



WHAT IS RESILIENCE? RECONFIGURING FOR THE 2020'S

Global Urban Resilience Monthly Programme

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Executive Summary

The ISRM Global Urban Resilience Monthly Webinar Series brings together academics, policymakers and practitioners from around the world to strengthen dialogue and knowledge on strategic risk, crisis management, urban resilience and city management. Building on an international Advisory Group and Strategic Steering Group representing 21 participants from 17 countries, the programme provides a structured platform for global exchange and the development of practical and policy-oriented knowledge.

Over a 12-month period, monthly thematic webinars and international events in cities including Jakarta, Athens, New York, Manchester and Cyprus will explore key resilience challenges. Contributions from participants will support the development of a shared body of knowledge over 12–18 months, in collaboration with the UK National Preparedness Commission, the International Federation of the Red Cross and other international organisations.

The inaugural session focuses on the fundamental question, **‘What is resilience?’**, examining its meaning and relevance in the rapidly changing and increasingly unpredictable environment of the 2020s and in the context of Vision 2030 and Strategy 2030. The session brings together academics, practitioners and policy perspectives, providing a foundation for continued international dialogue and collaboration on building more resilient cities and communities.



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UNDERSTANDING AND ADVANCING URBAN RESILIENCE

Resilience has become an increasingly prominent concept across policy and practice, encompassing national, urban, climate, social and heat resilience. Despite this growing attention, there remains a lack of clarity and consistency regarding **what resilience means in practice**. Since 2014, significant progress has been made through global and European initiatives, including the New Urban Agenda and national urban resilience frameworks. While disaster risk reduction remains an important foundation, it is increasingly recognised that resilience must extend beyond the management of individual hazards.

The increasing frequency and intensity of climate-related events, combined with social and economic vulnerabilities, are creating more complex and interconnected crises. Resilience planning must therefore address both immediate risks and the longer-term stresses and vulnerabilities that influence how cities and societies prepare for and respond to compounded challenges.

Significant challenges remain in translating national and subnational resilience policies into effective action. Although resilience strategies are increasingly being adopted, they do not always address the regulatory and institutional reforms needed to strengthen risk management and improve citizens' everyday living conditions. The 2022 midterm review represented a positive development by reinforcing a holistic and inclusive approach to resilience, aligned with the New Urban Agenda.

However, an implementation gap remains, particularly at national and local levels. The experience of Greece illustrates this challenge: while municipalities are increasingly required to develop resilience strategies, questions remain regarding their purpose, scope and practical value, particularly for smaller municipalities. This raises an important policy question: **should every municipality, from major cities to small communities, be required to develop a resilience strategy and what should such a strategy entail?**

Addressing resilience in the 21st century requires transformational change across four interconnected areas:

- **Policy and legislation**
- **Governance**
- **Urban and land-use planning**
- **Financing mechanisms**

Although effective regulation is essential, legislative processes often move considerably more slowly than the risks they are intended to address. The fact that 16 years were reportedly required to agree on a definition of 'crisis' at EU level illustrates this disconnect.

The resilience agenda therefore requires not only stronger policies and institutions, but also **faster, more adaptive and more effective decision-making** to ensure that resilience strategies can respond to an increasingly complex and rapidly changing risk environment.

'Resilience requires faster, more adaptive decision-making to address increasingly complex and interconnected risks.'

THE ROLE OF WARNING SYSTEMS IN BUILDING RESILIENCE

Effective warning systems are fundamental to building resilience, particularly in relation to natural and cascading hazards. Resilience is not only about the capacity to withstand hazards, but also about ensuring that these capabilities are translated into timely and effective action. Warning systems therefore extend beyond alerting communities; they encompass hazard detection and monitoring, risk communication, preparedness and lastly, the capacity of people and institutions to respond appropriately.

Community preparedness is essential to ensuring that warnings lead to action. Effective systems must be supported by appropriate infrastructure, planning, communication and community engagement. They should therefore be understood as an integral component of disaster risk reduction and resilience planning.

Recent work by the UCL Warning Research Centre for the National Preparedness Commission has highlighted the importance of international learning and cross-sectoral collaboration, particularly in complex, multi-hazard situations. The 2011 Fukushima disaster demonstrated how a single hazard can trigger cascading consequences across multiple systems. Lessons from areas such as nuclear preparedness can therefore inform warning and preparedness approaches across other hazards and sectors.

Warning systems are fundamentally **social as well as technological**. Their effectiveness depends on understanding the needs and vulnerabilities of different groups, including older people, children, people with mental health challenges, prisoners and marginalised communities. Inclusivity, community participation and co-production are essential to ensuring that warnings are accessible, understood and translated into action.

Recent global momentum, including the UN Secretary-General's **'Early Warnings for All'** initiative, provides an important opportunity to strengthen warning capacities worldwide. Nevertheless, significant gaps remain, particularly in regions where meteorological and communication systems are underdeveloped. Building resilient communities therefore requires a holistic approach that combines technology, social knowledge, communication networks and community preparedness, while ensuring sustained investment in the systems needed to turn warnings into effective action.

'Effective warning systems are not only technological; they are social systems that turn timely information into informed action and resilient communities.'



STRENGTHENING URBAN RESILIENCE THROUGH INCLUSIVE COMMUNITIES

‘Urban resilience depends not only on strong infrastructure, but on social justice, community connections and the trust that enables people to act together in times of crisis.’

Effective crisis response depends on being physically and digitally connected, with clear knowledge of who to engage and how to coordinate action during emergencies such as pandemics or economic shocks. The urban agenda is central to addressing global challenges, with cities playing a critical role in delivering climate and net-zero objectives. Glasgow’s experience, including its leadership during COP26, demonstrates how cities can combine traditional emergency planning with longer-term approaches to economic, social and environmental stresses.

Glasgow’s transition from its industrial past towards a post-carbon and resilient city also highlights the importance of ensuring a **just transition** for communities, businesses and citizens. Hence, urban resilience must be grounded in social justice, recognising that vulnerability, inequality and public trust can significantly influence a city’s ability to withstand and recover from shocks.

A balanced approach is therefore required, combining physical infrastructure and engineering with meaningful community engagement—what can be described as ‘hard hats and social policy.’ The experience of COVID-19 reinforced the importance of accessible green spaces, a strong public realm and social connections. It also demonstrated that neighbourliness and community networks can represent a first line of response during emergencies.



Overall, resilience depends on reducing social vulnerability and strengthening social cohesion. No city can address global challenges in isolation and Glasgow’s own history demonstrates the impact that wider economic and political forces can have on urban communities. Cities may have limited influence over national and global policy, but they remain important spaces for practical action and meaningful change.



PLANNING RESILIENT AND EQUITABLE CITIES

Addressing urban resilience requires greater recognition of the complexity of planning, risk and vulnerability. A fundamental consideration is defining **'we'** when discussing resilience, as different communities and groups within cities experience very different risks and have unequal access to resources. The COVID-19 pandemic demonstrated how social vulnerability and economic inequality can significantly shape the impacts of a crisis, raising broader questions about fairness, risk acceptance and the distribution of resources.

These challenges also raise important ethical questions about the relationship between individual behaviour, social services and the responsibilities of the state. As societies face increasingly existential questions around survival, fairness and sustainability, urban planning must address both its technical and social dimensions.

Moreover, effective resilience depends on access to public space, energy security and the protection of citizens' rights. The tragic wildfire in the Attica region of Greece, which resulted in more than 100 fatalities, highlighted the consequences of inadequate access and emergency planning. The event reinforced the importance of accessible public spaces, effective evacuation routes and integrated emergency planning as essential components of urban resilience.

European policy increasingly recognises the role of accessible, attractive and green urban environments in strengthening resilience. Cities such as Glasgow demonstrate how these social and environmental considerations can be integrated into urban planning and design, placing people, accessibility and community wellbeing at the centre of resilience.

'Urban resilience must put people at the centre, addressing not only physical risks but also inequality, accessibility and the fair distribution of resources.'

BUILDING RESILIENT COMMUNITIES THROUGH TRUST AND COHESION

A healthy, inclusive and cohesive society is fundamental to building resilience. Just as physical fitness is difficult to achieve without a foundation of good health, societal resilience is difficult to develop without equality, inclusion and trust. The increasing disenfranchisement of significant sections of society, extending beyond traditionally recognised minority groups, presents a growing challenge to social cohesion.

There is also a clear paradox: despite resilience having been a prominent policy and academic concern for decades, societies can appear increasingly fragile and vulnerable. This disconnect highlights the need to strengthen trust, inclusion and social cohesion as essential foundations of resilience.

The discussion also highlights the importance of recognising and acting upon early warnings. As observed in the work of Binto Hart and Charles Perrow's concept of **'normal accidents,'** major disasters are often preceded by warning signs, ignored risks, poor decisions, or failures in organisational systems. Crises may therefore reflect not only unforeseen events, but also preventable failures to recognise and act on emerging risks.

Therefore, building resilience requires mechanisms that can overcome short-term political pressures and support **long-term, consistent and anticipatory decision-making.** Strengthening social cohesion, acting on warnings and maintaining a long-term perspective are essential to reducing future vulnerability and building societies capable of managing emerging risks.

'Building resilience requires social cohesion, action on early warnings and long-term, anticipatory decision-making beyond short-term political pressures.'

POLITICAL CONSTRAINTS AND PREPAREDNESS

A central challenge to resilience is the gap between the substantial knowledge developed around systems thinking, complexity and resilience and its limited application within existing political systems. In many countries, political structures remain insufficiently agile to support long-term planning and adaptive approaches to complex challenges such as climate change, disaster risk and societal resilience.

Many disasters described as **'natural'** are also shaped by human and political decisions. The 1902 eruption of Mount Pelée in Martinique illustrates how warnings can be ignored and necessary action delayed, turning a hazardous event into a catastrophe. This highlights the critical role of political leadership, preparedness and the capacity to act upon emerging risks.

The discussion further emphasised that warnings are frequently overlooked due to political, institutional, or ideological biases. Despite the availability of evidence, uncomfortable risks can be difficult to acknowledge and act upon until their consequences become unavoidable.

The COVID-19 pandemic provides another important lesson. While its mortality rate was lower than that of some other potential pandemics, its rapid global spread exposed significant weaknesses in preparedness and response systems. It demonstrated that even comparatively less severe pandemics can generate widespread disruption when societies and institutions are insufficiently prepared.

Hence, effective resilience depends not only on risk assessment and preparedness frameworks, but on the willingness of decision-makers to listen to warnings, act early and accept responsibility before emerging risks develop into crises.

'Resilience depends not only on understanding risk, but on the willingness to listen to warnings, act early and take responsibility before risks become crises.'



STRENGTHENING DEMOCRATIC GOVERNANCE FOR URBAN RESILIENCE

Urban resilience is closely connected to democracy, governance and the capacity of cities to address complex global challenges. Cities are spaces where people, institutions, businesses, universities and communities come together to exchange ideas and develop solutions. From the ancient Greek city-state to the modern metropolis, the fundamental question remains: **how should we live together?**

Cities function as complex ecosystems in which diverse actors and interests interact. Addressing challenges such as climate change therefore requires more than scientific knowledge; it requires effective institutions, public engagement, social understanding and individual agency. Data can also play an important role, particularly when combined with community knowledge, enabling cities to identify vulnerabilities and develop more informed and resilient policies.

Many contemporary challenges, including climate change, automation and public health, are not entirely new. What remains fundamental are questions of power, governance, responsibility and democracy. Resilience strategies must therefore remain connected to the lived experiences of communities. Practical improvements, such as reducing flooding or creating accessible green spaces, can build trust and demonstrate the tangible value of wider resilience policies.

The discussion also highlighted the role of institutional failure in major disasters, including Chernobyl, Three-Mile Island, Fukushima, Grenfell Tower and the Boeing 737 MAX crashes. All these cases demonstrate how poor decisions, organisational weaknesses and failures to act on known risks can transform hazards into major disasters.

This reinforces a central principle articulated by Professor Ilan Kelman and Professor Carina Fearnley: **‘there are natural hazards, but disasters are shaped by human vulnerability and preparedness.’** Hurricane Katrina, for example, demonstrated that the hurricane itself was not the disaster; the scale of the disaster was significantly influenced by inadequate preparedness and institutional failures.

Reframing disasters in this way places greater responsibility on governments, institutions and communities to anticipate risks, strengthen preparedness and make informed decisions. Overall, resilient cities depend on the ability to connect good governance, evidence, preparedness and community experience to meaningful action.

‘Resilient cities depend on good governance, preparedness and community knowledge being translated into meaningful action.’

GOVERNMENT AND COMMUNITIES

Building urban resilience requires significant investment in both climate adaptation and emissions reduction. While public funding remains essential, cities are increasingly exploring private capital and innovative financing mechanisms. Insurance and other financial sectors may also contribute to addressing the challenge of valuing adaptation measures whose benefits are often associated with avoided future losses.

Placemaking and community engagement are equally important. Resilient places should be developed with communities rather than simply for them, recognising that effective resilience requires public participation, political compromise and shared ownership of solutions.

The COVID-19 pandemic further demonstrated the importance of community-level resilience and the limitations of highly centralised responses. It also highlighted the risks of allowing short-term commercial interests to undermine long-term environmental and resilience objectives. Stronger international and city networks can help address these challenges through knowledge sharing, cooperation and collective action.

The pandemic also reinforced the value of multi-disciplinary preparedness. Effective crisis management requires collaboration between scientists, emergency managers, government, businesses and communities. Examples of participatory approaches in countries such as New Zealand and Denmark demonstrate how co-production can improve understanding, communication and decision-making, even where complete consensus cannot be achieved.

Finally, it is important to distinguish the term of resilience planning between **risk and uncertainty**. Complex challenges involve not only measurable risks, but also ambiguity and gaps in knowledge. Therefore, conventional risk assessments alone are insufficient. Building resilience requires diverse stakeholders to work together to understand uncertainty, learn from experience and develop adaptive approaches capable of responding to emerging global challenges.

'Building resilience requires moving beyond conventional risk assessment to embrace uncertainty, collaboration and adaptive approaches to emerging challenges.'



FINAL THOUGHTS: CONTINUING THE RESILIENCE DIALOGUE

What could make a tangible difference in shaping a more resilient community is to promote peer learning and collaboration between cities in order to strengthening resilience. Networks such as [C40](#) and the [Resilient Cities Network](#) provide platforms for mayors and city practitioners to exchange knowledge, share experience and address common challenges. Stronger cooperation between cities and national governments is equally important in responding to wider planetary risks.

Glasgow's 850th anniversary provides an opportunity to engage citizens in shaping the city's future. Its experience demonstrates how social progress, inclusion and democratic participation can strengthen urban resilience. Active engagement with communities should therefore remain central to creating cities that are **both resilient and inclusive**.

More precisely, achieving climate and resilience objectives for 2030 and 2050 requires more than policies, targets and strategic visions. A significant gap remains between ambition and implementation, highlighting the need to strengthen governance processes and mainstream resilience tools, including the role of Chief Resilience Officers. Political and technical leadership must work together to translate available resources and strategic objectives into practical outcomes.

Therefore, the key challenge is not simply developing new solutions, but ensuring that existing knowledge, tools and resources are applied effectively. As highlighted by the Institute of Strategic Risk Management, solutions to complex challenges should ultimately be judged by their usefulness and capacity to deliver meaningful progress.

On the other hand, warning systems remain a critical component of resilience and should be understood as inclusive and empowering social processes, rather than purely technical mechanisms. Effective systems require collaboration across institutional and hazard-related boundaries and, importantly, the direct involvement of communities in their design and operation.

It is significant to stress that the experience of communities around the world demonstrates that resilience is often built locally, particularly through the active participation of vulnerable groups. Hence, it is our top priority to ensure that those most affected are involved in developing warning systems can make them more relevant, sustainable and effective.

The wider discussion reinforces the need to move from traditional command-and-control approaches towards more supportive, adaptive and collaborative models of resilience. Lessons from events such as Hurricane Katrina demonstrate the value of learning from experience and bringing together diverse areas of expertise.

Consequently, the ISRM's role is to support this continuing global dialogue by encouraging knowledge exchange, practical contributions and collaboration across the resilience community. Through sustained engagement, shared learning and collective action, cities and organisations can strengthen their capacity to make a meaningful difference despite the institutional and political challenges they face.

'Resilience is built through collaboration, community participation and shared learning, turning existing knowledge and resources into meaningful action.'

ABOUT

ABOUT THE ISRM GLOBAL URBAN RESILIENCE PROJECT

The ISRM Global Urban Resilience Project was developed out of a series of papers written together with the International Federation of the Red Cross / Red Crescent Societies, and more recently in partnership with the National Preparedness Commission.

It is designed to bring together academics, policy makers and practitioners from across the global urban resilience and major city management spectrum to facilitate action-oriented dialogue and interaction from multiple perspectives.

The launch of the ISRM Management Award in Global Urban Resilience and Major City Management in May 2024 set the foundation for the latest series of programmes, based on the 130 participants from over thirty countries who participated in the programme.

For more details on the Global Urban Resilience and Major City Management project, or to discuss how you can be involved, please contact

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