

CASE STUDY

LONDON SCHOOL OF ECONOMICS



Integrating resilience into decision-making in the UK and Germany

This case study shows how, in higher-resource contexts, comprehensive resilience data can be used to spur more coordinated and systems-level decision-making.

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Key Alliance terminology

Zurich Flood Resilience Alliance (Alliance):

The Alliance is a multi-sector collaboration between the humanitarian sector, academia, and the private sector focusing on shifting from the traditional emphasis on post-event recovery to pre-event resilience. We are nine years into an eleven-year program that has been delivered in two Phases (Phase I from 2013-2018; Phase II from 2018-2024).

Flood Resilience Measurement for Communities (FRMC):

Created by the Alliance in 2013, the FRMC is a framework and associated web-based data tool/app which conceptualizes flood resilience as a function of social, human, natural, physical, and financial capitals. The FRMC is implemented at the beginning of Alliance work to assess resilience strengths and gaps. This information is used to shape community programs and advocacy.

The win

Researchers from the Grantham Research Institute – London School of Economics (LSE) are supporting the shift toward forward-looking, holistic flood risk management from the local to national levels in Germany and the United Kingdom (UK).

In the UK, LSE advocacy supported:

- National flood and coastal risk management policies and strategies to go beyond hard infrastructure and consider broader resilience and adaptation measures. The UK government used the FRMC five capitals as one of the frameworks for defining flood resilience in its Flood and Coastal Erosion Risk Management Strategy and the new GBP 150 million Flood and Coastal Resilience Innovation Programme.
- The East Suffolk Council (ESC) to win a GBP 8.4 million grant from the Flood and Coastal Resilience Innovation Programme to build resilience into the Norfolk & Suffolk Coast Transition Programme.



Flooding on the Rhine River, Germany, January 2018 © Jost, StEB

- Uptake of the FRMC by neighboring municipalities. Great Yarmouth will be using ESC grant money to run the FRMC and inform its own resilience program.

In Germany, LSE advocacy supported:

- Cross-sectoral dialogues on flood resilience among local decision-makers in Cologne and Remscheid that go beyond hard infrastructure.
- Cologne’s use of flood resilience data (via the FRMC) to inform community members on how to enhance their own flood resilience.
- Remscheid to improve its flood risk management practices for surface water flooding, in part based on FRMC results.
- LSE to receive an invitation to provide inputs to the expert group on flood resilience for the German Water Association’s flood resilience rule book (“Themenband”).

How the win was achieved

Linking advocacy across scales

LSE researchers are engaging at both local and national levels to support comprehensive policy change for local flood resilience action. However, LSE uses different approaches in the UK and Germany. In the UK, LSE conducted influence simultaneously at the local and national levels, whereas in Germany, work at the local level opened opportunities to engage at the national level.

In both contexts, LSE’s role as researchers — generating evidence to understand local resilience gaps, and opportunities to directly support planning processes — has been critical for ensuring uptake of resilience thinking among decision-makers. While the FRMC is not the only tool these officials use to support decision-making, it has provided new insights. Municipalities have found the FRMC process particularly valuable as a means to convene multi-sectoral decision-makers, build a shared understanding of the ‘big picture’ of resilience,

and discuss how to address cross-sectoral resilience opportunities such as nature-based solutions.

The UK case

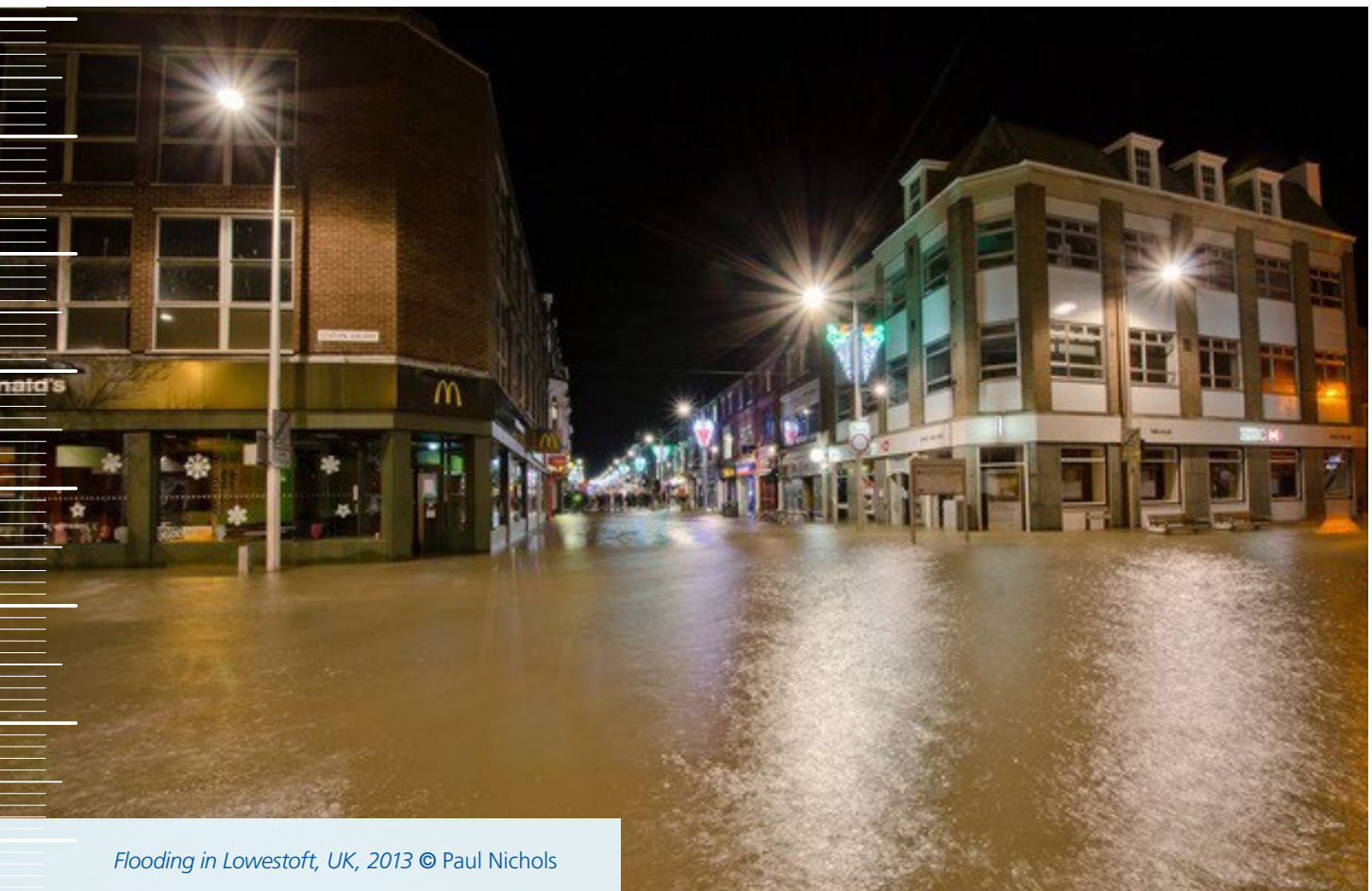
At the national level, LSE has responded to public policy consultations, such as from the Environment Agency, for policies relevant for local risk management and resilience. In these national consultations, LSE has focused on using insights and findings from: (1) the Alliance on the multi-dimensional aspects of flood resilience and the importance of participatory decision-making, working with local communities, and forward-looking and proactive disaster risk reduction activities; and (2) FRMC data from Lowestoft that backs up LSE recommendations to consider floods holistically and systemically. LSE also uses frameworks and approaches such as the FRMC and the [Triple Resilience Dividend](#) as proofs of concept as to why a holistic approach is important, noting that these tools are open-access and freely available

to decision-makers to support more holistic planning.

LSE policy inputs carry weight due to their credibility arising from:

- The Grantham Institute and LSE's national reputation in climate change adaptation and resilience.
- The Alliance's unique multi-sectoral partnership and access to influential private sector entities (e.g., Zurich Insurance Group's UK business unit), enabling coordinated advocacy and messaging.
- Use of FRMC data and LSE's insights by local authorities to advocate for national policy change.

LSE researchers have successfully leveraged their national credibility to advocate for national policy changes that support their local-level resilience efforts. Namely, the national grant program that they influenced — the Flood and Coastal Resilience



Flooding in Lowestoft, UK, 2013 © Paul Nichols



FRMC workshop in Lowestoft, UK, November 2019 © Sara Mehryar, LSE

Innovation Programme — is now a key source of funding for Lowestoft’s resilience-building efforts.

At the local level, LSE researchers have worked with the Lowestoft local government to use the FRMC to assess local flood resilience and use the data for decision-making. They have built trust and strong relationships with their local partners through their credibility as researchers and the support they have provided to decision-makers. For authorities, the Alliance project came at a time when there was significant national momentum for improving flood risk management. Furthermore, despite a recent flood walls and barrier project in Lowestoft, local authorities have always known that relying on flood protection alone does not solve the problem and so were looking for a broader set of measures for improving their flood resilience.

Local authorities found the FRMC’s ability to provide baseline and endline data, highlighting changes in local resilience as a result of actions taken on the ground, compelling. As a result of their credibility

and salience, in 2021, LSE was named a partner in the Norfolk & Suffolk Coast Transition Programme and helped shape the program’s grant proposal using the Lowestoft FRMC data. The proposal highlighted the need to build human and natural capitals based on FRMC data. Having observed the utility and power of FRMC data, Great Yarmouth will be implementing the FRMC to develop its own data for resilience work. Moving forward, LSE and their local partners will be co-producing policy briefs that leverage FRMC evidence and resulting local resilience efforts to influence national-level policy.

The Germany case

Unlike in the UK, in Germany, LSE is a foreign academic institution. To achieve initial buy-in to its work, the LSE team framed the FRMC project as a research project and leveraged the personal networks of their researchers. This resonated in Cologne, where local officials had prior experience

operating at the science-practice interface in partnership with researchers and already had a specific flood risk management program that LSE could contribute to.

While the Alliance has found the provision of evidence on resilience gaps and opportunities paired with possible resilience solutions and options a powerful tactic for influence in many contexts, in Germany, LSE used the FRMC to help local officials adopt resilience thinking. The local authority consists of sector-specific experts who were well equipped to develop solutions based on data, but needed support on planning and developing solutions under a holistic yet structured framework (as provided by the FRMC). Local authorities have found the FRMC so useful that they have published

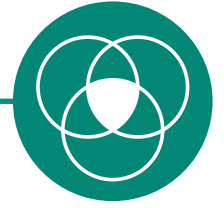
[an article](#) in a practitioner journal with the LSE team, presenting FRMC implementation and results and promoting the benefits of the FRMC approach in strengthening the flood resilience of communities.

For LSE, working with local partners in Germany has been an important entry point into flood resilience dialogues at the state and national levels. Cologne has a national reputation and significant credibility in Germany's flood risk management arena. Cologne's endorsement of LSE led the German Water Association — the main national body for setting flood risk management standards in Germany — to invite LSE researchers to contribute to its ongoing discussions on how to build flood resilience.

Additional resources

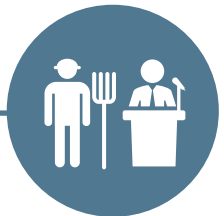
- Submission to the Environment Agency's consultation on the Draft National Flood and Coastal Erosion Risk Management Strategy for England.
- Submission to Call for Evidence on Flooding and Coastal Erosion by Defra.
- Flood and coastal resilience innovation fund.
- Call for evidence on flooding and coastal erosion policy. Summary of responses.
- Evidence Review of the Concept of Flood Resilience.
- Flood resilience requires more than concrete walls.
- Neues tool liefert neue Erkenntnisse.

Why Alliance advocacy was successful



ESTABLISHED RELEVANCE

- Encouraged uptake of LSE policy insights into existing national- and local-level policy processes in the UK by leveraging their credibility as a national research institution.
- Accessed national-level influence opportunities in Germany by leveraging both Cologne's reputation in resilience-building and the success of LSE's collaboration with local decision-makers.
- Created an enabling environment for local-level flood resilience action in the UK by strategically layering local-to-national advocacy (e.g., by getting the FRMC's five capitals incorporated into the Flood and Coastal Resilience Innovation Programme and then working with local governments to access funds from that program.)
- Established the relevance of advocacy recommendations in the UK by aligning advocacy across partners so the national government was repeatedly hearing the same messages.



BUILT RELATIONSHIPS

- Broke down planning silos by using community resilience data and knowledge — generated via the FRMC and Triple Resilience Dividend approaches — to convene planners from across sectors.
- Accessed relevant policy opportunities to strengthen flood resilience by leveraging partnerships with local-level flood risk management actors and influential private sector entities (e.g., Zurich Insurance Group's UK business unit).



PROVIDED EVIDENCE-BASED KNOWLEDGE

- Built local government knowledge of community resilience needs and issues by engaging them in community resilience data gathering and analysis.
- Supported the government to think about flood resilience differently (and move away from solely hard engineering solutions) by providing them with frameworks (i.e., the FRMC and Triple Resilience Dividend) around which to structure their thinking.
- Justified policy recommendations at the local and national levels, such as the need for holistic flood risk management, by sharing validated community data and providing resilience tools to decision-makers.