# (initial) Typology of shocks

An event can cause a candidate shock when (1) there is a direct or indirect impact on the socio-ecological system (social capital or environment), (2) it is sudden, and (3) that impact is high. Considering that, when an event can cause a shock, it can fall into any of the types mentioned below. These were identified with an initial literature review:

* *Natural disasters* such as hurricanes, tornados, floods, and closed or downsized employers (Atkinson, 2013; Besser, 2013; Imperiale & Vanclay, 2016). These can also impact the social capital (Meyer, 2018). These natural disasters whose impact on social capital and the environment is significant and suddencan be considered **environmental shocks**.
* **Economic shocks** are sudden events causing a significant impact on the local economy (Besser et al., 2008). The impact can be directly by the economic shock itself (i.e. through the loss of jobs or the loss of physical infrastructure) and indirectly by the changes in social capital resulting from the shock (Besser et al., 2008).
* While *technological disaster* is commonly addressed under environmental contamination (Ritchie & Gill, 2007), meaning a “man-made contamination of an environment that persists over time”(Ritchie & Gill, 2007). These disasters can be caused by various events, including dam collapses, explosions, and nuclear accidents, commonly called *technological catastrophes* (Baum et al., 1983; Manion & Evan, 2002), which we will call **technological shocks**. The impacts of technological disasters can create: “(1) cultural change, which involves ‘‘reality disjuncture’’ (i.e., no shared group assumptions) and (2) structural change, which disrupts a community’s routines and social networks” (Ritchie & Gill, 2007).
* Drawing from strategic management and social science, **traumatic shocks** “negatively and considerably disrupt broader society through culture and institutions” (Klüppel et al., 2018). On an individual level, trauma is a wound inflicted by an emotional shock that changes the mind and has behavioral repercussions, but cultural trauma is a more abstract concept that includes collective identity, including religious and national identity. (Eyerman, 2013).

A shock will be classified as a type based on these criteria in the nature of the event of origin and where the impact is:

|  |  |  |
| --- | --- | --- |
| **Type of shock** | **Cause (nature of event)** | **Where is the impact** |
| Environmental | Natural disaster | - |
| Technological | Failure in technological infrastructure | - |
| Economic | - | Economy |
| Traumatic | - | Culture and social institutions |

REFERENCES

Atkinson, C. L. (2013). Toward Resilient Communities. <https://doi.org/10.4324/9780203076309>

Baum, A., Fleming, R., & Davidson, L. M. (1983). Natural disaster and technological catastrophe. *Environment and Behavior*, *15*(3), 333-354.

Besser, T. L. (2013). Resilient small rural towns and community shocks. *Journal of Rural and Community Development*, *8*(1).

Besser, T. L., Recker, N., & Agnitsch, K. (2008). The impact of economic shocks on quality of life and social capital in small towns. *Rural Sociology*, *73*(4), 580-604.

Eyerman, R. (2013). Social theory and trauma. *Acta sociologica*, *56*(1), 41-53.

Imperiale, A. J., & Vanclay, F. (2016). Experiencing local community resilience in action: Learning from post-disaster communities. *Journal of Rural Studies*, *47*, 204-219.

Klüppel, L. M., Pierce, L., & Snyder, J. A. (2018). Perspective—The deep historical roots of organization and strategy: traumatic shocks, culture, and institutions. *Organization Science*, *29*(4), 702-721.

Manion, M., & Evan, W. M. (2002). Technological catastrophes: their causes and prevention. *Technology in Society*, *24*(3), 207-224.

Meyer, M. A. (2018). Social capital in disaster research. *Handbook of disaster research*, 263-286.

Ritchie, L. A., & Gill, D. A. (2007). Social capital theory as an integrating theoretical framework in technological disaster research. *Sociological Spectrum*, *27*(1), 103-129.