

BENEFITS OF NATURE IN URBAN DEVELOPMENT: PLANNING AND DESIGN FOR URBAN BIODIVERSITY AND ECOSYSTEM SERVICES

BREUSTE Jürgen, University of Salzburg
GAN Jing, Tongji University
LI Junxiang, East China Normal University

The intention of the symposium was to develop the foundation for the Sino-Austrian research project, and to identify its state of the art in scientific research on this topic to bring forward new methodological ideas. Europe has abundant experiences with nature-based indicators and integrated planning methods for the development of eco-cities, sustainable urban development and green-blue infrastructure. Some of these experiences may be introduced to China. Both partners seek comparable goals for ecological support of urban development and resilient cities based on nature-based solutions for urban problems (human health, climate change, risk reduction, reduction of land and resource consumption, urban protection, application of renewable energies and the enhancement of living standards). As a result of former discussions, four subject areas addressing the major problems around nature-based solutions and strategic urban ecological development were identified. They will be to be the topics of the planned Symposium:

1. The urban resilience concept based on urban natural ecosystem responses to external disturbances (e.g. climate change)
2. The eco-city and eco-civilization concept – guidelines for sustainable urban development in Germany and China
3. Urban green-blue infrastructure - Innovative ecological planning instruments to integrate nature-based solutions into urban development strategies.

There is a need to respect, protect, and stay in tune with nature in urban areas. Nature is vital not only to sustained, healthy economic development, but also to political and social progress, and must therefore be given a position of prominence in every aspect of the whole process of economic, political, cultural, and social development.

It has to be shown how re-naturing of cities can lead the greening of the economy, to present urban developers, planners and the construction sector how to innovate cities with nature, how cities can adapt to climate change and natural disasters by using nature-based solutions. In order to increase the resilience of cities concrete initiatives need to be launched by cities to promote nature-based solutions.

In 2016 the 2nd Symposium of SURE China Centre for Urban Ecology “Building Resilient Smart-Eco-Cities by Re-Naturation: Addressing Environmental Challenges through Nature-Based Solutions” was successfully proceeded with ECNU Shanghai in Shanghai. 3rd Symposium of SURE China Centre for Urban Ecology ‘Benefits of nature in urban development - Planning & Design for Urban biodiversity and ecosystem services’ as the key for their sustainable development was organized in 2017 three sites in China, Xiamen, Beijing and Shanghai.

12-16 November – Academy of Science - Institute of Urban Environment/IUE in Xiamen and
17- 20 November Academy of Science - State Key Lab of Urban and Regional Ecology and Colle-
ge of Architecture and Urban Planning, Beijing University of Technology (BJUT)
20 – 24 November – Shanghai, East China Normal University, Department of Environmental Sci-
ence and Tongji University, CAUP College of Architecture and Urban Planning.

Prof Dr. Breuste participated in all these events and reported and discussed on “Urban Biodiversity. What it is and how we can target it in design and planning”. In Tongji CAPU he presented his book. The new partner Tongji University as expert in architecture and urban planning could together with ECNU activate 2 Academy institutes in Xiamen and Beijing and the Beijing University of Technology (BJUT) as partners for this subject together with practitioners.

