

## SESSION DESCRIPTION

ID: B10

### Title of session:

Urban Ecosystem Services and Sustainable Urban Development

### Hosts:

	Title	Name	Organisation	E-mail
Host:	Dr.	Luis Inostroza	Department of Geography, Ruhr-University Bochum	Luis.inostroza@rub.de
Host:	Prof.	Feng Li	Res Center for Eco-Env. Sciences, CAS	lifeng@rcees.ac.cn
Co-Host:	Dr.	Jun Yang	Res Center for Eco-Env. Sciences, CAS	
Co-Host	Dr.	Yaifei Wang	Res Center for Eco-Env. Sciences, CAS	
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Host:	Prof.	Richard Register	Res Center for Eco-Env. Sciences, CAS	

### Session description:

Urban areas and population worldwide have grown at an unprecedented speed in recent decades. At the same time, rapid land use changes, degradation of ecosystem services, and constantly emerging urban environmental problems associated with this increasing trends have led to great concern on the sustainability of urban development. The integration of the Ecosystem Services framework into urban planning and design can be of great help in addressing these issues, however appropriated conceptualizations, methods and indicators to inform stakeholders, planners and policy makers are still needed. This workshop includes three interconnected sessions to address these concerns. They focus on spatiotemporal relationship between urbanization and ecosystem services, ecological management of urban environments and ecocity practice, respectively.

### Session One: Dynamics of urbanization and Ecosystem Services. Spatial

#### temporal approaches for sustainable urban development

A great deal of scientific work has been done to push the integration of ES framework for a sustainable urban development. However, approaches considering

the specific spatial temporal dynamics of urbanization and their interlinks with the ecosystem services supply and demand are still underdeveloped. The aim of this session is to explore these interlinks between urbanization and urban ecosystem services using dynamic, spatiotemporal approaches, looking towards sustainable urban development. The session welcomes theoretical as well as practical contributions. While we are opened to a broad scope of possible approaches, methods and research, we will focus on contributions that:

- Specifically address URBAN ecosystem services and urban contexts;
- Are spatiotemporally explicit, thus including space and time.

## **Session Two: Urban Ecosystem Services and Ecological Management**

This session aims at catalyzing international collaboration and interdisciplinary research on urban ecosystem services and ecological infrastructure systems, thus to provide new insights for the decision-making process and sustainable management of urban environments. Research progress in planning, management, and evaluation of ecosystem services, ecological infrastructure, and ecological management in urban environments will be shared at this symposium. Topics that will be addressed in this session included but are not limited to the following:

- Social-ecological system approaches for interdisciplinary urban studies: theories, practices, and advances;
- Linking urban land use policy, land use change, ecosystem services with human well-being: monitoring indicators, modelling approaches, and management implications;
- Green infrastructure for “Low Impact Development (LID)” towards sponge cities: comprehensive evaluation, sustainable engineering, and policy analysis;
- Sustainable environmental policy-making and management from perspectives of urban ecosystem services and infrastructure: lessons learned and experiences gained from case studies.
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## **Session three: Urban Ecosystem Services and Ecocity Practices**

Albeit the researches on ecosystem services are fruitful and many of those have been applied to land use management. But how to apply this knowledge into urban context are still scares which is exceptionally important considering that majority of population will live in cities. This session will focused on the application of ecosystem services theory into practices to foster more sustainable cities. Specifically, we are interested in, but not limited to, the following topics:

- What’s the necessary baseline for the demand of ecosystem services in urban/suburban area? And how to judge a health urban and suburban ecosystem?
- Which kinds of ecosystem services should be paid more attention in urban area and suburban area, when the baseline of ecosystem services was reached? And

the standard for a reasonable trade-off among different ecosystem services in urban area.

- Do ecocity designers, engineers, ecosystem services scientists share the same criterion on sustainable cities? How to cope with these differences in sustainable city practices?
- Sharing your case study in ecocity practices towards better urban ecosystem services.

#### Goals and objectives of the session:

- To explore the interlinks between urbanization and urban ecosystem services using dynamic, spatiotemporal approaches, looking towards sustainable urban development.
- To use a social-ecological system approach that explores interdisciplinary connections between social and natural sciences. Topics addressed by the symposium have strong management implications that will help to promote harmonious and sustainable development among people, nature, and the society in the context of urbanization and global environmental change.
- To promote the understanding of ecocity under an ecosystem services view.

#### Planned output / Deliverables:

The session will offer the possibility to publish in a special issue in a journal to be informed in due time.

#### Voluntary contributions accepted:

Yes, I allow voluntary contributions to be submitted to my session for review.

#### Proposed Format (duration, methods):

The workshop will be divided into 3 interrelated sessions of 1.5 hrs each one. The discussion will be systematized around the key questions/topics of every session.

#### Related to WG or NN:

[BWG 10 - Urban System](#)