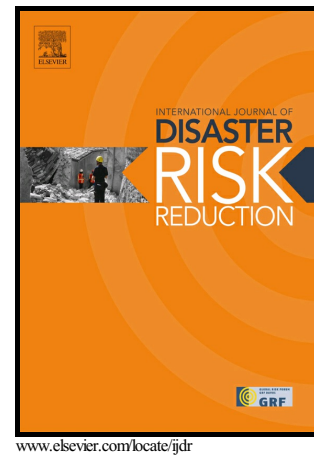


Author's Accepted Manuscript

Increasing communities' resilience to disasters; an impact-based approach

Tim R.H. Davies, Alistair J. Davies



PII: S2212-4209(18)30633-2
DOI: <https://doi.org/10.1016/j.ijdr.2018.07.026>
Reference: IJDRR955

To appear in: *International Journal of Disaster Risk Reduction*

Received date: 21 May 2018
Revised date: 25 July 2018
Accepted date: 26 July 2018

Cite this article as: Tim R.H. Davies and Alistair J. Davies, Increasing communities' resilience to disasters; an impact-based approach, *International Journal of Disaster Risk Reduction*, <https://doi.org/10.1016/j.ijdr.2018.07.026>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Tim R. H. Davies*, Alistair J. Davies

Dept. of Geological Sciences, University of Canterbury, Private Bag 4800, Christchurch 8140, New Zealand

*Corresponding author. tim.davies@canterbury.ac.nz

Abstract

The conventional processes of science, and the incorporation of science into policy and practice, appear not to be resulting in improved disaster reduction solutions for communities, despite intense research into hazards and risk. Resilience to disasters is increased when the societal impacts of disasters are reduced. On this basis, the contribution that Disaster *Risk* Reduction (DRR) can make to Disaster *Impact* Reduction (DIR) is assessed, and it is demonstrated that reducing event risk by reducing event probability only reliably reduces community disaster impacts for events that occur frequently. Such events do not fit the UNISDR definition of a disaster. Therefore, DRR cannot reliably improve DIR. Instead, DIR can be addressed directly by way of community adaptation, based on carefully selected impact scenarios derived by community-expert-official collaborations considering a broad range of event and asset damage scenarios. Probabilistic risk is a useful tool in insurance and re-insurance, and possibly in national policy-making, but such national policies are likely to be undermined by inevitable failures of risk-based approaches at the local level. This work clarifies the common usage of “risk” as meaning either impact, or impact x probability.

Download English Version:

<https://daneshyari.com/en/article/7470847>

Download Persian Version:

<https://daneshyari.com/article/7470847>

[Daneshyari.com](https://daneshyari.com)