

URBAN PLANNING AND ENVIRONMENT

# Governing for Resilience in Vulnerable Places



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## Chapter 2

### **Governing for Resilience in Vulnerable Places: an Introduction**

*Elen-Maarja Trell, Britta Restemeyer, Melanie Bakema, Bettina van Hoven*

In the past decades the term ‘resilience’ has quickly gained currency in academia (including social, political and spatial sciences) as well as in practice. Nowadays, it is widely promoted as a promising concept to deal with shocks and uncertainties in the face of environmental, social and economic crises (cf. Davoudi, 2012; White, 2010). Originating in ecology, resilience was referred to as the ability of a system to return to stability or equilibrium after a disturbance (Pickett et al., 2004). According to an early formulation by Holling (1973), resilience indicates the ability of ecosystems to absorb changes and still be able to function properly. In the past decade a so-called ‘resilience turn’ (Evans & Reid, 2014) has taken place in the social, political and spatial sciences where social-ecological resilience has been explored and applied as a useful concept to describe and organize responses to change by communities, institutions and economies (Adger, 2000; Klein et al., 2004; White, 2010). In spatial planning, for example, resilience is now widely acknowledged as a new approach to incorporate uncertainty into governance strategies, in particular with respect to natural hazards such as flooding (Davoudi, 2012; White, 2010).

Translating and applying the concept of resilience from its ecological and engineering roots to social sciences, however, remains a challenge. It is not surprising then that, due to the ambiguity of the concept ‘resilience’, research has largely focused on exploring the meaning of the concept (cf. Pendall et al., 2010; Davoudi, 2012; Alexander, 2013). However, there remains ‘an apparent gap between the advocacy of socio-ecological resilience in the scientific literature and its take-up as a policy discourse on the one hand, and the demonstrated capacity to govern for resilience in practice on the other’ (Wilkinson, 2012, p. 319). Current practices show that resilience is often used as a panacea to different problems (O’Hare & White, 2013). In some cases ‘resilience’ might simply be a means to redress a problem and to justify an outdated or inherently unjust policy. In other cases resilience may be so vague and far removed from its meaning that a so called ‘resilience approach’ may lead to less desirable, not nearly resilient, outcomes (Van der Vaart et al., 2015). The term ‘resilience’ therefore runs the risk of becoming a heavily contested buzzword.

As a result, there is a need for a better understanding of the potential and the challenges connected to the use of the concept of resilience in social sciences today. While an increasing number of books on resilience has been published in the past decade, the bulk of the books has focused on rather specific topics such as disasters (Comfort et al., 2010; Lansford et al., 2012; Hicks Masterson et al., 2014; Tidball et al., 2014; Tierney, 2014), climate change (Pelling, 2003;

2011), water (White, 2010), or on one distinct spatial context such as the city (Beatley & Newman, 2008; Beatley, 2009; Wamsler, 2009; Eraydin & Tasan-Kok, 2012; Rogers, 2012; Pearson et al., 2014) and to some extent the rural regions (Brown & Schafft, 2011; Tamásy & Diez, 2013)<sup>i</sup>. The edited book *'Governing for Resilience in Vulnerable Places'*, however, draws together state of the art research from across a variety of social science disciplines (i.e. spatial planning, economic and cultural geography, environmental and political sciences, sociology and architecture) and across different spatial and geographical contexts (from urban slums in India to flood-prone smaller communities in the UK to coastal Japan). By doing so, the book is able to provide an overview and a critical analysis of the ways in which the concept 'resilience' has been 'translated' into and used in social and spatial sciences today. Acknowledging that resilience is a new powerful lens through which researchers and practitioners assess, discuss and make plans for major matters, special attention is paid to ethical, social and political issues at stake when trying to operationalize and use the concept of resilience in practice. As such, *'Governing for Resilience in Vulnerable Places'* is aimed to provide a scientifically robust overview and generate some conceptual clarity for researchers, students as well as practitioners interested in the potential of resilience thinking as well as the application of resilience in practice.

### **Governing for Resilience in Vulnerable Places: summary of key themes**

As the discussion above suggests, contemporary understanding of the concept of 'resilience' differs across and within disciplines and the concept has evolved from its roots in ecology and engineering to become increasingly influential in the social and spatial sciences today. Folke (2006) identifies a number of specific shifts in the development, understanding and usage of 'resilience' and argues that each 'type' of resilience has its own distinct characteristics (see table 2.1).

*Table 2.1* The shifts in conceptualizing resilience (*based on:* Davoudi & Porter, 2012; Folke, 2006; Lloyd et al., 2013).

<i>Time</i>	<i>Resilience Concepts</i>	<i>Characteristics</i>
<i>1960s/ early 1970s</i>	Engineering resilience	Linearity, stable equilibria, time needed to recover from shock
<i>1980s</i>	Ecological resilience (social resilience)	Multiple equilibria, robustness, capacity to withstand shocks while maintaining the essential function, adaptation to short term external disturbances
<i>1990s-2000s</i>	Social-ecological resilience (evolutionary resilience)	Non-linearity, cross-scale dynamic interactions, renewal and reorganization, capacity to sustain and transform, regime shifts as a result of external or internal disturbances and gradual change

The fact that resilience has evolved from engineering and ecological sciences is one of the few aspects about resilience which the different authors who use the concept in social and spatial sciences seem to agree upon. The other aspect is the socially constructed nature of resilience and hence the significant political dimension of the concept (e.g. Burkhard & Gee, 2012; Chapin, 2009; Folke, 2006; Lloyd et al, 2013; Stokols et al, 2013). As Davoudi & Porter (2012) state: ‘In the social world, resilience has as much to do with shaping the challenges we face as responding to them’ (p. 306).

The challenge of finding a suitable cover image for this edited volume captures the illusive, all-encompassing and fuzzy nature of the concept ‘resilience’ well. A simple internet search illustrates that typically, resilience is visually captured in an image of a fragile plant or a seedling, blossoming, despite of growing on a dry, harsh surface. While such an image reflects some facets of the concept of resilience well, in particular the more ecology and perseverance related ones, the editors of this volume considered it to be missing the active, social, and perhaps more dynamic, creative and transformative potential of social-ecological or evolutionary resilience. This transformative potential, however, is crucial for social-spatial sciences, especially when discussing current governance challenges and potential governance changes. As Simin Davoudi argues in the opening chapter of this volume, the social context and ‘human agency which is manifested in: our ability to displace the effects of a crisis in time and space [...] and our capacity to undertake organised collective action’ should not be overlooked when conceptualizing resilience. In order to communicate the different facets of resilience as well as visually summarize the key themes of this edited volume, the photo of the little girl holding an umbrella and looking up to try to make sure what actions she should take next and whether she is safe from the rain, was created. The photo addresses the first key theme for this edited volume ‘water and disaster risk’ in the form of the raindrops that relate to the chapters discussing resilience specifically in the context of water management and community resilience to flooding. The little girl herself symbolizes the community and the social aspects of resilience, the second key theme within this edited volume. The cover is a mix of a photography as well as a cartoon (note the cloud, the ‘painted’ raindrops and the resilience graffiti on the wall) which points to the element of ‘art’ and ‘creative practices and capacities’ which are strongly present in the chapters of this book which discuss community resilience. Third, the ‘human agency’ and ‘governance’ aspects of this book which are further represented in the majority of chapters is reflected by the active role that the girl on the photo is taking in trying to make a well-informed choice of whether she needs the umbrella or not to protect herself at that particular moment. By choosing the little girl for the cover the editors further wish to emphasize that while aiming to operationalize resilience, a critical eye should be kept on the ethical and social issues at stake as well as carefully consider the vulnerable groups in the society. Finally, the umbrella itself symbolizes the tendency of academics to consider ‘resilience’ as an ‘umbrella’ concept for a range of system attributes deemed desirable. Several chapters of this edited volume emphasize that such system attributes should be made operational to support planning and management.

As indicated above, the cover photo was specifically ‘composed’ to illustrate the interconnected themes of this edited volume. While the central focus of this volume is on exploring ways in which resilience is conceptualized and used in social and spatial sciences today, the volume is divided according to three dominant sub-themes:

- I. Governing for Resilience: opportunities and challenges
- II. Resilience and Disasters
- III. Community Resilience, Arts and Capacity-building

As the title of the volume suggests, first of all, explicit attention is paid to ‘*governing for resilience*,’ introducing dilemma’s and opportunities that planners and policy-makers face when trying to apply the resilience approach in practice (e.g. Zuidema & de Boer; Walker & Leyshon); legitimacy issues that may arise when ‘doing’ resilience (e.g. Scholten & Hartmann) and challenges of communicating the concept to different stakeholders (e.g. Greksch & Wings). The variety of ways in which resilience is and could be operationalized across different political, cultural and geographical contexts is discussed throughout the chapters. The chapters that more explicitly focus on governing for resilience (e.g. Zuidema & de Boer; Scholten & Hartmann; Gooley & Bakema; Forrest et al.; Walker & Leyshon) make clear that when using resilience in (policy-making) practice, it is necessary to be sensitive towards issues of power and justice and the different capacities that individuals have for self-sufficiency and self-organization. In addition, these chapters draw attention to the necessity to critically re-consider the changing responsibilities and the grounds for legitimacy of the decision-makers when governing for resilience.

The second connecting strand centers around ‘*community resilience and capacity building*’. The discussions with regards to this broader theme focus on the importance of local level participation, knowledge and learning when planning for resilience in vulnerable places. Previous research shows that, in order to develop and enhance community resilience, community members must be able to actively engage in building the capacity to thrive in an environment that is characterized by change (Skerratt & Steiner, 2013). According to Biggs (2014) resilience is often imposed onto supposedly vulnerable communities ‘from outside’, usually without much reference to the community members’ ideas and priorities or without making use of their lived experiences (cf. Van der Voort & Vanclay, 2015). Using as examples case studies from different social, cultural and political contexts, the chapters that more explicitly center around the ‘community resilience’ (e.g. Van der Vaart et al.; Brice & Arconada; Forrest et al.; Andraravapu & Arefi) emphasize the need for trust and exchange between professionals/policy makers (and their expert knowledge) and the members of the local communities (and their local (expert) knowledge) and point the readers’ attention to the capacities present on the local level. In this light, several contributions (e.g. Brice & Arconadal; Van der Vaart et al.) explore the potential role of arts in translating/mediating these different types of knowledge and thereby contributing to resilience of vulnerable places.

Third, in a number of chapters resilience is considered in the context of *'disasters'*. These chapters (e.g. Platt; Older; Forrest et al.; Gooley & Bakema) introduce research on vulnerable places that have been or are prone to be impacted by disasters (e.g. Japan; Chile; Bangladesh; UK) and show that such contexts can also become places for innovation, learning and transformation. A number of chapters in relation to this theme explore the multi-actor context of governing for resilience in vulnerable places. Considering the shift away from central control towards multi-level governance systems and stakeholder networks, new questions concerning the division of responsibilities between different actors (as illustrated by Scholten & Hartmann; Forrest et al.; Andravaram & Arefi) on different levels in creating resilience strategies arise (Tierney, 2012). In addition, when implementing and designing resilience strategies new vulnerabilities may be created (e.g. Platt; Older). Throughout this theme and the chapters discussing it, the importance of collaboration and learning across different levels of government and between the state, market and the civil society is emphasized. In the context of the multitude of stakeholders, a key point raised by several authors and echoed in the opening chapter by Simin Davoudi is to be aware of from whose perspective resilience is *'done'*.

In the concluding chapter *'Resilience in practice – a transformative approach?'* two of the editors (Bakema & Restemeyer) talk to Henk Ovink, the first Dutch Special Envoy for International Water Affairs about his experiences in *'making'* vulnerable places resilient (to disasters), in order to provide a future perspective and directions for *'doing'* resilience in practice. Bakema and Restemeyer discuss with Henk Ovink his idea of implementing resilience, termed *'the transformative approach'*, which essentially is a policy process based on inclusive collaboration. Based on his experiences around the world, Ovink stresses that there is no blueprint for creating resilience in practice and that resilience strategies should always be tailored to the specific context and culture of a place. According to Ovink, political leadership is an important precondition for building resilience, and design can be a powerful tool for bringing the different stakeholders together and facilitating dialogue for co-creating new (transformative) visions.

In the chapter *'Self-reliant resiliency and neoliberal mentality: a critical reflection'* prof. Simin Davoudi rightfully points out that resilience is *'a concept which carries multiple meanings and risks being co-opted into the dominant neoliberal agendas.'* Through the contributions within this edited volume the editors hope to bring the discussion on the concept of resilience a step further by highlighting some of these risks while also acknowledging the potential of resilience thinking for practice.



## References

- Adger W.N. 2000. Social and ecological resilience: are they related?, *Progress in Human Geography*, 24(3), 347-364.
- Alexander, D. E., 2013. Resilience and disaster risk reduction: an etymological journey. *Natural Hazards and Earth Systems Sciences Discussions*, 1, 1257-1284.
- Beatley, T. 2009. *Planning for Coastal Resilience: Best Practices for Calamitous Times*. Island Press.
- Beatley, T. & Newman, P. 2008. *Resilient Cities and Green Urbanism Down Under: Learning From Sustainable Australian Communities*. Island Press.
- Brown, D.L. & Schafft, K.A. 2011. *Rural people and communities in the 21st century: resilience and transformation*. Polity.
- Burkhard, B. & Gee, K. (2012) Establishing the Resilience of a Coastal-marine Social-ecological system to the Installation of Offshore Wind Farms. *Ecology and Society* 17 (4), 32-46.
- Chapin F.S III, Folke, C. & Kofinas, G.P. (2009) A framework for understanding change. In: Chapin, F.S III, Kofinas, G.P. & Folke, C. (eds) *Principles of Ecosystem Stewardship: Resilience-Based Natural Resource Management in a Changing World*. New York: Spring Science+Business Media.
- Comfort, L.K., Boin, A. & Demchak, C.C. 2010. *Designing Resilience: Preparing for Extreme Events*. University of Pittsburg Press.
- Davoudi, S., 2012. Resilience: A bridging concept or a dead end? *Planning Theory and Practice*, 13, 299-307.
- Davoudi, S. & Porter, L. (eds.) (2012) Applying the Resilience Perspective to Planning: Critical thoughts from Theory and Practice. *Planning Theory & Practice* 13 (2): 299-333.
- Eraydin, A. & Tasan-Kok, T. 2012. *Resilience Thinking in Urban Planning*. Springer.
- Evans, B. & Reid, J. 2014. *Resilient Life: The Art of Living Dangerously*. Polity
- Folke, C. (2006) Resilience: The emergence of a perspective for social-ecological systems analysis. *Global Environmental Change* 16, 253-267.
- Hicks Masterson, J. H., Peacock, W.G., Van Zandt, S.S., Grover, H., Schwarz, L.F. & Cooper, J.T. 2014. *Planning for Community Resilience. A handbook for reducing vulnerability to disasters*. Island Press.
- Holling C.S. 1973. 'Resilience and stability of ecological systems', *Annual Review of Ecology and Systematics*, 4, 1-23.
- van Hoven, B. , & Hoerschelmann, K. (2005). Spaces of Masculinities. *London, New York: Routledge*.
- Klein R.J.T., Nicholls R.J. & Thomalla F. 2004. 'Resilience to natural hazards: how useful is this concept?' EVA working paper no. 9, DINAS-COAST working paper no. 14, Potsdam Institute for Climate Impact Research, Potsdam.
- Lansford, T., Covarrubias, J., Carriere, B. & Milleret, J. 2012. *Fostering Community Resilience*. Ashgate.
- Lloyd, M.G., Peel, D. & Duckm R.W. (2013) Towards a social-ecological resilience framework for coastal planning. *Land Use Policy* 30, 925-933.
- O'Hare, P. and White, I., 2013. Deconstructing resilience: Lessons from Planning Practice. *Planning Practice and Research (special issue)*, 28, 275-279.
- Pearson, L., Newton, P. & Roberts, P. (2014). *Resilient Sustainable Cities. A future*. Taylor & Francis.
- Pelling, M. 2003. *The vulnerability of cities: natural disasters and social resilience*. Earthscan, London.
- Pelling, M. 2011. *Adaptation to climate change: from resilience to transformation*. Routledge, London and New York.

- Pendall, R., Foster, K. a, & Cowell, M., 2009. Resilience and regions: building understanding of the metaphor. *Cambridge Journal of Regions Economy and Society*, 3, 71–84.
- Pickett, S.T.A., Cadenasso, M.L. & Grove, J.M. 2004. Resilient cities: meaning, models, and metaphors for integrating the ecological, socio-economic, and planning realms, *Landscape and Urban Planning*, 69, 369-384.
- Rogers, P. 2012. *Resilience & the City: change, (dis)order and disaster*. Ashgate.
- Stokols, D., Lejano, R.P. & Hipp, J. (2013) Enhancing the resilience of Human-Environment Systems: a Social Ecological Perspective. *Ecology and Society* 18 (1), 7-18.
- Tamásy, C. & Diez, J.R. 2013. *Regional Resilience, Economy and Society*. Ashgate.
- Tidball, K.G. & Krasny, M.E. 2014. *Greening in the Red Zone. Disaster, Resilience and Community Greening*. Springer.
- Tierney, K. 2014. *The Social Roots of Risk. Producing Disasters, Promoting Resilience*. Stanford University Press.
- Toonder, J. M. L. den, & van Hoven, B. (2012). Re-exploring Canadian Space / Redécouvrir l'espace canadien . (N0. 14 ed.) Groningen: Barkhuis Publishing.
- Vaart, G. van der, Trell, E-M., Restemeyer, B. & Bakema, M.M: (2015). Resilience: just do it?! Governing for Resilience in vulnerable Places, University of Groningen, 9-10 October 2014. *Resilience: International Policies, Practices and Discourses*, 3(2), 160-171.
- Walker, B. & Salt, D. 2012. *Resilience practice: building capacity to absorb disturbance and maintain function*. Island Press.
- Wamsler, C. 2009. *Urban Risk Reduction and Adaptation: How to promote resilient communities and adapt to increasing disasters and changing climactic condition*. VDM Verlag.
- White, I. 2010. *Water and the city: risk, resilience and planning for a sustainable future*. Routledge.
- Wilkinson, C., 2012. Urban resilience: What does it mean in Planning Practice? *Planning Theory and Practice*, 13, 319-324.
- Zolli, A. & Healy, A.M. 2012. *Resilience: why things bounce back*. Headline Publishing Group.

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<sup>1</sup> Exceptions include the book by Evans & Reid (2014) providing critique on the concept of resilience and exploring the political and philosophical stakes of the 'resilience turn', the work by Zolli & Healy (2012) discussing the concept of resilience and the bouncing back abilities of systems, people and places; exploration of spatial resilience by Cumming (2011) and the book by Walker and Salt (2006) offering a conceptual overview of resilience thinking.