the IS.

The growth of the IS has resulted in many, and complex socio-economic and environmental consequences. These include pollution, deforestation, flooding, waste of agricultural lands and the like.

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1. INTRODUCTION

Informal settlement (also referred to as a shanty town or squatter settlement) has been defined in various ways depending on the planning and legal framework of a country where it exists. For the purposes of this discussion, informal settlements are defined as residential buildings built on “planned” and “unplanned” areas which do not have formal planning approval. They are characterized mostly by the low quality houses and the lack of, or inadequate infrastructure and social services. Informal Settlement (IS) has been perceived both as a problem and solution to housing needs in speedily growing cities of many developing countries. (Srivinas 2005, Todaro 1994).

Like many developing countries, Zanzibar (which is part of the United Republic of Tanzania) has been experiencing the demographic phenomenon of urbanization which is one of the driving forces for the mushrooming of informal settlements on the fringe of urban centres. Recent studies and surveys show that about 70 per cent (272,106) of the urban population in Zanzibar live in informal settlements (GoZ 2005, Azzan et al 2005). Growth of these unplanned settlements has been associated with many land and environmental related problems.

2. BACKGROUND

2.1 Pre-Revolution Era

For a long time, IS, as it is defined today, has been in existence in Zanzibar but was not considered by the authority as illegal. As Srinivas (2005) cogently argues, the term “informal/squatter settlement” is in fact a more recent western-initiated development, which particularly came about during and immediately after the Habitat Conference of 1976 in Vancouver, Canada. The rapid expansion of trade and other economic opportunities during the early nineteenth century resulted in the booming growth of the population and the town of Zanzibar itself. It was during this period when Ng’ambo (or the other side) of Zanzibar Town started to grow and residential areas like Vikokotoni, Kikwajuni, Mwembetanga, etc were established.

During Ng’ambo’s first seventy years of settlement (c.1850 – 1920), residents were “allowed to do just as they liked” in most matters of architecture, design and development; Christie in Myers (1999). By the turn of 20th century over 50 per cent of

land in Zanzibar was under *Wakf*¹ (Fair 2001). This gave room for poor people from Tanganyika and rural areas to build their houses on these more or less free lands without any planning regulation.

In 1923, the colonial government commissioned a study on issues related to housing in Zanzibar. The study described the existing situation in Ng'ambo as .. "passing over the creek to the other half of the town area, ...occupied by Swahili huts, many of which are irregularly scattered, while even in the more closely built quarters no systematic scheme of roads has ever been laid down, and the huts are packed along irregular and narrow lanes" (Lanchester 1923:13). The study produced a plan which recommended better types of houses and a system of waste management and sanitation in Swahili (native) areas which were considered to be a great health risk.

The Lanchester Plan was followed by the first planning law; the Town and Country Planning Decree, Cap. 85 of 1955, which is still in use today. This is a comprehensive piece of legislation which devolves substantial powers to the local authorities. It provides guidelines for planning and use of land and its control, and makes provision for the orderly and progressive development of lands in urban and rural areas (TCP 1955). This legislation provided a substantial amount of development control during the late 1950s and 1960s but its level of enforcement progressively decreased in later years when the local authorities were abolished and planning and control powers were centralized.

2.2 Post –Revolution Era

The Revolution of 1964, which occurred just over a month after Zanzibar got its Independence from the British, produced radical changes on the socio-economic and political landscape including the nationalization of all lands in the country. Most of the agriculture land in western and central parts of Zanzibar was confiscated and distributed to the "landless" families on a 3-acre basis. The new government in power adopted a socialist path and embarked on a number of development projects, including what later turned out to be an ambitious housing scheme which aimed at providing decent houses to all inhabitants. The government assumed the role of direct housing provider to its citizens, whom before that were living in poor houses. Thus, new multi storey buildings were constructed in various areas on the isles.

¹ *Wakf* dedication is an endowment of property held in trust under Islamic Law for religious or charitable purposes



Plate 1: Multi-storey buildings at Michenzani

While the new houses were being built, the urbanization process was in top gear as people from different parts of the isles (and mainland) were flocking into the Zanzibar Town to enjoy the “fruits” of the Revolution. As the promised housing provision could not cope with the real needs, people started to build their shelters where ever there was “vacant” land. The ruling Afro Shirazi Party (ASP) chairmen and other local leaders played a leading role in “providing” the unplanned and un-surveyed residential plots to the people in need. In every sense, these leaders (with or without central government blessing) were creating and nurturing the IS at a scale that no one could have foreseen.

During this period, residential areas of Magomeni and Sogea were established and absorbed a significant number of urban dwellers. It was generally believed by many, including planners, that since IS was taking place in specific concentrations, a certain amount of control could be exercised (Yahya 1982). This turned out not to be the case as the IS sprawled in virtually every corner of the city at an unprecedented speed and literally no control was exercised.

The government on its side, turned a blind eye to the burgeoning IS as it still believed that the new housing scheme would eventually absorb the slums or *vibanda* (huts) as they were commonly referred to. Up to 1982, about 5300 units of new houses, mostly in blocks of flats, were built in various towns and rural areas of Zanzibar. Due to the immense shortage of funds, the housing scheme stopped altogether in early 1980s and the only option left was to encourage people to build their own houses.

2.3 1980s to early 1990s

This is the era when the government of “The Third Phase” came to power and introduced a number of socio-economic reforms, including the preparation and adoption of the first Economic Recovery Programme – ERP (1986). The ERP contained a number of neo-classical economic policies, including trade liberalization, privatization, devaluation, removal of food subsidies and downsizing of the public sector.

Also the Master Plans for Zanzibar Town, Chake-Chake, Mkoani, Wete, Konde and Micheweni in Pemba were prepared with technical support from the Chinese government.

This period witnessed a massive growth and expansion of the IS. The areas on the edge of the neighbourhood units, as proposed by the Master Plan were considered as “free zones” and squatting was taking place in an unprecedented fashion. During this period settlement areas of Kilimahewa, Melinne, Mtoni, and Bububu were established.

The implementation of the MP could not produce enough residential plots to meet the demand of the increasing number of urban dwellers. People waited in vain for plots in planned areas hence decided to squat. Many people who lived in the above settlement areas had unsuccessfully applied for residential plots at Lands Department.

The regime of the third phase showed a high degree of tolerance to the IS, as it was thought that the economic gains would trickle down to the poor and the hidden hand of the market forces would solve all problems, including the spatial ones. This general premise did not occur and the IS grew faster than originally predicted by the planners. In fact, the IMF/WB sponsored adjustment policies have been blamed for fueling the urbanization process as they “destroy the rural lives”, (Davis 2004, Todaro 1994). Despite all the hardships and lack of employment opportunities, young people still continued to migrate to cities throughout this period. As Davis argues, the IMF enforced policies of agricultural deregulation and “de-peasantization” were accelerating the exodus of rural labour to urban slums even as cities ceased to be the job engine.

2.4 Mid 1990’s to date

Zanzibar and to a lesser extent other towns, continued to grow largely through the IS. During this period old IS continued to expand and new ones such as Tomondo, Miembe Saba, Kinuni and Fuoni were established.

This period has witnessed a growing change in attitude from outright hostility showed in mid 1990’s² to some degree of support and help. The government has recognized the existence and the role played by the IS as an important arrangement for shelter provision of the poor majority. During the late 1990s period a number of policy and planning initiatives have been taken to address the old problems associated with the informal settlements. These measures include the following:

² A number of “illegal” houses in Mtoni, and Chumbuni areas were forcefully demolished by the Government and created severe hardships to the owners, majority of whom, were poor families.

2.4.1 The National Land Use Plan (NLUP)

Preparation of the NLUP was finalized in 1996 after five years of consultation. In issue identification, NLUP spells out that “uncontrolled encroachment of urban settlements onto good agricultural land and growth of settlements without a guiding (land use) plan, have resulted in many conflicts among various authorities and land users” (COLE 1993). The Plan has identified and proposed settlement growth centres of various levels in order to reduce the growing problem of rural – urban migration as a way of alleviating pressure on urban infrastructure and utility services, public transport and housing.

2.4.2 The Zanzibar Sustainable Project (ZSP)

The Zanzibar Sustainable Project (ZSP) which received financial and technical support from the UNDP and the UNCHS – Habitat was framed under the umbrella of “the Sustainable City Programme” implemented globally to localize Agenda 21 and the Habitat Agenda adopted in Istanbul during the 1996 Summit. With the main objective of “creating partnership in human settlement, development and environmental management (GoZ 1997:2), it identified uncontrolled urban development as a major issue for intervention. The project focused on creating an effective and well coordinated institutional set up to deal with the growing problems related to human settlement development (ibid).

2.4.3 Sustainable Management of Land and Environment (SMOLE) Project

The SMOLE project which is funded by the Government of Finland, in partnership with the Government of Zanzibar has identified squatter development as one of the major land and environmental related problems faced by the Isles. It has designed a detailed programme which is aimed at improvement of the informal settlements in urban areas of Zanzibar (SMOLE 2002:22)

2.4.4 Poverty Reduction Plan

The Poverty Reduction Plan of 2003, which is part of the implementation strategies of the VISION 2020, recognizes the existence of informal settlements as one dimension and consequence of the widespread poverty. Critical issues associated with squatter settlements are addressed and detailed strategies of implementation have been outlined. Specifically, the Plan focuses on reduction of rural-urban migration as a main cause and a result of poverty at an individual level.

2.4.5 National Housing Policy

One of its principal interventions is to improve the existing informal housing stock so that it provides adequate services to its users, primarily low-income households. (GoZ 2005).

2.4.6 Local initiatives

Together with the above measures and initiatives, local people also started to take initiatives of their own by introducing a sort of “informal planning” in various residential areas. As it appeared no one was there to plan for them, local land owners decided to subdivide and sell the residential plots to potential buyers, whom in many cases, were not in short supply. A crude form of planning standards is being employed on issues such as setback distance, access roads, plot boundary, etc. As Scholz et al argue, informal developers (planners!) are able to provide enough subdivided plots, but usually without sufficient social and economic infrastructure services (or land to establish those services) because land for these uses has no value on the market (2006 : 16).

3. MAJOR CAUSES OF THE INFORMAL SETTLEMENTS

3.1 Urbanization – A driving force

Along with the high natural growth rate of the urban population, the urbanization process which has led to the rapid growth of the Zanzibar Town is one of the most significant demographic phenomena that has been experienced in the 1980s and 1990s. The urban population grew from only 27000 (20%) in 1948 to 204,774 (32%) during 1988 and climbed further to reach 391,519 (40%) in 2002. The land authority was overwhelmed by the ever increasing number of urban dwellers who wanted land for shelter. After failing to obtain planned and serviced plots, individuals opted for buying pieces of urban fringe crop land and developing them (COLE 1993). Many of the people did not even bother to look for planned plots as the open alternative existed. Many IS were established whereby one could easily tell which part of the islands the dominant residents came from.

3.2 Land Related Issues

In the last four decades there have been a number of experiments with regard to spatial planning and land management in Zanzibar. Subsequently, as Scholz et al argue, the development of the planning and land tenure system in Zanzibar is indeed marked by several shifts that have caused contradictions in the institutional and legal framework and have led to confusion in land management and to uncontrolled urban growth (2005:15). There are many land related issues which can be directly linked to the growth of the IS. These issues include following:

3.2.1 Development control mechanisms

Generally, there has been a poor and unclear definition regarding the role of institutions in urban planning and development. There is what appears to be an overlapping of institutional roles and responsibilities. There is a ZMC boundary which itself is not very clear (Ameyibor et al 2003) and the planning boundary which has been established by the 1982 Master Plan. Also there are settlement areas which are under the “jurisdiction” of

the West District Council (which also issue building permits even to un-surveyed plots). The boundary of the Master Plan extends to the West District as well. Consequently, there are settlements which are outside the Municipality but within the planning areas of, and under the West District Council.

This particular situation has created difficulties in establishing and enforcing sound development control measures particularly for the areas outside the ZMC. The existing development control responsibilities are split under several authorities/institutions which are not well coordinated. To a large extent, this atmosphere of “confusion” resulted in the establishment of a number of IS, while every institution waited for another to stop it until it became rather too late to act.

3.2.2 Distribution of 3-acre plots

As part of the major land reform, the Government of Zanzibar distributed 3-acre plots to landless families immediately after the Revolution of 1964. Since the plots were to be used entirely for agricultural purposes, it was, and still is illegal to sell or convert them into human settlements. As the urban population grew, demand for residential plots intensified and many 3-acre plots in the urban fringes could no more be considered as agricultural lands. Higher prices offered by potential buyers lured many 3-acre plot owners to sell their lands which were eventually converted into human settlements. Subdivision of residential plots did not follow even minimum standards of planning as owners wanted to sell more plots to maximize income.

3.3.3 Inadequate formal land distribution

Throughout the history of the existence of the IS, one of the major causes has been failure or inability of the responsible institution to provide residential plots to the ever increasing urban population. While official applications for residential plots in Zanzibar Town have been steadily increasing, supply of the same is staggeringly inadequate, an average of between 20 and 30 per cent per year (DoLR, various files). There is a general perception among the urban dwellers that there is virtually no possibility of getting residential plots from the land authority. Therefore, the mushrooming of the IS could be seen as a process of “filling the gap” as determined and driven by the basic economic principal of demand and supply. There are many reasons for this state of affairs which include:

3.3.4 Lack of resources

The government has been experiencing severe shortage of financial resources to compensate people in order to acquire land for urban development. Likewise, the land authority has very limited technical capacity in terms of qualified urban planners and surveyors. This problem is compounded by the adoption of sophisticated and rigid planning and surveying methods. Consequently, an informal land market is in force giving rise to the huge spontaneous developments.

The rather unrealistic planning standards and building codes have also created problems of their own. For instance, in late 1970s and early 1980s one of the conditions for building a house in a planned area was that the value of the building must be over TS 500,000. This condition put many people off from attempting to build houses in those areas, as they could not afford it. Generally the income of many people was very low as the average annual per capita income (at 1976 prices) was somewhere between TS 1,300 and TS 2,100 only. (DoS 1984). The simplified methods of planning and surveying employed during the development of Sebleni, Muungano and other semi-planned areas proved to be cheaper, quicker and more productive than the conventional methods.

3.4 Poverty

At the centre of the IS phenomenon lies the question of poverty. With an average annual per capita income of less than US\$200, the majority of the population can be categorized as extremely poor. To construct a house in a planned area one needs to have enough money to buy a plot and build a “decent house”. On average a plot of 400 square metres is sold between US\$ 4,000 and 5,000 which is beyond reach for many residents. Therefore, to build a house is a life time project. People start constructing houses by using mud and thatch and these are gradually replaced over time by cement bricks and corrugated iron sheets. This process can take years; there are houses that were built in the 1960s and 1970s which can still be regarded as unfinished, even though families have been living in them for all these years.

The only place that allows this common practice to take place is in an unplanned area where neither drawing nor building permits are required. Thus, a vicious circle is created whereby poverty leads to informal settlements and informal settlements breed poverty.

3.5 Socio - Cultural Factor

There are still many urban dwellers who feel very comfortable living in IS and perceive it as the only place where you can enjoy “swahili life” which entails sharing and togetherness among neighbours. They consider the well planned and serviced areas like Mombasa, Mbweni and Mazizini (where residents build high fencing walls) to be places of people of high income brackets or *uzunguni*. Some of these areas have been dubbed “*masikini hajengi*” which means poor cannot afford to build. In the minds of the residents, there is no doubt about the “legality” of their houses. Recent surveys on IS indicate that security of tenure is generally not considered to be an issue, as once you build a house no one can claim ownership of it (Azzan et al 2005), and there is almost no possibility of being forcefully removed from the area.

4. MAJOR EFFECTS OF THE INFORMAL SETTLEMENTS

The sprawling of poorly controlled settlement developments has resulted in many environmental and health related problems. Uncontrolled settlement development is causing physical disorder, uneconomical land utilization, and excessive encroachment of settlements into good agricultural land, environmental degradation and pollution risks (COLE 1995). Also, as explained below, it has become very difficult for the government to send social and economic infrastructure/services to these areas due to the lack of space and accessibility. The most common consequences of the expanding informal settlements include the following:

4.1 Pollution of Water Sources

Expansion of the informal human settlements has been the major cause for pollution of ground water sources, most of which are located on the periphery of the Zanzibar Town. Loss of vegetation around water sources reduces water flow while poor disposal of liquid and solid wastes causes water pollution (COLE 1995). There have been frequent outbreaks of water born diseases like cholera and dysentery, particularly during high rainfall seasons, due to contamination of the drinking water. A number of water sources including Mwanyanya, Mto Pepo and Kinuni have now been surrounded by residential houses.



Plate 2: Domestic refuses scattered around settlement

4.2 Deforestation

Natural forests and catchment areas are being invaded by the expanding human settlements. The ongoing shrinkage of the Masingini forest on the outskirts of Zanzibar Town due to the expansion of settlements. This practice has reduced the amount of ground water and resulted in environmental degradation.

4.3 Pollution from Solid and Liquid Wastes

One of the fundamental problems faced by the residents of Zanzibar Town is the lack of a proper system for waste management. The problem is even more severe in the informal settlement areas. Due to the lack of established collection points, piles of garbage are scattered in and around residential areas which leads to environmental and health problems. Few residents opt to bury or burn their wastes close to their residences (Ameyibor et al 2003).

As there is no centralized sewage system, liquid waste which includes water from washing, laundry, kitchen, bath and other domestic uses is haphazardly discharged on-site. This disposal practice pollutes the groundwater and marine environments and is a major cause of water born diseases.

4.4 Flooding

Haphazard construction of houses has blocked many natural water ways and has led to frequent floods during the rainy seasons particularly in the months of March, April and May of every year. Soil erosion and land slides are strongly related to flooding which destroy houses as well as footpaths and unpaved roads (Ameyibor et al 2003). Houses and other properties are being washed away by floods forcing the inhabitants to vacate the areas. A high housing density, which most of the informal settlements are characterized by, makes natural seepage of storm water more difficult due to a high share of sealed land (ibid: p24). Flooding which results in the overflow of pit latrines and septic tanks is also a major cause for pollution of water sources and marine environments. Due to the non-existence of drainage systems, storm water creates big puddles that become breeding places for mosquitoes which is the cause of malaria.

4.5 Encroachment of Good Agricultural Land

Despite being small in geographical size, Zanzibar is still an agricultural economy with over 70 per cent of its population dependant directly on the agricultural sector for their livelihood. The uncontrolled expansion of human settlements has led to conversion of the best agricultural land into settlements. Records show that between 1977 and 1994 the Zanzibar Town has expanded by 2100 hectares (21 square kilometers) mostly into the best agricultural land (COLE 1995). There have been genuine complaints and warnings by the Ministry of Agriculture that the agricultural land is consistently decreasing due to over expansion of human settlements.

A recent report by the Ministry indicates that in four (what used to be) rain fed rice cultivation areas of Kwarara, Tomondo, Kijitoupele and Kinuni in West District, land area has decreased from 635 hectares in 1995 to only 162 hectares during 2005, which represents a loss of agricultural land of about 75 per cent (DoLR files). This trend has not been reversed as more and more people are flocking into urban areas to look for what is

perceived as a better life. The loss of agricultural land means a decrease of crop production and income of poor agricultural families.



Plate 3: Good agricultural is being encroached by settlement in Mbuzini area.

4.6 Accessibility

Lack of access is one of the most common problems caused by and experienced by residents in the informal settlements. Because there are neither the layout plans nor the regulatory machinery, residents tend to build to almost 100 per cent of their plot size. It has become impossible to provide access roads to these areas as there is no space for this. Likewise, no area is left open for social services like schools, hospitals, children's play grounds, etc. Consequently, people and service movement in these areas is very restricted and residents have to walk long distance to obtain services like health, education, transport and the like.

5. CONCLUSION

As the urban population grows the housing needs will continue to increase, forcing more agricultural land to be converted into human settlements and the prolific growth of huge IS. The critical issue that needs to be addressed is the extent to which government can formulate development policies that can have a definite impact on trends of urban growth. It is now clearly evident that the pursuit of the urban biased policies embodied in the IMF/WB inspired structural adjustment programmes, have actually accelerated and not reversed the rural – urban migration trend. Comprehensive rural development policies backed up with a sound decentralization programme (with a strong institutional set up) offer a glimmer of hope for the deceleration of rural-urban influx and eventually the slow growth of the urban IS.

Likewise the conventional spatial planning approaches have not resulted in the desired or expected outcomes in terms of, among other things, orderly growth of human settlements and pre-empt of the IS. The basic problems with these planning approaches have been an

inappropriate conception of space as somehow separable from other dimensions of society, economy and politics, together with the lack of political will to restructure and distribute power (Simon 1990). This state of affairs calls for a change on both approaches and attitudes. The authorities necessarily need to appreciate and offer support to the local people who are attempting to plan for and by themselves. As Scholz et al (2005) argue, since there are no alternatives, the ongoing informal or socially regulated planning processes have to be integrated into the existing legal system with shared responsibilities.

The above initiatives will necessarily need to go together with the programme of upgrading and formalization of the informal settlements in order to provide important services and security of tenure to the poor majority.

Lastly, it has become evident that the burgeoning of the informal settlements is a physical manifestation of the widespread urban poverty. Therefore, for a practical and workable solution any policy or planning intervention will need to go hand in hand with the poverty reduction strategies as outlined in the Poverty Reduction Plan of 2003.

REFERENCES

- Ameyibor et al (2003) Informal Settlements Development on Zanzibar; A Study on the Community Based Provision of Storm Water Management. University of Dortmund; Germany
- Azzan et al (2005) Land Registration in the Informal Settlements of Zanzibar; SMOLE Study Series, Zanzibar.
- COLE (1993) National Land Use Plan; Appraisal: Analysis of Potentials and Issues (NLUP_S.02); Zanzibar.
- COLE (1995) National Land Use Plan; Planning Policies and Proposals (NLUP_S.01); Zanzibar.
- Davis, M (2004) Planet of Slums; New Left Review, March – April, 2004. Department of Land and Registration (DoLR); various files; Zanzibar.
- Department of Statistics (1984) Statistical Abstract of 1984, Permanent Planning Commission, Zanzibar.
- Fair L (2001) Pastimes & Politics: Culture, Community and Identification in Post-Abolition Urban Zanzibar, 1890 – 1994; Athens: Ohio University Press
- GoZ (2005) National Housing Policy; Final Draft; Zanzibar.
- GoZ (1997) A Project Document for Zanzibar Sustainable Programme; Zanzibar.
- Government of Zanzibar (1990) Implementation of Economic Recovery Programme, Part 1, Zanzibar.
- Government of Zanzibar (1948) Report on the Census of the Population of Zanzibar Protectorate; Zanzibar
- Lanchester, H V (1923) A Study in Tropical Town Planning, Zanzibar
- Myers, A (1999) Incorporating Indigenous Knowledge into African Urban Planning: A Case Study with Chinese Connections; University of Kansas, USA

Scholz, et al (2005) Collaborative Planning Rhetoric and Reality in Zanzibar, Tanzania; An unpublished paper; Zanzibar.
Simon, D (Ed) (1990) Third World Regional Development; A reappraisal; London: Paul Chapman Publishing Ltd.
SMOLE (2002) Project Outline; Zanzibar
Srivinas, H (2005), Urban Squatters and Slums; www.gdrc.org/uem
Todaro M (1994) Economic Development; New York: Longman
Town and Country Planning Decree, Cap. 85, 1955; Zanzibar.
Yahya, S (1982) Shelter for an Island Community; A Housing Strategy for Zanzibar and Pemba.

BIOGRAPHICAL NOTES

Mohammed Haji Ali, is an Economist/Planner with MSc from the University of Wales. He is Chief Regional Planner in the Integrated Planning Unit of the Department of Surveys and Urban Planning. He worked for five years as Assistant Planning Officer with the Zanzibar Planning Commission. He was a key figure in the preparation of the National Land Use Plan. He has carried out a number of EIA and SIA for tourism projects and villages for development. He has attended conferences, seminars and workshops nationally and internationally on coastal management natural resources both terrestrial and marine, poverty alleviation, as well as, presenting Papers. He has co-authored published papers titled; *The Making and Contents of the Zanzibar National Land Use Plan: A brief account on a donor-funded project* and *Sustainability of Land Registration Programme: Experience and Reflections for the Future of Zanzibar Land Management Project*. He is a Member of Western Indian Ocean Marine Science Association (WIOMSA), Environmental Economics Network for Southern Africa (EENESA) and Resource Assessment Network for Southern Africa (RANESA).

Muhammad Salim Sulaiman is a Chartered Land Surveyor and is Africa Region Representative of the RICS Geomatics Faculty Board. He is currently Advisor to the Minister for Water Construction Energy and Lands of the Government of Zanzibar, having been Principal Secretary for 19 years and been Director of Lands and Surveys in 1970s. He has chaired committees and task forces for land and housing policies, and secretary for the formation of Commission for Lands and Environment. He has been instrumental in having the historical Zanzibar Stone Town enlisted in the UNESCO World Heritage List in 2000. He is a member of the Board of non – governmental Zanzibar Stone Town Heritage Society. He has authored or co-authored a number of publications on land surveying and land management, namely *Land Policy and Land Information Systems in Zanzibar*; *The Need for Technical Assistance in Surveying and Mapping*; *Zanzibar: An Integrated Development Plan for the Old Stone Town*; *Islands within Islands: Exclusive Tourism and Sustainable Utilisation of Coastal Resources in Zanzibar*; *Land Work and Wealth Strengthening Linkages for Zanzibar*. *The Making and Contents of the Zanzibar National Land Use Plan: A brief account on a donor-funded*

project. He is Correspondent for both FIG and CASLE and Member of The Hydrographic Society UK.

CONTACTS:

Mohammed Haji Ali
Department of Surveys and Urban Planning
PO Box 811
Zanzibar
TANZANIA
Tel + 255 773 333304
Fax + 255 24 2237008
Email mohaji@gawab.com

Muhammad Salim Sulaiman
Ministry of Water Construction Energy and Lands
P O Box 238
Zanzibar
TANZANIA
Tel + 255 777 844744
Fax + 255 24 2237008
Email mesalimu@gmail.com