

## **Atlas Vulnerability and Resilience/Atlas Verwundbarkeit und Resilienz**

*Edited by Fekete, A. and Hufschmidt, G.*

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The *Atlas of Vulnerability and Resilience (Atlas VR)* edited by Alexander Fekete and Gabriele Hufschmidt gathers contributions coming from more than 30 authors addressing various issues with a focus on civil protection. According to the introduction, the *Atlas VR* locates different fields of application of the concepts vulnerability and resilience according to spatial areas and disciplines. Case studies range from epidemics (p. 93) to food provision shortage (p. 95, 147), heat-waves (p. 89), blackout (p. 120), climate change adaptation (p. 108) and flood disaster prevention (p. 105, 110), among other topics. Geographically, the atlas displays examples coming from Germany, Austria, Switzerland and Liechtenstein (p. 100), with some contributions exceeding the European scope. The cities examined in the study on “Disaster, resilience and security in global cities” include Vienna, Frankfurt, Hamburg, but also London and Rotterdam, not forgetting Los Angeles, Sydney and Singapore (Roth and Prior, p. 116). In total, no less than 46 case studies are collected in the form of short articles, ranging from local to global scales.

Of course, everyone can see how impressive is the challenge to gather such a wide range of case studies while maintaining the consistency of the whole work, despite the limited focus on civil security. The authors are fully conscious of the difficulties the *Atlas VR* is bound to meet: “even from the hazard and threat range, it is not easy to delineate the thematic scope of this atlas” (p. 161).

Let’s see how this daunting challenge has been met.

One of the basic countermeasures is the identification of similarities and differences in the use of terms and concepts of the methodological processing of vulnerability and resilience. This goal has been fully attained. Apart from the introduction and conclusion the two main authors wrote, we find ten expert articles greatly helping the reader in the face of such a variety concerning basic definitions. These expert articles propose and discuss definitions of what risk, vulnerability and resilience might be. However, the partition of the other contributions into 26 on vulnerability, five on resilience and 15 on both vulnerability and resilience is meaningful. The editors of the *Atlas VR* explain those discrepancies in frequencies by the fact that resilience is more recent than vulnerability. But those discrepancies display as well how challenging it is still to define vulnerability and resilience in spite of numerous efforts made to find a solution widely agreed on. Still, conceptual differences blur or interlock (p. 162), and the situation looked very similar ten years ago (Birkmann, 2006). Depending on the field of expertise, definitions and methods used still vary a lot, and the *Atlas VR* enlightens the point. How to do otherwise?

This is maybe why the idea of an atlas has been pushed forward. Indeed, quoting the introduction, according to Greek mythology, an atlas is not a set of maps in the first place, or a mountain ridge. An atlas is a mediator between the worlds. However, on the other side, considering the atlas as testing a format that can be used as an element of an inner-organisational or inter-organisational knowledge management system (p. 10), is still



highly challenging. One can wonder where is the exchange of information which is supposed to give rise to knowledge. Obviously, the static format of an imprinted atlas cannot allow it, notwithstanding various other cultural obstacles to information sharing. More likely, and the two editors defend it, is the *Atlas VR* providing a portal as an access to a wide range of issues related to the vulnerability and resilience in civil protection. They also tell us: the online-version of *Atlas VR* will be equipped with functions that support interconnectedness and exchange (p. 164). Yet its use as a tool helping decision-making process, for example while getting access to information on experiences returns concerning civil security management, remains questionable. Maybe the online platform the conclusive chapter mentions could help reaching this point, in the future. To what extent this online platform will help deal with implicit knowledge and experience as well as the question as to how this knowledge is communicated, exchanged and externalised (p. 159 and in line with Blank-Gorki and Hufschmidt, p. 15) looks to be a pending issue. However, this point is considered a key one not only by academic contributions (Weichselgartner, 2013; Weichselgartner and Pigeon, 2015) but also by international institutions on DRR such as UNISDR (2015).

As usual, we also can learn from limitations. We agree with the fact that displaying such a variety of approaches is beneficial. Indeed, knowing about such terminology differences will help *Atlas VR* readers to be aware of and better informed on how to utilise information and knowledge from different sources in the future (p. 161).

All in all, this atlas is an attempt to display the diversity of notions and methods used in the field of civil security in a reduced format. The advantage is also the drawback, as explicitly written by the authors of the *Atlas*. Additionally, a different conceptual understanding or wording should not be a reason for excluding studies *per se*, since the *Atlas VR* aims to show the range of different approaches (p. 162). Therefore, the heterogeneity of the atlas may be considered as its main quality. It is also a means to draw attention on the relevance of gaining more with interdisciplinarity in disaster risk reduction studies, and the challenges such attempts are bound to meet.

**Patrick Pigeon**

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### **Authors' response**

We would like to thank Patrick Pigeon for his thorough review of the book and highly appreciate his analysis. He pinpoints the strengths and weaknesses of this publication very well, and by precisely articulating his argumentation he helps to sharpen our insights and thoughts on benefits and limitations of the *Atlas VR*. Our aim was to develop a format that is easily accessible for a broad range of readers (scientists from different disciplines, practitioners, politicians, students or the interested public) covering a broad range of topics and methods associated with the concepts vulnerability and resilience in the context of civil protection. As Patrick Pigeon puts it a daunting challenge. We are glad that this challenge seems to be met successfully.

To our understanding, a further benefit of the *Atlas VR* is to give an impulse to not only use such a book as a source of information and knowledge, but to think about a more systematic information and knowledge management in civil protection. While conceptually we imbed the *Atlas VR* with its specific design and content into such a knowledge management thinking, we realise that this is not the focus of the *Atlas VR*. Hence we are currently working on an additional volume addressing this topic in more depth. Since we are still developing the interactive online platform of the *Atlas VR* as a tool within such a systematic management approach, we are not sure yet whether the benefits and usage we envisage can be realised – hence Patrick Pigeon's scepticism is rightfully articulated.

Another aspect articulated well in the critique of Patrick Pigeon is questioning the heterogeneity of approaches and terminology put forward by the *Atlas VR*. While we argue such heterogeneity being a strength as providing incentives to learn from differences, we also fully acknowledge the downsides of this. Especially for people new to a field or a discipline's understanding of a term such as resilience, it might be more helpful to first learn the standard definitions before they are able to adjust it to their specific context. In the sense of "first learning the rules before being allowed breaking them". After all, it is a common call in science for standard definitions and terminology. However, having been in several expert and interdisciplinary workshops over the course of ten years, we agree to the critique that not much has changed in the discussion about a lack of understanding and standardised terminology of resilience or vulnerability. But we also heard as results of such mixed workshops, that we agree not to agree and rather state each own approach and definition and then get along rather than trying to get stuck in endless debates on finding common definitions. Common definitions that fit needs of most different disciplines and mentalities are also often either very broad or very long and adding additional complicated terms. In the *Atlas VR*, we tried to solve this by offering ten introductory chapters into different disciplinary understandings without claiming obligatory usage throughout the remainder of the book.

Overall, we are thankful for this constructive critique which fuels our motivation to continue updating the *Atlas VR* in this special design and format.

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## References

- Birkmann, J. (Ed.) (2006), *Measuring Vulnerability to Natural Hazards. Towards Disaster Resilient Societies*, United Nations University Press, Tokyo.
- UNISDR (2015), *Global Assessment Report on Disaster Risk Reduction Making Development Sustainable: The Future of Disaster Risk Management*, UNISDR, Geneva, available at: [www.unisdr.org/we/inform/publications/42809](http://www.unisdr.org/we/inform/publications/42809) (accessed 11 January 2016).
- Weichselgartner, J. (2013), *Risiko-Wissen-Wandel: Strukturen und Diskurse problemorientierter Umweltforschung*, Oekom, München.
- Weichselgartner, J. and Pigeon, P. (2015), "The role of knowledge in disaster risk reduction", *International Journal of Disaster Risk Science*, Vol. 6 No. 2, pp. 107-116.

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