

Editorial Note

Resilience Planning: A Short Review and Conceptual Reflections

Iwan Rudiarto

Department of Urban and Regional Planning, Diponegoro University, Central Java, Indonesia

Over the last few decades, the discussion on resilience as an emerging terminology has been frequently found with various viewpoints (Handayani et al., 2019). Resilience discourse is increasingly appearing in many studies, publications, and even academic and practical discussions in different backgrounds. The term resilience is used to describe various issues related to the human dimensions of global change from various perspectives (Spector et al., 2019). Due to its complexity, Davoudi et al. (2012) describe the resilience concept as a multifaceted notion if it is not followed by a suitable context. Furthermore, Meerow et al. (2016) mention that resilience is a term that relates to many aspects depending on the underlying disciplines such as ecology, geography, psychology, or economics, and they even differ from one discipline to another. Resilience can also be interpreted from its entities (Piégay et al., 2020), such as systems, ecosystems, communities, technologies, networks, individuals, populations, and organizations that describe certain conditions of these entities.

As an emerging terminology, Folke et al. (2010) argued that the notion of resilience has emerged as an important concept involving various disciplines in looking at the response to changes in human and ecological systems. Originally, resilience was a concept that focused on the determination of ecological system related to external disturbances (Holling, 1973) and then developed to be a more social context in terms of adaptive capacity (Gunderson and Holling, 2002), community resilience (Adger, 2000), and development resilience (Bousquet, 2014).

Resilience itself comes from the Latin 'resilire,' which means to rebound, and also from the French 'résilier,' which means to retract (Piégay et al., 2020), so it is important to define 'resilience to whom' and 'resilience of what' (Cutter, 2016). In a more specific context to the community, resilience

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Address: Jalan Proklamasi 70,
Central Jakarta, Indonesia 10320
Phone: +62 21 31928280/31928285
Fax: +62 21 31928281
E-mail: pusbindiklatren@bappenas.go.id

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emphasizes the aspect of community capacity across generations to maintain and increase livelihood opportunities from environmental, social, economic, and political disturbances (Insani et al., 2022; Tanner et al., 2015). From a more comprehensive perspective, resilience highlights capacity at various levels, whether in society, community, or even government (Handayani et al., 2019). The development of research and publications in resilience has fostered its own social and political beliefs, which can become the basis for policymaking and planning (Vogel et al., 2007).

Many publications underline the term resilience in adaptive cycles that focus on ecosystems, societies, and economies as dynamic systems where no stable conditions are available but occur frequently through four phases; growth and exploitation, conservation; collapse or release; and renewal and reorganization (Lu and Stead, 2013). Resilience denotes an abstract concept and therefore, defining particular ways to plan for resilience is somehow difficult (Desouza and Flanery, 2013). Moreover, cities consist of complex systems and would be a great challenge on how a city can be resilient. The notion of resilience has been introduced in the planning context in 1990's which emphasizing on urban planning (Mileti, 1999). As further indicated by Godschalk (2003), most literature on resilience planning gives more attention on the preparation and mitigation actions at local scale. A clear example is in the land use planning approach which is used as a way to minimize current disturbances with two major options, i.e., separating specific land uses and coping with potential disturbances reduction in terms of risks and negative effects. This can be done by placing the development in a quite distance from ecologically sensitive areas or flood-prone areas (Lu and Stead, 2013).

Decades later, the literature on resilience planning has expanded to include strategies for mitigating and tackling climate change. Furthermore, the existing literature focuses not only on mitigation but also on adaptation, where mitigation is not always successful in overcoming the disturbance. Resilience studies in both urban and rural contexts (which mostly focus on livelihoods and communities) sometimes ignore the complex and multidisciplinary nature of resilience and apply it incompletely (Jabareen, 2013). Giving on a specific concern or a small portion of aspects contributed to resilience can subsequently override significant characteristics that influence the performance of resilience itself, as resilience has multiple dimensions such as social, economic, cultural, environmental, and spatial. Finally, resilience planning can be considered a planning process that includes actions on how the community can be promoted to deal with access and risks, actions to ensure the communities get access to needs, services, capital, and actions to reduce risks from natural and human-driven hazards. It needs a comprehensive understanding from various dimensions; otherwise, applying resilience as a new paradigm in planning practice could be difficult and meaningless (Stumpp, 2013).

References

- Adger, W. N. (2000). Social and ecological resilience: are they related? *Progress in human geography*, 24(3), 347–364. <https://doi.org/10.1191/027013200701540465>
- Bousquet, F. (2014, May 4–8). *Resilience thinking and adaptive co-management from the development lens: Is there anything new?* [Conference session]. Resilience and Development: Progress for Human Development or for Humanitarian Governance? Montpellier, France. <https://agritrop.cirad.fr/574945/>
- Cutter, S. L. (2016). Resilience to what? Resilience for whom? *The Geographical Journal*, 182(2), 110–113. <https://doi.org/10.1111/geoj.12174>
- Davoudi, S., Shaw, K., Haider, L. J., Quinlan, A. E., Peterson, G. D., Wilkinson, C., Fünfgeld, H., McEvoy, D., Porter, L., & Davoudi, S. (2012). Resilience: A bridging concept or a dead end? "Reframing" resilience: Challenges for planning theory and practice, interacting traps: Resilience assessment of a pasture management system in Northern Afghanistan, Urban resilience: What does it mean in planning practice? Resilience as a useful concept for climate change adaptation? The politics of resilience for

- planning: A cautionary note. *Planning theory & practice*, 13(2), 299–333. <https://doi.org/10.1080/14649357.2012.677124>
- Desouza, K. C., & Flanery, T. H. (2013). Designing, planning, and managing resilient cities: A conceptual framework. *Cities*, 35, 89–99. <https://doi.org/10.1016/j.cities.2013.06.003>
- Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T., & Rockström, J. (2010). Resilience thinking: Integrating resilience, adaptability and transformability. *Ecology and Society*, 15(4).
- Godschalk, D. R. (2003). Urban hazard mitigation: Creating resilient cities. *Natural Hazards Review*, 4(3), 136–143. [https://doi.org/10.1061/\(ASCE\)1527-6988\(2003\)4:3\(136\)](https://doi.org/10.1061/(ASCE)1527-6988(2003)4:3(136))
- Gunderson, L. H., & Holling, C. S. (Eds.). (2002). *Panarchy: Understanding transformations in human and natural systems*. Island Press. <https://vtchworks.lib.vt.edu/handle/10919/65531>
- Handayani, W., Fisher, M. R., Rudiarto, I., Setyono, J. S., & Foley, D. (2019). Operationalizing resilience: A content analysis of flood disaster planning in two coastal cities in Central Java, Indonesia. *International Journal of Disaster Risk Reduction*, 35, Article 101073. <https://doi.org/10.1016/j.ijdrr.2019.101073>
- Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics*, 4(1), 1–23. <https://doi.org/10.1146/annurev.es.04.110173.000245>
- Insani, T. D., Rudiarto, I., Handayani, W., & Wijaya, H. B. (2022). Rural livelihood resilience on multiple dimensions: a case study from selected coastal areas in Central Java. *World Review of Science, Technology and Sustainable Development*, 18(2), 176–193. <https://www.inderscienceonline.com/doi/abs/10.1504/WRSTSD.2022.121303>
- Jabareen, Y. (2013). Planning the resilient city: Concepts and strategies for coping with climate change and environmental risk. *Cities*, 31, 220–229. <https://doi.org/10.1016/j.cities.2012.05.004>
- Lu, P., & Stead, D. (2013). Understanding the notion of resilience in spatial planning: A case study of Rotterdam, The Netherlands. *Cities*, 35, 200–212. <https://doi.org/10.1016/j.cities.2013.06.001>
- Meerow, S., Newell, J. P., & Stults, M. (2016). Defining urban resilience: A review. *Landscape and Urban Planning*, 147, 38–49. <https://doi.org/10.1016/j.landurbplan.2015.11.011>
- Mileti, D. (1999). *Disasters by design*. Joseph Henry Press.
- Piégay, H., Chabot, A., & Le Lay, Y. F. (2020). Some comments about resilience: From cyclicity to trajectory, a shift in living and nonliving system theory. *Geomorphology*, 367, Article 106527. <https://doi.org/10.1016/j.geomorph.2018.09.018>
- Spector, S., Cradock-Henry, N. A., Beaven, S., & Orchiston, C. (2019). Characterising rural resilience in Aotearoa-New Zealand: a systematic review. *Regional Environmental Change*, 19(2), 543–557. <https://doi.org/10.1007/s10113-018-1418-3>
- Stumpp, E. M. (2013). New in town? On resilience and “Resilient Cities”. *Cities*, 32, 164–166. <https://doi.org/10.1016/j.cities.2013.01.003>
- Tanner, T., Lewis, D., Wrathall, D., Bronen, R., Cradock-Henry, N., Huq, S., Lawless, C., Nawrotzki, R., Prasad, V., Rahman, M. A., Alaniz, R., King, K., McNamara, K., Nadiruzzaman, M., Henly-Shepard, S., & Thomalla, F. (2015). Livelihood resilience in the face of climate change. *Nature Climate Change*, 5(1), 23–26. <https://doi.org/10.1038/nclimate2431>
- Vogel, C., Moser, S. C., Kasperson, R. E., & Dabelko, G. D. (2007). Linking vulnerability, adaptation, and resilience science to practice: Pathways, players, and partnerships. *Global Environmental Change*, 17(3-4), 349–364. <https://doi.org/10.1016/j.gloenvcha.2007.05.002>