

INQUIMUS

Workshops

Integrating quantitative
and qualitative
assessment
methodologies for
multi-dimensional
phenomena

INQUIMUS

30.11. - 2.12.2021

Laxenburg | Austria

Transformational risk
management and
Loss & Damage

What are suitable approaches for
assessing climate-related
(residual) risks?



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Scope of INQUIMUS Workshops

There is growing demand by policy- and action-oriented users for operational and integrative assessments of complex, multidimensional phenomena such as vulnerability and resilience. In recent years, quantitative and qualitative assessment methods as part of targeted efforts to disaster risk reduction and climate change adaptation have been pushed towards operational levels. Whilst the scientific progress regarding the development of theoretical frameworks and associated definitions has been remarkable, further attention needs to be given to coherent assessment methods. Therefore, we need a critical scientific discussion on assessment methodologies that evaluates and benchmarks approaches and intervention options. In the context of social-ecological systems and complex and multi-dimensional phenomena, a key issue is the relevance of spatial and temporal monitoring and how it can effectively support decision making.

Against this background, the Department of Geoinformatics - Z_GIS at the University of Salzburg, Austria and Eurac Research in Bozen/Bolzano initiated in 2014 a series of INQUIMUS workshops (lat. "we say") - Integrating quantitative and qualitative assessment methodologies for multidimensional phenomena. The purpose of these highly interactive workshops is to identify common achievements and methodological challenges, which will enable us to identify insights and future ways ahead. Additionally, these workshops will provide the possibility to exchange with practitioners who are active in this field and interested in the application and operationalization of assessments.

- 2014 Spatial indicators and assessment of vulnerability and resilience
(Salzburg | Austria)
- 2015 Challenges in Q² methodologies to acquire and integrate data for the assessment of risk, vulnerability and resilience
(Bozen/Bolzano | Italy)
- 2016 Spatial and temporal dynamics of risk and vulnerability
(Salzburg | Austria)
- 2017 How can scientific assessments inform decisions for problem solving in practice? (Bozen/Bolzano | Italy)
- 2018 Methods and tools to assess mult-hazard risk, vulnerability and resilience (on-tour: Venice | Italy)
- 2019 Data, methods and tools for dynamic risk assessments: What are the requirements, and how to tackle persisting challenges?
(on tour: Bonn | Germany)

Scope of the 2021 workshop

Climate change is accelerating and in combination with other drivers (i.e. exposure, vulnerability) is increasing the dynamics of risks (i.e. risk is harder to assess with standard approaches). There is first evidence of related impacts breaching **physical and social adaptation limits**, highlighting the need for tackling '**residual climate-related risks**'. Residual risks being defined as potential negative impacts after all feasible mitigation and adaptation measures have been implemented. Identifying policy solutions for dealing with risks 'beyond adaptation' - referred to as **Loss and Damage** - has recently become the third pillar in the international climate policy process next to climate change mitigation and adaptation.

Of particular importance for improving the science-policy interface is the development of **comprehensive risk assessment methodologies** as well as indicators that inform policy and decision makers about climate-related risks beyond adaptation limits. Moreover, the IPCC's recent report on 1.5°C global warming has strongly emphasized the role of, and need for, **transformational risk management** once adaptation limits are being exceeded. The IPCC defines transformation as "*deep, systemic change that requires reconfiguration of socio-ecological systems*".

However, praxis-oriented research and evidence remains scarce and existing scientific approaches reach their limits. Especially, with regards to assessing risks beyond adaptation and designing transformational risk management practice and policy. At the INQUIMUS 2021 workshop scientists and practitioners working in different fields will advance in cross-fertilization **scientific concepts, methods and tools** and to share **best practices** in different application contexts.

Key questions driving the discussion during the workshop will be:

- > **What are the needs of decision advisors/makers and from a science perspective for comprehensively assessing and managing compound and systemic climate-related risks that may lead beyond adaptation limits?**
- > **What are the gaps in existing risk assessment methodologies in the context of climate-related risks beyond adaptation limits?**
- > **What are experiences that showcase the spectrum of risk management options from incremental to transformational risk management?**
- > **(How) can existing risk assessment methods and tools be further developed (or need to be dropped) to address these gaps? And/or must risk science transform itself?**

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Format

The workshop will be **moderated** to foster a **highly interactive** and **generative event**. Conventional presentations will play a minor role. **Invited keynotes** will present the **state-of-the-art of particular methods** followed by a **focused discussion on current achievements and challenges**. Case studies will be presented as **posters** and will accompany the workshop to provide further insights into the application of methodologies.

The workshop will take place in **Laxenburg, Austria**.

Organising Committee for 2021

Stefan Kienberger (University of Salzburg/Z_GIS - Austria)

Reinhard Mechler (IIASA - Austria)

Thomas Schinko (IIASA - Austria)

Stefan Schneiderbauer (Eurac Research - Italy)

Marc Zebisch (Eurac Research - Italy)

Scientific Advisory Board

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Alexander Fekete (Cologne University of Applied Sciences)

Michael Hagenlocher (UNU-EHS)

Silvia Torresan (CMCC, University Ca'Foscari of Venice)

Call for abstracts

Participation is mainly by **invitation**. However, we would like to provide room for **additional participants to present their findings**. Interested participants should send an **abstract** (max 400 words), discussing the following issues:

>> **Motivation for application** and relevance to **guiding questions** listed above

>> **Methods applied in transformational risk management**

>> **Achievements and challenges**

>> **Scientific merit and insights**

Please submit your abstract by **May 15, 2021** to:

inquimus2020@iiasa.ac.at

Should you have submitted an abstract for INQUIMUS 2020, which was postponed due to the COVID-19 pandemic, your abstract will be evaluated for this year's event, unless you decided to withdraw your submission or to submit an updated/new abstract. Please send us an email to indicate your preference.

Successful applications will be informed by June 2021.

Further information: www.inquimus.org

Date

Tuesday, 30. November (late afternoon) until
Thursday, 2. December 2021 (mid afternoon)

Location

International Institute for Applied Systems Analysis
Schlossplatz 1
2361 Laxenburg | Austria

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