

Review of: "How Social Infrastructure Saves Lives: A Quantitative Analysis of Japan's 3/11 Disasters"

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The article offers a fresh perspective by quantitatively validating how social infrastructure is an effective disaster risk reduction (DRR) intervention. The examples provided on how this type of infrastructure can serve as risk prevention and disaster response hubs offer a paradigm shift in understanding how we can better support DRR.

Despite the (convincing) findings offered herein, the author should contextualise how social infrastructure thrives against the nature of the society upon which this is introduced or built. For example, do communal facilities flourish well in individualistic communities as they would in more collective settings? Acknowledging the dynamics of the existing social fabric and how this type of infrastructure is hosted can offer a more grounded appreciation of its merits and respective limitations.

In the section about the determinants of mortality, the author proposed that home-owning and educated residents are less susceptible to the impacts of hazards. Such a big claim should be substantiated by references (or actual evidence). In line with our recent work^[1] synthesising the body of knowledge on the use of local and indigenous knowledge for DRR, evidence suggests that local people – even without formal education – do possess knowledge useful in combatting risks. While the author's claim is not invalid, a more rationalised argument is needed before including this variable in their regression model.

The author should also be careful in interpreting the results from inferential statistics used in the study such as regression. In the results section, the author mentioned that "...investment in one social infrastructure [...] could save 26 elderly people". It has been known that correlation does not imply causation. Therefore, the results should be worded clearly that social infrastructure can *influence* to reduce mortality rate but is not the direct catalyst in producing such effect.

References

- ¹ ^ Arvin Hadlos, Aaron Opdyke, S. Ali Hadigheh. (2022). *Where does local and indigenous knowledge in disaster risk reduction go from here? A systematic literature review*. *International Journal of Disaster Risk Reduction*, vol. 79 , 103160. doi:10.1016/j.ijdr.2022.103160.