

Ecosystem-based solutions for resilient urban agriculture in Africa (ECOSOLA)

Abstract: The rapidly advancing urbanisation in many areas of sub-Saharan Africa poses problems, such as insufficient food supply, for the affected societies. The aim of the project is to explore the current role and future potential of small-scale urban and sub-urban agriculture in Dar es Salaam (Tanzania) and the Western Cape region (South Africa). The project intends to strengthen urban and peri-urban agriculture in both countries.

Integrated research and teaching

ECOSOLA is a collaborative project between the University of Oldenburg, the Planungsgruppe Grün in Bremen, the University of Dar es Salaam in Tanzania and the Nelson Mandela University in South Africa.

The close relationship to planning practice as well as the interlinking of research and teaching are of special importance. Through lectures, summer schools and seminars, the project contributes to the improvement of the postgraduate education at the three partnering universities.



Figure 1: Peri-urban agriculture in the north-west of Dar es Salaam

Food security and ecosystem services

The research project supports sustainable agriculture in urban and peri-urban areas in Tanzania and South Africa. Therefore it develops innovative solutions for ecologically sustainable and economically feasible agricultural production. This can help to provide healthy and nutritious food to complement the diets of urban dwellers. Moreover, the integration of green areas in urban planning will make urban structures more resilient towards social, ecological and economic challenges as they foster water restoration, soil retention and formation, air purification, and heat exchange.

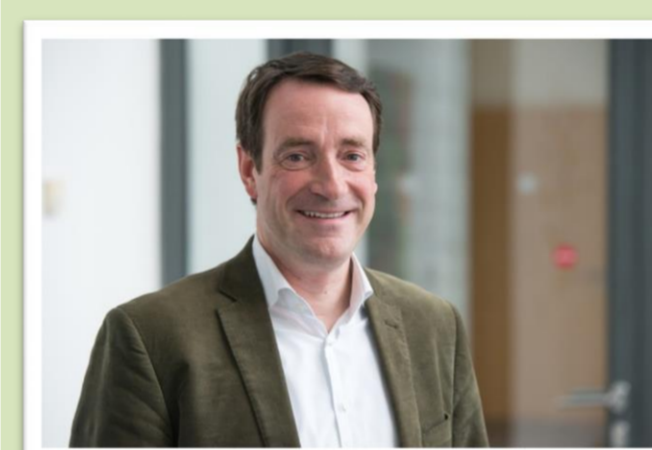


Figure 2: Urban market in Dar es Salaam

Diverse know-how for a land use plan

Besides improving the bio-economical production systems of urban farmers, ECOSOLA promotes the integration of urban agriculture in urban planning.

In Dar es Salaam, habitat types will be mapped in a first step. In a second step, the various services provided by each habitat type will be assessed. In a participatory approach, a land use plan will be developed together with local land users.



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Field of Activity

- Ecological Economics
- Social learning and collective learning processes
- International Environmental Policies
- Climate adaptation and biodiversity governance
- Transdisciplinary and participative Methods

Courses

- International Sustainability Management
- Environmental and Sustainability Policies
- International Environmental Governance
- Practical Project "Urban agriculture in Africa "
- Summer School "Perspectives on ecosystem-based solutions for resilient urban agriculture and spacial planning processes in Tanzania / South Africa and Germany"

Selected Publications

Siebenhüner, B./Rodela, R./Ecker, F. (2016): Social learning research in ecological economics: A survey. *Environmental Science & Policy*, Vol. 55 (1): 116-126.

Grothmann, T./Petzold, M./Ndaki, P./Kakembo, V./Siebenhüner, B./Kleyer, M./Yanda, P./Ndou, N. (2017). Vulnerability Assessment in African Villages under Conditions of Land Use and Climate Change: Case Studies from Mkomazi and Keiskamma. In: *Sustainability* Vol. 9 (6): 976.