

ESP 11 World Conference

“From global to local ecosystem services: pathways to Nature-based Solutions inspired from Down Under”

23-27 June 2025 | Darwin, Australia

SESSION DESCRIPTION

ID: T9

Urban ecosystems services and public health in a time of global warming

Hosts:

	Name	Organisation	E-mail
Host:	Sining Zhang	Associated Professor. Landscape Architecture Department, School of Architecture, Southwest Jiaotong University, Chengdu, China	zsning@swjtu.edu.cn
Co-host(s):	Prof. Bo Hong	Professor, College of Landscape Architecture and Arts, Northwest Agriculture and Forestry University, Yangling, China	hongbo@nwsuaf.edu.cn
	Dr. Jing Xie	Postdoc, Graduate School of Horticulture, Chiba University, Chiba, Japan. Associate Professor, Landscape Architecture Department, Sichuan Agricultural University, Chengdu, China	601644520xj@gmail.com

Abstract:

As global warming spreads, extreme urban heat and climate events become more frequent and stronger. With the continuous intensification of urbanization, cities have become the main living environment for humans worldwide. Urbanization not only strengthens the urban heat island effect, but also increases the risk of disease transmission, exposing more and more people to the threat of climate change, and seriously threatening public health and human well-being. In addition, the sensitivity and vulnerability of different groups of people to the environment will vary due to changes in their socioeconomic background (such as income level). Studies have shown that urban blue-green spaces (such as parks, forests, lakes and other natural environments) can provide many ecosystem services and are considered an important urban heat intervention measurement. Although people are extremely dependent on blue-green spaces that provide them with climate shelter and ecosystem services, the aesthetic and recreational values of these spaces (cultural ecosystem services) are currently more appreciated. In the context of global warming, their indirect benefits (regulatory services, such as heat island effect mitigation or thermal comfort improvement) are not always perceived and valued, resulting in the current lack of active planning and design interventions based on "microclimate adaptation and mitigation" and "health promotion". The relationship between urban public health and ecosystem services regarding urban heat has not been effectively incorporated into urban planning and design, and landscape planning and design, nor has active health intervention been carried out from the perspective of comprehensively improving the capacity of urban ecosystem services to reduce heat exposure and improve urban heat adaptation. Therefore, the questions to be discussed at this session are: What is the relationship between urban ecosystem services and public health in the context of global warming? Does the relationship between urban ecosystem services and public health change at different spatial and temporal scales? What is the relationship between urban ecosystem

services and the health of residents with different natural and social attributes? How to develop urban ecosystem services to help improve public health?

Goals and objectives of the session:

It has great practical significance and far-reaching social and ecological value considering the study of the relationship between urban ecosystem services and public health considering global warming, which is beneficial to human health and urban sustainable development. The main goal of this conference is to collect various advances and the latest research findings, aiming to comprehensively analyze the above relationship to reflect the intrinsic meaning, drive impactors, and mechanisms of urban ecosystem services and public health considering urban heat.

Planned output / Deliverables:

This Session wants to collect manuscripts and studies investigating the relationship between public health, urban heat environment, urban blue-green spaces, and ecosystem services using an innovative and integrated perspective. Besides, inter- and transdisciplinary concepts and approaches among urban planners and designers, urban scientists, ecologists, geographers and other related scientists are warmly welcome. Meanwhile, some excellent manuscripts may be invited for publication in journals, such as Urban Climate, Architectural Science Review (AHCI), Journal of Parks, etc.

Session format:

Standard session (presentations)

This session is planned to last about 1.5 or 2 hours.

Voluntary contributions accepted:

Yes, I allow any abstract to be submitted to my session for review

Related to ESP Working Group:

[TWG 9 - ES & Public health](#)