DAAD Deutscher Akademischer Austauschdienst
German Academic Exchange Service

SPONSORED BY THE
Federal Ministry of Education and Research

DLR

Integrated Urban Mobility (INUMO)

Our Network

Bauhaus-Universität Weimar
Vertr.-Prof. Dr. Sven Schneider & Dr. Zegeye Cherenet
Ethiopian Institute of Architecture, Building Construction and City Development (EiABC) at the Addis Ababa University (AAU)

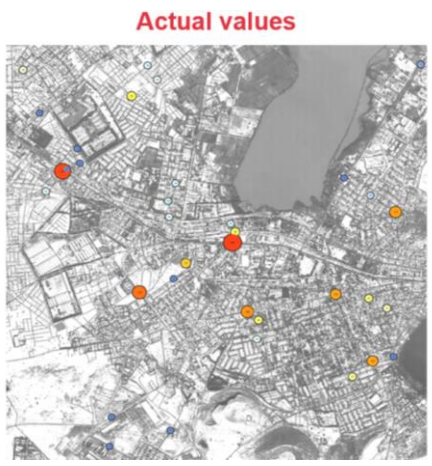
Processing, logistics and traffic

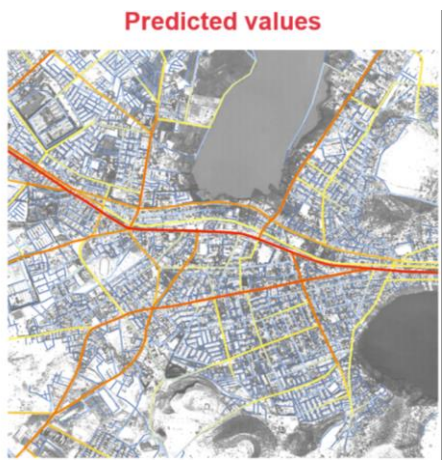
Challenges

The foundations for sustainable mobility concepts are laid in the early phases of urban planning when essential decisions concerning land distribution, allocation of uses, street networks and building density are made. At present, however, methods for adequately considering the implications of transport infrastructure decisions in the early urban planning phases are lacking. In addition, western traffic models have limited applicability to the Sub-Saharan context where settlement and mobility patterns are different, and structured data is not readily available.

Project Objectives

The project aims to develop and test new methods for integrating urban mobility into urban planning in the context of Ethiopia. A central component is the elaboration of an interactive scenario development method (INUMO-Toolbox) that allows professionals from multiple disciplines in urban development to efficiently generate, analyze and optimize different urban mobility concepts with the help of immediate feedback on their sustainability and resilience. In conjunction with Module 2, these methods will be applied and testing in Real-World Case Studies (seminars & planning studios) and stakeholder workshops.





Good practices

What are exemplary solutions you might have found for the challenges/risks?

- Preparation of Online Materials and conducting Online-Workshops (training digital skills in Modeling and Simulation)
- Development of robust survey techniques (interviewee training, digital survey tool, simplification of spatial mapping)

Good practices that you might want to share with others?

- Online-Live Data Collection allowed Real-Time Monitoring of the quality of the collected data (correction possible during the process)
- Selected Ethiopian students get intensive training in Germany (1-2 semester) and later assist as staff in joint workshops and seminars

Activities

In our project the EiABC is mainly responsible for on-site data collection on mobility behavior and traffic in different sites/cities as well as developing and testing surveys & survey tools. The Bauhaus-Universität Weimar is responsible for the development of the digital tools for mobility simulation (INUMO-Toolbox). Together we apply and test of the toolbox in different contexts of urban planning and integrate the methods into seminars and studios.

What do you do to achieve the objectives?

- Regular Online-Meetings (bi-weekly)
- Annual Project Workshops (in Weimar / Addis Ababa)
- Excursions (Field trips for data collection)
- Multiplicator Workshops (for Dissemination)

What are challenges and risks along the way?

- COVID-19 and the war in the first two years
- Data collection on mobility due to study participants missing capacities in reading maps