

Studies in Urban Ecology and Urban Planning in cities of South Africa

Project 1

Urban and settlement ecology – natural and social processes in sustainable urban environments

Cooperation between the Potchefstroom University (Prof. Dr. S.Cilliers conductor), South Africa and the University of Applied Sciences Erfurt (Prof. Dr. N. Müller co-operator), Germany

Participation of students from the University of Applied Sciences Erfurt – Michael Röthig, Veikko Rost, (Thesis – Biotope mapping) and Britta Hackenberg (Practical - Mapping of land- use control), Sascha Abendroth (Practical – Tree survey)

Funds in South Africa: National Research Foundation

Duration 2001 - 2006

Main purposes of this study:

- to determine what environmental changes (biodiversity, ecological interactions) have occurred in a number of representative cities in the North West Province,
- to establish the effect of these changes on human well- being with respect to issues as health, wealth, territory and power of communities,
- to establish specific management strategies by following an integrated approach.

Urban biotope mapping of Potchefstroom

- representative comprehensive mapping of biotope- types based on land- use classification followed by detailed ecological field studies in all biotope- types
- development of maps for worthiness of biotope- types, major disturbances and proposed measures for development and conservation
- the maps are used as a tool for the ecological city planning in the municipality of Potchefstroom

Project 2

Spatial perspectives on the use of biodiversity for physical planning in the KOSH- Area, North-West province, South Africa

Cooperation between Potchefstroom University (Prof. Dr. S.Cilliers conductor), South Africa, Stockholm University, Sweden, University of Applied Sciences Erfurt (Prof. Dr. N. Müller co-operator), Germany and participation of private planning offices in South Africa

Participation of students from the University of Applied Sciences Erfurt – Sascha Abendroth (Thesis) and Jochen Müller (Practical)

Funds in South Africa: National Research Foundation

Duration 2001 - 2006

Main purposes of this study are:

- to provide general direction to guide decision-making and action over a multi-year period aiming at the creation of integrated and habitable cities, towns and other residential areas,
- to create a strategic framework for the formulation of an appropriate land-use management system.

One part of the project will be a representative comprehensive method of Urban biotope mapping in the area of Klerksdorp, Orkney, Stilfontein and Hartbeesfontein (Sept. 2003 - Sept. 2004) as used in the study of Potchefstroom, South Africa (ROST 2002, ROETHIG 2002)

Further parts are:

- Study of opportunities and constraints of the environment on development (Sept. 2003 - Febr. 2004)
- detailed biodiversity studies (Sept. 2005 - Dec. 2007)
- Combination of mapping and biodiversity data and incorporating the biodiversity issues in a spatial development framework and zoning plan for the KOSH-area emphasizing presentation strategies for successful implementation.



Fig.: Prof. Dr. S. Cilliers doing fieldwork near Potchefstroom (South Africa)