

# Regulating informality – the influence of planning standards on long term suitability of settlements– The case of Dar es Salaam/Tanzania

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## Introduction

In Sub-Saharan Africa urbanisation is progressing at a rate unprecedented in human history. In most countries, the state is not in a position to apply a responsive legal framework and to mobilise adequate resources to guide urbanisation. A major obstacle are the outdated legal framework and the inappropriate planning concepts inherited from colonial governments which often contradict post colonial policies (Ambe 1999) and are unsuitable to respond to rapid urban growth.

The chronic underperformance of the public sector vis-à-vis rapid urban growth caused a large cumulative backlog in the provision of building land and basic services. In addition, uncontrolled informal urbanisation has often caused dysfunctional settlement lay-outs and urban structures.

To a large extent the economic, social and political future of developing countries will depend on the functionality of their major cities as engines of national economic growth. They need to run efficiently, smoothly and reliably. Their performance depends to a large degree on the quality of their spatial layout. A functional urban layout is highly supportive for public health, economic growth and political stability (Basteck et al. 2007).

In Dar es Salaam, informal settlements cover more than 70% of the city area because the statutory system cannot provide sufficient building land and settlers have to buy plots on the informal land market. It shows the need for a new approach to statutory planning in order to guide urban development effectively, to create more functional settlements, to assist the urban poor to access affordable plots with basic services, and to release financial assets for the urban economy.

Using a mainly empirical approach this study will analyse factors that determine space standards and land use in prevalent types of formally planned and informal settlements. It aims to identify parameters to ascertain the long-term suitability of settlements, understood as being functional and flexible to respond to future demands resulting from socio-economic development. Starting point of the research are the livelihood strategies of the residents. The overall aim is to evolve a responsive framework for statutory planning including spatial standards for settlements that reflect the current reality of urbanisation under poverty while addressing future needs.

## The Need for urban Planning and its Challenges

Rapid informal urban growth that is exclusively driven by the private land market does not produce sustainable functional spatial structures (Scholz 2008). Public regulation is required to balance individual interests with public welfare. It is the privilege and duty of the state to guarantee property rights, safeguard public goods, and optimise the use of land as a custodian of all citizens, especially of low-income groups.

The designation of specific land uses by planning authorities, the range of plot sizes and the reservation of space for public uses such as social and technical infrastructure

are important tasks to organize a harmonious urban development for the benefit of all (UN Habitat 2008). Urban planning has to balance the development opportunities of single plot owners with public welfare and common interests. Their development opportunities constitute essential livelihood assets as income generating activities can be supported or hindered by planning regulations or additional costs for service supply can be caused or avoided. Too rigid standards like purely residential areas where no other uses than housing area allowed will have a negative impact on livelihood strategies while the lack of any formal regulation as in informal settlements can hinder income generating activities due to lack of accessibility or can have a negative impact on livelihoods due to unhealthy living conditions or lack of services.

The current urbanisation under poverty requires planning standards that reflect the livelihood strategies of poor settlers such as home-based income generating activities. It is unlikely that the administrative capacity of countries in Sub-Saharan African will increase sufficiently to manage the inherited planning systems. Therefore, the regulatory planning systems need to reflect hitherto unused capacities at the grassroots and limit the role of public administrations to the level of achieving strategic objectives. As far as possible, a planning system needs to be self-regulated and rely on local administrative and conflict resolution institutions.

### **Assumptions and Definitions**

An assumption that planning regulations and standards do not only guide formal planning, but that informal urban development is also regulated by customary standards and locally negotiated rules. The term 'planning standards', therefore, applies to legal and technical norms defined by the statutory planning system as well as to rules and standards that have emerged in informal urbanisation processes. Formal planning standards are static and codified while informal planning standards are flexible and subject to change according to demand and supply, market forces, cultural and socio-economic conditions, and development stage of a settlement. Standards of informal settlements can, therefore, only be traced empirically with reference to case study settlements representing different development stages.

The term livelihood is based on the definition of Chambers and Conway (1992): "Livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living". It is, therefore, a broad approach which "places households and their members at the centre of analysis" (de Haan et al 2002). As an analytical tool, the livelihood framework has been elaborated to understand survival strategies of the poor by examining access to tangible and intangible human, social, physical, financial and natural capital assets (Rakodi and Jones 2002: 10). A livelihood is sustainable when a household is able to cope with and recover from stresses and shocks and to maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

Suitability of settlements is defined as the long-term functionality and usability of settlements for their residents. It is understood as the capability of the physical settlement structures to support the livelihood strategies of settlers in the long term (40 to 50 years). Settlements are considered suitable when they reflect changing livelihood strategies of settlers, when they allow for appropriate densification and flexibility in land use while respecting the rights of neighbours. Criteria for the suitability of planning standards are

- economic use of land,
- efficient supply basic services according to the needs and capacities of the settlers,
- responsiveness to changing livelihood strategies of residents, and
- environmental sensitivity.

## **Impacts of Planning Regulations and Standards on the Livelihood of Settlers**

The livelihood concept focuses on the household. In spatial planning terms, it can be translated to the single plot level and the main household living there. Often more than one household lives on one plot. The paper focuses on the livelihood strategy of the owner household. The activities and strategies undertaken by owner households to sustain, secure and develop their livelihood are influenced by planning norms and standards. Planning impacts on households at the levels of the plot, the settlement and the city as the following examples illustrate:

- The size of the plot determines the potential for other income generating activities such as small scale workshops, retail business, urban agriculture, and the potential to subdivide and sell portions of the land.
- The size of the plot, the allowed coverage and the floor area ratio determine the potential to build additional structures for letting.
- Unregulated densification and letting can cause problems if the population overstretches the infrastructure. Renting or subletting of rooms can also cause conflicts and even undermine the capacity of the community to resolve problems.
- Large minimum sizes of plots restrict access to land for the poor because of high servicing costs and increased land scarcity.
- Restrictive zoning can hinder the development of income generating activities but on the other hand, unguided and uncontrolled income generating activities can cause conflict at neighbourhood level if they cause pollution or unhealthy living conditions such as intensive livestock keeping.
- Obviously, the standards for services, esp. water and electricity, influence living standards and potential livelihood activities.
- At city level, planning regulations impact on livelihood opportunities if residential areas and working places are far apart generating the need for transport and related costs and time for commuting.

### **Research project**

The paper outlines the framework of a joint research project of the Technical University of Dortmund and the Ardhi University in Dar es Salaam. It took off in June 2010 and therefore the paper presents only preliminary findings of the still ongoing research process. The research seeks to develop a framework of scientifically based criteria for appropriate and simple but effective formal planning standards that allow coping with changing livelihood strategies of the residents including the sustainable operation and management of infrastructure by local government.

The research will focus on physical planning standards for population resp. housing density, land use and infrastructure provision. Proposed research variables are:

- size of residential plots,
- coverage and floor area ratio of residential plots,
- population density,
- land use regulation (zoning),
- space standards for roads and social facilities,
- standards for water supply and sanitation.

The research will analyse criteria for the long-term suitability of different settlement types in fast growing cities in Sub-Saharan Africa taking Dar es Salaam as example. The focus will be on the influence of planning standards, both formal and informal, on the long term suitability of settlement structures, and on their functionality for the residents, especially those with low and middle incomes. These structures and the underlying planning and service standards will be evaluated regarding their implications for the livelihood strategies of the settlers and whether they reflect their

needs and potentials. The variables to be used are

- space standards and density,
- land use regulations and their flexibility,
- accessibility, and
- service standards.

The objective is to develop a framework of appropriate standards for new settlements based on empirical evidence. The livelihood approach will be applied to counter the dominant engineering driven approach in generating planning standards and to overcome the “resistance to change [...] from bureaucratic inertia and conservatism, combined with vested interests in the status quo“ (Payne 2001: 11). The outcome of the research is expected to be a regulatory framework for long term suitable settlement development that

- reflects the livelihood strategies of the residents,
- is based on empirical evidence, and
- is informed by both formal and informal urbanisation processes.

### **Propositions and Research Questions**

The research proposal is based on four basic propositions reflecting the objectives of the research.

1. The low output of building land by the public planning system does not cope with the high urbanisation rates and causes rapidly growing informal urban settlements.
2. The poor performance of the statutory sector in providing building land is, in addition to lack of funds and capacity, also caused by its unsuitable and costly planning and service standards (which hinder the implementation of plans).
3. Planning standards are not only applied in formally planned settlements according to codified technical and legal standards, but also in informally developed settlements based on market forces and social and cultural norms.
4. Planning standards at the urban and settlement level can only be suitable in the long term if they address the livelihood strategies of the residents, especially the urban poor.

The propositions lead to the following research questions:

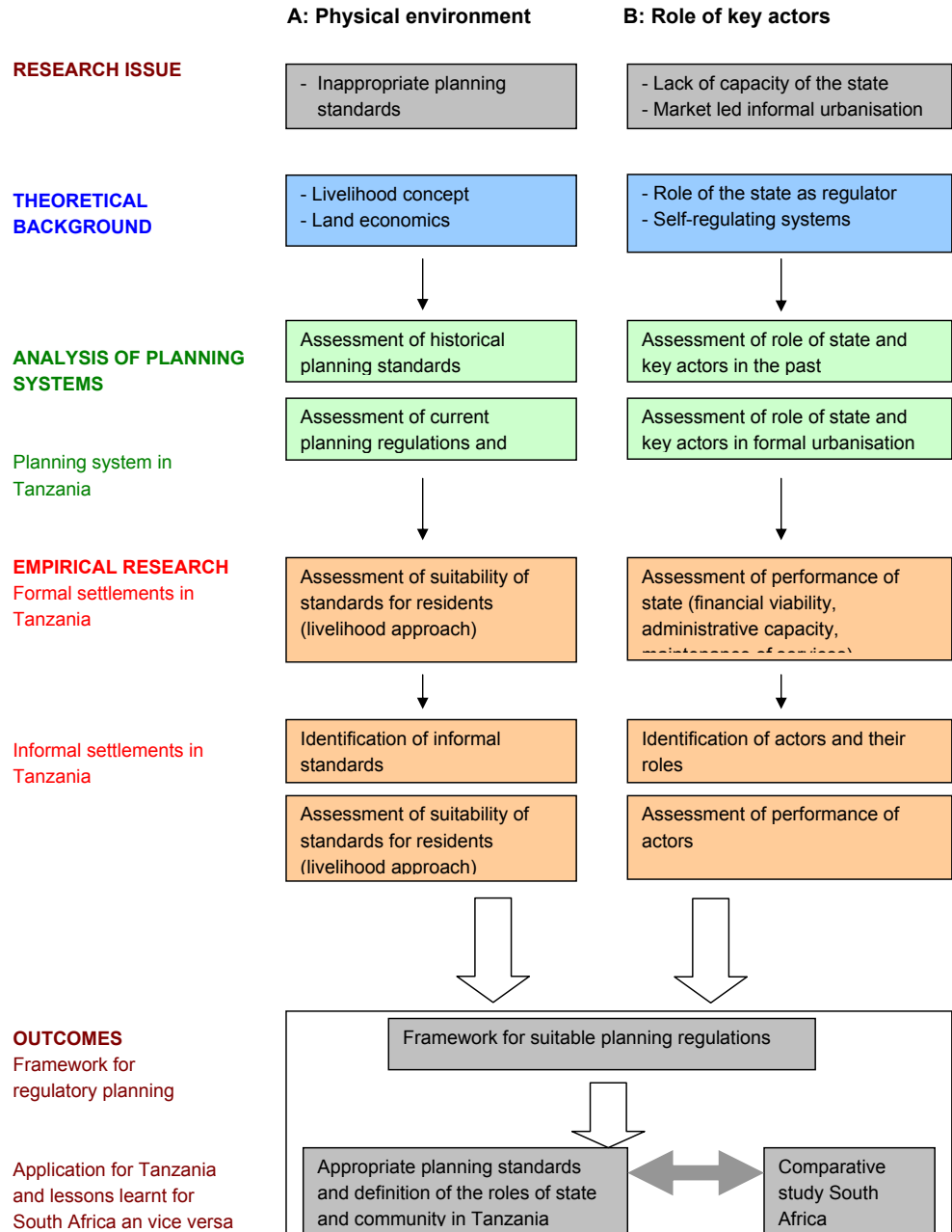
- I. What planning standards were in place in Tanzania since the 1950s and which underlying concepts did they follow? What were the socio-economic conditions at the times of the establishment of these planning standards and which problems did they address?
- II. What planning standards were applied in the case study settlements? How did these settlements transform over time in terms of land use, density, service supply and livelihood strategies of the settlers? Which socio-economic changes have caused the transformation of the settlements?
- III. How did the implemented planning standards, both in formal and informal settlements, affect the livelihood strategies of the settlers?
- IV. How do residents respond to the transformation processes in the absence of planning interventions to sustain their livelihoods? Which positive and negative impacts caused their activities?
- V. What are the needs and capacities of the settlers today and in the foreseeable future to sustain their livelihoods? What are their requirements in terms of land use, density, plot size, access and services?
- VI. Which variables of a planning framework are critical to support long term suitability of urban settlements considering the livelihood strategies of the settlers and the capacity of the state? Which variables should be codified and regulated by the state and how should this be done? Which variables should be managed locally

by the community and how should this be done?

The following methods will be applied to answer the research questions and to test the propositions.

- A) Analysis of the planning system and its underlying concepts as well as of the socio-economic settings at the time of the establishment of planning standards by review of literature and documents and expert interviews in Tanzania.
- B) Analysis of changes and transformations over time in the case study settlements in terms of land use patterns, density and service supply in order to find out the relationship of spatial changes as result of the changing socio-economic situation of residents through
  - surveys using aerial photographs, planning documents and maps of different periods including the application of GIS methods;
  - observations on the ground;
  - interviews with local leaders in the settlements to collect in-depth information;
  - interviews with key persons (experts) in order to review/verify findings;
  - interviews with residents to gain detailed information on the ground and to cross-check previous findings (individual household interviews and focus group discussions);
- C) Analysis of the impacts of planning standards on the livelihoods of settlers in the study settlements using the livelihood framework by
  - surveys at settlement and plot level covering land uses, densities, service supply and related potentials and conflicts;
  - observation of income generating activities;
  - mental maps of the settlements drawn by residents in order to get in-depth information on their perception of important points and spatial arrangements in the settlement;
  - interviews with local leaders in the settlements to collect in-depth information;
  - interviews with key persons in order to review/verify findings;
  - interviews with residents to gain detailed information on the ground and to cross-check previous findings (individual household interviews and focus group discussion);
- D) Analysis of the preliminary findings from field work in the settlements and their reflection with local experts in workshops.
- E) Development of a suitable framework for planning regulations (planning standards, planning instruments and strategies for their implementation)
- F) Generalising of findings and scrutinising their transferability.

[fig. 1] Research Design



### Typology of Case Study Settlements

The principle research method is a comparison of settlement types and their suitability for livelihood strategies of residents. It is intended to study a broad range of settlements within the two principle groups of formally and informally developed settlements. For formally planned areas it includes “site-and-service” schemes of the 1970s with reduced standards (A1) and the recently developed planned areas (Mbezi Beach A2) as well as an area of the 20.000 Plots Programme of the Ministry of Lands with new planned but not serviced settlements at the urban fringe. For informal settlements it comprises settlements that developed during the early urbanisation period in the 1980s which are now experiencing densification or saturation. Some of these settlements have been upgraded by the regularisation scheme (B1). Another type are recently developed informal areas at the urban fringe in an infancy development stage.

Typology of cases	Dar es Salaam	Selected Case settlement
A1) Planned settlement under high development pressure	Site-and-service scheme of the 1970s	Sinza
A 2) New planned area	New planned development areas at the periphery: 20.000 Plots Programme	Mbezi Beach and
B 1) Upgraded informal settlement	Regularised informal settlement	Sandali
B 2) New informal settlement	Newly developed informal settlement at the urban fringe	Mbezi Luis and Gongo la Mboto

[fig. 2] Typology of case study settlements

## Preliminary findings

The screening process in Dar es Salaam to identify the case study settlements according to the typology mentioned above lead to the following observations:

- There is no single planned settlement in Dar es Salaam where the poorer residents live. Although planned areas were designed to accommodate in so called high density areas (A2 with plot sizes of 400 to 800 sqm) the urban poor, the target group is not addressed. Either they could not afford the land during the governmental allocation process or they were “overseen” in the official procedure of allocation or rising land prices forced them to sell later on. In recently developed areas the land price skyrocketed from TSh 400,000 to TSh 5 Mio. in less than five years by more than ten times (1 € = 1900 TSh). The urban poor can only find a place for living in the informal settlements where land is cheaper but have to burden higher running costs for services (Basteck et al. 2007).
- The newly planned areas are designed as purely residential areas (A2). While the urban middle class who is living there predominantly is not in need of multiply income generating activities on the plot, they are missing retail services in the neighbourhood. Therefore, they provide a part of their plot along the road for retail business facilities. Doing so they cannot only generate extra income by renting land for a shop but also they can solve the lack of services on their own.
- The upgrading of densified informal settlements (B1) with the provision of access roads, drainage and water supply at strategic locations can lead to gentrification processes. Especially the well accessible and serviced plots along the upgraded access road system are undergoing redevelopment processes including new owners and change of use from mixed residential to commercial. Areas remaining unserviced or less accessible seem not to be influenced by the upgrading processes.

Obviously, the current planning system in Dar es Salaam dealing with the development of new settlements cannot cater for the demand and needs of the urban poor. Informal settlements at the urban fringe are not always suitable and functional for the settlers. Furthermore, due to the increasing distance to the city centre they also cause additional costs.

The research project aims therefore in 2011 to identify the needs of urban poor in spatial terms and will transfer them into planning categories and regulations in order to integrate them into the planning machinery. This can on the one hand serve the urban poor and on the other hand bring planners back into the business of urban development planning and control on land uses.

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