DIVE into a More Resilient New Zealand

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The key to New Zealand's exciting resilience innovations might not be as far away as we think. In fact, it might already be sitting in the computers of researchers nationwide.

Across the country there are datasets from extensive, ongoing research on disaster risk reduction and resilience, but no integrated way to share and search that information. This seemed like a missed opportunity, so in 2016, a collaborative team of researchers funded by QuakeCoRE - New Zealand Centre for Earthquake Resilience and Resilience to Nature's Challenges Kia manawaroa – Ngā Ākina o Te Ao Tūroa ran a series of workshops to find out the critical data needs for researchers and research stakeholders in the disaster risk reduction (DRR) and resilience space so that they could formulate a plan.

Several key needs were identified. Researchers and stakeholders needed a system where they could find out about ongoing research before publication, and through which data could be easily searched for and shared across organizations. They also needed standards and guidance for transdisciplinary data management that facilitate data integration, analysis, and visualisation, and in addition, better access to public, proprietary, and sensitive data sources, and the ability to track data reuse.

In light of these findings, the team developed the Data Integration and Visualisation En Masse (DIVE) Platform. The NZ Resilience DIVE Platform website gives users the ability to catalogue, discover, share, and use datasets and other information relevant to DRR and resilience in New Zealand. DIVE is, first and foremost, a metadata catalogue, a place where people can let others know about the data, publications, and ongoing research relevant to DRR and resilience. DIVE also has the capacity to host unique datasets, and the team is currently working with researchers who have datasets that they would like a wider audience to access or reuse. The platform is also a place where those interested in DRR and resilience in New Zealand can connect and collaborate, forming virtual organisations for sharing information. Finally, DIVE provides access to data literacy tools for those wanting to know more about metadata and spatial data, and why these things are important for a more resilient New Zealand.

DIVE has been created using a software platform (CKAN) that can be transferred to another host (such as data.govt.nz) should the platform be decommissioned. This ensures the longevity of users' uploaded information. The DIVE platform is currently in the beta testing stage, and researchers within The Resilience Challenge are beginning to upload and share their data in an easy to navigate, user friendly space. Feedback from this testing stage will provide justification for further funding to facilitate DIVE's ongoing development.

The NZ Resilience DIVE Platform is created and maintained by Resilient Organisations and, ultimately, by New Zealand's research community. As a sharing platform, this collaborative site provides a tool for transformational research, allowing for innovative new discoveries through the recycling of data. It is also hoped that DIVE can act as a catalogue or repository for information produced in disaster response and recovery contexts and can aid decision making in the wake of natural disasters. DIVE can be accessed from https://resiliencedata.org.nz/.

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