

Trunk Infrastructure and Urban Growth - Managing Rapid Urbanization in Poverty in Dar es Salaam, Tanzania



Universität Dortmund
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Fieldwork April/May 2006

As a follow-up of the kick-off workshop, in-depth interviews have been conducted with experts from the central and local government and with utility providers in April and May 2006.

The interviews underlined the weak interagency linkages and the ensuing negative impacts on urban development in Dar es Salaam. Among the different actors involved in the urban development process, only loose mechanisms for mutual information are in place. It was observed that each agency is following its own agenda without considering benefits accruing from intersectoral co-operation. The City Council has not yet managed to implement a strategic planning approach co-ordinating utility provision and urban growth regulation. Furthermore, it was emphasised

that utility agencies provide their services responding to demand, while the availability of services is ranking very high in the allocation decision of settlers. Water

Megacities - Dar es Salaam is a R&D project dealing with the management of rapid urbanisation under poverty with a focus on trunk infrastructure and urban growth.

It is one out of 16 projects within the new research programme "Research for Sustainable Development of the Megacities of Tomorrow" of the Federal Ministry of Education and Research.

and energy services are only supplied in a certain area after a sufficient threshold of residents have already settled in order to ensure adequate returns. The settlers, on the other hand, wait for the suppliers to provide piped water and road access be-

fore acquiring a plot. Together with the prevailing weak urban development control, this urban management deficit causes uncoordinated and uneven service provision. Urban development does not go in hand with infrastructure extension.

Fieldwork July/Sep. 2006

From July until September 2006, detailed fieldwork surveys were conducted in three case study settlements with inherent potentials for rapid urban growth. The main objectives were to

- analyse the underlying decision making processes of settlement development regarding infrastructure supply;
- understand why households acquired land in a particular settlement;
- investigate how the availability of services influenced allocation decisions;

- explore the correlation between infrastructure supply and settlement deve-

lopment.

The informal settlements of Stakishari, Mbagala Kuu and King'ongo were selected for case studies in the peri-urban area of Dar es Salaam. The research was conducted by using household questionnaires and focus group discussions with plot owners, water committees, youth groups, elderly people and settlement leaders. It was observed that during the initial phase of settlement development the availability of technical infrastructure, especially water supply and access to roads and transport as well as

affordable land prices play an important role, while later on in the consolidation phase, a clean environment and the availability of social infrastructure become the lead determinants of settlement development.

Workshop Dar es Salaam

A further milestone for the project was the second workshop held at the Court Yard Hotel in Dar es Salaam on the 2nd and 3rd of October 2006. The "Consultative Workshop on Trunk Infrastructure and Urban Growth in Dar es Salaam" was targeted at the key institutions involved in the urban development process of the city. During the morning session of the first day preliminary findings of the fieldworks undertaken were presented in order to get feedback



Focus group discussion in Stakishari

from the participants and to create a common understanding on the current urban development situation. In the afternoon, working groups were formed to discuss the ongoing plans and programmes for the co-ordination of trunk infrastructure provision and urban growth, the key obstacles inhibiting better collaboration between institutions, the institutional framework and the instruments necessary to harmonise trunk infrastructure provision, and finally, how infrastructure can be provided to poor households seeking affordable building land in the urban periphery. The second day focussed on key issues raised during the first day. The participants agreed on the need for a co-ordinated development plan. The responsible actor to guide future development has, however, not yet been identified. It was

agreed that a formal planning framework will be required for the next 20 years period. One option would be to have the existing Strategic Urban Development Plan, which provides a framework for future urban development, approved by the Ministry of Lands, Housing and Human Settlements Development. Additionally, the participants called attention to the need to develop a framework co-ordinating the different programmes and plans of the various utility agencies in order to resolve potential conflicts or contradictive plans before sectoral projects are implemented. An important output of the workshop was the willingness among the participating stakeholders to establish a task force. This interdisciplinary and cross-sectoral group of key representatives will continue the dialogue among stakeholders and work on

first ideas for a pilot project to be realised during the implementation phase of the Megacities project.

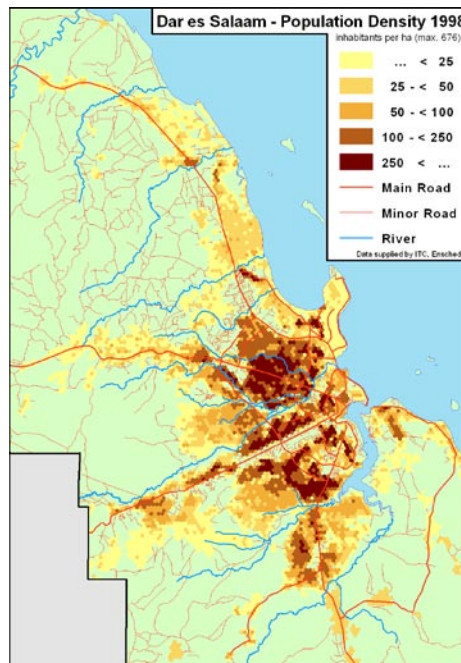
Enerkey Workshop

From 14th to 15th of July the Dortmund Megacities project team was invited to Stuttgart by the "Enerkey" Megacities partner project of the Institute of Energy Economics and the Rational Use of Energy (IER). The "Experience Exchange Workshop" addressed opportunities and restrictions for sustainable energy supply and utilisation. Fifteen South African guests representing the local research partners and non-governmental energy supply organisations from the cities of Johannesburg and Tshwane (formerly Pretoria) attended the workshop. The opening speeches emphasized

on the importance of co-operative projects between universities and cities and the benefits of transnational co-operation. The Dortmund project team contributed a presentation of its Dar es Salaam project with a specific focus on the development of the land-use simulation model.

Land-use model

Rapid urban growth causes enormous challenges for public authorities, politicians, and planners. To support their work, (spatial) information must be made available to facilitate sound decision-making. Besides a comprehensive and up-to-date GIS database, computer-based land-use models capable to simulate future urban development can support urban planners. Within the Megacities Dar es Salaam project an aggregated land-use simulation model is



under development using the technique of Cellular Automata (CA) to forecast the future development of the city. Even though this type of model does not need a very sophisticated database compared to other more disaggregated models, the availability of (historic) data on urban land-use development and trunk infrastructure turns out to be still a crucial issue. Thus, data from historic maps and particularly aerial photographs are digitised to support calibration and validation of the model. Once the model is properly calibrated it will serve to test different planning scenarios with respect to their mid-term impacts. In the end, the simulation results may support the planning dialogue and future decision-making of urban planners in Dar es Salaam. First results of the model will be presented in a workshop scheduled to take place in Tanzania in January 2007.

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