

Call for Abstracts: Special Issue of *Urban Climate Journal* “Urban Data and Climate Information Services”

(Abstract submission deadline: 15 July 2018)

<https://www.journals.elsevier.com/urban-climate>

Guest Editors:

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Context

Comprehensive transformation of cities for climate change mitigations and adaptation targets in conjunction with Sustainable Development Goals (SDGs), New Urban Agenda (NUA) and others requires large amounts of information. These needs arise for the purpose of monitoring of physical and social conditions, tracking progress as well as for assisting decision support of a variety of public and private actors. Moreover, urban citizens and stakeholders should be properly informed about policies and effects as well as have optimal access to climate information services themselves. A recent global conference, Cities & Climate Change Science Conference (March 5-7, 2018, Edmonton, Canada, <https://citiesipcc.org/>) further highlighted its needs and called for greater effort for data and information provision.

This entails a huge task for cities in terms of monetary, human, and managerial resources. There are gaps in data availability, quality and access, as there are gaps in skills to use data. Similarly, the current portfolio of data and models offered lacks numerous aspects of impact assessment and decision support, for example owing to shortfalls in spatial and temporal resolution or owing to neglect of effects and mechanisms, e.g. in the social realm. Reasons for poor coverage of certain effects, are not only rooted in lack of (localized) basic data, but also in scientific gaps in the understanding of impact propagation e.g. with respect to public health, ecosystem services, and urban metabolism.

There is a multitude of initiatives, such as the World Meteorological Organization (WMO) [Integrated Urban Weather, Environment and Climate Services](#), the Global Framework for Climate Services (GFCS), the Copernicus Climate Change Service [Sectoral Information Systems](#) (C3S SIS) and the related [Climate Data Store](#) (CDS), which aim to generate climate information services and to facilitate their use by different urban stakeholders. Yet, in turn the multitude of possible sources has become a new challenge by itself, as it reduces transparency for prospective users of (urban) climate information services. It is often hard to find the most appropriate alternative, whereas also the judgement of quality (both fitness for particular use and basic data quality) suffers from lack of standardization and tractability. On the other hand, it may be hard for cities to develop overarching acquisition strategies for climate information services, which easily leads to duplications and incompatibilities of different data collections across different urban departments. There are also initiatives such as the [Carbon Disclose Project](#)'s (CDP)'s annual greenhouse gas and climate action reporting system, the [carbons[®] Climate Registry](#) led by the International Council for Local Environmental Initiative (ICLEI), and continued efforts of European Covenant of Mayors, Global Covenant of Mayor and others.

Many climate information needs are as yet not properly covered. On the one hand this is attributable to a lack of basic data and observation capacity in many urban regions. On the other hand, coverage of direct and indirect impacts is insufficient, in part also because of lack of understanding or lack of (advanced) modelling. Inadequate information coverage may have also to do with regulation on sharing of information and open data policies, as well as with privatisation of numerous hitherto public services. In many GHG data and information systems, the harmonized definition of parameters, scope of gases and activities covered, and methodological differences make data hard to be compared across cities.

Even if information acquisition and processing are not primary obstacles, cities would be greatly helped by sharing of experiences on how to best use climate information services and to create also lasting cooperation with providers of climate information services, e.g. to make development of new climate information services more effective from a user point of view. In this context also piloting of new services and demonstration of their benefit potential are important. In other words, between classic pure public service provision and commercial service provision there is a host of market, business and charging models that sometimes better facilitate social learning, economies of scale and scope in acquisition, use and delivery, and viable resourcing of the climate information services.

Last but not least many of colleagues must have noticed that the terminology with respect to information and decision support services meant for coping with climatic challenges (such as mitigation, adaptation, Sustainable Development Goals, and disaster risk reduction) has generated palette of overlapping terms, which can be quite confusing even for experts in the field. We invite authors to be clear with terminology, and not expect these are self-evident. Use of glossary can be helpful. In the envisaged Special Issue, the above sketched aspects of the needs and challenges of urban climate information services are meant to get attention. On the one hand we will do that by specifying several thematic areas around which papers could be built. On the other hand, we encourage experts to submit abstracts that deal with several of these issues in an integrative manner.

Invitation to submit abstracts for paper submission to special issue of Urban Climate:

We invite you to submit an abstract outlining a paper for a special issue on ***Urban Data and Climate Information Services*** in the journal **Urban Climate**, <https://www.journals.elsevier.com/urban-climate>. This Call is being made as a follow up activities from the Cities & Climate Change Science Conference (March 5-7, 2018, Edmonton, Canada <https://www.citiesipcc.org/>).

The abstract is at maximum 400 words (Calibri; 12pt font), and should provide (in this order):

- Working title of the envisaged article (Calibri; 13pt font; bold)
- Names and affiliation(s) of the lead author, and of other main authors, incl. emails (you may recruit more authors later on, provided it does not alter nature and orientation of the article)
- The principal theme(s) and research question(s) to be discussed
- The approach(es) used
- The novelty aspects of the envisaged article in relation to the relevant state of the art

- An explanation of the extent that the findings can contribute to solutions regarding discussed challenges around climate information services for cities
- An indication whether open access is (1) sure, or (2) unsure, but aspired, or (3) very unlikely

Please submit the abstracts not later than July 15, 2018 to the guest-editors:

- Shobhakar Dhakal (shobhakar@ait.ac.th), Asian Institute of Technology, Thailand (<http://faculty.ait.asia/shobhakar>)
- Adriaan Perrels (adriaan.perrels@fmi.fi), Finnish Meteorological Institute, Finland (<http://en.ilmatieteenlaitos.fi/cv-adriaan-perrels>)

The guest-editors will notify the lead authors by **August 15, 2018** about the selection.

Article size: 7000 – 10000 words (incl. figures, excl. abstract and reference list)

Open access: We strongly encourage authors to seek for open access options of their article

Overall timeline:

Abstract submission deadline: July 15, 2018

Notification to authors by Guest Editors: August 15, 2018

Deadline of submitting full paper: November 15, 2018 (earlier submission is encouraged)

Acceptance decision be completed: Within six months of submission

Overall we aim for publication of the special issue End of May 2019

Themes:

(The sub-themes are only *indicative*, other sub-themes, combinations or innovative topics are welcome)

- Identification of needs for climate change information services
 - Needs from mitigation policy angles
 - Needs from adaptation policy angles
 - Challenges and opportunities of integrated-needs in the context of meeting Paris Agreements (mitigation, adaptation), Sustainable Development Goals, New Urban Agenda, Sendai Framework of Disaster Risk Reduction and others
 - Need identification approaches
- Creation of urban climate change information services
 - Case studies of data & information repository creation including experiences and analyses of existing data partnerships in science, policy and practice communities
 - Driving factors and resourcing for creation
 - Linking of different classes of data (climate, energy, land use, health, economic, etc.)

- Challenges of informal and incomplete data and observations
- Quality assurance and quality concepts
- Data comparability/standardization and how to communicate these
- Co-design approaches and experiences
- Differences between data and information (in service provision)
- Organisational design (business model) of climate information services – public/private/PPP/...; degree of user orientation
- Use of climate change information services in / by cities
 - Challenges of matching information needed and information offered
 - Search and selection of climate information services by users
 - Co-design experiences from a user point of view
 - Empowerment of urban users in the climate information market
 - Evidencing benefits of the use of climate information services – ex-ante and ex-post
 - Examples/best-practices of innovative use of climate information services
- Governance and economic-regulatory aspects of urban climate information services
 - Clarifying the nature and extent of key challenges
 - Supporting good and fair access to urban climate information services
 - Resourcing and charging models for urban climate information services
 - Partnership models in urban climate information services
 - Balancing open data policies and innovation policies in the promotion of urban climate information services
- Research based filling of gaps in urban climate information services
 - Development of data quality and suitability indicators in connection with the need to combine data of very different nature (e.g. ambient environment observations, simulated energy flows and emission dispersion, estimated health impacts, and self-reported human activity)
 - Longer term effects of alternative data market regimes (openness, charging models / resourcing, complexity and transparency, degree of segregation between public - private, innovation incentives, inherent economies of scale & scope, effects of (initial) market power distribution)
 - Widening the scope of included health effects in (climate scenario based) impact assessments
 - Etc.
- Examples of successful application of urban climate information services
 - Experiences and evidences of effective data and information services application by policy makers and other users
 - Others