

## Special Issue Introduction

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# Cross-Border and Transboundary Resilience

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**Abstract:** In recent years, resilience at and across borders has become a major concern. However, borders are characterized by complexity, emergence and creativity. This implies the need to better understand how disasters and their inherent risks are practically handled in cross-border regions. In this special issue, a diverse range of articles explore the operational, social, and technological challenges inherent to cross-border resilience.

**Keywords:** cross-border resilience; transboundary resilience; crisis management; disaster management; frontiers This special issue aims to contribute to the understanding of cross-border and transboundary resilience issues. Resilience refers to the capacity of organizations, communities, and territories to resist, absorb, accommodate, and overcome the undesirable effects of hazards while preserving and restoring the functions essential to the territory's survival (UNISDR 2009). It is also associated with the ability to cope with situations that are unimagined, unanticipated, unmanaged, or beyond the response capacity of the systems (Douglas and Wildavsky 1983; Hollnagel, Woods, and Leveson 2006; Westrum 2006; Wildavsky 1988; Woods 2006). While boundaries (p. 142>) naturally favor resilience, their role remains unknown and requires further understanding.

In recent years, many adverse events have reminded us how, regardless of the specific terminology used (e.g. border, boundary or frontier, while the latter is a broader concept than a border, which merely describes the boundary line), political and physical demarcation lines between countries matter for international and regional resilience. When COVID-19 surged in Europe in March 2020, authorities first decided to close the borders. The closure of borders radically stopped the flow of goods within Europe, delaying the supply of critically needed medical equipment. For example, the closure of borders also separated families for more than two months and compromised commercial activities at a global scale. This episode reminds us of two aspects. First, as widely acknowledged, crises hardly ignore borders and border areas. Second, emergencies that directly and indirectly affect the safety and security of millions of people may depend on actions and decisions taken at borders. Moreover, decisions regarding borders can result in (or prevent) a complex sequence of cascading effects, thereby affecting global resilience.

Eighteen months later, in the fall of 2021, the issue of borders was again at the forefront of political and humanitarian concerns. The Belarusian authorities had granted visas to thousands of people – including families – who were fleeing from war and poverty in the Middle East and Africa. After being “escorted” to the Poland-Belarusia border area, these people got stuck there for weeks with minimal aid, food, and shelter, confronted with winter temperatures in a hostile and wild area. This episode revealed borders and their surrounding areas as strategic areas prone to disasters and crises. In a border area, where nations share without carefully negotiated responsibilities, populations are particularly vulnerable. To that extent, supporting cross-border resilience is vital.

In 2023, one of the deadliest earthquakes of the decade struck the border area between Turkey and Syria. For many years, the two sides of the border (separated by a wall and mines) had already been

affected by ongoing political and military tensions between the two countries. In addition to more than 50,000 fatalities, a high proportion of the borderland population lost their belongings and hardly had access to humanitarian aid. The diaspora quickly reacted to support the locals from both sides of the border but had to deal with complications from varying requirements of different governments and international organizations. This episode illustrates another connection between borders and resilience. Unfortunately, border areas are hardly resilient territories that must tackle political, organizational, and social divides. These three examples illustrate how the notions of borders, boundaries, and frontiers intricately relate to the notion of resilience.

Even though these three situations occurred recently, the role of borders, frontiers, and boundaries in resilience has been examined for several decades, (p. 143 >) initially by geographers (Kristof 1959). At first sight, the essence of a border is what separates or delineates things. Borders have been mainly employed to separate territories, geographical areas, countries, or states. In some cases, natural obstacles (mountains, rivers, lakes, seas, bays, or straits) and artificial structures (walls or meridians) can form a natural frontier. Culture can also embody boundaries between neighboring regions or countries (Guo 2015). That said, borders do not merely separate territories, as they delineate a space's social, political, economic, or cultural meanings (Diener and Hagen 2012).

From a sociological and economic perspective, borders also constitute gateways where people and goods circulate from one side to another. To that extent, they are supposed to filter flows by including some parts and excluding others. From an economic perspective, a border can represent the anchor of creation and circulation of flows according to the authorizations or prohibitions to cross the border (Nail 2016). Once divided, the flows recirculate and result in alternate flows (Nail 2016). Alternatively, borders lead to the creation of sub-spaces of activities. In addition to different social, economic, and cultural characteristics, these sub-spaces are distinguished by different regimes of creation, communication, and space control (Diener and Hagen 2012). To this extent, borders are spaces of fragmentation and emergence.

Due to their fragmenting power, borders can represent an appealing opportunity to separate or protect a specific territory. When facing technological or natural disasters, smuggling activities, terrorism, or pandemics, nations can search for further resilience by creating new borders to separate a territory between safe and dangerous areas. They can also modify the nature of controls to prevent a threat from entering a specific space. Relying on borders to protect might sound appealing and immediately effective for decision-makers. However, daily flows from massive migration, financial transactions, or drug trafficking remind us that borders do not behave as controllable territories. Instead, they are porous and can lead to complex – and sometimes illegal – dynamics.

Far from being controllable, borders create a fuzzy zone-like phenomenon of territorial, political, legal, or economic inclusion. Creativity and emergence are both reflected in the semantic diversity of borders. Etymologically, the notion of frontier comes from the French “front,” something that goes ahead toward alterity (such as other persons, territories, or material). “Transboundary” refers to the juncture between two distinct spaces where their features mingle, or as Boin (2019) states “The Transboundary Crisis effortlessly exceeds geographical, policy, cultural, public–private and legal boundaries that normally enable public managers to classify, contain and manage a crisis”. However, the spaces around borders can hardly align with fixed classification criteria and are a-territorial, a-political, non-legal, and non-economic (Nail 2016). The fuzziness of the spaces around frontiers (p. 144>) and borders also stems from the fact that they can evolve or change without notice. For instance, the 2022 drought generated shallows in the rivers that partially separated Greece and Turkey. Similarly, in some cases frontiers can be modified by the representatives of the states, some types without notice.

Transboundary spaces develop their own identity, history, and legislation in conjunction with multiple separate areas. The features of a transboundary space do not merely result from the

cumulation of the features from each side of a border. The features of a cross-border region still need to be determined and under the influence of its flows (Amilhat Szary 2015; Nail 2016), including the flows of people and conflicts (Portelli and Rigaud 2021). Nevertheless, cross-border regions do not only experience conflict: coordination can emerge to manage crises and recover from them in solidarity despite past or present disagreements (Rigaud and Portelli 2020). Despite their complexity, transboundary spaces offer resources and a space for resilience.

Against this background and in response to the need to better understand the role of boundaries in fostering resilience, we initiated this special issue. A key issue to settle at the outset of our efforts was the identification of the right terms and concepts to use. Different terms offered different trade-offs, requiring careful consideration of implications. Was this a special issue about frontiers? Borders? Cross-borders and transboundary spaces? We opted in favor of inclusion and decided to allow authors to use their preferred terminology. Regardless of the terms used, all papers in this special issue reveal that frontiers, borders, and boundaries are essentially socio-technical spaces where initiatives emerge. The papers jointly address three striking gaps and paradoxes. We are happy to introduce these gaps and explain how the papers included in this special issue address them, thereby contributing to a better understanding of cross-border and transboundary resilience.

First, cross-border resilience requires strengthening forces of integration and coordination with respect to cultural divides, political disputes, and organizational barriers which all induce fragmentation. Tackling this fragmentation requires multi-level analysis. Border area's individual, collective, and organizational behaviors depend on transnational and national policies, organizational programs, and individual initiatives. Moreover, establishing cross-border coordination for crisis management requires considering language barriers and organizational and technological interoperability issues. Mirjana Radovanović and Milovan Trbojević analyze and propose a concept for establishing an efficient system for disaster management in the Western Balkan countries. An efficient multilateral cooperation system has not been established so far. Therefore, establishing the Regional Center for Disaster Management in the Western Balkans territory (RCDM-WB) is proposed as a first step in handling disaster situations that arise from natural phenomena or technical and technological accidents.

(p. 145>) Second, border resilience depends heavily on cooperation, a very fragile capability. Cross-border cooperation represents a relevant driver for putting in common complementary resources and capabilities across borders. However, the level of cross-border cooperation during a crisis can vary from hostility and conflict via no cooperation to full cooperation (communication, consultation, coordination) (Guo 2015). Without notice, a legacy from past and pending conflicts can jeopardize long-term efforts to share resources and data. One can, though, adopt an optimistic stance on this challenge. Indeed, cooperation relies not only on cross-border policy but also on local civil society, cross-border culture, and history and can become a collaborative dynamic supported by economic players (Brunet-Jailly 2007). Kees Boersma and Robert Larruina address this topic by highlighting how social entrepreneurs respond to a crisis alongside the formal crisis governance system and generate product development and logistics resources. By presenting a case study about how the refugee company "Mondmaskerfabriek" (Face Mask Factory) engaged with the cross-border dimension of the COVID-19 crisis, they show how a social enterprise was able to establish a supply chain and domestically produce personal protection equipment. As the article shows, crisis management scholars and policymakers should pay more attention to the potential of social entrepreneurial activities during a crisis. In the same vein, Yannic Schulte et al. present an agentbased simulation model to analyze coordination strategies for the management of spontaneous volunteers in the border area of two neighboring countries affected by a cross-border disaster.

Third, border cooperation requires diversified resources, including time, expertise, and data. International institutions (including the WHO, EU, UNESCO, and UN) have advocated empowering cross-border actors to lead initiatives for resilience. They also provided them with funds, tools for

measurement of disaster risks, and resilience frameworks. The latest Sendai UN Framework illustrates the predominance of tools and indicators to measure disaster risks well. However, local actors implement these tools in specific cultural, political, economic, and historical settings. Locally, resilience actors need help to implement generic frameworks and concepts. In line with this view, Maïke Vollmer et al. study the influence of standardization on the management of borders at a European level. Theresa Berthold and her colleagues address this question by investigating the implementation of the German research project QUARZ-SAND, funded by the German Federal Office of Civil Assistance and Disaster Protection. This project is compared and contrasted with other national and international quality management systems and initiatives that have been put forward over the past years. Finally, Katarzyna Sepielak and Dawid Wladyka evaluate disaster preparedness and mitigation materials provided on the local authorities' websites in Cameron County, Texas.

(p. 146>) In summary, the contributions of this volume provide new ideas and methodological approaches for increasing the resilience of a border region while taking into account the complexity of this major challenge: on the one hand, they provide frameworks for multilateral cooperation and quality standards for the transboundary context at a formal, political level. On the other hand, they skillfully harness the potential of civil society by strengthening self-help capacities in border areas. In the face of the increasing uncertainties, risks and crises worldwide, this recognizable and promising higher degree of maturity of "cross-border and transboundary resilience" makes it possible to bring together the ideas and strengths of people who – separated by a border – have to overcome the same crises.

## References

- Amilhat Szary, A.-L. 2015. "Boundaries and Borders." In *The Wiley Blackwell Companion to Political Geography*, edited by J. Agnew, V. Mamadouh, A. J. Secor, and J. Sharp, 13–25. Oxford: Wiley-Blackwell.
- Boin, A. 2019. "The Transboundary Crisis: Why We Are Unprepared and the Road Ahead." *Journal of Contingencies and Crisis Management* 27 (1): 94–9.
- Brunet-Jailly, E. 2007. *Borderlands: Comparing Border Security in North America and Europe*. Ottawa, Canada: University of Ottawa Press.
- Diener, A. C., and J. Hagen. 2012. *Borders – A Very Short Introduction*. Oxford: Oxford University Press.
- Douglas, M., and A. Wildavsky. 1983. *Risk and Culture – An Essay on the Selection of Technological and Environmental Dangers*. Berkeley: University of California Press.
- Guo, R. 2015. *Cross-Border Management: Theory, Method and Application*. New-York: Springer.
- Hollnagel, E., D. Woods, and N. Leveson. 2006. *Resilience Engineering: Concepts and Precepts*. New York: Ashgate.
- Kristof, L. K. D. 1959. "The Nature of Frontiers and Boundaries." *Annals of the Association of American Geographers* 49 (3): 269–82.
- Nail, T. 2016. *Theory of the Border*. Oxford: Oxford University Press.
- Portelli, A., and E. Rigaud. 2021. "The Land of Hope: Border, Evacuation, and Rejection during a Nuclear Crisis." *Borders in Globalization Review* 3 (1): 138–9.
- Rigaud, E., and A. Portelli. 2020. "Kameradschaft (1931): Representing Solidarity beyond Borders in Face of Disaster." *Borders in Globalization Review* 1 (2): 121–2.

UNISDR. 2009. UNISDR Terminology on Disaster Risk Reduction, 30. Geneva, Switzerland: United Nations International Strategy for Disaster Reduction (UNISDR).  
<http://www.undrr.org/quick/10973>.

Westrum, R. 2006. "A Typology of Resilience Situations." In *Resilience Engineering: Concepts and Precepts*, edited by N. Leveson, E. Hollnagel, and D. D. Woods. New-York: Ashgate.

Wildavsky, A. 1988. *Searching for Safety*. Piscataway: Transaction Publishers.

Woods, D. D. 2006. "Essential Characteristics of Resilience." In *Resilience Engineering: Concepts and Precepts*, edited by N. Leveson, E. Hollnagel, and D. D. Woods. New-York: Ashgate.

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