



SESSION DESCRIPTION

A4 Linking data and science to improve urban resilience

Presentations

Date: Wednesday, 26 June, 2019

Time: 14:00-15:30

Rooms: S25-26

Language: English

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OBJECTIVE

Data gathering, data analysis and scientific knowledge are a valuable source of information for local governments in designing and assessing their resilience strategy to cope with climate-related risks. The dialogue and collaboration among scientists and data analysts and policymakers is essential to resilience planning and for better-informed decision making.

The session will begin with the value of science-policy-practitioner alliances for data gathering and information dissemination by WWF, followed by the presentation of the case of multi-stakeholder collaboration and transdisciplinary approaches to use scientific data in policy making and planning in Japanese cities. The third presentation will address the city-university collaboration project to build a spatial Risk Model to rezone the urban area prone to earthquakes and increase urban resilience facing catastrophic events in Mexico City. Another collaborative approach to build a state of knowledge on floods risk management in Quebec will be presented by Ouranos. The next presentation will focus on the role that Big Data can play to improve service delivery, citizen welfare, planning and improve urban resilience in Tshwane. Data can also be used to prioritize locations for Technical Assistance in the case of emergency, which will be presented by Argonne National Laboratory. The session will conclude with a presentation on co-production of practices and knowledge to support local resilience.

OUTCOMES

- Participants will be exposed to the benefits of science-policy collaboration to achieve sustainability goals;
- They will gain understanding of the potential of leveraging innovative data sources to track cities' environmental performance and social equity outcomes;
- They will learn that data can support designing and implementing resilience plans;
- They will be able to this knowledge with them to apply in their own communities, cities and regions;

METHODOLOGY

- The facilitator provided an introduction to the session topic and contributors. **(3 minutes)**
- Each presentation was allotted 10 minutes. **(7 x 10 minutes)**
- The facilitator managed questions and answers. **(15 minutes)**
- Closing remarks by the facilitator. **(2 minutes)**



CONTRIBUTORS

Facilitator *Nicola Tollin, Professor wsr on Urban Resilience, University of Southern Denmark, Odense, Denmark*

Presenter *Jennifer Lenhart, Global Lead, WWF One Planet Cities, Solna, Sweden*

Leveraging urban data to strengthen cities' resilience

One Planet City Challenge (OPCC) helped to develop effective urban resilience strategies by gathering and analyzing data, and sharing the results with cities facing similar challenges. Such data gathering can support designing and implementing resilient urban action plans addressing mitigation and adaptation challenges. The presentation also addressed the following gaps: the action gap between current action plans and the one aligned with the Paris Agreement, and the information gap which prevents city leader from developing and implementing adequate climate actions.

Presenter *Kenshi Baba, PhD Professor, Tokyo City University, Yokohama, Japan*

Co-design Workshops with Experts and Policymakers on Climate Change Adaptation in Japan

The Japanese Government- funded research project of climate change adaptation "SI-CAT" developed technologies of projecting climate change for the near future and estimating the impacts of climate change. This project promotes effective use of scientific data in policy making and enhancing collaboration among experts, policymaker and stakeholders to enable a deeper understanding for long term risks of the general public.

Presenter *Claudia Ortiz-Tudela, Associate Professor, FA UNAM, Mexico City, Mexico*

Building resilience through systemic analysis in Mexico City

After the earthquake in Mexico City, the government financed this study with the aim to develop recommendations to rezoning the urban area. The study, an interdisciplinary approach, is using data such urban density, socio-demographic condition, network connectivity and mobility, and urban infrastructure, resulted in a spatial Risk Model generated by three submodels: threat, vulnerability and ecosystem services. These maps can be used for urban planning and policy-making.

Presenter *Alexandrine Bisaillon, Risk Management and Resilience Specialist, Ouranos, Montreal, Canada*

Bringing sciences together to inform decision-makers: the case of Quebec floods

This presentation demonstrated how a climate event mobilized different actors and experts from the science spectrum to rethink the future of territories and ensure their resilience. After the floods in Quebec, collaborative dialogue between researcher and decision-makers was adopted with the objective to build knowledge on flood risk management.



Presenter *Hendrik Labuschagne, Deputy Director for Economic and Statistic Indicators, City of Tshwane Metropolitan Municipality, Pretoria, South Africa*

The role big data can play in urban resilience and planning

The research demonstrated that Big Data (BD) can improve service delivery, citizen welfare, planning and developing interventions to promote urban resilience if used by local governments. However, municipalities might not have access to data or make effective use of the available data.

Presenter *Kyle Pfeiffer, Manager, Argonne National Laboratory, Sterling, United States*

Mesoscale Analysis of Indicators of Community Resilience in the United States

Argonne National Laboratory analyzed the community resilience research to provide a data-driven basis to prioritize locations for Technical Assistance (TA) investment and to inform community resilience technical assistance content.

Presenter *Tiffany Troxler, Research Associate Professor, Florida International University, Miami, United States*

Organizing stakeholder priorities and co-production of knowledge for impact

Urban resilience building requires effective partnerships and aligned set of goals and objectives that unites these partners. The session aims at discussing the co-production of practices and solutions, and on how the co-production of knowledge can support elements of comprehensive, integrated and actionable resilience.