



Session Descriptions

Resilient Cities 2016

The 7th global forum on urban resilience and adaptation

6 - 8 July 2016 | Bonn, Germany



NACHHALTIGKEIT.
SUSTAINABILITY.
DURABILITÉ.
BONN.

I.C.L.E.I.
Local
Governments
for Sustainability

Table of Contents (*click on title to go to page)

P1 Post-2015: Taking stock and moving forward to make cities inclusive, safe, resilient, and sustainable

Roundtable discussions on financing resilience

Sponsored learning exchanges: Find out more!

POSTER PRESENTATIONS

SP1 Advancing global frameworks through local action: The view from 2016

A1 Collaboration, coordination and communication: Key elements for cities addressing the water-related impacts of climate change

A2 Advancing Ecosystem-based Adaptation through pioneer research, partnerships and city projects

SP2 Inclusive and Resilient Urban Development Forum Opening Sub-plenary

B1 Towards the implementation of a comprehensive urban cooling strategy to adapt to climate change

B2 Strengthening energy systems to enhance urban resilience

C1 Incorporating resilience into City Development Strategies

C2 Successful regional and community-level collaboration

C3 River-revitalization and better use of green / blue infrastructure for urban resilience

C4 Cities as first responders to climate change, and the role of the UCCRN Regional Hubs and FRACTAL

C5 Financing Resilience Forum Opening

D1 Slum upgrading achieving resilient cities for all in Africa

D2 Reality Check: Adaptation on the ground in Can Tho and Da Nang cities, Vietnam

D3 Public-Private-Community Partnerships for climate compatible development

D4 Economics of Climate Adaptation: Identifying and pricing adaptation measures

Science for cities: Key findings from the UCCRN ARC3.2 Report and UCCRN Regional Hubs

E1 Inclusive governance: partnering with communities and marginalized groups

E2 Advances in global initiatives: Supporting cities to assess, act, and report

E3 Novel data and spatial analysis tools to inform resilience planning and urban development

E4 Resilience planning in small & intermediate-sized cities in sub-Saharan Africa

E5 Attracting finance through sustainable and resilient project design Using SuRe® – The standard for sustainable and resilient infrastructure to improve TAP projects

Financing urban resilience with Urban Development and Investment Funds

F1 Know Your City: Linking community slum data to urban resilience

F2 Launch and reception! New online adaptation options catalogue for practitioners!

SP3 Financing Resilience Forum Sub-plenary Upscaling efforts to finance urban resilience and adaptation

Guiding Principles for City Climate Action Planning: An open, multi-stakeholder initiative

G1 Innovative and effective ways of sharing knowledge and delivering actionable information to decision makers

G2 City Resilience Index: A tool to assess and measure the resilience of cities

G3 Resilient Urban Food Systems: City progress

G4 City Innovation Platforms (CIPs) for African infrastructure risk and resilience

H1 Building resilience in towns and provinces of Small Island States

H2 City climate resilience: Urban adaptation for better quality of life in the Greater Bangkok Area, Thailand (Bangkok and Pakkret)

H3 Resilient Urban Food Systems: Assessment, monitoring and networking

H4 Investing in urban resilience: Making the urban poor and cities more resilient

P2 Receiving urban refugees: Strengthening the social fabric for resilient cities today and tomorrow

P3 Shaping a sustainable urban future: The view to 2030



SESSION DESCRIPTION

P1 Post-2015: Taking stock and moving forward to make cities inclusive, safe, resilient, and sustainable

OPENING PLENARY

Date: Wednesday, July 6, 2016

Time: 10:00-12:30

Room: S29-32

Language: English

Contact: Laura Kavanaugh

E-mail/web: resilient.cities@iclei.org

OBJECTIVE

The important role of local governments has been officially recognized in the Sendai Framework for Disaster Risk Reduction 2015-2030 (UNISDR), the Paris Agreement (UNFCCC), and the Sustainable Development Goals, which include a standalone goal to “Make cities inclusive, safe, resilient, and sustainable.” With this momentous objective finally achieved, the challenge of implementation begins, raising a series of questions related to multi-level governance and collaboration. What does this mean for local resilience efforts and governance structures? How can existing programs and resources be leveraged in support of the post-2015 targets? What steps are being taken to ensure coherence in the implementation of the Sendai Framework, Paris Agreement, SDG 11, and the forthcoming New Urban Agenda, including with regards to monitoring and reporting?

This plenary will discuss the alignment of urban resilience efforts and the post-2015 global frameworks. Speakers from UN organizations as well as regional, national, and local governments will reflect on what has been achieved, take stock of existing resources available to support the post-2015 targets, and discuss opportunities to connect these efforts under the banner of SDG 11.

As an input to this discussion, presentations will highlight two key issues at the heart of SDG 11: inclusivity and financing. The first will focus on local governance structures and a path toward a more equitable urban future through participatory climate policies without evictions. Second, a way forward for improving access to finance will be presented that focuses on supporting capacity-building in local governments from project identification through to implementation. Tools and examples of how local governments can better prioritize investments, develop bankable projects, and secure and manage funding will be shared. These contributions will set the stage for the Resilient Cities 2016 thematic forums on “Inclusive and Resilient Urban Development” and “Financing Resilience.”

The plenary will conclude with an update on the new zero draft of the New Urban Agenda, kicking off discussions which will be revisited during the summary and outlook plenary “Shaping a sustainable urban future: The view to 2030” on July 8th.



OUTCOMES

Participants will gain a better understanding of the latest developments in urban resilience and the congress themes including:

- the role of local governments in the implementation of the post-2015 frameworks;
- examples of local adaptation and resilience-building actions;
- how inclusive governance approaches contribute to more resilient urban development pathways;
- strategies for improving the ability of local governments to attract and manage funding for resilience; and

METHODOLOGY

- Welcome and congress opening **(20 minutes)**
- Panel discussion on local resilience efforts & the post-2015 global frameworks with thematic presentations on inclusive resilience building and financing resilience **(120 minutes)**
- Closing remarks **(10 minutes)**

CONTRIBUTORS

Welcome and Opening Remarks

Host *Ashok Sridharan, Mayor, City of Bonn, Germany; ICLEI Special Messenger to UNFCCC and carbonn Climate Registry*

Organizer *Gino Van Begin, Secretary General, ICLEI – Local Governments for Sustainability*

Post 2015: Taking stock and moving forward

Facilitator *Monika Zimmermann, Deputy Secretary General, ICLEI*

Introduction and facilitation

Panelist *Jerry Velasquez, Chief of Advocacy and Outreach, United Nations Office for Disaster Risk Reduction (UNISDR), Geneva, Switzerland*

Panelist *Nick Nuttall, Head of Communications and Outreach, United Nations Framework Convention on Climate Change (UNFCCC)*

Panelist *Hans Bruyninckx, Executive Director, European Environmental Agency, Copenhagen, Denmark*



Panelist *Pusadee Tamthai, Deputy Governor, Bangkok Metropolitan Administration, Thailand*

Panelist *Manuel Araujo, Mayor, Quelimane Municipality, Mozambique*

Presenter *Almuth Schaubert, Desk Officer, Urban Pro-Poor Programmes, Asia Department/ Policy and Global Future Challenges, Misereor, Aachen, Germany*

Inclusive urban climate policies in cities without evictions

Sustainability and Resilience as part of the financial services value chain

Presenter *Hans-Peter Egler, CEO, Global Infrastructure Basel Foundation (GIB), Basel, Switzerland*

Supporting capacity-building in local governments to attract and invest financing for resilient development

Concluding Remarks

Facilitator *Monika Zimmermann, Deputy Secretary General, ICLEI*

Gathering input on the new zero draft New Urban Agenda and closing remarks



Financing Resilience Forum

SESSION DESCRIPTION

Financing Resilience Forum pre-event

Roundtable discussions on financing resilience

Date: Wednesday, July 6, 2016

Time: 13:30-14:15

Room: S34-35

Language: English

ICLEI contact: Evgenia Mitroliou

Organized by: ICLEI

OBJECTIVE

This interactive session will offer participants the opportunity to critically examine and test innovative tools, concepts, and approaches for financing urban resilience. Participants may choose from one of two tables, each of which will host a separate round table discussion. Hosts at each table will lead an interactive exchange and rapporteurs will record the results. The table topics are as follows:

Table 1: Facilitating Finance for Cities: Finding the right mixture lessons from the Euroclima Programme

Table 2: The role of manufacturing firms in building urban resilience in South and Southeast Asia

TABLE 1: Facilitating Finance for Cities: Finding the right mixture lessons from the EUROCLIMA Programme

Chair	<i>Johannes Karremans, Director Technical Assistance, EUROCLIMA Programme Brussels, Belgium</i>
Moderator	<i>Guillermo Dascal, Climate Change Expert, EUROCLIMA Programme, Brussels, Belgium</i>
Discussants	<i>Christobal Reveco, Director, Adapt-Chile, Santiago, Chile; and Carlos Felipe Pardo, Urban Sustainable Transport Specialist, EUROCLIMA Programme, Brussels, Belgium</i>

The projected growth of cities and their carbon emissions make innovative approaches that include a mix of funding instruments available to local authorities for resilience necessary and urgent. In this context, the EUROCLIMA Programme of the European Commission is working to enhance access of governments of several Latin American countries to funds for urban climate actions, through financing enabling studies, technical assistance, south-south cooperation, regional meetings for information exchange, establishing enabling conditions, developing specific tools, etc. This support is aimed at producing bankable proposals, ready to submit to a mix of international and



Financing Resilience Forum

national, public and private funds. In order to move towards resilient cities and facilitate access to climate funds, an innovative tool for the development of strategic local adaptation plans called Local Adaptation Tool (LAT) was developed by the EUROCLIMA Programme. This tool will be briefly introduced and examples of preparing for climate finance readiness in Latin American cities will be presented.

The second half of the roundtable discussion will consist of a guided discussion among participants on key challenges and opportunities for urban climate finance. Participants will be encouraged to contribute their own experiences with preparing proposals for urban climate actions.

Table 2: The role of manufacturing firms in building urban resilience in South and Southeast Asia

Chair	<i>Stephanie Rust, Institute for Sustainable Communities / Vice President of International Programs, Montpellier, USA</i>
Input	<i>Thomas Neise, Research Fellow, University of Cologne, Cologne, Germany</i>

Industrial cities in South and Southeast Asia are an important but overlooked part of the supply chain. They provide labor, resources and infrastructure for factories that sell to global brands and drive local and national economies. But both communities and the factories they host face escalating water and climate-related hazards, putting health, livelihoods and business continuity at risk. Businesses, communities, and local governments share these challenges and risk, yet they do not always work together to manage them.

This roundtable discussion will shed light on the pivotal role of manufacturing firms in urban adaptation and resilience planning and will explore how the private and public sector can invest together in water resilience and what the challenges and potential pathways for these partnerships may be. Concrete examples will be shared from Indian and Indonesian urban areas and feedback on the approaches and concepts presented will be sought after from the table participants.

Further recommended reading:

- EUROCLIMA website <http://www.euroclima.org/en/services/euroclima-books>
 - Institute for Sustainable Communities "Manufacturing Resilient Communities project": <http://www.iscvt.org/program/manufacturing-resilient-communities/>
-



SESSION DESCRIPTION

Sponsored learning exchanges: Find out more!

Co Event

Date: Wednesday, July 6, 2016

Time: 13.30-14.15

Room: S25-26

Language: English

Contact: Barney Dickson

E-mail/web: barney.dickson@unep.org

Organized by: Global Adaptation Network (GAN)

OBJECTIVE

In 2016 the Global Adaptation Network (GAN) will be sponsoring three Learning Exchanges between groups of adaptation practitioners. The participants in one such Exchange will be selected from those attending the Resilient Cities Congress. Come to this meeting if your group or organization might be interested in participating in such an exchange!

This GAN initiative is motivated by three considerations. First, the most useful knowledge for adaptation practitioners is often practical knowledge of how to address particular adaptation challenges. Second, this type of practical, 'how to' knowledge is not easily acquired from the scientific literature, or even from the many adaptation case studies posted online. It is best obtained through direct, face-to-face exchanges with other practitioners who have faced similar challenges. Third, learning of this sort takes time and resources. This session will start by considering some of the challenges and opportunities for sharing knowledge about adaptation planning and practice in urban areas. It will then introduce the GAN initiative for Learning Exchanges, with time for questions and answers. It will end by inviting Expressions of Interest.

Refreshments and snacks will be provided in the session.

OUTCOMES

Participants will:

- Gain a better understanding of how to address the challenge of sharing knowledge about adaptation practice in an urban context;
- Learn about the GAN initiative to sponsor three Learning Exchanges in 2016; and
- Have the opportunity to express interest in participating in such an exchange.

METHODOLOGY

- Video Presentation on using *knowledge-sharing* to enhance adaptive capacity (10 mins)
Alice Hill, Senior Director for Resilience Policy, National Security Council, White House, Washington DC, USA
- Mobilizing Adaptation Knowledge (5 mins)
Anthony Socci, Senior Lead on International Climate Policy, U.S. EPA, Washington DC, USA
- Facilitated discussion on GAN's Learning Exchanges (30 mins)
Facilitator: Barney Dickson, Head Of Climate Change Adaptation Unit, United Nations Environment Programme (UNEP) and Global Adaptation Network (GAN).



SESSION DESCRIPTION

POSTER PRESENTATIONS

Date: July 6-7, 2016

Time: 13:30-14:30

Room: S05-06

Language: English

Contact: Evgenia Mitroliou

Organized by: ICLEI

CONTRIBUTORS

Presenter *Zakarias Arioze Ghele Radja, Mineral Resource Development Staff, Ende District Government, Indonesia*

Effective preparedness for landslide disaster risk reduction in sub-district Detukoso, East Nusa Tenggara Timur, Indonesia

A risk exposure analysis in Ende Regency (East Indonesia), conducted by Georisk-Project (German Technical Cooperation implemented by the Federal Institute of Geosciences and Natural Resources, Germany) in 2009 reveals the sub-district Detukoso is highly prone to landslides. Based on this fact, the local disaster management office BPBD implemented the program "Kampung Siaga Bencana" (Disaster Alert Village) in Detukoso. But does this fact have impact on the preparedness of the citizens of Detukoso? How effective is the program for disaster mitigation? A field study in the Village of Ndito conducted as part of a Master thesis investigates this question.

Presenter *Giuseppe Orlando, Engineer - Technical Management instructor at the City of Monopoli, Italy*

+R3: more Reality, more Realization, more Resilience: The evolution of environmental information

Environmental information may be conveyed directly by the public authorities (which hold the obligation to do so as per the law) to the citizen, i.e. the recipient of the negative environmental effects.

This poster will present the project "+ R3: More Reality/Realization/Resilience" (+ R3) which aims to boost the perception and understanding of territorial changes in relation to the realization of the projects/plans/programs that have a significant environmental impact. The project + R3 uses augmented reality (1- more reality) to promote, through the widest possible dissemination of environmental information, the widest perception and understanding of the environmental effects of plans/projects/programs (2- more realization). This increases the resilience of the territorial system exposed to the effects of the project/plan/program (3 - more resilience), as are stimulated feedback processes between the different components of the system (in this case the public authority and the population exposed).



Presenter *Christopher Clavin, Research Staff Member, Science & Technology Policy Institute, Washington DC, USA*

The roles of scientific engagement for integrated resilience policy development: a case study of three U.S. cities

Community-scale resilience policies in the United States are often developed in response to place-based and hazard-specific risks. New scientific information poses an ongoing challenge for local community decision makers who are required to assimilate uncertain scientific information to support decisions that have multi-decadal impacts. Using a case study approach, we examine the role of scientific engagement and input in resilience planning processes in Los Angeles, CA, Norfolk, VA, and Flagstaff, AZ. The influence of scientific input and best practices are observed that describe the critical role of science in supporting evidence-based integrated resilience planning.

Presenter *Paola Adriázola, Project Manager, V-LED Project, adelphi, Berlin, Germany*

Stimulating local climate action in Kenya, Vietnam, South Africa and the Philippines

Climate change is a global problem, yet many solutions can be found in local action. While Paris set us on an encouraging path to substantive greenhouse gas emission reductions, municipalities and cities across the world are pioneering local climate action. However, few countries have been able to establish dynamic coordination mechanisms between the national and subnational levels to effect climate action. How can we align climate policies across multiple governance levels to stimulate local climate action? The V-LED project supports capacities to stimulate vertically integrated climate action. It facilitates dialogue between national and municipal authorities and communities, and enables knowledge sharing and learning among local governments.

The project presented with this poster, "Vertical Integration and Learning for Low-Emission Development in Africa and Southeast Asia" (V-LED), is part of the International Climate Initiative (IKI), supported by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) based on a decision of the German Bundestag.

Presenter *Naomi Hoogervorst, Country representative, Placemakers, Nairobi, Kenya*

Towards a best practice for neighborhood resilience – "Making Cities Together"

More than ever, the impacts of globalization, climate change and urbanization are felt in the quality of life in city dwellers. Resilient cities are cities that are able to withstand these pressures, and rise up again after calamity passes. Right at the center of this pursuit for resilience is participatory planning, capacity building and partnerships. Built with the support of the World Bank for the lower middle class in 1970s, Dandora was a well-planned neighborhood, fully furnished with amenities including social halls, health centers, schools and playgrounds among others. However, due to poor management, the neighborhood has gradually declined into a slum. As a result, the neighborhood has in recent years hit news' headlines for all the wrong reasons. It has been infamous not only for its huge dumpsite – the largest in Kenya – but also because of numerous cases of violent crime, drug abuse, rape, and prostitution. However, there is a



movement to reimage, and rebrand this neighborhood. Young people are leading the way to bring about change and are taking initiative to reclaim the lost glory of their neighborhood by cleaning up and landscaping open spaces, opening up drainages, and painting facades. *"Making Cities Together"* was conceptualized as a project that promotes exchange of knowledge, ideas, best practices and experiences among various actors in the field of Placemaking, and participatory urban development from across the world. Through strong partnerships and cross-sector collaborations with the county government, the UN, NGOs, the Private Sector, the Civil Society, the Academia, Community Based Organisations, Youth Groups, and individuals, the project especially sought to affirm the central role of partnerships in creation of resilient cities and neighborhoods.

Presenter *Meggan Spires, Manage, Climate Change Adaptation & Biodiversity, ICLEI Africa, Cape Town, South Africa*

Co-producing climate change information for climate sensitive and robust city region decision making

One of the Future Resilience for African CiTies And Lands (FRACTAL) project aims is to enable the co-production of climate change information that is useful for decision making in eight Southern African city regions. ICLEI – Local Governments for Sustainability's African Secretariat forms part of the FRACTAL consortium that is working on this ambitious project. The poster presentation will highlight various innovative approaches being utilized by the FRACTAL project team, including co-production, which can be used to advance climate sensitive decision making in complex city region environments. It will also provide some reflections on project experiences to date.

Presenter *Ricardo Pozo, Architect and MSc in Urban Development, Doctoral candidate (PhD) from the ARUS program (Advanced Research in Urban Systems), Duisburg-Essen University, Essen, Germany*

The Ecuadorian coastal region after the earthquake: New challenges for building resilient communities through urban planning

On 16 April 2016 a 7.8 earthquake hit the northern coastal region of Ecuador. More than 600 persons died and 30.000 were injured. Many of them lost their houses and properties. Despite the fact that this region was officially and internationally promoted as a tourist destination, this natural disaster revealed a reality about the urban growth and development of coastal settlements in Ecuador and Latin America: We have not been building resilient communities and cities! However, this reality also suggests a new challenge for urban planners, politicians, the private sector, academia, citizens and all other local stakeholders. We need to rethink the way we are planning our cities and regions. With his doctoral research, the poster presenter urges to observe the process of spatial and social transformation of small fishing coastal towns since the arrival and consolidation of tourism as the main economic activity, as well as the progressive decrease of their resilience capacity. This poster presentation will set up priorities in the rethinking of the urban and regional planning in order to build resilient communities and cities in developing countries of the 21st century.



Presenter *Chibulu Luo, PhD Researcher, University of Toronto, Department of Civil Engineering, Toronto, Canada*

Determining the limits of infrastructure capacity in urban communities: a building scale analysis

Rapid population growth in cities is placing ever-increasing pressure on infrastructure networks, particularly in the regions most unprepared to adapt. Yet, what is the capacity for urban infrastructure to support higher densities? And what are the thresholds or limits beyond which resilience is compromised? In response, we present a heuristic framework to illustrate the fundamental relationship between infrastructure capacity and density at the building scale. Specifically, we use the framework to calculate the natural limits or “carrying capacity” of the building envelope using resource consumption metrics, and determine the optimum demand that can be supported by the building infrastructure network. Overall, research outcomes provide a basis for re-thinking infrastructure planning and resilience strategies for urban buildings and communities.

Presenter *Sierra Woodruff, PhD Candidate, University of North Carolina at Chapel Hill, Chapel Hill, USA*

Quality of local climate change adaptation plans in the United States

Adaptation planning offers a promising approach for identifying and devising solutions to address local climate change impacts. We use content analysis to evaluate 44 local adaptation plans in the United States and multivariate regression to examine how plan quality varies across communities. We find that plans include a breadth of strategies. Most plans, however, fail to prioritize strategies or provide implementation processes, raising concerns about whether adaptation plans will translate into on-the-ground reductions in vulnerability. Our analysis also finds that plans authored by the planning department and those that engaged elected officials in the planning process were of higher quality.

Presenter *Jody Harris, PhD Researcher, Sustainability Research Institute, University of Leeds, Leeds, UK*

Critical factors affecting urban food system resilience

The urban food system (UFS) is emerging as an acknowledged element of critical infrastructure but to date, our understanding of the factors affecting its resilience in the face of climate change and other urban pressures has been relatively under explored. In the fields of urban food security and food system planning, a baseline assessment is often viewed as an important first step in understanding the food assets and needs within a given location. An approach to understanding the resilience characteristics of the UFS, and reviewing the performance of a given location against these characteristics, may provide an equally important first step to establishing and improving an UFS’ preparedness for dealing with future pressures. My doctoral research is drawing on the experiences of cities globally to develop a framework that sets out the likely factors affecting urban food systems resilience. This qualitative framework makes a unique contribution to this field by integrating academic and practitioner work across engineering and social science disciplines. The poster will present a summary of research to date including the academic and practitioner



literature concerning UFS resilience along with a proposed conceptual framework for addressing UFS resilience.

Presenter *Maddie Rehn, Project Director of The Mountain Pact and Masters Candidate, Western State Colorado University, Gunnison, USA*

Building resilience for mountain communities through climate and conservation policy

Because of their natural physical conditions, high altitude mountains are particularly affected by the consequences of climate change. This poster will speak to the detrimental impacts of climate change for mountain communities and explore how political frameworks can support communities to diversify local economies, integrate adaptation strategies, natural resource management, and capacity building from environmental pressures. In focus will be the advocacy work and educational programming initiated by the Mountain Pact, an American non-profit, empowering mountain communities to build resilience in the face of environmental and economic stresses through climate and conservation policy.

Presenter *MJ Pickett, Masters Candidate, Western Colorado State University, Gunnison, USA*

Food as infrastructure for a resilient community: examples from Reno, Nevada

Reno's infrastructure is changing in two critical ways: by adapting who grows the food, and the methods by which food is grown. Work being done includes innovative growing spaces, education, and distribution throughout the community by "minority" farmers, such as schools, women, and part time farmers, to create a resilient system that is less dependent on outside inputs. Other work includes taking current climate conditions and future predictions and transforming the foundation of how food is grown and techniques associated with water usage. These urban systems can easily translate to rural communities, and even further to international communities through knowledge sharing.

Presenter *David Mitchell, Masters Candidate, Western State Colorado University, Gunnison, USA*

Industrial gas and the importance of sustainable industries to resilient cities

Using the industrial gas industry as a basis of study, this research aims to explore how sustainability can be applied to an existing sector of business and the importance thereof. Data compiled from various market and industry sources is used to investigate trends in the end uses of industrial gas by region and the impact of the production process. We posit these elements of the study will illustrate the importance of analyzing and enhancing large energy intensive sectors of industry. Many benefits of more sustainable industries will reduce energy use, decrease waste production, create a more resilient workforce, reduce resource consumption, and add to the progress of sustainable and resilient cities.



SESSION DESCRIPTION

SP1 Advancing global frameworks through local action: The view from 2016

Sub-plenary discussion

Date: Wednesday, July 6, 2016

Time: 14:30-16:00

Room: S30-32

Language: English

Contact: Sarah Reed and Matthias Garschagen

E-mail/web: sarah.o.reed@gmail.com;
garschagen@ehs.unu.edu

Organized by: ICLEI

OBJECTIVE

This session will consider the implications for urban resilience of recent and ongoing international processes, including the Sustainable Development Goals (SDGs), the Sendai Framework for Disaster Risk Reduction, the Paris Climate Change Agreement from COP 21, and Habitat III. Speakers will provide an overview of key conceptual issues in applying resilience theory to urban contexts. They will consider how each of these international agreements conceptualizes or uses the discourse of urban resilience; how the “resilience renaissance” is shaping the international urban development agenda; and what might be the key opportunities, gaps and risks for urban stakeholders in implementing this emerging agenda. This will include reflection on the rights agenda and commitments, including the Right to the City, in relation to the growing dominance of resilience.

OUTCOMES

- Participants will gain a better understanding of how key international processes – SDGs, the Sendai Framework, the Paris Climate Change Agreement, and Habitat III – conceptualize urban resilience, and what are the key opportunities, gaps and risks they present for this field of practice.
- Panelists will reflect and participants will learn on the implications for this “2016 consensus” for social justice in cities, in particular how local governments may respond to and implement it.

METHODOLOGY

- Facilitator will provide session framing and introductions (10 minutes);
- Short inputs from 4 speakers on four key global agreements, based on key questions (20 minutes);
- Additional panelists respond to the introductory speakers (10 minutes);
- Panel discussion moderated by facilitator (20 minutes);
- Audience questions (30 minutes)

Through the session, audience members will be encouraged to write questions or comments on cards, which will be shared in the final session by the moderator, to ensure that all audience members feel comfortable contributing.



Guiding questions:

- How is urban resilience being applied (consistently or inconsistently) in key global agreements? What are new commitments that national and local actors must honor, as a result? What are some of the key outstanding questions about how it should be applied?
- What are the opportunities and risks associated with resilience taking a central role in international development agreements around development and urbanization?
- How will local governments respond to and implement these global commitments?
- How can we assure that city level commitments to resilience address broader concerns around poverty, well-being, and social justice?

CONTRIBUTORS

Facilitator *Matthias Garschagen, Head of Vulnerability Assessment, United Nations University Institute for Environment and Human Security (UNU-EHS), Bonn, Germany*

Speakers will provide an overview of four key development frameworks and their relationship with urban climate change resilience, based on the guiding questions outlined above:

Panelist *Jerry Velasquez, Chief, Advocacy and Outreach, United Nations Office for Disaster Risk Reduction (UNISDR), Geneva, Switzerland – on the Sendai Framework on Disaster Risk Reduction*

Panelist *Robert Kehew, Unit Leader, Climate Change Planning Unit, United Nations Human Settlements Programme, UN-Habitat, Nairobi, Kenya – on Habitat III and the New Urban Agenda*

Panelist *Laureline Krichewsky-Simon, Associate Programme Officer, Adaptation Programme, UNFCCC – on the Paris Climate Change Agreement*

Panelist *Christoph Graf von Waldersee, Program Finance Director, The Ecological Sequestration Trust (TEST), London, UK – on Sustainable Development Goals (SDGs)*

Additional speakers will reflect on and respond to the initial inputs:

Panelist *Matthias Garschagen, Head of Vulnerability Assessment, United Nations University Institute for Environment and Human Security (UNU-EHS), Bonn, Germany*

Panelist *David Dodman, Director, Human Settlements Group, International Institute for Environment and Development (IIED), London, UK*

Panelist *Dr. Arun Jhaveri, Senior Energy Advisor, City of Burien, Washington, USA*

Further recommended reading

- From the MDGs to the SDGs and Habitat III. Environment and Urbanization. April 2016, Volume 28, Number 1. <http://eau.sagepub.com/content/current>
 - Frediani, A.A. and Lima, R. S., (2015). Habitat III National Reporting Processes: Locating the Right to the City and the Role of Civil Society. https://www.bartlett.ucl.ac.uk/dpu/habitat-III/outputs/Habitat_III_National_Reporting_Processes_-1.pdf
 - Asian Disaster Reduction and Response Network (ADDRN) and Saferworld Communications (Breaking down global frameworks for resilience action (2016) http://www.preventionweb.net/publications/view/48776?&a=email&utm_source=pw_email
-



SESSION DESCRIPTION

A1 Collaboration, coordination and communication: Key elements for cities addressing the water-related impacts of climate change

Panel discussion

Date: Wednesday, July 6, 2016

Time: 14:30-16:00

Room: S25-26

Language: English

Contact: Heidi Braun

E-mail/web: hbraun@idrc / www.idrc.ca

Organized by: International Development Research Centre (IDRC)

OBJECTIVE

This session will explore how cities around the world are coping with water-related stresses resulting from the twin challenges of urbanization and climate change, and the challenges and opportunities of working with city officials and communities to re-shape the way water is managed in changing urban environments. Panelists will highlight the results of interdisciplinary research conducted in diverse urban areas in Ghana (Accra); Lebanon (Beirut); Guatemala (Quetzaltenango and Santa Cruz Muluá); Dominican Republic (Guayabal and Tamayo); and Chinese Taipei (Tainan City) with the goal of understanding how their research is contributing, or ideally will contribute, to improved water security and urban resilience. The session will also explore how water scarcity, water contamination, and flooding are experienced in different urban environments and the implications for water management at the city level. The importance of collaborative and coordinated efforts supported by strong communication and robust science will be highlighted.

OUTCOMES

Participants will gain a better understanding of:

- Approaches for adapting urban development, water, and disaster risk management in different cities through collaboration, coordination, and innovative communication initiatives;
- The role of research and science for informing more resilient urban policies and practices;
- Strategies for working with city governments and other key stakeholders to respond to dynamic and complex urban challenges.

METHODOLOGY

Facilitator's opening remarks and introduction to the session format and panelists (5 minutes)

- The four panelists will respond to the guiding questions, describing the particular water challenge in their urban area(s) of focus, key findings from their research and recommendations for increasing resilience. (4 x 10 minutes)



- A city representative from Vietnam will react to the presentations and highlight the opportunities and challenges for research to help cities adapt to the water-related impacts of climate change (10 minutes)
- The facilitator will manage questions and answers from the audience. (30 minutes)
- The facilitator will conclude with closing remarks. (5 minutes)

Guiding questions:

1. What are the challenges and opportunities for enhancing effective collaboration and coordination to address the water-related impacts of climate change in the urban area(s) of focus for your research?
2. How has your research filled important gaps in data and/or understanding?
3. What novel communication approaches have been tested to reach key stakeholders?

CONTRIBUTORS

Facilitator *Heidi Braun, Program Officer, Climate Change Program, IDRC, Ottawa, Canada*

Will provide opening remarks to outline the theme and format of the session and will introduce the panelists.

Panelist *Miroslava Morán, Researcher, El Centro del Agua del Tropico Humedo para America Latina y el Caribe (CATHALAC), Panama City, Panama*

Will provide an assessment of water security in two municipalities in Guatemala where public services are decentralized and two municipalities in Dominican Republic with a centralized management, highlighting how municipalities prioritize the issues, what elements contribute to water security and how they address the gaps related to the framework for national water governance.

Panelist *Grace Rachid, Researcher, Environmental and Water Resources Engineering, American University of Beirut (AUB), Beirut, Lebanon*

Will discuss lessons learnt from an in-depth research on water challenges in the metropolitan of Beirut, an urbanized coastal region highly dependent on groundwater resources experiencing saltwater intrusion and threatened by climate change. Stressing the need for coordination and communication to ensure proper mitigation and timely adaption, she will present a novel platform for decision making.

Panelist *Benjamin Delali Dovie, Senior Lecturer & Research Scientist, Regional Institute for Population Studies, University of Ghana, Accra, Ghana*

Will describe the ongoing efforts to improve flood risk management in Accra. Drawing on insights from a series of research initiatives carried out in Accra in close collaboration with a cross-section of stakeholders and looking ahead to implementing an action-oriented three-year project, he will highlight the potential for multilevel governance response to flood risks. Frameworks for communicating the impacts of climate-related floods to keep floods away from people, and similarly people away from floods are inevitable for managing flooding and accompanying responses and coping



strategies of society. The Climate Smart Integrated Flood Management (CSIFM) provides opportunity for citizen participation in decision making based on the awareness of climatic factors being at the forefront of flooding of cities and basis for consensus building with duty bearers such as politicians and city managers.

Panelist *Hsien-Wei Lee, Director, Environmental Protection Bureau, Tainan City Government, Chinese Taipei*

Will share the challenges for flood-prone Tainan-city in the context of climate change and the strategies and experiences of efforts to reduce the impacts associated with both short-duration heavy rainfall and long-duration heavy rainfall events. A combined approach including hard infrastructure investments and strengthening early warning communications and disaster response will be discussed.

City response *Thi Yen Nhi Nguyen, Urban Planning Official, Da Nang Department of Construction, Da Nang City, Vietnam*

Drawing from the Vietnamese experience, the city representative from Da Nang will react to the presentations and highlight the opportunities and challenges for research to help cities adapt to the water-related impacts of climate change.

Further recommended reading

- International Development Institute Centre: <https://www.idrc.ca/>
-



SESSION DESCRIPTION

A2 Advancing Ecosystem-based Adaptation through pioneer research, partnerships and city projects

Presentations

Date: Wednesday, July 6, 2016

Time: 14:30-16:00

Room: S29-31

Language: English

ICLEI contact: Thiago Barbizan

Organized by: ICLEI

OBJECTIVE

Ecosystem-based adaptation (EBA) is increasingly integrated to urban management strategies as its contributions to climate change adaptation and sustainable development are recognized at the local and global level. This session will bring together engineers, researchers, and city representatives to share emerging EBA research and solutions in different continents. Results from a recent study carried out in the Paris region will demonstrate how a green infrastructure strategy can be less costly than using conventional grey infrastructure. Specific approaches to EBA rooted in multi-stakeholder collaboration will be presented based on experiences in Jamaica, Bolivia, and India. A similar outlook is found in Kaohsiung City where an interdisciplinary strategy was implemented for promoting biodiversity conservation, and in the urban northeast corridor of the United States where a cross-sector engagement produced useful information and laid the foundation for future work on EBA measures in urban coastal areas.

OUTCOMES

Participants will gain an overview of:

- Ecosystem-based adaptation and green infrastructure initiatives coming from four continents;
- The benefits and limitations of EBA and green infrastructure in light of climate change adaptation and resilience; and
- How to engage multi-sector stakeholders in the application of nature-based solutions.

METHODOLOGY

- The facilitator will provide an overall introduction to the session topic and contributors. **(5 minutes)**
- Each presentation is allotted 10 minutes. **(4 x 10 minutes)**
- The facilitator will manage questions and answers. **(40 minutes)**
- Closing remarks by the facilitator. **(5 minutes)**



CONTRIBUTORS

Facilitator *Anthony Socci, Senior Lead on International Climate Policy, U.S. EPA, Washington DC, USA*

Presenter *Marc Barra, Ecological Engineer, Natureparif, Pantin, France*

Comparing the costs of grey and green infrastructure in the Paris region

Green infrastructure highlights the economic advantages of natural assets. However, decision makers still rely mostly on grey infrastructure. Based on a study carried out in three different cities in the Paris region this presentation aims at unveiling the costs of different options of green and grey infrastructure to give stakeholders the ability to compare both solutions. By comparing global costs of conception, management, and end of life, the study finds that nature-based solutions as part of a green infrastructure strategy are less costly than conventional solutions.

Presenters *Andrea Marko, Consultant, Natura Bolivia Foundation, Santa Cruz, Bolivia; and
Arpita Mandal, Lecturer, University of the West Indies, Kingston, Jamaica*

Managing ecosystems for more resilient cities in India, Bolivia and Jamaica

Mapping and understanding the flows of ecosystem services to and within a city is a key step for taking informed action on urban resilience. This presentation will showcase three contrasting approaches to assessing and pursuing ecosystem-based adaptation. These approaches include a heavily scientifically-grounded, hydrological modelling exercise with stakeholder engagement in Jamaica, a payment for watershed services scheme in Bolivia, and a technical urban resilience study combined with public engagement in Madurai, India which led to the implementation of new forms of blue-green infrastructure in the city.

Presenter *Chia-Chun Huang, Specialist, Environmental Protection Bureau, Kaohsiung City, Chinese Taipei*

Kaohsiung City's pioneer plan for biological diversity

Against the background of the Urban Pioneer Plan for Biological Diversity of Kaohsiung City, this presentation will provide insights from an interdisciplinary integrated strategy for biodiversity conservation. Collecting data from an ecological survey, wetland ecological corridors, parks and green spaces, and marine conservation activities, Kaohsiung has developed a Biodiversity Database and a Metropolitan Biodiversity Map app that visualizes environmental protection through a strong cooperation between the government and civil society.

Presenter *Sarah Close, Special Projects Manager, National Oceanic and Atmospheric Administration (NOAA), Silver Spring, USA*

Achieving sustainability goals for urban coasts: Research needs and challenges

Green shoreline strategies have emerged as essential components of coastal



adaptation and are frequently cited by practitioners, scientists and the general public for the wide range of ecosystem services they can and do provide. This contribution will present a strategy for bringing together people working on this issue from multiple sectors (researchers, local government officials, private sector) to identify the primary research gaps and challenges faced when implementing these emerging strategies.

Further recommended reading

- Kaohsiung City Biodiversity Database: http://ksbiodiv.ksepb.gov.tw/New_En/N0.aspx
-



Inclusive and Resilient Urban Development Forum

SESSION DESCRIPTION

SP2 Inclusive and Resilient Urban Development Forum Opening Sub-plenary

Panel discussion

Date: Wednesday, July 6, 2016

Time: 16:45-18:15

Rooms: S30-32

Language: English

Contact: Laura Kavanaugh

E-mail/web: laura.Kavanaugh@iclei.org

Organized by: ICLEI

FORUM OBJECTIVE

The Inclusive and Resilient Urban Development forum will focus on how cities can work with the urban poor, including those living in informal settlements and working in the informal sector, to increase citywide resilience. Questions of secure housing, access to basic services, and inclusive governance will be considered. The inclusive and resilient theme will also link to discussions on how to finance urban resilience – from the bottom up and from the top down – and how to advance local progress on the Sustainable Development Goals throughout sessions on July 6th and 7th.

SESSION OBJECTIVE

The opening sub-plenary will set the scene and present key issues to be explored throughout the Inclusive and Resilient Urban Development forum. In order to achieve inclusive, safe, resilient and sustainable cities for all, as outlined in Sustainable Development Goal 11 as well as the draft New Urban Agenda for Habitat III, it is necessary to recognize an integrated vision for development and urban resilience-building, as well as the interdependence of global goals and local actions. Such an approach demands increased support to develop local knowledge and capacity, and to foster local innovation. This sub-plenary will discuss opportunities for “transformative adaptation and resilience building” within cities and how this contributes to a global system change that is rooted in engagement with those who are most at risk. In this context, concepts and practices related to the right to the city, gender-sensitive governance, and inclusive policies will be examined. Speakers will consider how local governments and marginalized communities can form partnerships that contribute to more resilient, robust urban development pathways under conditions of increased stress on social, economic, and environmental systems. Local authorities, informal settlers, informal economy workers, and expert practitioners will share their perspectives on key challenges, best (and worst) practices, and necessary measures to “leave no one behind” on the way to securing the promise and liveability of future cities.



Inclusive and Resilient Urban Development Forum

OUTCOMES

Participants will gain:

- A better understanding of approaches to include vulnerable and marginalized communities in urban development and climate change adaptation strategies;
- Insights on emerging opportunities and challenges for inclusive resilience building; and
- Different perspectives on how to ensure participation and promote a balanced and cohesive vision for inclusive and resilient urban development.

METHODOLOGY

- The facilitator will open the session with a short introduction **(5 minutes)**
- Each speaker will be given time to describe their perspective on inclusive and resilient urban development **(6 x 5 minutes)**
- The remainder of the session will be organized around the guiding questions, with each panelist given time to respond to individual questions, and to respond to comments made by other panelists as well as questions and interventions from the audience **(50 minutes)**
- Closing remarks from the facilitator **(5 minutes)**

Guiding questions:

1. What are the key features of inclusive governance that can enhance liveability and quality of life in cities of the future?
2. What could be possible ways for enabling inclusive approaches and gender equality integrated to cities strategic development plans?
3. What approaches to slum upgrading can promote (or have promoted) equitable participation of different marginalized groups from informal settlements considering their different perceptions and expectations?
4. How can local authorities be more aware of and engaged with participatory governance as an integral feature of urban development?
5. How can knowledge and data from informal settlements and the informal economy best be used to empower communities and fostering dialogue with local authorities?

CONTRIBUTORS

Facilitator *William Cobbett, Director, Cities Alliance, Brussels, Belgium*

Panelist *David Dodman, Director, Human Settlements Group, International Institute for Environment and Development (IIED), London, UK*



Inclusive and Resilient Urban Development Forum

Panelist *Vida Tangwam, Treasurer, Informal Hawkers' and Vendors' Association, Accra, Ghana*

Panelist *Ofelia Bagotlo, National Community Leader, Homeless Peoples Federation of the Philippines, Quezon City, Philippines*

Panelist *Sundaa Bridget-Jones, Senior Associate Director, International Development, The Rockefeller Foundation, New York, USA (invited)*

Panelist *Manuel Araujo, Mayor, Quelimane Municipality, Mozambique*

Panelist *Mohamed Hilmy Mayor, Municipal Council Matale Matale, Sri Lanka (invited)*

Audience interventions

Further recommended reading:

- Bartlett S., Satterthwaite D. (2016). Cities on a Finite Planet: Transformative responses to climate change. Available at: [Cities on a Finite Planet: Transformative responses to climate change](#)
-



SESSION DESCRIPTION

B1 Towards the implementation of a comprehensive urban cooling strategy to adapt to climate change

Panel discussion

Date: Wednesday, July 6, 2016

Time: 16:45- 18:15

Room: S25-26

Language: English

Contact: Marie Gantois

E-mail/web: marie.gantois@paris.fr
www.planclimat.paris.fr

Organized by: City of Paris

OBJECTIVE

This session will explore how the City of Paris developed and is now implementing its comprehensive urban cooling strategy to mitigate the negative impacts of heat waves in the context of climate change. Panelists will highlight other urban cooling strategies that diverse cities have developed across the globe to highlight similarities and discuss differences in applying strategies to the same end.

Development of the policy: Paris recently adopted its Adaptation Strategy facing climate change and resource scarcity. It was built up from various projects, including local climate projections, a comprehensive vulnerability and opportunity study, a research on the Urban Heat Island (UHI) phenomenon in Paris, public consultation, and an inventory of climate-related existing policies and how they would be impacted by climate change. It appears that vulnerability to heat is one of the main challenges for such a densely built and populated city as Paris facing climate change in the short term.

Implementation of the cooling strategy: from crisis management (improving the heat wave emergency plan, spray water in the city, etc) to urban planning (in particular, with the ambitious greening program and “the cooling pathways” initiative), including the mobilization of civil society to boost solidarity and foster new lifestyles, and a reflection on resources (and especially water) scarcity, a panel of actions carried out by the city will be discussed. The relevance of the comprehensive strategy, particularly by integrating diverse types and levels of actions, will be highlighted.

OUTCOMES

Participants will gain a better understanding of:

- Methods for adapting to heat in different urban environments;
- How research can be used to identify Urban Heat Islands and develop urban cool islands and “cooling pathways”; and
- City level experiences in responding to the challenge of heat waves by integrating multi-level and innovative practices.

METHODOLOGY



- The facilitator will open the session with a short introduction of herself and each speaker. **(5 minutes)**
- The key speaker will introduce the topic and discuss relevant details **(15 minutes)**
- Each speaker will be given time to describe their work, showing maps or other illustrations as needed **(3 x 10 minutes)**
- The remainder of the session will be organized around the guiding questions, with each panelist given time to respond to individual questions, and to respond to comments made by other panelists **(15 minutes)**
- The facilitator will manage questions and answers from the audience. **(20 minutes)**
- The facilitator will conclude with closing remarks. **(5 minutes)**

Guiding questions:

1. How do heat waves impact diverse urban environments?
2. How to develop a comprehensive heat wave strategy at the city level?
3. Adapting urban planning to anticipate heat waves: how can research help?
4. What feedback from implementing a comprehensive urban cooling strategy, and what recommendations to give for cities moving forward to mitigate heat waves?

CONTRIBUTORS

Facilitator *Marie Gantois, Leader on Climate Change Strategy, City of Paris, Paris, France*

The facilitator will introduce the topic and frame the discussion to follow.

Key speaker *Marie Gantois, Leader on Climate Change Strategy, City of Paris, Paris, France*

Ms. Gantois will introduce the Paris Adaptation strategy – development and implementation. Following that, the presenter will invite the other speakers to share their experiences on the topic presented (i.e. Urban Heat Island mitigation strategy in Paris and planning an adaptation strategy for a large-sized European city).

Panelist *Marc Barra, Ecological Engineer, Natureparif, Pantin, France*

- Nature-based solutions to address global resilience in Paris region – further elaborating on other strategies that could be/should be integrated to enhance resilience in Paris;
- Discussing cost-effectiveness of green/gray infrastructure and unveiling the costs of different options to help decision-makers make informed choices;
- Ecosystem and biodiversity as a key concept for resilient buildings – discussing a framework for designing resilient buildings, based on a biodiversity and ecosystem-based approach.

Panelist *Chantal Pacteau, Deputy Director at the Paris Consortium Climate-Environment-Society and Researcher at the National Center for Scientific Research CNRS, Paris, France*



- Discussing relevant architectural findings from the Roofscape program and feeding the conversation with lessons from Chicago and Montreal;
- Presenting relevant findings from the Second Assessment Report on Climate Change and Cities (ARC3-2)

Panelist *Gregory Richardson, Policy Analyst, Climate Change and Innovation Bureau, Government of Canada, Ottawa, Canada*

Tackling the Urban Heat Island Effect in Canadian communities

This presentation will highlight the results from an Urban Heat Island (UHI) inventory study implemented with the 30 most populous communities in Canada. Best local practices to reduce the UHI effect will be shared, including architectural and green infrastructure solutions. These include, for example, installing reflective surfaces and improving energy efficiency in buildings to reduce waste heat and expanding city green spaces. The findings aim to assist communities developing their own urban heat island mitigation plans and actions.

Further recommended reading

- Paris Adaptation Strategy: Towards a more resilient city: <https://api-site.paris.fr/images/76271>
 - Webpage on the Parisian Adaptation Strategy: <http://www.paris.fr/actualites/an-adaptation-roadmap-to-anticipate-climate-change-in-paris-3140>
-



SESSION DESCRIPTION

B2 Strengthening energy systems to enhance urban resilience

Presentations

Date: Wednesday, July 6, 2016

Time: 16:45-18:15

Room: S34-35

Language: English

ICLEI contact: Evgenia Mitroliou

Organized by: ICLEI

OBJECTIVE

Rapid urbanization and population growth are putting a strain on aging city infrastructure in many of today's cities. In addition, extreme weather events, disasters, and accidents threaten the energy supply on which our communities depend. Cities of the Global South experience regular power cuts as a result of overburdened, insufficient infrastructure, as well as sudden or recurring shocks and stresses. As energy is a critical infrastructure system, such disruptions in the system can lead to cascading failures in other vital, interrelated urban systems, such as transport, housing, public health, economic activity, and emergency services. How can energy efficiency and security be improved to support urban resilience?

The following session will explore this question from both a disaster risk reduction and overall resilience-building perspective. The first presentation will focus on the demand-side, showing how to include energy efficiency measures, such as green buildings and cogeneration systems into local resilience strategies. Following that, the city of Turku, Finland will provide a reality-check to the approaches presented. The city already applies several of the strategies presented and has a vision of strengthening its energy infrastructure to increase climate resilience by 2040. Next, the city of Melaka, Malaysia will introduce their energy management strategies focused on energy security in terms of disaster risks and energy efficiency. Lastly, examples from New York, Singapore, and Berlin will reinforce the argument that energy security and efficiency are core aspects of climate resilience. The session will close with a discussion on the competition between urban critical infrastructure for disaster reduction and the overall well-being of city inhabitants.

OUTCOMES

Participants will:

- learn how to leverage the connections between energy efficiency and resilience in order to increase social, economic, and climate resilience in their communities;
- be exposed to best practices in strengthening energy systems in terms of efficiency, reliability, and security to enhance urban climate resilience efforts;
- gain knowledge on the function of urban green spaces in disaster risk reduction and secure energy supply city efforts.

METHODOLOGY

- The facilitator will provide an overall introduction to the session topic and contributors (5 minutes)



- Each presentation will be allotted 10 minutes. **(4 x 10 minutes)**
- The facilitator will manage questions and answers. **(40 minutes)**
- Closing remarks by the facilitator. **(5 minutes)**

CONTRIBUTORS

Facilitator *Maryke van Staden, Low Carbon Cities Program Manager and Director of the carbonn Center, ICLEI World Secretariat, Bonn, Germany*

Presenter *David Ribeiro, Senior Analyst, Utilities, State, and Local Policy Program, American Council for an Energy-Efficient Economy (ACEEE), Washington DC, USA*

Enhancing community resilience through energy efficiency

This presentation will share research establishing energy efficiency as a core element of community resilience. Increasing energy efficiency can strengthen local energy systems and improve the reliability and affordability of energy for local governments, households, and businesses. It can also bring several co-benefits related to health, economy, and lifestyle. For example, by using less power, high-performance buildings emit fewer greenhouse gases, contributing to the climate change mitigation and clean air goals of the city. At the same time, by providing a stable temperature, such buildings could serve as shelters for residents in the event of a disaster. The presentation will discuss various strategies that both reduce energy use and improve resilience and discuss the findings of a foundational report to guide local policymakers, businesses, and community organizations in the United States on how to incorporate energy efficiency into resilience strategies.

Presenter *Risto Veivo, Development Manager, Climate and Environment, City of Turku, Finland*

Increasing resilience through energy efficiency projects in the City of Turku

The city of Turku will provide a reality-check to the approaches presented above. The city has set itself the goal of becoming carbon-neutral by 2040. On its way to achieve this goal, the City is pursuing a number of projects, including the improvement of energy efficiency in buildings and the construction of a multi-fuel combined heat and power plant. This presentation will present the city's efforts to achieve its mitigation and adaptation goals through strengthening its energy infrastructure (currently 25% renewable energy production).

Presenter *Zainal Bin Hussin, Mayor, City of Melaka, Malaysia (TBC)*

Melaka's energy security and resilience plans

The city of Melaka has recently become part of the 100 Resilient Cities network. The city will briefly present the climate change related challenges it faces and opportunities to overcome these through useful partnerships and initiatives. This presentation will focus on the city's Energy Management System and answer key questions in terms of energy security and reliability in light of disaster risks, such as coastal flooding and



landslides due to heavy rainfall. Melaka city has also carried out various energy efficiency initiatives, including energy audits in public buildings.

Presenter *Jeannette Sieber, Project Manager, EIFER European Institute for Energy Research, Karlsruhe, Germany*

Climate resilient energy supply and green spaces – Examples from three cities

In this presentation, three selected cities – New York, Singapore and Berlin – will be presented with a focus on the ecosystem services their green spaces provide for disaster risk reduction and energy security. A database for the modeling of hazards and risks of extreme weather events on renewable energies will be shared. The water-energy-food security nexus concept has been used to frame the research. The presentation will also discuss the trade-offs and competition of urban critical infrastructure (e.g. water tanks for fire extinction and renewable energy) and green spaces for wellbeing and quality of life will be discussed.

Further recommended reading

- Enhancing Community Resilience through Energy Efficiency <http://aceee.org/research-report/u1508>
-



Inclusive and Resilient Urban Development Forum

SESSION DESCRIPTION

C1 Incorporating resilience into City Development Strategies

Panel discussion

Date: Thursday, July 7, 2016

Time: 09:00-10:30

Room: S30-32

Language: English

Contact: Julie Greenwalt

E-mail/web: jgreenwalt@citiesalliance.org
www.citiesalliance.org / <http://www.ihs.nl/>

Organized by: Institute for Housing and Urban
Development Studies (IHS) of Erasmus
University, Rotterdam and Cities Alliance

FORUM OBJECTIVE

The Inclusive and Resilient Urban Development forum will focus on how cities can work with the urban poor, including those living in informal settlements and working in the informal sector, to increase citywide resilience. Questions of secure housing, access to basic services, and inclusive governance will be considered. The inclusive and resilient theme will also link to discussions on how to finance urban resilience – from the bottom up and from the top down – and how to advance local progress on the Sustainable Development Goals throughout sessions on July 6th and 7th.

SESSION OBJECTIVE

A City Development Strategy (CDS), developed through an action-oriented process and sustained through participation, promote equitable growth in cities and their surrounding regions to improve the quality of life for all citizens. A CDS helps cities integrate a strategic development approach and a long-term perspective into their urban planning. With a CDS, cities move beyond planning around the short-term political or donor-funding cycle to considering where they should be in 20 or 30 years, and the steps that need to be taken to achieve those goals.

After almost two decades of supporting cities to prepare their CDS, Cities Alliance—through the Future Cities Africa initiative—is adapting the approach to enable city managers to develop more resilient approaches to urban planning in primary and secondary cities. The new CDS approach (dubbed the “CDS version 2.0”) will be available as a toolkit on an online web platform as well as in print, and is aimed at improving the usefulness and impact of CDS processes by moving beyond the traditional CDS approaches and incorporating new strategic focal areas, particularly urban resilience and inclusive economic growth—as well as other more traditional cross-cutting issues of governance, participation and gender. The “CDS version 2.0” aims to be relevant for a wide range of cities and developmental contexts. The platform and the toolkit should be flexible enough to serve large scale cities as well as smaller developing secondary cities with varying institutional arrangements and levels of capacity,



Inclusive and Resilient Urban Development Forum

resources and civic participation.

In this panel, IHS and FLMH, the producers of the toolkit and web platform will present the CDS version 2.0 and will discuss the opportunities and challenges associated with these new products for cities embarking on a CDS in future, specifically as they relate to strategic planning for resilience and inclusive economic growth.

OUTCOMES

Session participants will gain a better understanding of the structure and methods of the “CDS version 2.0”, including the new toolkit, instruments, and resources as presented on the new CDS website.

METHODOLOGY

- The facilitator will open the session with a short introduction, welcome and background presentation **(10 minutes)**
- IHS overview presentation **(10 minutes)**
- Each speaker will be given time to describe their work, showing maps or other illustrations as needed **(4 x 10 minutes)**
- The discussant will respond to the panel discussion to open the question and answer session **(5 minutes)**
- The facilitator will manage questions and answers from the audience mainly around the three guiding questions **(20 minutes)**
- The facilitator will conclude with closing remarks **(5 minutes)**

Guiding questions:

1. What are some challenges to incorporating resilience into strategic planning for cities? How can inclusive strategy development be utilized to overcome these obstacles?
2. How can strategic planning for urban resilience be better linked to urban development and avoid being reduced to stand-alone initiatives?
3. What are the most effective roles for different stakeholders – community organizations, local governments, national governments, researchers, business, and international organizations – in the process to develop city development strategies which cover resilience?

CONTRIBUTORS

Facilitator *Julian Baskin, Head of Programme Unit, Cities Alliance, Brussels, Belgium*

Panelist *Paul Rabé, Senior Land Specialist, Institute for Housing and Urban Development Studies (IHS) of Erasmus University, Rotterdam, Netherlands*

On the new CDS approach (CDS 2.0)



Inclusive and Resilient Urban Development Forum

- Panelist *Braulio Eduardo Morera, Associate, Arup, London, UK*
On the City Resilience Index
- Panelist *Piero Pelizzaro, Resilience Expert and Co-Founder, Climalia; Project Manager, Milan Municipality Smart City Department, Milan, Italy*
On incorporating resilience strategies into strategic planning
- Panelist *Katerina E. Trostmann, Research Analyst, Vulnerability & Adaptation, World Resources Institute (WRI), Sao Paulo, Brazil*
On Urban Resilience Planning in Brazil
- Discussant *Tagir Carimo, Mayor, Pemba Municipality, Mozambique*
Responding to the presentations above

Further recommended reading:

- [IPCC Fifth Assessment Report \(AR5\)](#)
 - [Johannesburg GDS 2040](#)
-



SESSION DESCRIPTION

C2 Successful regional and community-level collaboration

Presentations

Date: Thursday, July 7, 2016

Time: 09:00-10:30

Room: S1-02

Language: English

ICLEI contact: Evgenia Mitroliou

Organized by: ICLEI

OBJECTIVE

Current global socioeconomic challenges, compounded with rapid urbanization, migration, and increasing climate change effects in urban settings, demand that cities and regions work together with local communities and the private sector to find lasting resilience solutions. As these challenges affect several cities and regions at once, no single local entity has the capacity or authority to address them alone. Instead, through collaborative approaches and sharing of knowledge, resources, and funding, subnational governments can collectively attain more resilient and climate compatible development pathways.

The session will open with a presentation of a model for interregional collaboration focused on urban resilience among regions in Sweden and discuss success factors in achieving such partnerships. The discussion of regional partnerships will continue with an example from Australia, where ten local councils have joined forces to create a regional coastal climate adaptation plan. Creative solutions to adaptation and resilience on the waterfront will be presented along with the necessity for building capacity of local authorities for such large-scale initiatives. Next, the experience of Boulder County Collaborative, a city-region network created for disaster recovery and community resilience planning in the aftermath of historic floods in 2013 will be shared. The presentation will highlight the critical interactions between governmental entities, community members, and non-governmental organizations and the use of inter-governmental participatory approaches that have resulted in actions to improve resilience across the region. The session will close with a city case study from Colombia. The city of Valledupar has applied a participatory and inclusive approach to increasing resilience in many parts of the city, including in a social housing complex, with the support of USAID. Lessons from the implementation of the project will be shared by the city representative and project coordinator.

OUTCOMES

- Participants will gain first-hand knowledge on how to plan and implement resilience strategies in a regional context by strengthening and organizing collaboration between cities and regions;
- They will gain knowledge and understanding of the importance of strengthening capacities of local government stakeholders for resilience planning and implementation;
- They will be exposed to successful ways of working with the local communities in the implementation of resilience strategies and be able to take this knowledge with them to apply in their own communities, cities and regions.



METHODOLOGY

- The facilitator will provide an overall introduction to the session topic and contributors **(5 minutes)**
- Each presentation will be allotted 10 minutes. **(4 x 10 minutes)**
- The facilitator will manage questions and answers. **(40 minutes)**
- Closing remarks by the facilitator. **(5 minutes)**

CONTRIBUTORS

Facilitator *Ewa Jackson, Manager, ICLEI Canada, Toronto, Canada*

Presenter *Magnus Qvant, Secretary General, Resilient Regions Association, Malmö, Sweden;
Silvia Haslinger Olsson, Operations Manager, Resilient Regions Association, Malmö, Sweden*

Interregional collaboration: Examples from Sweden

This presentation will share findings from a recent project exploring structured collaboration on urban resilience between cities located in different regions in Sweden. In Skåne (a region in southern Sweden), a cluster called Resilient Regions is focused on the ability of cities and regions to maintain and develop their functionality in the face of increased shocks and stresses. However, there is a lack of counterparts in other regions and therefore a great potential exists in identifying opportunities for cooperation on urban and regional resilience in Sweden. A successful model for interregional collaboration to enhance urban resilience will be presented and success components of this model, fed with tangible examples, will be shared.

Presenter *Bernie Cotter, Managing Director, ICLEI Oceania, Melbourne, Australia*

Bay Blueprint: Coastal adaptation in Port Phillip Region, Melbourne, Australia

The Port Phillip Bay region has critical ecological, social, economic and cultural value while also providing recreational opportunities for the metropolitan Melbourne, Australia. To adequately plan for the area, it is necessary to understand the risks and appropriate responses to “coastal squeeze” caused by increasing population and coastal climate changes including inundation. A regional partnership of ten local councils called the Association of Bayside Municipalities is addressing these issues collectively to produce a regional coastal adaptation plan for 2070. The presentation will share the process and outcomes of the multi-year, multi-organization approach in building resilience to coastal climate change pressures and will reflect on the type of partnerships and skills required for coastal adaptation measures in a large urban setting. The presentation will highlight the importance of capacity building for relevant stakeholders, including multiple city governments, sub-national and national government, to better understand resilience approaches and desirable adaptation pathways and in designing specific skills (e.g. in coastal modeling, infrastructure solutions and legislative reform) for local decision makers.



Presenters *Zoe Petropoulos, Science Policy Fellow, Science & Technology Policy Institute, Washington DC, USA; and
Christopher Clavin, Research Staff Member, Science & Technology Policy Institute, Washington DC, USA*

City-region interactions following the 2013 Boulder County floods (USA)

In 2013, a 100-year flood event hit Boulder County, Colorado, USA, causing damage to the natural and built environment in many of the communities in the area and predominately the smaller, mountain communities. This presentation will provide best practices for inter-governmental disaster recovery planning and community resilience planning, based upon the experience of a city-region network which formed as a result of this catastrophic flood event. This particular case study will provide the audience with examples of the types of governmental and non-governmental organizations that were formed during the recovery phase to represent and serve multiple communities with varying resources and priorities.

Presenters *Ernesto Betancourt Morales, Subnational Coordinator LCRD Program, Bogota, Colombia; and
Anibal Quiroz, Planning Secretary, City of Valledupar, Colombia*

Inclusive approaches to increase community resilience in Valledupar, Colombia

This presentation will give an overview of the approaches taken by the LCRD (Low Carbon Resilient Development) Program, a USAID Climate Change initiative, to the cities and regions where it works. It then will focus on the approach taken in the City of Valledupar and, specifically, the work in the Lorenzo Morales social housing complex, a low income community with issues of violence and high vulnerability to climate change. LCRD will present its “organic” and inclusive approach to building resilience in this district, including the support given to the formulation of the City Development Plan in climate change issues, while the Planning Secretary of Valledupar will share lessons learned from the Development Plan Formulation and the Lorenzo Morales project and reflect on the success of the community participation process applied and the future steps in the implementation of the project activities designed by the community.

Further recommended reading

- ABM Association of Bayside Municipalities: www.abm.org.au
 - ICLEI Oceania: <http://oceania.iclei.org/>
 - Resilient Regions Association: <http://www.resilientregions.org/en/>
-



SESSION DESCRIPTION

C3 River-revitalization and better use of green / blue infrastructure for urban resilience

Presentations

Date: Thursday, July 7, 2016

Time: 09:00-10:30

Rooms: S34-35

Language: English

ICLEI contact: Thiago Barbizan

Organized by: ICLEI

OBJECTIVE

Urban areas located along rivers and coasts may face a higher degree of exposure to natural disasters and climate change-related impacts. This session will start with representatives from the City of Almada, Portugal presenting the benefits of its green and blue multifunctional adaptation strategy under the MultiAdapt project to cope with coastal flooding conditions. Then, two contributions will showcase different green and blue infrastructure interventions in the City of Beira, Mozambique which aim to address similar challenges: First, by restoring the natural drainage function of the Chiveve River while upgrading its mangrove and wetland areas and second, by implementing Ecosystem-based Adaptation measures designed to protect vulnerable communities and assets nearby a Lagoon area. Finally, the Urban Natural Assets for Africa (UNA) programme will be discussed. This programme involves multi-stakeholder engagement which aims to unlock the value of blue-green infrastructure for thriving communities in African cities.

OUTCOMES

- International best practice examples in restoring degraded urban rivers and deltas as drivers for resilience building;
- Different approaches for using green and blue infrastructure to improve resilience to water hazards; and
- Potential mechanisms that can be used to better understand priority agendas around natural assets.

METHODOLOGY

- The facilitator will provide an overall introduction to the session topic and contributors **(5 minutes)**
- Each presentation is allotted 10 minutes. **(4 x 10 minutes)**
- The facilitator will manage questions and answers. **(40 minutes)**
- Closing remarks by the facilitator. **(5 minutes)**



CONTRIBUTORS

Facilitator *Julia Peleikis, Coordinator, Sustainable Resources, Climate and Resilience, ICLEI Europe, Freiburg, Germany*

Presenters *Catarina Freitas, Director of Sustainable Environmental Management and Planning Department, City of Almada, Portugal; and
Nuno Lopes, Head of the Environmental Studies and Management Division, City of Almada, Portugal*

Multifunctional adaptation as a tool to address different hazards, focusing on climate regulation, flood control and food security

Mediterranean regions are particularly vulnerable to the impacts of climate change and Southern European cities are being forced to implement adaptation measures to cope with current and future climate hazards. This reality has driven Almada to boost ecosystem-based adaptation in land use planning and management, using multi-dimensional ecosystem services provision to tackle different vulnerabilities. Almada's MultiAdaPT combines stream ecological restoration, storm water retention basins, and vegetable gardens to promote local resilience. This green and blue multifunctional adaptation project will result in multiple benefits, like increased infiltration, flood mitigation, erosion control, biodiversity, local food production, social cohesion, microclimatic regulation and promotion of the water-energy-food nexus.

Presenter *Robbert Snep, Researcher Green Cities, Metropolitan Solutions, Alterra Wageningen University & Research, Wageningen, Netherlands*

Ecosystem-based Adaptation in the vulnerable delta-city of Beira, Mozambique

Heavy rains cause frequent pluvial flooding in the delta city of Beira, Mozambique, resulting in serious health impacts for the 0.5 million residents and obstructing further urban and economic development. Together with local actors, the Dutch GreenInfra4Beira consortium (2014-15) has developed an Ecosystem-based Adaptation plan including business case calculations. Using evidence-based adaptation tools, cost-effective blue-green measures were identified and an EBA design was developed for the poor neighborhood of Chota and nearby Lagoon area that includes residential, resort and wildlife habitat development.

Presenters *Daviz Mbepo Simango, Mayor, City Council of Beira, Mozambique; and
Bianca Reichel, Project Manager, CES Consulting Engineers Salzgitter, Braunschweig, Germany*

Piloting EBA in the City of Beira, Mozambique - The Chiveve River Park

As an EBA case study, the pilot project of the rehabilitation of the Chiveve River with green infrastructure in Beira, Mozambique will be presented. Responding to increasing flood risks in the coastal city of Beira, the German agency for international cooperation (GIZ) through KfW and the World Bank are financing measures to restore the natural drainage function of the Chiveve tidal river. In cooperation with the City, the project is also upgrading mangrove and wetland areas as public parks. Based on this experience and input from the participants, the potentials and challenges of Green Infrastructure and EBA shall be discussed.



Presenters *Kobie Brand, Regional Director: ICLEI Africa, Cape Town, South Africa; and
Ellika Hermansson Török, Senior Adviser and Communication Strategist, SwedBio at
Stockholm Resilience Centre, Stockholm University, Stockholm, Sweden*

**Urban Natural Assets for Africa: Working with local stakeholders to unlock the
value of blue-green infrastructure for thriving communities in African cities**

The presentation will discuss the development of the Urban Natural Assets for Africa programme, which includes a four year project focusing on river systems and blue-green infrastructure in Addis Ababa (Ethiopia), Dar es Salaam (Tanzania) and Lilongwe (Malawi). Working with local stakeholders, using participatory and reflexive processes, ICLEI Africa in partnership with SwedBio, are co-exploring the potential of improved blue-green infrastructure for community development, human well-being and urban resilience to climate change impacts.

Further recommended reading

- The Urban Biosphere Initiative <http://urbis.iclei.org/>
 - Multiadapt – Multifunctional Adaptation As A Tool To Address Different Hazards: Focus On Climate Regulation, Flood Control And Food Security (TAP project): <http://tap-potential.org/projects/multiadapt-multifunctional-adaptation-as-a-tool-to-address-different-hazards-focus-on-climate-regulation-flood-control-and-food-security>
 - GREENINFRA 4BEIRA - Green infrastructure solutions for solving Beira's stormwater and other problems: <http://www.wageningenur.nl/en/project/GREENINFRA-4BEIRA-Green-infrastructure-solutions-for-solving-Beiras-stormwater-and-other-problems.htm>
-



SESSION DESCRIPTION

C4 Cities as first responders to climate change, and the role of the UCCRN Regional Hubs and FRACTAL

Panel discussion

Date: Thursday, July 7, 2016

Time: 09:00-10:30

Room: S25-26

Language: English

Contact: Somayya Ali Ibrahim

E-mail/web: sa2619@columbia.edu

Organized by: Urban Climate Change Research Network (UCCRN)

OBJECTIVE

The objective of this session is to foster a dialogue between climate scientists and stakeholders, presenting state-of-the-art knowledge on how cities are responding to climate change, and defining emerging opportunities and challenges to the effective placement of this knowledge in the hands of local stakeholders and decision-makers. The underlying rationale for the discussion will be to identify methods and approaches to further foster the development and dissemination of new climate change knowledge and information that will be useful for cities, especially in small and medium-sized cities and in the developing country context where demand is particularly acute. The UCCRN Hubs in Europe, Latin America, Africa, Australia, North America, and Asia will be introduced, which serve to promote enhanced opportunities for new urban climate change adaptation and mitigation knowledge and information transfer, both within and across cities, by engaging in a real-time monitoring and review process with cities through on-going dialogue between scholars, experts, urban decision-makers, and stakeholders.

The Future Resilience for African CiTies And Lands (FRACTAL) project, funded through the FCFA program, by DFID and NERC, aims to advance scientific knowledge about regional climate responses to human activities and work with decision makers to integrate this scientific knowledge into climate-sensitive decisions at the city-regional scale. FRACTAL utilizes co-production and transdisciplinary approaches to foster strong collaboration between researchers, city government officials, and other key decision makers in southern Africa. The project supports the following cities across Southern Africa: Windhoek (Namibia), Maputo (Mozambique), Lusaka (Zambia), eThekweni Municipality and Cape Town (South Africa), Harare (Zimbabwe), Blantyre (Malawi), and Gaborone (Botswana).

This session will bring together participants to respond to questions regarding the status of their activities, the knowledge generating structure and process, pathways for knowledge dissemination, and how the UCCRN Regional Hubs in Europe, Latin America, Africa, Australia, North America, and Asia, as well as FRACTAL, can help with fostering the dialogue between local climate scientists and stakeholders.

OUTCOMES

Participants will gain a better understanding of:

- The latest scientific data and state-of-the-knowledge on how cities are responding to climate change;



- Improved knowledge on integrating climate change mitigation and adaptation actions and understanding of trade-offs and synergies involved;
- Emerging opportunities and challenges to the effective placement of this knowledge in the hands of local stakeholders and decision-makers and for urban resilience and adaptation action;
- Familiarity with current good practice and lessons learned from cities implementing integrated climate change adaptation and mitigation policies; and
- How practitioner-scientist interactions can work best, and how stakeholder inputs are critical to co-generation of climate knowledge.

METHODOLOGY

The session will be structured as a panel discussion with the following sections:

- The facilitators will open the session with a short introduction of themselves and each speaker **(5 minutes)**
- The facilitators and selected UCCRN members as well as a FRACTAL representative, will describe the work of the UCCRN and FRACTAL **(10 minutes)**
- Each speaker will be given time to describe their work on climate change and cities, using slides as required. They will provide comments regarding their experience in urban climate change adaptation and mitigation in a regional context, focusing on the need for a science knowledge base and co-generation of knowledge between scientists and stakeholders **(3 x 10 minutes)**
- The panelists will be given time to respond to the guiding questions, and to respond to comments made by the other panelists **(20 minutes)**
- The discussion will be opened to Questions and Answers from the audience, followed up wrap-up **(25 minutes)**

Guiding questions:

1. How can local and municipal governments benefit from localized climate science data and observations in their policy-making and action planning?
2. How can local and municipal governments contribute to global data collection and compilation to co-produce climate change information?
3. What are the best practices to translate the complex language and conclusions of global data and knowledge to the service of local practitioners and policy makers?

CONTRIBUTORS

Facilitators	<i>Somayya Ali Ibrahim, Program Manager, Urban Climate Change Research Network (UCCRN), Columbia University, New York, USA; and Chantal Pacteau, Co-Director, UCCRN European Hub; Deputy Director at the Paris Consortium Climate Environment-Society, Centre National de la Recherche Scientifique (CNRS), Paris, France</i>
Panelist	<i>Meggan Spires, Senior Manager, Climate Change and Biodiversity, ICLEI Africa, Cape Town, South Africa</i> The Future Resilience for African CiTies And Lands (FRACTAL) project: Connecting climate science and urban development



Panelist *Sean O'Donoghue, Acting Manager, Climate Protection Branch, Environmental Planning and Climate Protection Department, eThekweni Municipality/Durban, South Africa*

How to enable climate scientists and municipal practitioners in southern Africa to co-produce climate change information

Panelist *Maria Fernanda Lemos, Pontificia Universidade Catolica do Rio de Janeiro; Lead Author, ARC3.2 Coastal Zones in Urban Areas Chapter, Rio de Janeiro, Brazil*

Climate change mitigation and adaptation in Brazil

Panelist *Stelios Grafakos, Institute for Housing and Urban Development Studies (IHS) of Erasmus University; Coordinating Lead Author, ARC3.2 Mitigation and Adaptation Chapter, Rotterdam, the Netherlands*

Climate change mitigation and adaptation in Europe

Panelist *Reimund Schwarze, Helmholtz Centre for Environmental Research; CLA, ARC3.2 Economics, Finance, Private Sector Chapter, Leipzig, Germany*

Economics, Finance, and the Private Sector in Cities

Further recommended reading

- Rosenzweig, C., W. Solecki, P. Romero-Lankao, S. Mehrotra, S. Dhakal, T. Bowman, and S. Ali Ibrahim, (2015): [*ARC3.2 Summary for City Leaders — Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network*](#). Urban Climate Change Research Network, Columbia University. Available at: www.uccrn.org/arc3-2
 - Rosenzweig, C., W.D. Solecki, S.A. Hammer, and S. Mehrotra (Eds.) (2011): [*Climate Change and Cities: First Assessment Report of the Urban Climate Change Research Network*](#). Cambridge University Press. Available at: <http://uccrn.org/resources/publications/arc3/>
 - Future Resilience for African CiTies And Lands (FRACTAL): www.fractal.org.za
-



Financing Resilience Forum

SESSION DESCRIPTION

C5 Financing Resilience Forum Opening

Panel discussion

Date: Thursday, July 7, 2016

Time: 09:00-10:30

Room: S29-31

Language: English

Contact: Laura Kavanaugh

E-mail/web: resilient.cities@iclei.org

Organized by: ICLEI

Hosted by: Global Infrastructure Basel Foundation

FORUM OBJECTIVE

The Financing Resilience forum will engage local governments, insurers, investors, funding agencies and the private sector on the need for local capacity building to develop and implement sustainable and resilient projects. The sessions will discuss new developments and resources for assisting local governments to (1) identify investment needs (2) design bankable projects, and (3) develop attractive project proposals. Innovative ways to mobilize and steer private and insurance investment for urban resilience will also be discussed throughout the forum on July 7th and 8th.

SESSION OBJECTIVE

Funding is currently available for just one sixth of the USD 150 billion projected annual costs of global adaptation in 2025 (CDC Climat 2015), with the World Bank calculating that 80% of adaptation costs could be carried by urban areas. It is also estimated that around \$93 trillion of climate resilient infrastructure will be built in the next 15 years, mostly in urban areas (CCFLA 2015) – and these figures only account for climate adaptation costs. Further investment will also be needed to prepare and protect cities from non-climate shocks and stresses. Increasing available funding for resilience and aligning funding agendas with local needs is crucial. Furthermore, it is perhaps most critical and most urgent to ensure that local governments are able to access and manage these funds and to direct investment in the most effective way to reduce their risks.

The opening session of the Financing Resilience forum will introduce the core topics to be discussed, placing them in context with a brief review of the state of urban adaptation and resilience financing. Considering current gaps and barriers, speakers will discuss recent developments in the field, including new resources and current good practice for designing and implementing bankable projects and investment strategies which reduce risk while contributing to safe, sustainable, and livable cities. These developments will be explored in more detail in subsequent forum sessions.



Financing Resilience Forum

OUTCOMES

Participants will:

- Gain an overview of the Financing Resilience forum sessions and highlights from the upcoming discussions, workshops and presentations; and
- Engage in the discussion of how local governments, intermediary organizations, and funders are facing common challenges and gaps for financing urban adaptation and resilience.

METHODOLOGY

- The facilitator will open the session with a short introduction of himself and each speaker. Followed by an overview of the upcoming sessions and how they are interconnected providing a framework for the forum **(15 minutes)**
- The remainder of the session will be organized around the guiding questions; each panelist will be given time to respond to individual questions and to respond to comments made by other panelists **(50 minutes)**
- The facilitator will manage questions and answers from the audience **(20 minutes)**
- The facilitator will conclude with closing remarks **(5 minutes)**

Guiding questions:

1. What are the challenges and opportunities for public and private investors to co-invest in blended finance deals reducing risk and enhancing returns?
2. What are the partnerships and policies needed for boosting the insurance industry's full potential in mutualising risks and supporting long term investment and sustainable development?
3. How can city officials, financial partners, and intermediaries target key capacity gaps to help local institutions design and implement bankable projects and manage assets?
4. How to enhance the multiple co-benefits of integrating sustainability and resilience aspects into infrastructure development and upgrade?
5. Which innovations and policy frameworks are emerging for enabling local governments' more direct control over funding, informed by integrated decision support tools?

CONTRIBUTORS

Facilitator *Hans-Peter Egler, CEO, Global Infrastructure Basel Foundation (GIB), Basel, Switzerland*

The Financing Resilience Forum sessions overview including some highlights in order to frame the forum and provide participants an idea about the expected outcomes

Panelist *Vanessa Otto-Mentz, Head Group Strategy Unit, Santam, Cape Town, South Africa*

Perspective of short-term insurance industry in response to increasing climate and weather risks, incorporating climate change into investment strategies and partnering to reduce those risks while building resilience



Financing Resilience Forum

Panelist *Maryke van Staden, Low Carbon Cities Program Manager and Director of the Carbons Center, ICLEI World Secretariat, Bonn, Germany*

City network perspective on way forward for supporting local governments to finance holistic, transformative resilience-building projects and actions, including role and contributions of intermediaries

Panelist *Stefan Köhler, Head of Programme, Disaster Risk Reduction for Resilience, UNOPS, Copenhagen, Denmark*

Advice on how to explore private sector engagement and structure bankable projects that add value to the sustainability and resilience objectives of governments and other stakeholders

Panelist *Thaven Naidoo, Africa Climate Change Adaptation Coordinator, Climate Technology Initiative Private Finance Advisory Network, Johannesburg, South Africa*

CTI PFAN brings together private sector companies with experience in financing climate-friendly projects and technologies to screen business plans and select the most economically and environmentally beneficial projects

Further recommended reading:

- [Fostering finance for sustainable and resilient infrastructure](#)
Global Infrastructure Basel Foundation (GIB)
 - [Going to town: How the Green Climate Fund can support a paradigm shift in cities](#)
Lisa Junghans, David Eckstein, Sönke Kreft, Marie Syberg, Lutz Weischer
 - [Finance opportunities for climate change solutions in cities](#)
Reimund Schwarze, Peter B. Meyer, Anil Markandya et al.
 - [The state of city climate finance 2015](#)
CCFLA - Cities Climate Finance Leadership Alliance
 - [Economics of Climate Adaptation – Shaping climate-resilient development](#)
Swiss Re
-



Inclusive and Resilient Urban Development Forum

SESSION DESCRIPTION

D1 Slum upgrading achieving resilient cities for all in Africa

Panel discussion

Date: Thursday, July 7, 2016

Time: 11:00-12:30

Room: S30-32

Language: English and French

Contact: Kerstin Sommer

E-mail/web: kerstin.sommer@unhabitat.org
www.unhabitat.org

Organized by: UN-Habitat

FORUM OBJECTIVE

The Inclusive and Resilient Urban Development forum will focus on how cities can work with the urban poor, including those living in informal settlements and working in the informal sector, to increase citywide resilience. Questions of secure housing, access to basic services, and inclusive governance will be considered. The inclusive and resilient theme will also link to discussions on how to finance urban resilience – from the bottom up and from the top down – and how to advance local progress on the Sustainable Development Goals throughout sessions on July 6th and 7th.

SESSION OBJECTIVE

In Africa, there are increasingly alarming trends in relation to the on-going challenge of slums and rapid urbanisation; more than 200 million slum dwellers already reside in urban centres, some cities are already hosting more than 60 percent of slum dwellers. Further, urbanization rates generally are higher than three percent.

Within the Participatory Slum Upgrading Program (PSUP) of UN-Habitat the slum analysis on a citywide scale in more than 35 countries and 120 cities indicate linkages between the proportion of slum dwellers in a city and the overall urban resilience and prosperity. These come from factors such as the location of slums in vulnerable areas, poor infrastructure and the substance economy often practices by slum dwellers. On the other hand the analysis also brought to light the existing coping mechanisms of slum communities which have potential to be replicated throughout the city.

Based on experience of the Participatory Slum Upgrading Programme (PSUP), the panel will stimulate exchange on how slum upgrading has contributed to resilience building at community, city and national levels. It will also explore strategic and practical entry points for inclusive resilience building through slum upgrading in Africa. It will further discuss partnerships and instruments needed for broad-based impact. It will finally align those with the Sustainable Development Goals and the New Urban Agenda principles and drivers for change.



Inclusive and Resilient Urban Development Forum

OUTCOMES

The session will provide participants with:

- Exchange on how slum upgrading has contributed to resilience building at community, city and national levels;
- Raise awareness on how resilience is tackled through slum upgrading;
- Give practical examples of strategies and community projects impacting on communities and building resilience;
- Discuss opportunities for initiating new partnerships for slum upgrading in Africa; and
- Link resilience building through slum upgrading to international frameworks such as the Sustainable Development Goals, the New Urban Agenda and the Regional Strategy for Housing and Slum Upgrading for Africa.

METHODOLOGY

- The facilitator will open the session with a short introduction of herself and each speaker. **(5 minutes)**
- Each speaker will be given time to describe their work, showing maps or other illustrations as needed. This includes addressing the three guiding questions **(3 x 10 minutes)**
- The facilitator will manage questions and answers from the audience mainly around the three guiding questions **(50 minutes)**
- The facilitator will conclude with closing remarks **(5 minutes)**

Guiding questions:

1. Who are key stakeholders in resilience building through slum upgrading?
2. Which exact elements of reliance do you see most important for resilience building in slum upgrading (climate, economy, social, political)?
3. How can local governments be in the driving seat for resilience building during citywide slum upgrading?

CONTRIBUTORS

Facilitator	<i>Kerstin Sommer, Unit Leader, Housing and Slum Upgrading Branch, UN-Habitat, Nairobi, Kenya</i> Integrated approach to incremental participatory slum upgrading
Panelist	<i>Julian Baskin, Head of Programme Unit, Cities Alliance, Brussels, Belgium</i> Strategic partnerships for city development strategies building resilience for all



Inclusive and Resilient Urban Development Forum

Panelist *Sipliant Takougang, National Coordinator Urban Governance Programme, Ministry of Urban Development and Habitat, Yaounde, Cameroon*

Towards a national participatory slum upgrading programme for up-scaled community-driven urban resilience

Panelist *Wolfgang Ryll, Principal Sector Economist, KfW, Frankfurt, Germany*

KfW and UN-Habitat Initiative on Financing for Resilient Urban Global Solutions

Further recommended reading:

- [Slum Almanac 2015-16 – Tracking Improvements in the Lives of Slum Dwellers](#)
 - [Pretoria Declaration as Outcome Document of the Thematic Meeting on Informal Settlements for HABITAT III, April 2016](#)
 - [Quick Guide for Policy Makers on pro-poor urban climate resilience in Asia and the Pacific](#)
-



SESSION DESCRIPTION

D2 Reality Check: Adaptation on the ground in Can Tho and Da Nang cities, Vietnam

Reality Check Workshop

Date: Thursday, July 7, 2016

Time: 11:00-13:00

Room: S25-26

Language: English

ICLEI contact: Evgenia Mitroliou

Supported by: The International Development Research
Centre (IDRC)

OBJECTIVE

The aim of this workshop is to present and discuss the emerging climate-related risks in the coastal cities of Da Nang and Can Tho and to get input from cities facing similar challenges.

Can Tho is currently facing the most severe drought and saline intrusion in nearly a century seriously impacting the city and the surrounding agricultural area that supplies the city. The combination of these two stresses threatens to exceed the ability of socio-ecological systems to adapt, if there is no appropriate short and long term water management strategy.

Da Nang is vulnerable to acute shocks such as storms, floods and droughts. Intense and unpredictable typhoons, frequent floods and droughts are associated with substantial losses for the city. Despite its achievements in urbanization, there remain several challenges in terms of storm resilience, flood control, and urban drainage in Da Nang.

Both cities had completed their vulnerability assessments and developed their own Climate Change Adaptation Plan. However, currently there is not enough knowledge on how to address slow-onset hazards, such as droughts and salinity intrusion and how to effectively plan and implement a successful flood management in areas where urban planning did not historically take climate change into account.

The discussion with the audience during the workshop will give these cities a change to examine these water management issues from a different perspective and be exposed to effective approaches from other parts of the world that will in turn help them think "outside of the box" in solving their issues and taking advantage of existing opportunities.

OUTCOMES

Participants and city presenters will:

- Learn about climate related risks in two Vietnamese cities and technological/management adaptation options cities already apply or going to apply to reduce the impacts associated with these risks;
- Gain an understanding of the Cities' Adaptation Plans through the presentations;
- During the breakout groups, join a shared-learning-dialogue to learn and exchange from different perspective and approaches; and
- Learn from each other how to adapt to droughts, salinity and floods.



METHODOLOGY

Facilitator *Quynh Anh Nguyen, Research Fellow, National Institute for Science and Technology Policy and Strategy Studies, Hanoi, Vietnam*

11:00-11:10 **Welcome and Introduction**

The facilitator will introduce the aim of workshop and the delegates

11:10-11:20 *Quang Vinh Ky, Director, Can Tho Climate Change Coordination Office, Can Tho City, Vietnam*

Climate change impacts in Can Tho City and Climate Change Action Plan

Can Tho City is located in the lowland central of the Mekong Delta, ranked as the one of the three deltas to be most affected by climate change in the future. The Mekong Delta is formed from the water resources of the Mekong River which originates in China and flows through 6 countries before flowing into the South China Sea.

Climate change in the area is expressed in the form of temperature rise, severe floods, droughts, salinity intrusion, intense and frequent tropical storms, and riverbank erosion. All these risks affect the health, income, property, and livelihoods of Can Tho residents and often lead to rural-urban migration, intensifying the city's need to adapt.

11.20 – 11.30 *Quang Vinh Ky, Director, Can Tho Climate Change Coordination Office, Can Tho City, Vietnam*

Climate change adaptation in Can Tho: Water management and the shock of droughts and saline intrusion

Water resources of Can Tho City mainly come from transboundary waters. Floods, droughts, and salinity intrusion have recently challenged the City's climate change adaptation strategy. The hydropower dam upstream the Mekong River and the ground subsidence exacerbate the risk of water-related disaster events. In the context of a changing climate, a water management plan for the entire Mekong Delta is necessary. There are three types of annual scenarios for the water sources of the Mekong Delta: a "normal year", a "deep flood year", and a "drought year".

There are, subsequently, corresponding approaches for each scenario:

- For a "normal water year" scenario, a proper water reservoir is used to store water in the rainy season for use in the dry-season that ensues;
- For a "deep-flood year", powerful dams and sluices take effect in a "room for river" strategy;
- In the event of a drought and saltwater intrusion, the use of groundwater and the construction of a plant for seawater desalination are considered. To prepare for such a scenario, groundwater sources must be seen as strategic water reserves to be re-charged frequently. Groundwater resources' re-charging is also a way of controlling land subsidence in the Mekong Delta.

11:30 - 11:40 *Minh Quy Phan, Coordinator, Da Nang Climate Change Coordination Office and Project Coordinator of the 100 Resilient Cities project, Da Nang City, Vietnam*

Da Nang's Climate Change Resilience Program and the need for a new flood management approach



Da Nang is located at a favorable geographic location for socio-economic development, as it is in the center of economic, cultural, and technological developments in the country. Da Nang's population is over 1 million people with a density of 784 people/ km² (2014 estimates). However, the City is one of the most vulnerable urban areas to climate change impacts, expressed in extreme flooding and droughts and unpredictable storms, all of which are associated with substantial losses for the city and its residents. For this reason, Da Nang conducted a resilience program to timely and proactively respond to climate change in hopes of lessening the adverse impacts and strengthening its adaptation capacity.

Despite its achievements in adaptation, there remain challenges in urban planning, flood control and urban drainage. Quick urbanization, which took place on the "flood corridor", combined with aging infrastructure has worsened impacts from flood events in some areas of the City. It is necessary for Da Nang to prepare a comprehensive plan focusing on green infrastructure for flood management. The expected outcomes are to improve inundation in low-lying areas, reduce flood losses, and enhance the resilience of the City.

11.40 – 11.50 *Thi Yen Nhi Nguyen, Urban Planning Official, Da Nang Department of Construction, Da Nang City, Vietnam*

Challenges of integrating flood risk management into urban planning in Da Nang

Flooding is one of the most crucial challenges for Da Nang. Thus, integration of flood risk management (FRM) into urban planning processes is an urgent requirement. Through spatial (construction) planning, the Da Nang Department of Construction has been formally designated as the lead department on urban planning and development management. However, the spatial master plan has been designed without scientific evidence base for climate change issues; thus, it fails to address the multitude of urban development issues, including FRM.

The City spatial plan does not normally consider the increased flood risk caused by construction on raised foundations outside of project areas. An example of such problem is the inappropriate location of the new urban areas built on traditional floodways (Hoa Xuan new urban area). While FRM has not been integrated into mainstream spatial planning, which feasible flood management solutions could be done within the current political and economic framework? Discussion will be drawn on case studies of Hoa Xuan new urban area and Da Nang's General Master Plan toward 2030, vision 2050.

11.50 – 11.55 Facilitator will introduce the Group Discussion part of the session

11.55 – 12.40 **Breakout discussion groups**

Group 1: Can Tho Group to discuss questions related to drought and salinity intrusion:

1. What should the city do in order to proactively prepare for the upcoming water-related problems under the uncertainty of climate change?
2. Which actions can stakeholders do (inside and outside of the country) to manage transboundary waters? Especially for the most vulnerable downstream countries?
3. What effective methods exist to control land subsidence due to groundwater exploitation?

(Facilitator: *Quynh Anh Nguyen, Research Fellow, National Institute for Science and Technology Policy and Strategy Studies, Hanoi, Vietnam*)



Group 2: Da Nang Group discussing:

1. Best practices to dealing with rapid and slow-onset natural disasters;
2. Best practices for government-private-community partnerships for storm/flood management in coastal low-lying areas;
3. Rather than applying a spatial and urban design-based planning process that fails to address climate change issues, what are some good practices for implementing an integrated urban planning process?

(Facilitator: *Thi Yen Nhi Nguyen, Urban Planning Official, Da Nang Department of Construction, Da Nang City, Vietnam*)

12.40-12.55 Each group will wrap up and present the final comments and key messages the city will take home

12:55-13:00 Closing remarks and summary of the Reality Check Workshop

Further Recommended Reading:

- [Da Nang's Climate Change Adaptation Plan](#)
 - [Preliminary Resilience Assessment in the city of Da Nang \(September 2015\)](#)
 - [Can Tho Climate Change Activities Strategy in the period 2015-2030](#)
 - [Planning for sustainable urban water systems in adapting to a changing climate – a case study in Can Tho City, Vietnam \(2012\)](#)
 - [Community-based urban flood and erosion management in Can Tho, Vietnam](#)
 - [Communicating Climate Change Risks for Adaptation in Coastal and Delta Communities in Vietnam](#) (IDRC)
 - [Da Nang's Resilience Challenge - 100 Resilient Cities](#)
-



Financing Resilience Forum

SESSION DESCRIPTION

D3 Public-Private-Community Partnerships for climate compatible development

Workshop

Date: Thursday, July 7, 2016

Time: 11:00-12:30

Room: S29-31

Language: English

Contact: Mairi Dupar

E-mail/web: m.dupar@odi.org.uk / www.cdkn.org

Organized by: Climate and Development Knowledge
Network with ICLEI

Hosted by: Global Infrastructure Basel Foundation

FORUM OBJECTIVE

The Financing Resilience forum will engage local governments, insurers, investors, funding agencies and the private sector on the need for local capacity building to develop and implement sustainable and resilient projects. The sessions will discuss new developments and resources for assisting local governments to (1) identify investment needs (2) design bankable projects, and (3) develop attractive project proposals. Innovative ways to mobilize and steer private and insurance investment for urban resilience will also be discussed throughout the forum on July 7th and 8th.

SESSION OBJECTIVE

The Paris Agreement sets the bar high for ambitious action to limit average global warming to well below two degrees, while the Sustainable Development Goals commit countries to eradicating poverty and pursuing a just, secure and sustainable future for the world's people, including through the development of urban resilience. 2016 is the year of Habitat III and intensified focus on city-level action, as well as the year when governments from national to local level will begin moving forward with the implementation of the Intended Nationally Determined Contributions submitted to the UNFCCC at COP21 in Paris. Increasing the scope of stakeholder engagement and support for low-carbon, climate-resilient development will be critical to this effort. It will include mobilizing finance from the private sector and a range of resources by individuals and communities for climate resilient and low emission (i.e. climate compatible) investments.

This highly interactive panel and discussion session convened by the Climate and Development Knowledge Network (CDKN) and ICLEI will focus on how to create an enabling environment for private sector as well as community and citizen-level engagement in climate-compatible development. Taking in a wide range of experience from CDKN and ICLEI projects in developing countries, panelists and audience members will explore some of the strategies that have been successfully deployed to forge Public Private Community Partnerships for renewable energy development, low carbon transport systems and sustainable coastal management. This session will draw upon the first-hand experience of



Financing Resilience Forum

CDKN, ICLEI, and city partners in coastal Belize; in Pakistan's industrial heartland; and in Bogor, Indonesia. It will also share the findings of a comparative research project that looked at a range of incentive schemes for attracting private and community investment in energy efficiency, renewables and climate-proofing in cities. The discussions will explore the different stakeholder engagement tactics that have succeeded in: (1) overcoming any initial reluctance on the part of public and private sector investors and so resulting in new streams of revenue for climate-smart development; and (2) tapping into local knowledge and in-kind resources for designing and implementing climate compatible development projects.

There will be a particular focus on CDKN and ICLEI partners' experiences in moving from planning to implementation.

OUTCOMES

By the end of the panel discussion, the organizers of this session expect that participants will:

- Be better able to match adaptation and mitigation aspirations with local development and private sector/business priorities;
- Gain an understanding of the structuring of Nationally Appropriate Mitigation Actions (NAMAs) and other forms of low-emission and climate-resilient local development strategy to incentivize private sector participation.

At the same time, CDKN, ICLEI, and partners anticipate that the discussions will help them ground-truth their analysis of climate compatible development planning, thus informing their analysis and contributing to future programming in the field.

METHODOLOGY

- The facilitator will introduce the session topic, panelists and facilitators **(5 minutes)**
- A CDKN speaker will outline the purpose of the CDKN-ICLEI learning program on subnational climate compatible development **(5 minutes)**
- Panelists will provide five minute statements on key lessons learnt in their in-country work, reflecting the session topic and guiding questions **(25 minutes)**
- Statements will be discussed by the audience via group conversations facilitated by CDKN and ICLEI representatives **(15 minutes)**
- CDKN and ICLEI representatives will share selected key points of their group conversations with the entire audience **(15 minutes)**
- Panelists will respond briefly to key points **(10 minutes)**
- Open space for further interaction between audience and panelist **(10 minutes)**
- Wrapping up and closing remarks by the facilitator and CDKN spokesperson **(5 minutes)**

Guiding questions:

The discussion will address, among others, the following questions:

1. How are public and private sector actors' integral to achieving low-emission, climate-resilient development goals in your city? What have been the selling points or 'drivers' that have incentivized their involvement in co-design of climate compatible solutions?



Financing Resilience Forum

2. What specific stakeholder engagement tactics and, where applicable, tax and regulatory mechanisms have been deployed to attract private investors?
3. To what extent have knowledge, time, funds and in-kind resources been mobilized from community representatives, civil society groups, businesses, and other stakeholder groups? What role has this engagement played in successful program delivery?
4. In the planning process, have stakeholders identified how taking action on climate adaptation or mitigation can provide wider development benefits (for example income, quality of life, health benefits)? Did this co-benefit framing help to gain the support of different interest groups? How important is the economic case for action – and how can it best be communicated?
5. What does it take to replicate successful approaches to climate compatible development, at scale?

CONTRIBUTORS

Facilitators *Mairi Dupar, Global Public Affairs Coordinator, Climate and Development Knowledge Network (CDKN), London, UK; and*
Barbara Anton, Coordinator Sustainable Resources, Climate and Resilience, ICLEI Europe, Freiburg, Germany

Panelist *Ari Huhtala, CDKN Deputy CEO for Policy and Programmes, CDKN, London, UK*

A short overview of the CDKN-ICLEI program on learning from urban climate resilience and climate compatible development – and how the process of learning and putting lessons into action will be critical to accelerated action to achieve the ambitious goals of the Paris climate summit.

Panelist *Hammad Raza, Regional Coordinator, CDKN Asia; General Manager, Programs, Leadership for Environment and Development (LEAD) Pakistan, Islamabad, Pakistan*

How private and public sectors have negotiated the process of defining mitigation and climate-resilient development in Pakistan's industrial city of Sialkot and preparing a program for financing.

Panelist *Nadia Bood, MesoAmerican Reef Scientist and Climate Change Officer, WWF Central America, Belize City, Belize*

A tour of the extraordinary multi-stakeholder process provoked and facilitated by WWF in Belize, which has resulted in a more integrated and climate resilient coastal management plan for cities and their surrounding ecosystems on Belize's coast.

Panelist *Ranell Martin Dedicatoria, ICLEI Southeast Asia, Quezon City, Philippines*



Financing Resilience Forum

The process of how the Urban Low Emissions Development Strategies (LEDS) project engaged the government of Bogor, Indonesia and forged a partnership for a more sustainable urban transport plan which is now rolling out its initial measures.

Panelist *Lisa Junghans, Policy Advisor, Germanwatch, Bonn, Germany*

Findings of CDKN-commissioned research by Germanwatch and its multi-region team to document the most promising sources of finance for urban climate compatible development and will focus particularly on: which instruments are proving most promising in attracting private sector investors?

Panelist *Daniel Ryan, Coordinator of Sustainability Studies, Institute of Technology of Buenos Aires and Research Director, FARN, Buenos Aires, Argentina*

Results of a research on whether the issue of climate compatible development has become central to democratic discourse and voting habits in Latin America's mega-cities or whether it still has a long way to go.

Panelist *Thanh Nguyen, Senior Program Officer, The Asia Foundation, Hanoi, Vietnam*

The presentation will discuss the The Asia Foundation's program in Vietnam, "Strengthening Public Private Partnerships for Community Resilience" strategy, impacts, outcomes, and lessons learned to inform and inspire efforts to engage the private sector in building the resilience of urban areas to natural disasters and climate change.

Further recommended reading

- CDKN resources: http://cdkn.org/cdkn_series/inside-story
-



Financing Resilience Forum

SESSION DESCRIPTION

D4 Economics of Climate Adaptation: Identifying and pricing adaptation measures

Panel

Date: Thursday, July 7, 2016

Time: 11:00-12:30

Room: S34-35

Language: English

Contact: Joern Meyer

E-mail/web: joern.meyer_extern@kfw.de

Organized by: KfW

Hosted by: Global Infrastructure Basel Foundation

FORUM OBJECTIVE

The Financing Resilience forum will engage local governments, insurers, investors, funding agencies and the private sector on the need for local capacity building to develop and implement sustainable and resilient projects. The sessions will discuss new developments and resources for assisting local governments to (1) identify investment needs (2) design bankable projects, and (3) develop attractive project proposals. Innovative ways to mobilize and steer private and insurance investment for urban resilience will also be discussed throughout the forum on July 7th and 8th.

SESSION OBJECTIVE

Bangladesh and El Salvador are two of the countries most affected by climate change in the world. Natural disasters put the lives of thousands of people at risk and impair the country's development. Thereby, cities are especially at risk: they are the places where the population increases much faster than the average. This trend further aggravates the negative effects of climate change, as it overburdens the infrastructure in many cities. At the same time, developing countries and emerging economies depend on the economic performances of their cities.

A method, called Economics of Climate Adaptation (ECA) could provide assistance to crisis-ridden countries such as Bangladesh or El Salvador. The instrument facilitates the analysis of climate-related risks at the local level. It can be used to calculate the damages resulting from climate change in the coming decades, taking into account economic and demographic development. It allows risk analyses to be carried out in cities that serve as a basis for the identification of climate-adapted urban planning measures. Based on a cost-benefit analysis, potential costs are compared to preventable damages. It also takes into account further aspects such as the poverty relevance.

Overall, the ECA methodology provides urban decision makers with a fact base to answer questions on climate adaptation in a systematic way:



Financing Resilience Forum

- 1) What is the potential climate-related loss for the economy and society over the coming decades?
- 2) How much of that loss can we avert and with what measures?
- 3) What investment will be required to fund those measures - and will the benefits of that investment outweigh the costs?

Already, case studies in more than 20 different regions around the globe showed that up to two thirds of expected damage from climate change could be averted by cost-effective adaptation measures.

The panel outlines the Economics of Climate Adaptation (ECA) methodology, discusses first results in the cities of Barisal, Bangladesh and San Salvador, El Salvador and provides an overview on the next steps to be taken, as well as future approaches to make urban adaptation more predictable and more effective.

OUTCOMES

The panel elaborates the ECA approach and the overall interdependency between urban development and adaptation.

Participants take away:

- Insights into the ECA methodology, its applicability in the urban context and within financial cooperation;
- Lessons learned regarding the replicability of the ECA approach in urban areas; and
- Understanding for integrated approaches on urban development and climate adaptation and on how cities can be supported in realizing these.

METHODOLOGY

- Opening remarks by the facilitator **(5 minutes)**
- Presentation of the ECA approach by Swiss Re **(10 minutes)**
- Outlining KfW and local experiences with regard to the ECA methodology on the ground. **(5 minutes)**
- Presenting local experience with ECA approach including outlook to future measures based on ECA results **(25 minutes)**
- Discussion on methods and approaches for urban adaptation measures, evaluating potentials and challenges **(25 minutes)**
- Questions from the audience **(20 Minutes)**

Guiding Questions:

1. How can urban adaption measures include future forecasts?
2. What does the Economics of Climate Adaptation (ECA) methodology offer to (urban) decision makers?
3. What consequences arise for urban decision makers and development finance institutions?
4. How can urban development and climate change challenges be addressed in an integrated form?



Financing Resilience Forum

CONTRIBUTORS

Facilitator	Joern Meyer, Advisor, KfW Development Bank, Frankfurt, Germany
Panelist	Lea Müller, Vice President Global Partnerhips, Swiss Reinsurance Company, Zürich, Switzerland
Panelist	Maxime Souvignet, Consultant, GFA Consulting Group, Hamburg, Germany
Panelist	Florian Wieneke, Senior Sector Economist, KfW Development Bank, Frankfurt, Germany



SESSION DESCRIPTION

Science for cities: Key findings from the UCCRN ARC3.2 Report and UCCRN Regional Hubs

UCCRN Networking Session

Date: Thursday, July 7, 2016

Time: 13:15-14:00

Room: S01-2

Language: English

Contact: Somayya Ali Ibrahim

E-mail/web: sa2619@columbia.edu

Organized by: Urban Climate Change Research Network (UCCRN)

OBJECTIVE

The session serves as an introduction to the Urban Climate Change Research Network (UCCRN), a consortium of 700+ urban climate experts in cities around the world, and will illustrate the need and importance of building a robust climate knowledge base in cities to address both climate adaptation and mitigation in an integrated manner.

This session will highlight key scientific findings from the Summary for City Leaders of the UCCRN's Second Assessment Report on Climate Change and Cities (ARC3.2), including the latest climate projections for 100 cities and a discussion of ARC3.2 Case Study Docking Station. Synergies, conflicts, and trade-offs between adaptation and mitigation across scales, will be analyzed and discussed.

The UCCRN ARC3.2 is the second in an ongoing series of global, interdisciplinary, cross-regional, science-based assessments to address climate risks, adaptation, mitigation, and policy mechanisms relevant to cities. This 700-page manuscript contains 16 chapters and over 115 City Case Studies on vulnerability, adaptation, mitigation, and building resilience in urban areas, which city leaders can use to learn from one another. The ARC3.2 Report also contains a Summary for City Leaders, providing major scientific findings of the report and identifying key recommendations for action at the local level. The ARC3.2 Summary for City Leaders was released during the ICLEI Agora at the COP21 Climate Summit for Local Leaders. The UCCRN will also discuss knowledge-generating processes and evolving next steps for the UCCRN Regional Hubs in Europe, Latin America, Australia, Africa, and Asia, with a focus on building partnerships for the UCCRN European Hub in Paris.

OUTCOMES

Participants will gain a better understanding of:

- Latest scientific data and state-of-the-knowledge on how cities are responding to climate change, and improved knowledge on integrating climate change mitigation and adaptation actions in cities across a variety of urban sectors and topics;
- Understanding of how UCCRN can be a resource for cities and how it complements existing climate change assessments, such as the IPCC Assessment Reports;
- Emerging opportunities and challenges to effective placement of this knowledge in the hands of local stakeholders and decision-makers.



- Inclusive participation to inform the direction of the ARC series and the UCCRN Regional Hubs in Europe, Latin America, Asia, Africa, Australia, and North America, and to network with UCCRN Management Team and members.

METHODOLOGY

- An overview of the goals and activities of the UCCRN, including an introduction to the ARC3 series and the establishment of the UCCRN Regional Hubs **(5 minutes)**
- Presentation of main thrust of the ARC3.2 Report and the analytical challenges of the main sections of ARC3.2. **(10 minutes)**
- Regional outlooks and participation in UCCRN and the ARC3 series, including summary outline and comments from ARC3.2 regional contributors (Europe, LAC, Asia, Africa, and North America) **(10 minutes)**
- Innovations for analyzing, reporting and communicating scientific progress in this field. This includes a short briefing on how ARC3.2 is building a storing communication platform (i.e., a Case Study Docking Station) to improve access to information by policy makers, academics and practitioners **(5 minutes)**
- Open discussion of next steps for the UCCRN, and how audience members can be involved in the ARC3 series, the Case Study Docking Station, and the UCCRN Regional Hubs **(15 minutes)**

CONTRIBUTORS

Facilitators	<i>Somayya Ali Ibrahim, International Program Manager, Urban Climate Change Research Network (UCCRN), Columbia University, New York, USA; and Chantal Pacteau, Co-Director, UCCRN European Hub; Centre national de la recherche scientifique (CNRS), Paris, France</i>
Participants	<i>Sean O'Donoghue, Acting Manager, Climate Protection Branch, Environmental Planning and Climate Protection Department, eThekweni Municipality, South Africa Reimund Schwarze, Helmholtz Centre for Environmental Research; CLA, ARC3.2 Economics, Finance, Private Sector Chapter, Leipzig, Germany Stelios Grafakos, Institute for Housing and Urban Development Studies, Erasmus University, Rotterdam; CLA, ARC3.2 Mitigation and Adaptation Chapter; Rotterdam, the Netherlands</i>

Further recommended reading

- Rosenzweig, C., W. Solecki, P. Romero-Lankao, S. Mehrotra, S. Dhakal, T. Bowman, and S. Ali Ibrahim, 2015: *ARC3.2 Summary for City Leaders — Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network*. Urban Climate Change Research Network, Columbia University. Available at: www.uccrn.org/arc3-2
 - Rosenzweig, C., W.D. Solecki, S.A. Hammer, and S. Mehrotra (Eds.), 2011: *Climate Change and Cities: First Assessment Report of the Urban Climate Change Research Network*. Cambridge University Press. Available at: <http://uccrn.org/resources/publications/arc3/>
-



Inclusive and Resilient Urban Development Forum

SESSION DESCRIPTION

E1 Inclusive governance: partnering with communities and marginalized groups

Presentations

Date: Thursday, July 7, 2016

Time: 14:30-16:00

Room: S25-26

Language: English

ICLEI contact: Thiago Barbizan

Organized by: ICLEI

FORUM OBJECTIVE

The Inclusive and Resilient Urban Development forum will focus on how cities can work with the urban poor, including those living in informal settlements and working in the informal sector, to increase citywide resilience. Questions of secure housing, access to basic services, and inclusive governance will be considered. The inclusive and resilient theme will also link to discussions on how to finance urban resilience – from the bottom up and from the top down – and how to advance local progress on the Sustainable Development Goals throughout sessions on July 6th and 7th.

SESSION OBJECTIVE

In order to overcome urban adaptation challenges, it is necessary to promote multi-stakeholder collaboration towards a common vision of resilience. Achieving inclusive resilience means working with and understanding the needs and vulnerabilities of different marginalized groups. This session will explore inclusive governance structures and policies for informal settlements and the informal sector in African, Asian and American cities including the City of Accra (Ghana) and the City of New York (USA).

The International Institute for Environment and Development (IIED) will share lessons which have emerged from a selection of Asian cities in responding to climate change. The contribution will focus on the need for adaptive governance that engages with actors, knowledge and institutions to promote more resilient, inclusive and sustainable urban development.

Following that, the Rockefeller Foundation will present the Rebuild by Design initiative which placed substantive collaboration between designers, researchers, community members, and government officials at the heart of an iterative creative process, the Hurricane Sandy Competition resulted in ten visionary design proposals that address the intersection of physical, social, and ecological resiliency. Seven of those designs are in the process of being implemented in the Northeast United States.

The National Democratic Institute will introduce the link between gender-sensitive democratic governance and city resilience, drawing on best practices from the global north and global south.

A discussion on how urban multi-sectoral dialogue, employment creation and decent work conditions can contribute for achieving urban resilience will be promoted by the International Labour Organization



Inclusive and Resilient Urban Development Forum

based on their efforts to promote decent work in urban areas and the relevance of a sectoral approach to labor-related challenges in the urban economy.

Finally, representatives from Women in Informal Employment: Globalizing and Organizing (WIEGO) will share an interesting initiative from Accra, Ghana which promotes collaboration between city authorities and groups of informal economy workers. The initiative applies a participatory process to map, analyze and reduce risks to public health and safety, taking into consideration the range of institutional and governance challenges underlying such a process.

OUTCOMES

- Advance understanding on the relevance of multi-stakeholder involvement including marginalized groups in order to achieve a resilient urban development vision; and
- Participants will gain insights on how local authorities could plan, implement and evaluate adaptation measures in partnership with the communities.

METHODOLOGY

- The facilitator provided an overall introduction to the session topic and contributors **(5 minutes)**
- Each presentation is allotted 10 minutes **(5 x 10 minutes)**
- The facilitator will lead a discussion with the presenters and audience members. **(30 minutes)**
- Closing remarks. **(5 minutes)**

CONTRIBUTORS

Facilitator *Kobie Brand, Regional Director, ICLEI Africa, South Africa*

Presenter *Sarah Colenbrander, Researcher, Human Settlements Group, International Institute for Environment and Development (IIED), London, UK*

Adaptive governance for a more resilient urban future: Cases from Asia

This presentation brings together a number of key lessons which have emerged out of the experiences of a selection of Asian cities in responding to climate change, with a specific focus on the emerging understanding of governance requirements for building more resilient urban centres in low- and middle income countries. The presentation will make the argument that adaptive urban governance is necessary for building resilience – and that this requires engaging with actors, knowledge, and institutions. A good governance system that responds to climate threats can also support more inclusive and sustainable urban development.



Inclusive and Resilient Urban Development Forum

Presenter *Sundaa Bridget-Jones, Senior Associate Director, International Development, The Rockefeller Foundation, New York, USA*

Working together to build a more resilient region

Rebuild by Design is a new way to connect design, funding, and implementation strategies for a more resilient future, marshalling the talent of the world to answer a region's greatest needs. Using an innovative process based on the design competition model, Rebuild by Design places local communities and civic leaders at the heart of a robust, interdisciplinary creative process to generate implementable solutions for a more resilient region.

Presenter *Sandra Pepera, Director, Gender, Women and Democracy, National Democratic Institute, Washington DC, USA*

Gender-sensitive local governance: The missing ingredient for resilient cities

In order for cities to be truly resilient, all their citizens must be engaged in the public decision-making that affects them. Inclusive and democratic local political processes and governance ensure sustainable policy outcomes, responsive service delivery, and strong accountability. Women comprise the majority of the world's urban population and are key actors in mitigating shocks and building resilience, but women's perspectives and voices are significantly underrepresented at the local level. This presentation will illustrate the link between gender-sensitive democratic governance and city resilience, and highlight best practices for integrating gender into local governance and democratic processes.

Presenter *Edmundo Werna, Construction sector specialist, International Labour Organization, Geneva, Switzerland*

Social dialogue at the local level

In many cities and towns, a number of sectors have a critical mass of employers and workers structured in organizations, which enable them to engage in social dialogue between themselves and/or with the local government. Local-level sectoral dialogue addresses specific issues of each municipality, which are difficult to be included in the overall dialogue at the national level. It may include other actors, such as informal workers and enterprises, grass-roots communities and NGOs working on labor issues, which are seldom represented at the national level. This presentation will discuss how urban multi-sectoral dialogue, employment creation and decent work conditions can contribute for achieving urban resilience.



Inclusive and Resilient Urban Development Forum

Presenters *Dorcas Ansah, Accra City Coordinator, Women in Informal Employment: Globalizing and Organizing (WIEGO), Accra, Ghana;*
Esther Ofei-Aboagye, Former Director, Institute of Local Government Studies, Accra, Ghana; and
Vida Tangwan, Treasurer, Informal Hawkers' and Vendors' Association, Accra, Ghana

Inclusive risk reduction in the markets of Accra

WIEGO and its partners in Accra, Ghana will illustrate what is required to achieve an effective collaboration between a city authority and groups of informal economy workers to map, analyze and reduce risks to public health and safety. This session will provide a step-by-step guide to identifying risks, building an effective partnership of well-informed city officials and citizens' representatives, and reducing the risks identified. It will also make clear the benefits of such a process for the city.

Further recommended reading:

- [Gender, Urbanization and Democratic Governance](#)
 - [Testing City Limits: Women and Urban Governance](#)
 - [ILO's urban economy](#)
 - [Van Empel & Werna: Labour oriented participation in municipalities: How decentralized social dialogue can benefit the urban economy and its sectors](#)
 - [ILO Manual on the Built Environment & Labour: Formulating Projects and Studies Concerning Labour Issues in Greening the Sectors of the Built Environment](#)
-



SESSION DESCRIPTION

E2 Advances in global initiatives: Supporting cities to assess, act, and report

Panel

Date: Thursday, July 7, 2016

Time: 14:30-16:00

Room: S30-32

Language: English

ICLEI contact: Evgenia Mitroliou

Organized by: ICLEI

OBJECTIVE

Many resources related to urban resilience are now available to local governments through international campaigns, initiatives and city networks. These resources provide support for multiple phases of resilience and adaptation planning – from commitment, assessment, and planning to implementation and reporting. In addition to assisting local governments with their individual actions, these also connect them to peer cities, implementation partners, and national or international frameworks for knowledge exchange, replication, and advocacy.

This session will provide an update on several global urban resilience initiatives and partners, detailing how the work of each has developed over the past year, and discuss the benefits and trade-offs of applying multilevel governance approaches. The University of Notre Dame Global Adaptation Index (ND-GAIN) will open the session with a forward-looking framework to assess the vulnerability and adaptive capacity of cities, part of their ongoing work to measure the relative climate resilience of cities. Related to measuring and monitoring, participants will hear about new resources for adaptation reporting from the Compact of Mayors, the world's largest coalition of city leaders addressing climate change. Shifting to a disaster risk reduction perspective, UNISDR will demonstrate how its Resilient Cities Connect platform – now in beta - links suppliers of resilience building tools and services with the cities. In a similar vein, 100 Resilient Cities initiative will discuss how the initiative has developed to support cities with the implementation of city-wide resilience strategies including by connecting them with local and international “platform partners”. The final presentation will provoke discussion by exploring the pros and cons of multi-level governance approaches and the transferability of global solutions in different local contexts.

OUTCOMES

- Participants will be informed of the various global commitments that can enhance cities' and regions' adaptation and resilience actions;
- They will be inspired by examples of local climate action worldwide that are amplified through multi-level governance approaches; and
- They will learn about the relative strengths and weaknesses of global platforms and initiatives for supporting local action.

METHODOLOGY

- The facilitator will provide an overall introduction to the session topic and contributors. (5 minutes)



- Each presentation will be allotted 10 minutes. **(5 x 10 minutes)**
- The facilitator will manage questions and answers. **(30 minutes)**
- Closing remarks by the facilitator. **(5 minutes)**

CONTRIBUTORS

Facilitator *Steve Gawler, Regional Director, ICLEI Oceania, Melbourne, Australia*

Presenters *Meghan Doherty, Project Manager, University of Notre Dame Global Adaptation Index (ND-GAIN), South Bend, USA*

A Framework for evaluating and comparing climate change adaptation in US Cities

Many frameworks exist to measure vulnerability to the changing climate at the city level. However, the current literature lacks assessment of cities' capacity to take on adaptation action and to reduce losses and damages arising from climate hazards. This work aims to advance the knowledge of adaptation by exploring the connection between adaptive capacities and the impacts of climate disasters. By building a forward-looking framework to assess the vulnerability and adaptive capacity for five US cities, this presentation presents analysis of each city and comparisons among them to demonstrate the utility of the framework for national and international use.

Presenters *Maryke van Staden, Low Carbon Cities Program Manager and Director of the carbonn Center, ICLEI World Secretariat, Bonn, Germany; and
City representative (tbc)*

Supporting integrated climate action with the Compact of Mayors

Under the leadership of C40, ICLEI, and UCLG, with the support of the UN, the Compact of Mayors establishes a common platform to capture the impact of cities' collective actions through standardized measurement of emissions and climate risk, and consistent, public reporting of their efforts. Since its launch in 2015, over 500 local governments have committed to becoming compact compliant. This includes adopting a local adaptation commitment, conducting an urban vulnerability and risk assessment, developing an adaptation strategy, and – crucially – reporting on these efforts through the newly launched Climate Risk and Assessment Framework and Taxonomy (CRAFT) questionnaire (CRAFT). The Compact raises the visibility of local climate action, and connects to national targets by, for example, reporting data to the UNFCCC Non-state Actor Zone (NAZCA). This presentation will provide an update on the Compact of Mayors initiative, including recently added resources and examples of local action.

Presenter *Abhilash Panda, Coordinator Urban Risk Reduction and Resilience, United Nations Office for Disaster Risk Reduction (UNISDR), Geneva, Switzerland*

Resilient Cities Connect Platform: Accelerating action to address urban resilience



Presenter *Leah Flax, Program Manager, City Solutions, 100 Resilient Cities - Pioneered by the Rockefeller Foundation, New York, USA*

Three years of 100 Resilient Cities: Building institutional capacity and strategic partnerships for city-wide resilience

Presenter *Lorenzo Chelleri, Postdoctoral Researcher, Gran Sasso Science Institute, L'Aquila, Italy*

Synergies and trade-offs in managing urban resilience: a multi-level governance perspective

This presentation will explore potential “trade-offs” in multilevel governance approaches among actors, scales, and different city goals. Cities-to-cities partnerships have proven to be useful in boosting climate change adaptation setting. However, addressing multi-scalar and city-region targets remains a critical area for urban resilience to be operationalized. Issues of prioritization among different risks, and solutions, competency among institutions, departments, sectors, stakeholders, or parts of the city contribute to rise concerns about potential resilience building trade-offs. This, in turn, reflects the need of critically shifting from the imperative of city resilience building, to the need of capacity building for urban resilience management. This presentation is the result of a global research collaboration introducing the challenges of managing urban resilience from a multi-level governance perspective. Trade-offs and synergies in dealing with urban resilience operationalization will be presented in order to discuss the need of avoiding policy lock-ins, and frame climate policies able to tackle the preventive adaptation and mitigation perspectives of resilience while operating at different scales synergistically.

Further recommended reading

- Compact of Mayors official website: <http://www.compactofmayors.org/>
 - Chelleri, L., Waters, J. J., Olazabal, M. and Minucci, G. (2015). "Resilience trade-offs: addressing multiple scales and temporal aspects of urban resilience." *Environment and Urbanization* 27(1): 181-198
 - Resilient Cities Connect (introductory video): <https://www.youtube.com/watch?v=sFd3TeFoF14&feature=youtu.be>
 - ND-GAIN website: <http://index.gain.org/>
 - 100 Resilient Cities website: <http://www.100resilientcities.org/>
-



SESSION DESCRIPTION

E3 Novel data and spatial analysis tools to inform resilience planning and urban development

Presentations

Date: Thursday, July 7, 2016

Time: 14:30-16:00

Room: S01-2

Language: English

ICLEI contact: Evgenia Mitroliou

Organized by: ICLEI

OBJECTIVE

Local governments around the world are striving to fight the impacts of climate change in their cities and regions. Their efforts however, are often undermined by the lack of appropriate, easily-accessible and comprehensible information that could save lives and prevent avoidable economic losses. Spatial data and analysis tools, including those using Geographic Information Systems (GIS) technology, are a powerful, multi-purpose resource available to cities. In addition, easily-accessible and reliable tools and information for conducting risk and vulnerability, and system resilience assessments can inform local leaders' action and help safeguard urban infrastructure, population and socio-institutional assets.

This session will introduce a variety of new tools, models, and frameworks looking beyond traditional risk and vulnerability approaches toward a more comprehensive "city resilience assessment". First, a set of tools developed by the US government will be presented including an extreme precipitation dashboard and a "Climate Explorer" geo-browser that provide easy-to-use information for decision makers. Taichung, an industrial city in Chinese Taipei, will then present the applicability and effectiveness of their flooding forecast tool (QPESUMS) as part of the city's disaster risk management strategy. Steps to improve the accuracy of the system and efforts to popularize its use will also be in focus. The next presentation will introduce MEGADAPT, a framework for integrating social and infrastructural aspects of hydrological vulnerability in Mexico City. MEGADAPT combines dynamic systems' modeling and Multi-criteria Decision Analysis-GIS to create a knowledge and learning platform for future decision-making. In line with this concept, the fourth presentation will highlight the importance of reliable small-scale data basis for sustainable long-term decision making and infrastructure management. The approach presented, brings together essential parameters of building structures, population structures, and water infrastructure to model small-scale developments under various scenarios. Lastly, a novel GIS based tool that uses a non-scenario specific methodology to visualize the "resilience levels" of different critical infrastructure systems will be demonstrated.

OUTCOMES

- Participants will get an overview of current methods and tools for enhancing urban resilience with emphasis on spatial functionalities of such methods;
- They will be exposed to new spatial and data analysis tools and explore the value of easily-accessible information for climate action at all levels;
- They will be able to take this knowledge with them to apply in their own cities and regions.



METHODOLOGY

- The facilitator will provide an overall introduction to the session topic and contributors. **(5 minutes)**
- Each presentation will be allotted 10 minutes. **(5 x 10 minutes)**
- The facilitator will manage questions and answers. **(30 minutes)**
- Closing remarks by the facilitator. **(5 minutes)**

CONTRIBUTORS

Facilitator *Joseph Wladkowski, Head of ICLEI Global Capacity Center, ICLEI World Secretariat, Bonn, Germany*

Presenter *Nancy Beller-simms, Program Manager, National Oceanic and Atmospheric Administration (NOAA), Silver Spring, USA*

Arming communities with data and tools for better climate decision-making

The presentation will focus on U.S. government efforts to help communities prepare for and increase their resilience to the impacts of climate change, via: (a) the U.S. Climate Resilience Toolkit which is being created to provide consolidated, authoritative, easy-to-use information, tools, and best practices to help communities understand potential impacts and make decisions; and (b) the Precipitation Dashboard, a tool developed in partnership with the Federal government, water resource managers and city planners that consolidates data in one location for planning. Highlights of the toolkit will be shown, including the "Climate Explorer", an interactive geo-browser that lets users access maps of climate-related stressors and people and assets impacted.

Presenter *Hsien-Yi Lee, Deputy Secretary-General, Taichung City Government, Chinese Taipei*

Applying geographical information systems for disaster prevention in Taichung City

The presentation will introduce the application of QPESUMS (Quantitative Precipitation Estimation-Segregation Using Multiple Sensors) in Taichung City. QPESUMS is a system that provides effective and accurate flooding forecasts and is used by the City as a disaster risk management tool and a key component in the construction of a resilient and "smart city". After the city briefly presents the application and effectiveness of the tool, future steps for its implementation will be discussed, including training and outreach for its broader use. The city will also discuss the necessity for establishing regulations to support smart city development and to enhance the local population's capacity to combat climate change impacts.

Presenter *Amy Lerner, Assistant Professor, National Autonomous University of Mexico, Mexico City, Mexico*

MEGADAPT: a framework for transforming social-hydrological risk in megacities

Building resilience in megacities requires new and innovative approaches to visualize and integrate social and environmental processes that operate at distinct scales. This



presentation will review the framework and approach for integrating social-institutional and biophysical-infrastructure dimensions of hydrological vulnerability in Mexico City, which will eventually inform planning and decision-making through the “MEGADAPT” (MEGAcity-ADAPTation) project. The project and approach advance fundamental knowledge on social-hydrological interactions and dynamics that determine vulnerability to climate change. MEGADAPT combines mental model elicitation with Multi-criteria Decision Analysis-GIS and dynamic system modeling to create a knowledge and learning platform. This platform makes the drivers and dynamics of social and hydrological vulnerability in the city more visible and understandable, not only for the actors who have traditionally managed water in the city, but also for a much broader population of interested and affected actors.

Presenter *Martin Schulwitz, PhD Student, ILS - Research Institute for Regional and Urban Development, Dortmund, Germany*

Integrated modeling of water infrastructures in urban structure types

Climate change and demographic change are two of the most troublesome issues for the effective operation of future urban water infrastructure systems. Approaches to cope with these challenges have to face ambivalence and uncertainty about future developments. The scenario model that will be presented is an approach to generate small-scale data using 15 representative urban structure types (UST). These UST consist of both, typical water infrastructure supply and the morphological building structure with the population structure living therein. Modeling small-scale developments under various scenarios will result in a better data basis and support resilient decision making by local governments. Due to the few inputs needed for the tool, it is easily accessible and comprehensible, thus having much potential to be effectively applied.

Presenter *Ehiaze Ehimen, Research Consultant, Future Analytics Consulting, Dublin, Ireland*

A novel GIS tool for critical infrastructure resilience mapping

The presentation describes a novel multi Critical Infrastructure (CI) system, non-scenario specific, GIS-based tool which can be used by CI providers and their urban stakeholders for effective resilience management. The tool was designed to fully incorporate multiple CI sectors, which is especially important for visualizing the interconnectivity of CI systems and identifying the potential for cascading failure. Furthermore, in addition to the physical aspects of the CI system, other domains (i.e. organizational, societal, information and environmental) which are usually not covered in existing risk based mapping tools were considered in the newly developed tool. In addition to the demonstration on how the tool can be used by CIs and cities for mapping resilience, this presentation will also cover how the proposed tools can be easily integrated into existing GIS mapping tools already available for CI systems.

Further recommended reading

- www.resilens.eu
 - <http://lancis.ecologia.unam.mx/megadapt/>
-



SESSION DESCRIPTION

E4 Resilience planning in small & intermediate-sized cities in sub-Saharan Africa

Panel discussion

Date: Thursday, July 7, 2016

Time: 14:30-16:00

Room: S34-35

Language: English

Contact: Katharina Rochell

E-mail/web: katharina.rochell@unhabitat.org

Organized by: UN-Habitat

OBJECTIVE

Urban challenges in Africa are being exacerbated by new vulnerabilities and threats associated with climate change. Small and intermediate-sized cities in sub-Saharan Africa - localities with the highest absolute urban growth and weak governance capacities - are most susceptible to shocks and stresses. This panel aims at discussing priorities, gaps and opportunities for small and intermediate cities in Africa to reduce risks and build resilience to a multitude of threats. These include innovative approaches of building local capacity for urban climate change adaptation and risk reduction.

In order to kick-start and guide the discussion on these guiding questions for the panel, UN-Habitat will present the City Resilience Action Planning (CityRAP) Tool, developed jointly by the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) and UN-habitat. This session will explore how participatory methodologies are advocating for equity and inclusiveness for all urban dwellers and addressing the main challenges and opportunities linked to some fundamental characteristics that are common to these cities such as unprecedented urban growth, weak capacity, and vulnerability to climate change.

OUTCOMES

Participants will gain a better understanding of:

- Concrete approaches for small and intermediated cities to understand, plan and act for improving urban resilience; in particular, participants will have access to the results and feedback obtained after the implementation of the City RAP Tool in 5 cities in Southern Africa;
- Main challenges and opportunities linked to some fundamental characteristics that are common to these cities, such as unprecedented urban growth, weak capacity and vulnerability to climate change.

METHODOLOGY

- The facilitator will open the session with a short introduction of himself and each speaker. **(5 minutes)**
- An opening presentation by UN-Habitat will focus on the challenges of small and intermediate cities in terms of resilience building and adaptation to climate change and how the City RAP Tool represents an innovative approach to respond to these challenges. The results and feedback obtained in 5 cities during the testing of the tool will be presented. **(20 minutes)**



- Facilitated by the moderator, each panellist is then expected to make an intervention and provide inputs for discussion on the guiding questions. The interventions will be related to experiences, approaches or innovations for resilience building in small and intermediate cities and will respond and complement the City RAP tool presentation. **(30 minutes)**
- The facilitator will manage questions and answers from the audience. **(30 minutes)**
- The facilitator will conclude with closing remarks. **(5 minutes)**

Guiding questions:

1. How are small and intermediate sized African cities and those in least developed countries equipped to face the increasing challenge of shocks and stresses in urban areas?
2. Are city managers and practitioners prepared to plan and intervene in the rapidly changing present context?
3. What are the tools available to understand and act to build urban resilience?
4. What is the added value of the participatory planning approach for urban resilience? What participatory mechanisms and methodologies can result in inclusive and efficient processes and outcomes?

CONTRIBUTORS

Facilitator	<i>Robert Kehew, Leader, Climate Change Planning Unit, UN-Habitat, Nairobi, Kenya</i> Following the introductory presentation of the City Resilience Action Planning (CityRAP) Tool, the facilitator will trigger the discussion around the guiding questions.
Presenter	<i>Katharina Rochell, Asst. Project Coordinator, UN-Habitat, Nairobi, Kenya</i> The speaker will introduce the CityRAP tool and the results of the first rounds of pilot testing, jointly developed by UN-Habitat and DiMSUR, in selected cities in Southern Africa.
Panelist	<i>Joost Möhlmann, Head of Programme, UN-Habitat Mozambique, Maputo, Mozambique</i> The senior expert from UN-Habitat will introduce key cross-cutting component of sustainable urban development, emphasizing how urban planning and city extensions are essential components for a resilient city.
Panelist	<i>Sean O'Donoghue, Acting Manager of the Climate Protection Branch, Environmental Planning and Climate Protection Department, City of Durban, South Africa (tbc)</i>
Panelist	<i>Julian Baskin, Head of Programme Unit, Cities Alliance, Brussels, Belgium</i>
Panelist	<i>Daviz Mbepo Simango, Mayor, City Council of Beira, Mozambique</i>

Further recommended reading

The City Resilience Action Planning (CityRAP) Tool: <http://www.dimsur.org/tools-2/>



Financing Resilience Forum

SESSION DESCRIPTION

E5 Attracting finance through sustainable and resilient project design Using SuRe® – The standard for sustainable and resilient infrastructure to improve TAP projects

Workshop

Date: Thursday, July 7, 2016

Time: 14:30-16:00

Room: S29-31

Language: English

Contact: Katharina Schneider-Roos

E-mail/web: katharina.schneider@gib-foundation.org

Organized by: Global Infrastructure Basel Foundation

Hosted by: Global Infrastructure Basel Foundation

FORUM OBJECTIVE

The Financing Resilience forum will engage local governments, insurers, investors, funding agencies and the private sector on the need for local capacity building to develop and implement sustainable and resilient projects. The sessions will discuss new developments and resources for assisting local governments to (1) identify investment needs (2) design bankable projects, and (3) develop attractive project proposals. Innovative ways to mobilize and steer private and insurance investment for urban resilience will also be discussed throughout the forum on July 7th and 8th.

SESSION OBJECTIVE

This workshop will explore sustainable and resilient project design factors and how they can assist attracting finance for infrastructure projects. We will hear from a leading private investor on what they value in projects, how they perceive bankability, sustainability and resilience. With this basis, we will then look at practical tools and live project examples to enhance project preparation.

We will introduce the SuRe® Standard, a global voluntary standard which integrates key criteria of sustainability and resilience into infrastructure development and upgrade through 14 themes across environmental, social and governance (ESG) factors. The standard aims to establish a common language and understanding of sustainable and resilient infrastructure projects between project developers, financiers, and local authorities; and to provide guidance on how to manage those aspects from both a risk management and a benefit creation perspective, and starting from as early as possible in an infrastructure project's life cycle.



Financing Resilience Forum

A Quickscan tool, which is aligned with the SuRe® standard, will be used on several TAP (Transformative Action Program) Projects to show strengths and weaknesses of projects concerning their overall ESG assessment. This approach will show the benefits of a sustainable and resilient infrastructure project, not only through the improved service it can deliver but also the financial gains it can produce.

OUTCOMES

Participants will leave the workshop session with:

- An enhanced understanding of how improved sustainability and resilience can serve to attract investors;
- An enhanced understanding of the specific kinds of sustainability and resilience factors which should be aimed for in infrastructure projects;
- Knowledge of the SuRe® - the Standard for Sustainable and Resilient Infrastructure, and how it can be used to improve project preparation; and
- Insights from a private investor's perspective on project bankability

METHODOLOGY

- 14:30 - 14:40 **Introduction:** Sustainability, Infrastructure and the SuRe® Standard
- 14:40 - 14:50 **The investor's perspective:** What makes a project bankable and why investors are interested in sustainability
- 14:50 - 15:00 **Project Examples:** Presenting several TAP projects to be examined as case studies
- 15:00 - 15:35 **Exploring sustainability and resilience in projects:** working groups delve into project examples to investigate SuRe® Quickscan results and identify opportunities
- 15:35 - 15:55 **Roundup:** Working groups share insights back to the plenary
- 15:55 - 16:00 **Recap:** Summary of the conclusions from the Workshop

CONTRIBUTORS

- Facilitators
- Louis Downing, Director Capacity Building, Global Infrastructure Basel Foundation, Basel, Switzerland*
- Hans-Peter Egler, CEO, Global Infrastructure Basel Foundation, Basel, Switzerland*
- Katharina Schneider-Roos, Deputy Executive Director, Global Infrastructure Basel Foundation, Basel, Switzerland*

Transformative Actions Program - TAP Projects

- *Temuulin Enkhmunkh, CEO, Ulaanbaatar Development Corporation, Ulaanbaatar, Mongolia*



Financing Resilience Forum

- *Altanshagai Battulga, Senior Investment Analyst, Ulaanbaatar Development Corporation, Ulaanbaatar, Mongolia*
- *Risto Veivo, Development Manager, Climate, Environment and Energy Policy, City of Turku, Finland*
- *Maria Amor A. Salandanan, Deputy Chief, City Environment & Natural Resources Office, City of Santa Rosa, Philippines*
- *Jose Ricardo Brandao, Engineer, Minas Gerais Sanitation Company, State of Minas Gerais, Brazil*
- *Eduardo Cesar Almeida, Engineer, Minas Gerais Sanitation Company, State of Minas Gerais, Brazil*

Further recommended reading:

- [SuRe® – The Standard for Sustainable and Resilient Infrastructure](#)
 - <http://tap-potential.org/>
-



Financing Resilience Forum

SESSION DESCRIPTION

Financing urban resilience with Urban Development and Investment Funds

Coffee Break Presentation

Date: Thursday, July 7, 2016

Time: 16:15-16:30

Room: S05-06

Language: English

Contact: Catherine Allinson / Christoph Waldersee

E-mail/web: futureearthmail@gmail.com / christoph.waldersee@ecosequestertrust.org

Organized by: Future Earth Ltd. and
The Ecological Sequestration Trust (TEST)

FORUM OBJECTIVE

The Financing Resilience forum will engage local governments, insurers, investors, funding agencies and the private sector on the need for local capacity building to develop and implement sustainable and resilient projects. The sessions will discuss new developments and resources for assisting local governments to (1) identify investment needs (2) design bankable projects, and (3) develop attractive project proposals. Innovative ways to mobilize and steer private and insurance investment for urban resilience will also be discussed throughout the forum on July 7th and 8th.

SESSION OBJECTIVE

In 2015 National Governments signed up to: a) implement the Sendai Risk and Resilience Framework; b) the Global Sustainable Development Goals (SDG); and c) the COP21 Paris Climate Agreement, by 2030. In these 15 years \$93 trillion will be invested in city regions around the world. The Ecological Sequestration Trust delivery model is to create a commercial Urban Development Investment Fund (UDIF) for any region and use the new evidence-based resilience.io open source systems platform to enable bankable projects to be designed, procured, and assured to the requirements of the UDIF, the needs of the community, and the SDG objectives.

OUTCOMES

Participants will gain a better understanding of how the Urban Development Investment Fund could be a solution for delivering the Global Sustainable Development Goals holistically.

METHODOLOGY

- The facilitators will introduce themselves and the main aspects of the Urban Development Investment Fund **(10 minutes)**
- The facilitators will manage questions and answers from the audience **(5-10 minutes)**



Financing Resilience Forum

CONTRIBUTORS

Presenters *Catherine Allinson, Director, Future Earth Ltd., London, UK; and*
Christoph von Waldersee, Program Finance Director, The Ecological Sequestration Trust, London, UK

Further recommended reading:

- [Smart ways to mobilise more efficient and effective long-term investment in city regions](#)
 - [Roadmap 2030 – draft report consultation complete](#)
 - [resilience.io](#)
 - [future earth](#)
-



Inclusive and Resilient Urban Development Forum

SESSION DESCRIPTION

F1 Know Your City: Linking community slum data to urban resilience

Panel Discussion

Date: Thursday, July 7, 2016

Time: 16:45 – 18:15

Room: S25-26

Language: English

Contact: Ariana MacPherson

E-mail/web: ariana@sdinet.org / www.sdinet.org

Organized by: Shack / Slum Dwellers International

FORUM OBJECTIVE

The Inclusive and Resilient Urban Development forum will focus on how cities can work with the urban poor, including those living in informal settlements and working in the informal sector, to increase citywide resilience. Questions of secure housing, access to basic services, and inclusive governance will be considered. The inclusive and resilient theme will also link to discussions on how to finance urban resilience – from the bottom up and from the top down – and how to advance local progress on the Sustainable Development Goals throughout sessions on July 6th and 7th.

SESSION OBJECTIVE

SDI's community collected data is a feature of the Know Your City campaign – a joint initiative of Shack/Slum Dwellers International, UCLG-A and Cities Alliance that seeks joint information collection to produce change in cities. The campaign demonstrates the critical role and potential value of partnerships for collaborative planning that are rooted in community-collected data at the citywide and global scale. To date, urban poor communities affiliated to SDI have collected slum data on over 7,000 slums across the Global South. This community-collected slum data is essential for assessing and monitoring vulnerability and producing comprehensive urban climate adaptation assessments.

This session will explore SDI's community-collected data and its increasingly critical relevance to resilience and climate change adaptation assessments in cities. It is impossible to talk about building inclusive, integrated, resilient cities if city authorities remain disconnected from the reality of the majority their citizens. During the session, community leaders and civil society partners will present some of the practical approaches that community-based groups and municipal authorities have jointly adopted to support meaningful participation and ownership by low-income and other marginalized groups and explore the potential of this work in addressing issues of resilience and vulnerability at scale. Examples include the use of settlement and hazard mapping by local communities using simple GPS technologies to plan upgrading activities. These maps can open dialogue between organized communities of the urban poor and local authorities in order to highlight the particular risks that need to be prioritized by the city government.



Inclusive and Resilient Urban Development Forum

OUTCOMES

Participants will gain a better understanding of:

- The value of community-collected slum data in assessing vulnerability and risk in cities;
- The potential of community-collected data in prioritizing development needs; and
- Strategies for organized communities of the urban poor to partner with city governments to jointly collect and utilize slum data for these purposes.

METHODOLOGY

- The facilitator will open the session with a short introduction of himself and each speaker. **(5 minutes)**
- Each speaker will be given time to describe their work, showing maps or other illustrations as needed. **(3 x 10 minutes)**
- The remainder of the session will be organized around the guiding questions, with each panelist given time to respond to individual questions, and to respond to comments made by other panelists. **(25 minutes)**
- The facilitator will manage questions and answers from the audience. **(25 minutes)**
- The facilitator will conclude with closing remarks. **(5 minutes)**

Guiding questions:

1. How can organised urban poor communities work together with local government and other urban decision makers towards building resilient cities?
2. What unique contribution can community collected slum data make to the resilience agenda in cities?
3. What are some examples of successful partnerships between organized urban poor communities and their local governments in the co-production of climate adaptation and resilience solutions in cities?
4. How can community slum data be utilized in the implementation and monitoring of the Sustainability Development Goals?
5. What is required to scale up the joint collection and utilization of community slum data by organized urban poor communities and city authorities?

CONTRIBUTORS

Facilitator	<i>Julian Baskin, Head of Programme Unit, Cities Alliance, Brussels, Belgium</i>
Panelist	<i>Muhammed (Medie) Lutwama, Executive Director, ACTogether, Kampala, Uganda</i>
Panelist	Ofelia Bagotlo, National Community Leader, Homeless People's Federation of the Philippines, Quezon City, Philippines



Inclusive and Resilient Urban Development Forum

Panelist *David Dodman, Director, Human Settlements Group, International Institute for Environment & Development (IIED), London, UK*

Further recommended reading:

- [Know Your City](#)
 - [SDI | Shack / Slum Dwellers International](#)
-



SESSION DESCRIPTION

F2 Launch and reception! New online adaptation options catalogue for practitioners!

Launch and Reception

Date: Thursday, July 7, 2016

Time: 16:45-19:00 (*reception follows)

Room: S29-31

Language: English

Contact: Michaël Houle

E-mail/web: michael.houle@iclei.org

Organized by: IDRC and ICLEI Canada

OBJECTIVE

Join us for the official launch and reception of the Adaptation Options Catalogue!

Momentum is building to develop innovative local adaptation responses. However, fostering community resilience and accelerated adaptation requires the development of tools that allow successful and innovative solutions to be shared and scaled up. As part of this session, presented by the International Development Research Centre (IDRC) and ICLEI, leaders from businesses, non-profit organizations, governments and communities will come together, navigate their way through this innovative online search tool and database, and learn about adaptation options that have been implemented around the world. Participants will meet and greet with researchers whose projects are showcased on the Adaptation Options Catalogue and exchange their ideas with one another to help accelerate their development and implementation. This launch and networking reception will be complemented by an introduction to the Case Study Docking Station developed as part of the *Urban Climate Change Research Network (UCCRN) Second Assessment Report on Climate Change and Cities (ARC3.2)*.

OUTCOMES

The Adaptation Options Catalogue will be showcased via a live-demonstration and researchers will be present to discuss specific adaptation options – from within the tool – that practitioners can draw from to better prepare for extreme weather and minimize risks from climate change impacts over the long term. The knowledge of effective adaptation options shared during this event will help participants move adaptation from research to planning to implementation.

METHODOLOGY

- The Session Co-Chairs will open the session with a short introduction to highlight the Options Catalogue and how it fits into IDRC's existing programming and discuss its importance for practitioners. **(10 minutes)**
- Michaël will present the Options Catalogue via a live demonstration – showcasing key features and content. **(10 minutes)**
- Somayya will present introduction to the Case Study Docking Station developed by UCCRN. **(10 minutes)**



- Each presentation will be followed by a question and answer period. **(2 x 5 minutes)**
- The Session Co-Chairs will introduce the researchers present at the different demonstration stations and open the networking reception – the networking reception will include an opportunity to try and use the Options Catalogue which will be set up on devices around the room. **(50+ minutes)**
- The Session Co-Chairs will make remarks and welcome other guests joining the reception (from other concurrent sessions). **(5 minutes)**
- **Reception continues from 18:15 – 19:00!!**

CONTRIBUTORS

Co-Chairs *Charlotte MacAlister, Senior Program Officer, IDRC, Ottawa, Canada; and
Ewa Jackson, Manager, ICLEI Canada, Toronto, Canada*

To help combat the challenge of fostering accelerated and improved adaptation, a searchable and accessible catalogue of the adaptation options developed and implemented as part of IDRC's Climate Change and Water (CCW) and Climate Change Adaptation in Africa (CCAA) programs was created. This short introduction will present IDRC's programs and work on cities, and discuss the need to share this experience through online search tools and databases.

Speaker *Michaël Houle, Adaptation & Resilience Project Coordinator, ICLEI Canada, Toronto, Canada*

Learning from similar size cities, similar industries, and common sectors through a comprehensive catalogue of options is very useful for communities, policy makers, and practitioners with limited current knowledge or access to adaptation information. The Adaptation Catalogue provides mechanisms to enhance the usability and transferability of a wide variety of adaptation options.–As part of this presentation, this innovative online platform will be showcased via a live-demonstration.

Speaker *Somayya Ali Ibrahim, International Program Manager, UCCRN, New York, United States*

The *UCCRN Second Assessment Report on Climate Change and Cities (ARC3.2)* Case Study Docking Station (CSDS) is a web-based, searchable database to inform both research and practice on climate change and cities. The 115+ Case Studies in the ARC3.2 report and the CSDS include a set of key data protocols to enable comparisons across a range of social, bio-physical, and economic contexts. These Case Studies display empirical evidence on what cities are doing on the ground, across a diverse set of urban challenges and opportunities.

Further recommended reading

- Adaptation Options Catalogue (www.adaptationoptions.ca)
-



Financing Resilience Forum

SESSION DESCRIPTION

SP3 Financing Resilience Forum Sub-plenary Upscaling efforts to finance urban resilience and adaptation

Panel discussion

Date: Thursday, July 7, 2016

Time: 16:45-18:15

Room: S30-32

Language: English

Contact: Laura Kavanaugh

E-mail/web: resilient.cities@iclei.org

Organized by: ICLEI

Hosted by: Global Infrastructure Basel Foundation

FORUM OBJECTIVE

The Financing Resilience forum will engage local governments, insurers, investors, funding agencies and the private sector on the need for local capacity building to develop and implement sustainable and resilient projects. The sessions will discuss new developments and resources for assisting local governments to (1) identify investment needs (2) design bankable projects, and (3) develop attractive project proposals. Innovative ways to mobilize and steer private and insurance investment for urban resilience will also be discussed throughout the forum on July 7th and 8th.

SESSION OBJECTIVE

The sub-plenary will conclude the day's discussions, summarizing key points from previous sessions and highlighting forward-looking examples and ideas. Panelists will provide an outlook on how governments, private sector and financial institutions, as well as international organizations and intermediaries are confronting common challenges and upscaling efforts to finance urban resilience and adaptation in the context of the sustainable development goals and the (forthcoming) new urban agenda.

OUTCOMES

Participants will gain a better understanding of:

- The main topics discussed throughout the Financing Resilience forum;
- Emerging initiatives for establishing partnerships and building coalitions for blending a variety of finance sources;
- How to assist local governments to develop resilience-building projects in the short and medium term that are attractive for public and private investment and pave the way toward lasting systemic changes; and
- Knowledge on how multilateral funding institutions are positioning themselves in relation to



Financing Resilience Forum

local implementation of the SDG11 targets.

METHODOLOGY

- The facilitator will open the session with a short introduction of each speaker **(5 min)**
- A brief summary of the previous forum discussions will serve as an introduction to the session **(5 minutes)**
- The remainder of the session will be organized around the guiding questions, with each panelist given time to respond to individual questions, and to respond to comments made by other panelists. **(40 minutes)**
- The facilitator will manage questions and answers from the audience. **(35 minutes)**
- The facilitator will conclude with closing remarks. **(5 minutes)**

Guiding questions:

1. What actions have been taken by your organization in order to address possible gaps and emerging challenges for financing resilience?
2. Which are innovative tools for cities to prioritize investments in urban adaptation and resilience needed for attracting funding?
3. What is the role of multilateral funding institutions for promoting sustainable urban development in face of climate change and the SDG11 targets implementation?
4. Which kind of policy framework and institutional shifting is necessary to enable a conducive scenario for promoting multi-stakeholder partnerships and blending of different finance sources? for enabling more direct access to funding?
5. What are some examples of how local governance and institutional reform or restructuring can improve investment opportunities? .
6. What approaches have been successful and what has failed? How can local governments and partners apply these lessons in the short and long term?

CONTRIBUTORS

Facilitator	<i>Gino Van Begin, Secretary General, ICLEI – Local Governments for Sustainability</i>
Presenter	<i>Katharina Schneider-Roos, Deputy Executive Director, Global Infrastructure Basel Foundation (GIB), Basel, Switzerland</i> Review of forum highlights and discussions as an introduction to the session.
Panelist	<i>Peter Baum, Analyst, Energy Efficiency and Climate Change, European Bank for Reconstruction and Development, London, UK</i>
Panelist	<i>Altanshagai Battulga, Senior Investment Analyst, Ulaanbaatar Development Corporation, Ulaanbaatar, Mongolia</i>



Financing Resilience Forum

Panelist	<i>Carolina Cortes, Climate Change Chief Executive, CAF Latin American Development Bank, Quito, Ecuador</i>
Panelist	<i>José Ricardo Brandão, Engineer, COPASA Minas Gerais Sanitation Company, State of Minas Gerais, Brazil; and</i> <i>Eduardo Cesar Almeida, Engineer, COPASA Minas Gerais Sanitation Company, State of Minas Gerais, Brazil</i>
Panelist	<i>Matthieu Pegon, Senior Resource Mobilization Specialist, Green Climate Fund, Incheon, Republic of Korea</i>
Panelist	<i>Astrid Zwick, Head of Department, Corporate Responsibility, Munich RE, Munich, Germany</i>
Panelist	<i>Roger Savage, Director for Cities and Urban Infrastructure, Atkins Acuity Business, London, UK</i>

Further recommended reading:

- [Revised Zero Draft of the New Urban Agenda, 18 June 2016: paragraph 11 \(b\) 4 \(page 3\); paragraph 110 – 124 \(pages 12- 14\)](#)
 - [Sustainable Development Goal 11 \(especially targets 11.5, 11b, 11c\)](#)
 - [Financing Resilience Forum background papers and recommended reading](#)
-



SESSION DESCRIPTION

Guiding Principles for City Climate Action Planning: An open, multi-stakeholder initiative

Co Event

Date: Thursday, July 7, 2016

Time: 19:00-20:15

Room: S25-26

Language: English

Contact: Faderr Johm

E-mail/web: Faderr.Johm@unhabitat.org

Organized by: UN-Habitat

OBJECTIVE

Cities have important contributions to make to reducing greenhouse gas emissions and building climate resilience and climate action plans offer a fundamental approach to framing ambitious, coherent responses. At the Paris Climate Summit (December 2015), following a year of collaborative work, UN-Habitat and 45 endorsing partners, including ICLEI, launched the Guiding Principles for City Climate Action Planning. This guidance seeks to improve the quality of city-level climate action plans around the world, while serving as a reference point for an emerging professional community of practice on the topic.

Since Paris, partners have developed a set of indicators to flesh out the Guiding Principles, and a toolkit to enable testing and applying the Principles at the city level. By the time Resilient Cities 2016 takes place, we will have tested/applied the Guiding Principles in two very different contexts: **Vilankulo, Mozambique**, and **Glasgow, Scotland**. Already intriguing results are starting to emerge from those experiences. Meanwhile partners are planning for further city-level applications of the tool, as well as other steps in developing the Guiding Principles initiative.

This co-event will introduce the eight Guiding Principles, with examples of city climate action plans from around the world that seem to exemplify certain Principles. We will then explore how the Guiding Principles shed light on ongoing climate or resilience planning processes in Vilankulo and Glasgow. We will invite one or two endorsing partners to discuss their city-level experiences in climate action planning, or otherwise to elaborate on certain aspects of the Guiding Principles. Finally we will invite questions and discussion from participants on the Guiding Principles, noting that this initiative is open to new endorsing partners.

OUTCOMES

Participants will gain a better understanding of:

- Key elements that help to improve the quality of a city climate action plan or planning process;
- The strengths and challenges of climate action planning in different cities around the world; and
- Opportunities to get involved in the Guiding Principles initiative.



METHODOLOGY

- The facilitator will offer background on development of the Guiding Principles, and illustrate the eight Principles with brief examples from climate action plans from various cities around the world **(10 minutes)**
- A planner will discuss the application of the Guiding Principles in Vilankulo, Mozambique **(10 minutes)**
- A planner will discuss the application of the Principles in Glasgow, Scotland **(10 minutes)**
- One or two endorsing partners will share additional insights from their cities **(15 minutes)**
- The facilitator will manage questions and answers from the audience. **(30 minutes)**
- The facilitator will conclude with closing remarks. **(15 minutes)**

CONTRIBUTORS

Facilitator *Robert Kehew, Unit Leader, Climate Change Planning Unit, UN-Habitat, Nairobi, Kenya*

Participant 1 *Faderr Johm, Cities and Climate Change Consultant, UN-Habitat, Nairobi, Kenya*

Participant 2 *Alexander Maxwell, Researcher, UN-Habitat, Nairobi, Kenya*

Further recommended reading

- Guiding Principles for City Climate Action Planning: <http://unhabitat.org/books/guiding-principles-for-climate-city-planning-action/>
-



SESSION DESCRIPTION

G1 Innovative and effective ways of sharing knowledge and delivering actionable information to decision makers

Panel discussion

Date: Friday, July 8, 2016

Time: 09:00-10:30

Room: S29-32

Language: English

Contact: Anthony Socci

E-mail/web: socci.anthony@epa.gov

Organized by: U.S. EPA Office of Intl. & Tribal Affairs, and the UN University, Institute for Environment & Human Security

OBJECTIVE

Over the last several years in particular, it seems increasingly apparent that there is a diminishing appetite for information that passively resides on servers, and a rapidly growing appetite for demand-driven, locally relevant information delivered in a highly personal way. This panel proposes for discussion that this latter process has a higher likelihood of satisfying the information needs of urban/local decision-makers and as such, has a higher likelihood of resulting in local actions taken. Urban and local government officials and their staffs simply do not have the time, desire, and possibly even the requisite skills, to sift through volumes of information residing passively on web servers.

It seems increasingly clear that the methods of information delivery are as important as the information itself. Active and personalized methods of information delivery seem much preferred over the searching of large information platforms where information resides passively.

This panel discussion is intended to engage the audience interactively, in an in-depth discussion on innovative and effective ways of sharing knowledge and information that more effectively and more practically addresses the needs of decision makers and therefore, have a higher likelihood of catalysing local climate adaptation actions and the building of climate resilience. Several real-life examples of information sharing at the local and urban levels internationally will be presented for discussion purposes, and the audience is encouraged to share their experiences as well.

OUTCOMES

Participants will:

- Learn from the examples of effective information sharing and ideally experiment with similar ways of more effectively delivering information in their respective settings;
- Help initiate a broad but diversified and coordinated international effort aimed at deploying more effective methods of delivering information on climate adaptation, resilience and sustainability;
- Ideally bring additional examples of effective information sharing to RC 2017;
- Help point to and popularize existing initiatives of effective information sharing.



METHODOLOGY

- The facilitators will open the session by framing the discussion (5 mins).
- Each speaker will be allotted no more than 10 minutes to describe their work.
- Guiding questions are provided below to stimulate audience thinking beforehand.
- The facilitators will manage questions and answers from the audience.
- The facilitators will conclude with very brief closing remarks.

Guiding questions:

1. What constitutes effective information sharing?
2. Are there other emerging examples of effective information sharing that we can learn from?
3. Should ongoing efforts at effective information sharing be scaled up and coordinated internationally?
4. Are these examples of information sharing transferable elsewhere?
5. Are the methodologies and examples presented here circumstance-specific and/or location-specific?
6. Are there commonalities among these effective methods of information sharing that form the basis for some general guiding principles on how to do this better?

CONTRIBUTORS

Facilitators *Anthony Socci, Senior Lead on International Climate Policy, U.S. EPA, Washington DC, USA; and*
Matthias Garschagen, Head of Vulnerability Assessment, United Nations University Institute for Environment and Human Security (UNU-EHS), Bonn, Germany

Panelist *Somayya Ali Ibrahim, International Program Manager, Urban Climate Change Research Network (UCCRN), New York, USA*

Somayya will discuss UCCRN's efforts to deliver climate information to four city governments, in collaboration with ICMA, between 2015 and 2016.

Panelist *Jessica Barlow, Educational Partnerships for Innovation in Communities Network (EPIC-N); Director of the Sage Project, San Diego State University, San Diego, USA*

Jessica will discuss EPIC-N and the Sage Project, and will also discuss the Sustainable City Year Program (SCYP). She will also provide examples of how these initiatives have served the information needs of city and local government decision makers.

Panelist *Sean O'Donoghue, Acting Manager of the Climate Adaptation Branch, Environmental Planning and Climate Protection Department, City of Durban, South Africa*

Sean will discuss how the City of Durban and the Durban Adaptation Charter Secretariat have partnered with local universities to service the information needs of the city and the DAC, as well as establishing city-city partnerships for exchange sharing.



Panelist *Barney Dickson, Head Of Climate Change Adaptation Unit, United Nations Environment Programme (UNEP); GAN Secretariat, Global Adaptation Network (GAN), Nairobi, Kenya*

Barney will provide an update on the GAN's mission and GAN sustained learning exchanges.

Panelist *Jessica Hitt, Program Manager for the Climate Adaptation Knowledge Exchange (CAKE), Bainbridge Island, USA*

Jessica will discuss CAKE's efforts to evaluate the effectiveness of information delivery in communities.

Panelist *Maria Uhle, Program Director for International Activities, U.S. National Science Foundation, Arlington, USA*

Maria will discuss the Belmont Forum Multilateral International Opportunities Fund Initiative to support the delivery of knowledge needed for climate action.



SESSION DESCRIPTION

G2 City Resilience Index: A tool to assess and measure the resilience of cities

Panel discussion

Date: Friday, July 8, 2016

Time: 09:00-10:30

Room: S01-2

Language: English

Contact: Sachin Bhoite

E-mail/web: sachin.bhoite@arup.com

Organized by: Arup, supported by The Rockefeller Foundation

OBJECTIVE

This panel session will focus on sharing the process and outcomes of developing a City Resilience Index with the ICLEI Resilient Cities 2016 participants. Creating the City Resilience Index has involved extensive research, consultation with thematic experts, and piloting with city stakeholders globally. By enabling a discussion between professionals and researchers who worked on the development of the City Resilience Index and external respondents, the session will explore the emerging field of resilience measurement and how cities can benefit from using tools designed for this purpose.

OUTCOMES

- To familiarize ICLEI Resilient Cities 2016 forum participants with the City Resilience Index, a new tool to measure resilience in cities;
- To share the learnings from a research process of over two years, with emphasis on current challenges of measuring resilience; and
- To explore ideas on how the emerging field of resilience measurement can benefit from the use of tools.

METHODOLOGY

The panel session will be composed of two parts:

1. Introduction to the City Resilience Index: Two or three professionals involved in conceptualizing and piloting the tools will make presentations on their experience. These presentations will be focused on the following guiding questions: what are the key challenges for measuring resilience at city scale? What did you learn from piloting the City Resilience Index tool in cities globally? (45 minutes)
2. Discussion on the applicability of a tool for measuring resilience in cities globally: Following the two initial presentations, external participants will supplement these views by commenting on the work and exploring what this means for cities. (30 minutes)

The panel session will conclude with time for questions and answers (15 minutes)

Guiding questions:

1. What is the role of measurement in building resilient cities?
2. What are the key challenges for measuring resilience at city scale?



3. How the assessment provided by the City Resilience Index can help cities?
4. What did you learn from piloting the City Resilience Index tool in cities globally?

CONTRIBUTORS

Facilitator *Braulio Eduardo Morera, Associate, Arup, London, UK*

Braulio will set the context for the discussion by explaining key aspects of the CRI tool, including the team's motivation, key steps in the process and relevant challenges. This introduction will be followed by the panelists' participation.

Panelist *Sundaa Bridgett-Jones, Senior Associate Director, International Development, The Rockefeller Foundation, New York, USA*

Sundaa will share the Rockefeller Foundation's vision for promoting resilience globally and the value proposition of the City Resilience Index in this context. As key part of the team developing the tool, Sundaa will also share her views on key lessons and future challenges.

Panelist *Jo da Silva, Director, Arup, London, UK*

Sachin will provide an overview of the functionality of the tool and how this can contribute to thinking and planning resilient cities. He will also discuss key lessons from the early piloting of the tool in five cities globally.

Panelist *Leah Flax, Program Manager, City Solutions, 100 Resilient Cities - Pioneered by the Rockefeller Foundation, New York, USA*

100 Resilient Cities – Pioneered by the Rockefeller Foundation (100RC) is dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century. As part of their 'platform' offer, cities in the 100RC network will pilot the tool, providing further evidence on the challenges and value of measuring resilience in cities.

Panelist *Bedoshruti Sadhukhan, Program Coordinator, Sustainability Management, ICLEI South Asia, New Delhi, India*

Panelist *Tikender Singh Panwar, Deputy Mayor, City of Shimla, India*

Further recommended reading

City Resilience Index: <http://www.cityresilienceindex.org/>



SESSION DESCRIPTION

G3 Resilient Urban Food Systems: City progress

Panel discussion

Date: Friday, July 8, 2016

Time: 09:00-10:30

Room: S34-35

Language: English

Contact: Monika Zimmermann, Marielle Dubbeling

E-mail/web: monika.zimmermann@iclei.org; and
m.dubbeling@ruaf.org

Organized by: ICLEI, RUAF Foundation, BMZ and GIZ

OBJECTIVE

This panel session will highlight new good practices, strategies, and policies in achieving resilient and low-carbon urban food systems in cities and city regions across the globe. Panelists will include local government representatives and lead authorities in the field of sustainable and resilient urban food systems who will highlight ongoing programs and provide policy recommendations for cities and regions.

This session will also provide an update on the past two Food Forums at Resilient Cities (in 2013 and 2015) and highlight new steps in achieving increased urban food security, enhance the role of urban/peri-urban agriculture, and developing resilient and low-carbon urban food policy and action plans.

OUTCOMES

Participants will gain a better understanding of:

- Why cities are involved in urban food system policy and planning;
- What initiatives, strategies and policies cities are and might be developing and what key obstacles or guiding factors are for putting in place a resilient and low-carbon urban food policy and action plan;
- What are recommendations for cities and the SDG and New Urban Agenda with regards to the promotion of resilient urban food systems?

METHODOLOGY

- The facilitator will open the session with a short introduction of the topic, the speakers and the guiding questions which will frame the discussion **(5 minutes)**
- The first speaker will briefly introduce the topic and make the connection with past Urban Food Forum and sessions at the Resilient Cities congresses **(5 minutes)**
- Each speaker will be given time to describe their work, showing maps or other illustrations as needed. **(4 x 10 minutes)**
- The facilitator will manage questions and answers from the audience. **(35 minutes)**
- The facilitator will conclude with closing remarks **(5 minutes)**



Guiding questions:

List of questions the panel will explore and seek to answer:

1. What are innovative and local solutions for sustainable food production, equal distribution and consumer behavior in cities?
2. How can cities /city regions address its food system vulnerabilities in different areas (amongst other, access to healthy food, increase of local food-related jobs, etc.)
3. What incentives and instruments have been proven to be successful for managing, reducing and preventing food loss and waste in city regions?
4. What do cities need in order to implement the New Urban Agenda at the local level in order to foster collaboration between different municipalities in city region food systems?
5. What are recommendations towards implementation of the SDG and New Urban Agenda?

CONTRIBUTORS

Facilitator *Carmen Vogt, Senior Policy Advisor for Urban Development and Cities and Climate Change, Project Manager "Sustainable Development of Metropolitan Regions", Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Eschborn, Germany (5 mins)*

Introduction *Monika Zimmermann, Deputy Secretary General, ICLEI – Local Governments for Sustainability (5 mins)*

This is the third time that ICLEI and RUAF put Resilient City Food Systems on the agenda of Resilient Cities. Why resilient and low carbon food systems are such a relevant goal for sustainable cities?

Presentation *Marielle Dubbeling Director, RUAF Foundation, Global Partnership on Sustainable Urban Agriculture and Food Systems, Leusden, the Netherlands (10 min)*

Overview: Progress from different cities around the world: 13 case studies developed for the German Corporation for International Cooperation (GIZ) on city region food systems and food waste reduction will be introduced and best practices, tools, and instruments will be highlighted.

Presentation *Sara Valencia Naranjo, Projects Acquisitions Expert, Agency for Cooperation and Investment of Medellin and the Metropolitan Area, Medellin, Colombia (10 min)*

The SACIAR food bank programme and the Municipalities food waste programme, an important strategy for building resilient food systems, will be introduced.

Presentation *Barbara Steele, Councilor, City of Surrey, Metro Vancouver, Canada (10 min)*

Promoting agriculture as a low carbon urban development strategy



Presentation *Stefan Schmitz, Director, Food, Agriculture and Rural Development, Federal Ministry for Economic Cooperation and Development (BMZ), Bonn, Germany (10 min)*

What role should cities play in global food security?

Framework conditions for accelerating city progress: "Urban Food" in Berlin
Recommendations of the German Habitat Forum towards Habitat III and the
implementation of the New Urban Agenda – enabling the local level for strengthening
urban rural linkages.

Further recommended reading:

- 3 Keel, 2015. Food in an urbanised world – The role of city region food systems in resilience and sustainable development'. International Sustainability Unit, UK: http://www.3keel.com/sites/default/files/CRFS%20Executive%20Summary_0.pdf
 - GIZ, RUAF Foundation and UN FAO, 2016. City Region Food Systems and Food Waste Reduction- Linking Urban and Rural Areas for Sustainable and Resilient Development: <http://star-www.giz.de/pub?r=42540>
 - German Habitat Forum, 2016. Berlin recommendations for the: http://www.bmz.de/de/zentrales_downloadarchiv/themen_und_schwerpunkte/stadtentwicklung/Berliner_Empfehlungen.pdf
-



Financing Resilience Forum

SESSION DESCRIPTION

G4 City Innovation Platforms (CIPs) for African infrastructure risk and resilience

A proof of concept design to stimulate new thinking, produce potential solutions and prototypes that reduce risk and increase resilience at city level over time

Workshop

Date: Friday, July 8, 2016

Time: 09:00-10:30

Room: S25-26

Language: English

Contact: Tom Herbstein, Steven Molteno

E-mail/web: tom.herbstein@cisl.cam.ac.uk
steven.molteno@iclei.org

Organized by: ICLEI Africa, Santam, UNEP FI PSI, and Climatewise

FORUM OBJECTIVE

The Financing Resilience forum will engage local governments, insurers, investors, funding agencies and the private sector on the need for local capacity building to develop and implement sustainable and resilient projects. The sessions will discuss new developments and resources for assisting local governments to (1) identify investment needs (2) design bankable projects, and (3) develop attractive project proposals. Innovative ways to mobilize and steer private and insurance investment for urban resilience will also be discussed throughout the forum on July 7th and 8th.

SESSION OBJECTIVE

City Innovation Platforms for African infrastructure risk and resilience (CIP AIRR) is a dedicated platform, created for one major African city at a time, bringing together experts, the private sector and the city's leadership to prototype solutions to major infrastructure and resilience challenges. This Resilient Cities design session will bring together current CIP AIRR partners and interested stakeholders to dialogue and contribute to the proof of concept design of the first CIP which is planned to take place in Dar es Salaam in August 2016. CIP aims to reduce risk for cities and stakeholders by taking a novel cross sectoral approach, with a fine focus on the integrated planning process for large infrastructure projects at city level. CIP has a goal to identify useful innovative emergent solutions that cities can take forward in order to promote investments in insurable and Low Carbon Resilient (LCR) projects. It also aims to produce tools, methodologies and learnings from work that can be shared widely to seed further innovation experiments.



Financing Resilience Forum

OUTCOMES

It is hoped that those who participate in this workshop will leave the session:

- appreciating the need to build capacity of local governments to prioritize investments into resilient infrastructure and risk reduction to a level where local governments are confident to convey this to service providers; and
- with a heightened awareness of key principles to consider when constituting or reviving similar platforms within their respective cities/urban regions.

METHODOLOGY

Premised on the goal of promoting sustainable innovation platforms to guide and inform investment in sustainable and resilient infrastructure at the local level, the workshop will convene current CIP AIRR partners, additional interested stakeholders from the private sector and local government practitioners.

Participants will discuss, learn and share tools, methodologies and practical ways to promote establishment of innovative partnerships that will be instrumental in designing workable models and mobilising sufficient resources to support risk reduction and investments into urban resilient infrastructure.

Facilitators will pose probing questions on the value of CIP. This will be done to encourage dialogue among participants with facilitators noting key points from the discussions. Experts will be afforded an opportunity to shape the CIP design, share experiences and join the CIP process.

The session will culminate in a “living template” highlighting key steps and processes that cities can refer to when establishing and engaging these platforms.

CONTRIBUTORS

Facilitators

Tom Herbstein, Programme Manager, Cambridge Institute for Sustainability Leadership (CISL)'s ClimateWise, Cambridge, UK

Vanessa Otto-Mentz, Head of Strategy, Santam, Cape Town, South Africa

Kobie Brand, Regional Director, ICLEI Africa, Cape Town, South Africa

Butch Bacani, Programme Leader, The UNEP FI Principles for Sustainable Insurance Initiative (UNEP FI - PSI), Geneva, Switzerland



SESSION DESCRIPTION

H1 Building resilience in towns and provinces of Small Island States

Panel discussion

Date: Friday, July 8, 2016

Time: 11.00-12.30

Room: S34-35

Language: English

Contact: Steve Gawler

E-mail/web: steve.gawler@iclei.org / oceania.iclei.org

Organized by: ICLEI Oceania

OBJECTIVE

Small Island States are among the most vulnerable places to climate and disaster impacts in the world. ICLEI Oceania and UNISDR have been working with two Pacific Island cities, Honiara and Port Vila, to apply the Sendai Framework local indicators to undertake Disaster Risk Reduction self-assessments and planning. This panel session will explore the practical and strategic responses required to build disaster resilience in vulnerable locations and with vulnerable populations. It will also explore how disaster resilience planning can provide a gateway to addressing many other development challenges and hence reduce the pressure for forced relocation or migration.

OUTCOMES

Participants will gain a better understanding of:

- The application of the Sendai local indicators tool as a diagnostic for identifying opportunities for resilience building;
- Practical and strategic responses for building disaster resilience;
- How disaster resilience can be an effective entry point for addressing many of the development pressures besetting small island communities; and
- How resilience building strategies can be applied to reduce the pressure on communities to relocate or even migrate to other countries.

METHODOLOGY

- The facilitator will open the session with a short introduction of himself and each speaker and outline the panel session. **(5 minutes)**
- Each panelist will speak for maximum 10 minutes. **(40 minutes)**
- The facilitator will ask selected panelists to respond to the guiding questions. **(20 minutes)**
- The facilitator will manage questions and answers from the audience. **(20 minutes)**
- The facilitator will conclude with closing remarks and advise of the ICLEI Small Islands Community and Strategy meeting which will follow immediately after the panel session. **(5 minutes)**



Guiding questions:

1. What are the challenges and benefits of applying the UNISDR Local Indicators Tool in small island cities?
2. What strategies and actions were identified by the cities and were there any surprises?
3. To what extent does the DRR approach provide a useful lens for considering other key development pressures e.g. housing, infrastructure, health, community and institutional capacity?
4. To what extent can local resilience building reduce the pressure on communities or individuals to relocate or even migrate to another country?
5. How do resilience building approaches designed for larger cities need to be adapted for small islands?

CONTRIBUTORS

Facilitator *Steve Gawler, Regional Director, ICLEI Oceania, Melbourne, Australia*

Panelist *Edward Ngava, Deputy Mayor, Honiara City Council, Solomon Islands*

Presentation on the recent ICLEI-UNISDR local indicators self-assessment with Honiara City Council, Solomon Islands, observations and recommendations

Panelist *Bernie Cotter, Managing Director ICLEI Oceania, Melbourne, Australia*

Presentation on the recent ICLEI-UNISDR local indicators self-assessment with Port Vila Municipality, Vanuatu, observations and recommendations

Panelist *Carl Wright, Secretary General Commonwealth Local Government Forum (CLGF), London, UK*

A global overview of climate-related pressures on small islands and drivers of forced migration

Panelist *Arpita Mandal, Lecturer, University of the West Indies, Kingston, Jamaica*

On the development challenges, climate and disaster related issues, facing the smaller island nations in the Caribbean, recent initiatives to build greater resilience, and implications for relocation or forced migration.

Further recommended reading

- Pacific DRR Workshops: <http://oceania.iclei.org/newsdetails/article/port-vila-committed-to-compact-of-mayor.html>
-



SESSION DESCRIPTION

H2 City climate resilience: Urban adaptation for better quality of life in the Greater Bangkok Area, Thailand (Bangkok and Pakkret)



Reality Check Workshop

Date: Friday, July 8, 2016

Time: 11:00-13:00

Room: S25-26

Language: English

ICLEI contact: Evgenia Mitroliou

Supported by: The International Development Research Centre (IDRC)

SUMMARY

Bangkok is located on the Chao Praya River's low flat plain, which stretches to the Gulf of Thailand and has a coastline area of 4.4 kilometers. Portions of the surrounding regions have been incorporated into the expansive metropolitan area of Bangkok. The major geographical feature of Bangkok is the Chao Phraya River, which extends 372 kilometers and flows through 22 provinces from the North to the sea. The area surrounding the city, the Chao Phraya River basin, and the neighboring provinces encompass a series of river deltas and plains that constitute the so-called **Bay of Bangkok**.

As Bangkok was built on a flood plain, the city and its vicinity experience flooding every year especially during the monsoon season. Climate change is also forecasted to result in more frequent floods and droughts. During recent decades, rapid urbanization and constructions have converted what had been flood plains and natural drainage systems into built areas. Therefore, Bangkok is now highly susceptible to flooding. In the last 6 years, Thailand experienced extreme weather events three times: the 100-year flood in 2011, and serious droughts in 2015 and 2016. The events resulted in large economic loss and damage. In 2011, as floodwaters drained southwards from the North, Bangkok and its vicinity, where a number of large industrial estates locate, were seriously damaged.

Floods and droughts adversely affect the quality of city dwellers' life. Floods usually result in uncontrollable solid waste and water quality deterioration. At the same time, river embankments aimed at flood protection, disrupt the river-side communities and their traditional ways of livelihood.



Since the main water supply plant of the Metropolitan Waterworks Authority (MWA) is only 96 km. from the sea, its supply of fresh water is vulnerable to saltwater intrusion caused by drought and rising sea levels. MWA, which serves millions in Bangkok, including business and industries in Bangkok, as well as Samutprakarn and Nonthaburi provinces, extracts 3.33 million cubic meters per day of freshwater from the Chao Phraya River. It is therefore critical that the Royal Irrigation Department and the MWA collaborate to tackle water insecurity and preserve water quality for the urban communities.

During recent decades, Bangkok has taken a multi-pronged approach to solve flood problems, including the following:

- Developing a “*Monkey Cheeks*” network: A system of water retention areas and reservoirs;
- Building 86 km. of flood embankments along the Chao Phraya River and major canals;
- Building flood dikes to protect the city, while extensive drainage canals are used to drain areas in the eastern parts of the city outside the flood dikes;
- Setting up pumping stations along the Chao Phraya River and major canals.

The Pakkret Municipality in Nonthaburi Province (Greater Bangkok Area) has designed and implemented a practical, innovative and participatory strategy in addressing flood issues in their city. The following are some of its key elements:

- Developing water management strategy with activities to improve the city’s infrastructure against flooding;
- Establishing a flood assistance center;
- Developing flood management, coordination and communication guidelines (Pakkret Model);
- Developing a participation promotion plan.

With Pakkret’s public participation approach, which is making people aware of flood management plans and is promoting their participation in decision-making and planning, people in the city are confident with the strategy and willing to cooperate with the local officials in order to reach common goals.

OBJECTIVE OF REALITY CHECK WORKSHOP

During recent decades, communities and cities along the Chao Phraya river basin have advanced their water management strategies in order to deal with flood and drought events. There are a number of communities and cities that have successfully strengthened their adaptation strategies and their resilience. The aim of this workshop is to highlight successful cases in Thailand in managing extreme weather events. It will present the experiences of Bangkok (major city) and Pakkret Municipality (small municipality adjacent to Bangkok) in designing and implementing strategies to deal with floods and droughts (both short-term and long-term). Since the Greater Bangkok Area is also one of the nation’s largest industrial belts, the adaptation strategies of industries in response to floods and drought will also be discussed. In addition to the participation of the Deputy Governor of Bangkok, other panelists include city senior administrators, a senior water engineer, an executive of the first industrial estate in Thailand, and senior researchers from Thailand’s think tank.





OUTCOMES

- Through the presentations, participants will gain an understanding of how a major city like Bangkok and a small city like Pakkret Municipality have strengthened their flood and drought management strategies and have become more resilient to extreme weather events. They will also understand the roles of key stakeholders, including city administrators, the key water management agency, the private sector and academics in managing these extreme events.
- Participants will learn about institutional reforms and climate adaptation measures of the central government, local governments and private sector in dealing with floods and droughts as well as in planning for resilient cities and betterment of quality of life.
- Participants will have an opportunity to exchange ideas, knowledge and experience about flood and drought management and resilience with key stakeholders and practitioners, including representatives from key water management agency (Royal Irrigation Department), local governments (Bangkok and Pakkret), the private sector and academics during the breakout groups.
- This workshop will help contextualize the challenges and opportunities, as well as lessons learned for other cities to design their own adaptation methods.
- The Thai participants/ speakers will learn key lessons from other cities and seek valuable advice from city planning experts and leaders of other cities which can be adopted and adapted for the Thai cities.



METHODOLOGY

The workshop will begin with a problem statement by Dr. Nipon Poapongsakorn outlining the challenges that Thailand is facing in terms of water management to prevent drought and flood disaster events. He will also share with the participants the key findings of the recently completed research project on *"Improving Water Management in Thailand"* carried out by the Thailand Development Research Institute (TDRI), so that participants understand the current situation of the country.

The workshop will consist of 2 rounds of discussion. In the first round, the moderator will ask the panelists to discuss how they have recently dealt with extreme weather events. In the second round of discussions, the panelists will elaborate further on how they are planning to enhance their resilience by designing long-term plans to deal with extreme weather events. Each panelist will give a short presentation of approximately 5-10 minutes in each round. Slide presentations and pictures will be shown in the background to illustrate the points of each panelist.



The following are the main topics of each panellist:

Moderator: *Nujpanit Narkpitaks, Researcher, TDRI, Bangkok, Thailand*

1. Thailand Development Research Institute (Dr. Nipon Poapongsakorn)

- How water mismanagement worsened the damage and loss caused by floods and droughts
- Adaptation measures taken by households & communities
- Proposed water management institutional reforms

2. Royal Irrigation Department (Mr. Sanya Saengpumpong)

- Flood prevention: structural and non-structural prevention methods
- Water allocation plans during dry season
- Salt water management

3. Bangkok Metropolitan Administration (BMA) (Dr. Pusadee Tamthai and Ms. Suwanna Junggrueng)

- Flood risks in Bangkok
- Structural and non-structural measures to deal with floods and droughts Bangkok's Flood management strategy and institutional arrangements during extreme weather events
- Bangkok's concrete actions on climate resilience

4. Pakkret Municipality (Ms. Petchada Weschasri)

- Pakkret model in dealing with floods
- Participation of the members of the community
- Long-term plan in addressing flood issues

5. Nava Nakorn Industrial Estate (Mr. Suthiporn Chandawanich)

- Structural and non-structural measures in dealing with floods and droughts
- How factories in the industrial estate protect themselves from floods
- Logistics and people arrangements in the industrial estate

During the last 40 minutes of the workshop, the participants will be divided into 3 groups to join the breakout session. The 3 groups will hold a discussion about the following topics: **city resilience** (led by the Deputy Governor of BMA and Pakkret municipality officer), **central government's policies**, planning and institution building (emphasizing on water management under extreme weather events, to be led by the water engineering expert from RID and Dr. Nipon) and the **private sector's role** (to be led by an executive of Nava Nakorn Industrial estate and Ms. Nujpanit). During the breakout session, the moderator of each group will ask group members to actively discuss two main points:

- Based on the earlier presentations relevant to each group, what are the key strengths and weaknesses of the approaches that have been used in dealing with flood and droughts?
- What are the lessons learned and methods used in other countries that could be used or adapted to help enhance the resilience in Thailand?

Further recommended resources:

- Video about Pakkret and their strategy to address floods in their community (with English subtitles): <https://www.youtube.com/watch?v=Ed1t3f5N0Tw>
- [Improving Flood Management Planning in Thailand](#) (IDRC)
- [Bangkok City: Perspectives and Goals](#) (Presentation at Resilient Cities 2015)



SESSION DESCRIPTION

H3 Resilient Urban Food Systems: Assessment, monitoring and networking

Panel discussion

Date: Friday 8, July 2016

Time: 11:00-12:30

Room: S29-32

Language: English

Contact: Monika Zimmermann, Marielle Dubbeling

E-mail/web: monika.zimmermann@iclei.org;
m.dubbeling@ruaf.org

Organized by: ICLEI and RUAF Foundation in collaboration with IUFN

OBJECTIVE

For cities to achieve their food resilience goals, they need a better understanding of the urban food system (assessment and monitor progress towards set goals and outcomes. Peer-to-peer review and networking can be fundamental in supporting and accelerating local processes. This session will share results from ongoing assessment, monitoring and networking processes at European and international level, including the Milan Urban Policy Pact.

OUTCOMES

Participants will gain a better understanding of:

- Different international programs working on urban food system assessment, monitoring and networking; and
- Available opportunities to link to these processes and programs

METHODOLOGY

- The facilitator will open the session with a short summary of the previous food session, introduce the current session and the speakers and the guiding questions which will frame the discussion **(5 minutes)**
- Each speaker will be given time to describe their work, showing maps or other illustrations as needed **(5 x 10 minutes)**
- The facilitator will manage questions and answers from the audience **(30 minutes)**
- The facilitator will conclude with closing remarks **(5 minutes)**

Guiding questions:

1. What are support needs of cities and city regions to develop more resilient urban food systems?
2. What type of assessment, monitoring and networking tools and initiatives can support local processes?
3. What are opportunities to connect to these programmes and processes?



4. What are recommendations for future networking and support?

CONTRIBUTORS

Facilitator *Barbara Anton, Coordinator, Sustainable Resources, Climate and Resilience, ICLEI Europe, Freiburg, Germany*

Introduction and summary of discussions of the previous session

Presentation *Marielle Dubbeling, Director, RUAF Foundation, Leusden, the Netherlands*
City region food systems assessment and planning: experiences from 7 cities

Presentation *Monika Zimmermann, Deputy Secretary-General, ICLEI – Local Governments for Sustainability*

The International CityFood network

Presentation *Cinzia Tegoni, Project Manager "Food Smart Cities for Development", Foreign Affairs Department, Development Aid Mayor's Office, City of Milan, Italy*

The Milan Urban Food Policy Pact and the Milan Award

Presentation *Guido Santini, Technical Advisor, Program Coordinator, FAO, Rome, Italy*

Monitoring indicators related to the Milan Urban Food Policy pact

Presentation *Anna Faucher, Project Manager, International Urban Food Network (IUFN), Paris, France*

Systemic contribution of local food strategies to local challenges in terms of sustainability

Further recommended reading

- [CITYFOOD: Linking Cities on Urban Agriculture and Urban Food Systems](#)
-



Financing Resilience Forum

SESSION DESCRIPTION

H4 Investing in urban resilience: Making the urban poor and cities more resilient

Facilitated Discussion

Date: Friday, July 8, 2016

Time: 11:00-12:30

Room: S01-02

Language: English

Contact: Josef Leitmann

E-mail/web: jleitmann@worldbank.org / www.gfdr.org

Organized by: GFDRR/ The World Bank

FORUM OBJECTIVE

The Financing Resilience forum will engage local governments, insurers, investors, funding agencies and the private sector on the need for local capacity building to develop and implement sustainable and resilient projects. The sessions will discuss new developments and resources for assisting local governments to (1) identify investment needs (2) design bankable projects, and (3) develop attractive project proposals. Innovative ways to mobilize and steer private and insurance investment for urban resilience will also be discussed throughout the forum on July 7th and 8th.

SESSION OBJECTIVE

The development community has a window of opportunity to make cities and the urban poor more resilient. Sustainable Development Goal No. 11 calls on the world to “Make cities inclusive, safe, resilient and sustainable.” COP 21 highlighted the key role that urban areas play, not only in mitigating emissions but also in adapting to a changing climate. The upcoming UN-Habitat III Conference (October 2016, Quito, Ecuador) represents an opportunity to influence the new urban agenda by underscoring the importance of resilience for the socio-economic and spatial development of cities and the well-being of their citizens, especially the urban poor.

This facilitated discussion will present an early draft of the flagship report on “Investing in Urban Resilience: Making the Urban Poor and Cities More Resilient” which is being prepared by the World Bank with support from the Global Facility for Disaster Reduction and Recovery and the GEF’s Global Platform for Sustainable Cities. The discussion will include: a) an overview of the report with initial findings; b) a specialized focus on why resilience matters to the urban poor and how to promote greater investment in urban resilience; and c) a consultation to obtain feedback on the report. A final version of the report will then be launched at Habitat III.

OUTCOMES

Participants will leave the session with:

- A better understanding of why we care about urban resilience in developing countries;



Financing Resilience Forum

- An appreciation of why resilience matters to the urban poor;
- A sense of how to overcome the obstacles that prevent greater investment in urban resilience; and
- Awareness about how the World Bank can add value to making cities more resilient.

METHODOLOGY

- 11:00 - 11:15 Overview of session, context and draft report
- 11:15 – 11:30 Presentation on why resilience matters to the urban poor
- 11:30 – 11:45 Presentation on overcoming the primary obstacles that prevent greater investment in urban resilience
- 11:45 - 12:15 Participants will provide feedback on the initial findings and recommendations of the draft report in order to enrich the utility of the document. This could be done through a classic question-and-answer format or by having smaller group discussions that would then be summarized in the final part of the discussion.
- 12:15 - 12:30 Summary of key points from the consultation and next steps

CONTRIBUTORS

Facilitators *Roman Serdar Mendle, Smart Cities Program Manager, ICLEI World Secretariat, Bonn, Germany;*

Sarah Colenbrander, Researcher, Human Settlements Group, International Institute for Environment and Development (IIED), London, UK;

Josef Leitmann, Team Leader, Urban Resilience Program, Global Facility for Disaster Reduction and Recovery, World Bank, Washington DC, USA

Further recommended reading

[World Bank \(2016\). *Investing in Urban Resilience: Making the Urban Poor and Cities More Resilient*. Working Draft \(available July 1, 2016\)](#)



SESSION DESCRIPTION

P2 Receiving urban refugees: Strengthening the social fabric for resilient cities today and tomorrow

Special Feature Plenary Session

Date: Friday, July 8, 2016

Time: 13:30-14:30

Rooms: S29-32

Language: English

ICLEI contact: Laura Kavanaugh

Organized by: ICLEI

OBJECTIVE

Local and regional governments are facing the great challenge of managing and responding to influxes of migrants driven by various factors into urban centers. Among the most vulnerable are those forced to leave their homes due to conflict, disasters, resource insecurity, or other extreme conditions. Climate change has also emerged as a driver of migration that will likely increase in importance as impacts such as sea level rise, drought, coastal erosion, and extreme weather become more widespread and severe. Caring for the short term needs of cross-border refugees and internally displaced persons (IDPs), as well as their eventual integration and/or resettlement can place great stress on local institutions, societies, and infrastructure. At the same time, displaced individuals and communities represent a highly at-risk population within a city.

This special feature session will highlight the issue of forced migration and the challenges and opportunities it poses for urban areas. It will review how unprecedented inflows of people impact urban management and planning including for shelter and housing, infrastructure development, and social services. Speakers will provide insights on how local governments can increase coping capacity while reducing contributing factors such as uneven development through policies of inclusion that increase social cohesion and overall resilience. Local governments including the City of Bonn, Germany will also describe how they are responding to recent waves of forced migrants and incorporating lessons learned into current and future resilience planning. Examples and lessons-learned in managing large influxes of forced migrants will be shared from cities of the Global South and North.

OUTCOMES

Participants will gain an improved understanding of the:

- specific challenges and impacts related to integration of displaced migrants for local and regional governments;
- existing approaches related to social protection for vulnerable forced migrants; and
- strategies for building the coping capacity of urban systems and societies for mass migration.



METHODOLOGY

- Introductions (5 mins)
- Keynote speaker (20 min)
- Local Government response (10 min)
- Q&A (20 min)
- Closing remarks (5 min)

CONTRIBUTORS

Chair *Ioana Popp, Migration Policy Officer, International Organization for Migration, Geneva, Switzerland*

Keynote *Alfredo Zamudio, Director, Nansen Center for Peace and Dialogue, Lillehammer, Norway*

The keynote will introduce the topic and the drivers and triggers of displacement (internal and/or cross boarder). The conversation will focus on solutions and good practice, i.e. what can local governments, policy makers, and communities do to accommodate the new arrivals in social, economic, and urban planning terms, while at the same time preserving and, when possible, enhancing their city resilience efforts.

Response *Rüdiger Wagner, Lawyer, Executive Director, Family, Health and Legal Affairs Division, City of Bonn, Germany*

The Migration Challenge: A people-oriented approach from Bonn, Germany

In an international city like Bonn, conditions are good for the successful integration of migrants. While 2015/2016 called for short term emergency interventions with 150 newcomers per week, a long term strategy targets a more people-oriented approach with decentralized housing to avoid segregation, educational and integrational modules and programmes to facilitate access to the labor market. A clear strategy, yet a big question mark remaining: how many new arrivals are still to come?

Closing *Ioana Popp, Migration Policy Officer, International Organization for Migration, Geneva, Switzerland*

The speaker will close the session with final remarks, summarizing key messages and offering insights on future developments in forced migration in urban areas around the world.



SESSION DESCRIPTION

P3 Shaping a sustainable urban future: The view to 2030

Summary and outlook plenary

Date: Friday, 8 July 2016
Time: 15:00-16:30
Room: Plenary (S29-32)

Session language: English
Contact: Laura Kavanaugh
Email: resilient.cities@iclei.org

OBJECTIVE

This session will summarize the highlights of the congress and its forums, connecting the outcomes to discussions on the new zero draft of the New Urban Agenda. First, the key messages and outcomes of the Resilient Cities 2016 congress will be presented, including the thematic forums, the Open European Day, and input collected on the New Urban Agenda. Looking ahead to 2030 and beyond, speakers will reflect on risks and trends that are poised to become increasingly relevant to urban resilience building, linking to recent debates on urban health and loss and damage. A high level panel will discuss the draft of the outcome document to be adopted at the Habitat III Conference ahead of the third and final preparatory meeting in Surabaya, Indonesia 25-27 July. Speakers will respond to the congress outcomes and how these relate to core concepts contained in the New Urban Agenda, for example, on transformative commitments, urban equity ("leave no one behind"), ecological and resilient cities, and financing. The discussion will follow on from the opening plenary, highlighting opportunities for coherence with existing global frameworks and SDG 11.

OUTCOMES

- Summarize key messages and outcomes from the congress sessions;
- Identify emerging risks and trends of growing importance to a resilient urban future; and
- Discuss how these relate to the Zero Draft of the New Urban Agenda and preparations for the Habitat III conference;

METHODOLOGY

- Introduction **(5 minutes)**
- Congress summary and emerging issues **(35 minutes)**
- The New Urban Agenda **(45 minutes)**
- Closing remarks **(5 minutes)**



CONTRIBUTORS

Key messages for urban resilience-building toward 2030

Facilitator: *Gino Van Begin, Secretary General, ICLEI – Local Governments for Sustainability*

Special message from Mayors

- *Ashok Sridharan, Mayor, City of Bonn, Germany; ICLEI Special Messenger to UNFCCC and carboon Climate Registry*

Open European Day outcomes

- *Birgit Georgi, Project Manager Regional Vulnerability, European Environment Agency, Copenhagen, Denmark*

Congress summary and outcomes

- *Congress rapporteur*

Emerging health risks: Dengue fever in Tainan City

- *Shih-Chung Liu, Deputy Secretary-General, Tainan City Government, Chinese Taipei*

From Bonn to Quito and beyond: Ideas for the New Urban Agenda

Panelists will discuss the new zero draft of the New Urban Agenda and preparations for the third and final preparatory meeting for Habitat III to be held in Indonesia at the end of July 2016. The discussion will respond to inputs collected during the congress, including on opportunities to improve coherence with SDG 11. Speakers will also respond to the congress outcomes and how these related to core concepts contained in the New Urban Agenda related to, for example, transformative commitments, urban equity (“leave no one behind”), ecological and resilient cities, and financing.

Facilitator: *Monika Zimmermann, Deputy Secretary General, ICLEI*

- *Ingrid Gabriela-Hoven, Director-General, Global Issues – Sector Policies and Programs, Federal Ministry for Economic Cooperation and Development (BMZ), Bonn, Germany (tbc)*
- *Aromar Revi, Director, Indian Institute for Human Settlements (IIHS), New Delhi, India*
- *Edward Ngava, Deputy Mayor, Honiara City Council, Solomon Islands*
- *Barbara Steele, Director, Metro Vancouver Board of Directors; Councilor, City of Surrey, Canada*
- *Sipliant Takougang, National Coordinator, Urban Governance Program, Ministry of Urban Development and Habitat, Yaounde, Cameroon*

Closing remarks