

Urban Climate Adaptation Plans in Europe: A systematic review and assessment

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Background

- The Paris Agreement outlines the expectation that all developed and developing countries will engage in adaptation planning processes.
- Nonetheless, there's a lack of consensus on how adaptation can be tracked, a limited climate information to improve adaptation policy, and `consistency'.
- Sub-national (and national) governments commonly face the challenges of designing measurement, reporting and verification (MRV) mechanisms for the NAPs process and related adaptation actions.¹
- Even though, European cities are developing adaptation plans for some time, up to now, there is **no study** to assess **their quality over time**.

¹Reckien, Buzasi, et. al., (2023) Nature Urban Sustainability. 'Assessing the Quality of Urban Climate Adaptation Plans over Time'. Available at: <u>https://www.nature.com/articles/s42949-023-00085-1</u>





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Supplementary information

EURO-LPC group website²



NATURE urban sustainability article³

ality is still low in many cities. Participation and monitoring and evaluation are particularly

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							fining and measuring progress in adaptation are important questions for climate adaptation		ion	Acknowledgements			
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							ropean cities between 2005 and 2020 using three 'ADAptation plan Quality Assessment'			Ethics declarations			
			blices, called ADAQA-1/2/3, that combine six plan quality principles. Half of the cities have		e	Additional information							
adaptation plan and its quality significantly increased over time. However, generally, plan													

² https://www.lcp-initiative.eu/

³ https://www.nature.com/articles/s42949-023-00085-1

Main objectives of the study



Evaluate the quality of urban climate adaptation plans developed by European cities from 1997 to 2019 Identify **the factors that contribute to successful** urban climate adaptation planning

2

Provide insights to policymakers and practitioners to improve the effectiveness of (urban) climate adaptation planning.

3



Support the development of **effective adaptation strategies** to address the challenges of climate change (in urban areas).

Methodology and data

Systematic review	 Systematic review of urban climate adaptation plans⁴ developed in 327 European cities from 1997 to 2019. The availability of a representative, uniform sample of cities and city characteristics allowed the assessment and comparison.
Identifying principles	 Identifying principles of multiple plan evaluation derived from adaptation planning and implementation frameworks based on six principles: (1) goals, (2) fact base, (3) policies, (4) public participation in plan creation, (5) interorganizational coordination, and (6) implementation and monitoring.
Additional aspects	 Of procedural justice, i.e. participation of vulnerable groups in plan creation as well as aspects of distributional justice, i.e. vulnerable groups mentioned as part of establishing the fact base, adopting policies & measures, and monitoring & evaluation.
Evaluation	• The study evaluated plan quality topics, by using indicators, and an index that allows to grade the quality of plans, using the binary response options as an input to a composite index.

(Climate adaptation strategy development process; European Environment Agency (EEA) Adaptation Support Tool; Knowledge to Action (KTA) Framework with integration of guideline adaptation; CAN-IMPLEMENT; Climate-change adaptation and risk management process of the IPCC; Integrated Irban climate change planning)

ADAQA framework



Measuring progress in adaptation through three ADAptation plan Quality Assessment indices

- ADAQA-1: stands for **depth and detailedness** of plans, particularly concerning fact base and measures.
- ADAQA-2: representing breadth and diversity with a focus on different sectoral measures.

• ADAQA-3: reflection of adaptation principles.

Emphasizes the necessity between coherence between impacts/ risks/ vulnerabilities, adaptation measures, monitoring and evaluation, and participation.



Fig. 1: The 'ADAptation plan Quality Assessment' (ADAQA) index construction rationale

Map of sample cities across Europe and respective urban climate adaptation plans







Main results

1.European adaptation plans have steadily improved in quality over time (across all sub-indices), therefore confirming our hypothesis.

2.On average, **plans covered half of the possible scores regarding adaptation measures** and **adaptation goals**, and a little less (45% of attainable score) regarding implementation tools and processes.

3.Little information was found on public participation in plan creation (17% of attainable score) and **monitoring and evaluation** (20% of attainable score) in our city sample.

4.Only 5% of plans **include specific vulnerable groups** them in their participation strategy, and only 7% **include the respective vulnerable groups in the monitoring and evaluation processes**.



Conclusions

- 1. We found that collective learning on good adaptation planning is taking place, but also that plan quality as measured by our ADAQA indices was still very low across our sampled cities.
- 2. The **average adaptation plan** records just about one-third of the total possible quality score, with Galway in Ireland attaining the highest mark of 67 (of 100).
- 3. Our analysis shows **room for improvement in European urban adaptation planning**, in particular regarding consistency in plans, the follow-up of measures, and the involvement of vulnerable groups.

Replication potential and next steps Modify and utilize the 'ADAQA' framework methodology to assess the NAPs of developing countries, including GGGI member/ partner countries,

Develop guidelines for enhancing the capacity of GGGI countries to develop NAPs,

Feed the formal and informal **Global Stocktake** process,

Replication of the ADAQA framework on **urban climate adaptation plans** of GGGI member and partner countries.

Thank You



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