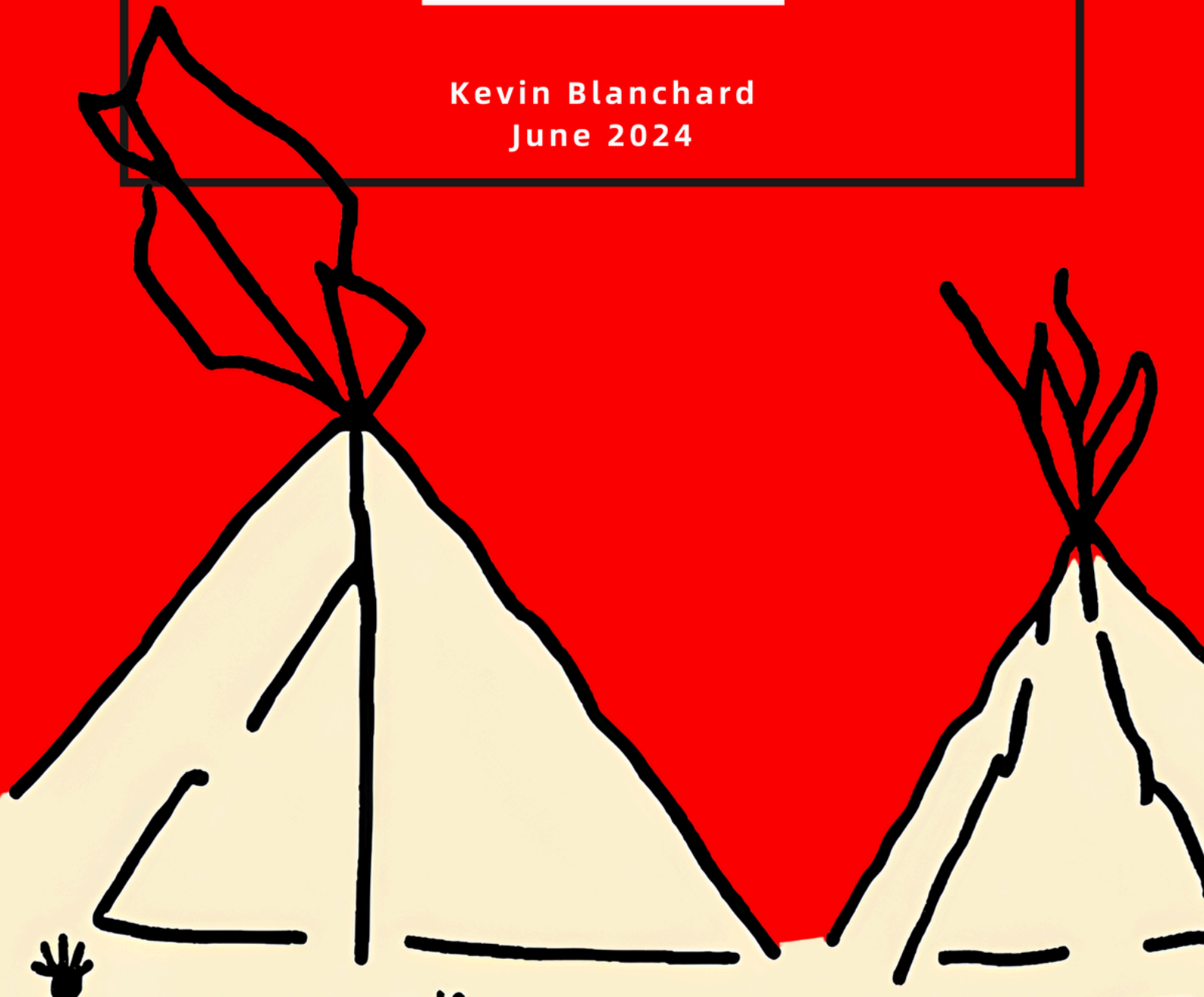


Intersectionality, marginalised groups & disasters:

Culture & identity in disaster
preparedness & response

Case studies

Kevin Blanchard
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Email - contact@drddynamics.com

Website - www.drddynamics.com

Twitter - [@DRRDynamics](https://twitter.com/DRRDynamics)

This report was written by [Kevin Blanchard](#).

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Introduction

The integration of culture and identity into disaster preparedness and response strategies has been shown to be a vital component in enhancing community resilience and ensuring effective disaster management (Blanchard, 2024). By acknowledging and incorporating traditional knowledge, practices, cultural values, and both personal and community identity, disaster management plans can be tailored to the specific needs and strengths of diverse communities (Blanchard, 2024). Examples from around the world illustrate how cultural practices and identities should be leveraged to improve broader disaster risk reduction efforts. These examples demonstrate the effectiveness of combining indigenous knowledge systems with modern technologies, fostering community engagement, and implementing culturally sensitive policies. Highlighting these successful integrations provides valuable insights into the benefits of culturally informed disaster management and underscores the importance of preserving and utilising culture and identity in building resilient communities.

Case studies play a pivotal role in emphasising the importance of cultural and social practices (Yadav et al, 2007), particularly in the context of disaster preparedness and response strategies (Grynszpan et al, 2011). They illustrate how integrating culture and identity into these strategies enhances community resilience and ensures effective disaster management (Grynszpan et al, 2011, Grover et al, 2022).

Examples from around the world show how culture and identity have been leveraged to improve disaster risk reduction efforts (Laine, 2016). These cases demonstrate the effectiveness of combining knowledge systems from local cultures with modern technologies, fostering community engagement, and implementing culturally sensitive policies (Laine, 2016). For example, combining indigenous or culturally localised weather prediction methods with advanced meteorological data can provide more accurate and timely warnings, allowing communities to prepare more effectively (Hermans et al, 2022). Highlighting these successful integrations provides valuable insights into the benefits of culturally informed disaster management and underscores the importance of preserving and utilising culture in building resilient communities (Laine, 2016).

For instance, in regions where traditional architectural practices are adapted to local environmental conditions, these practices can significantly reduce the impact of disasters (Karki, 2022). The use of locally sourced materials and construction techniques that have evolved over generations often proves more effective and sustainable than modern, non-native approaches (Karki, 2022). Case studies from such regions reveal how these traditional methods not only withstand disasters

better but also promote quicker recovery by utilising familiar resources and methods (Jigyasu & Jokilehto, 2024).

Moreover, several case studies highlight the role of community engagement and participation in disaster management. Involving local communities in the planning and implementation of disaster preparedness strategies ensures that these plans are culturally appropriate and widely accepted (Mercer et al, 2016). This participation fosters a sense of ownership and responsibility among community members, leading to more effective and sustainable disaster management outcomes (Mercer et al, 2016).

Case studies serve as powerful tools to illustrate the importance of cultural and social practices in disaster management. They provide concrete examples of how culture and identity can enhance community resilience and effectiveness in disaster preparedness and response. By learning from these examples, policymakers and practitioners can develop more inclusive and effective disaster management strategies that respect and utilise the rich cultural identities of diverse communities.

The role of Māori culture in Aotearoa's Christchurch earthquake recovery

The Māori, the indigenous people of Aotearoa/New Zealand, provide a compelling example of how a cultural minority group can leverage their cultural heritage to recover from a disaster (Phibbs et al, 2022). The Christchurch earthquake in 2011, a 6.3 magnitude tremor, caused significant destruction and loss of life (Kaiser et al, 2012). Amidst the widespread devastation, the Māori community utilised their cultural practices and traditional knowledge to support recovery efforts and rebuild their communities (Kenney & Phibbs, 2015).

Traditional Knowledge and Community Cohesion

The Māori community's response was deeply rooted in their cultural values of manaakitanga (hospitality and care) and whanaungatanga (kinship and community) (Phibbs et al, 2022). These values fostered strong community cohesion and mutual support, which were critical during the recovery phase. The Māori mobilised quickly to provide immediate assistance to those affected by the earthquake, drawing on their extensive kinship networks to ensure that resources were distributed equitably and that no one was left unsupported (Kenney & Phibbs, 2015).

Marae, traditional Maori meeting grounds, played a pivotal role in the recovery process (Kenney & Phibbs, 2015, Phibbs et al, 2022). Many marae opened their doors to provide shelter, food, and support services to both Māori and non-Māori affected by the earthquake (Kenney & Phibbs, 2015, Phibbs et al, 2022). The marae became central hubs for community coordination, offering a place where people could gather, share information, and plan recovery efforts. This approach not only provided immediate relief but also reinforced the cultural identity and social fabric of the Māori community (Kenney & Phibbs, 2015, Phibbs et al, 2022).



Image 1: A marae - a focal point of Māori communities throughout Aotearoa.

Cultural Practices in Healing and Recovery

Cultural practices and rituals were integral to the psychological and emotional recovery of the Māori (Kenney & Phibbs, 2015).

Traditional ceremonies, such as karakia (prayers) and waiata (songs), were performed to honour those who had died and to bring comfort to the living (Kenney & Phibbs, 2015). These practices helped the community process grief and trauma, fostering a sense of continuity and hope.

The Māori also utilised traditional knowledge in the reconstruction efforts. For example, they applied sustainable building practices that incorporated Māori architectural styles and materials, which not only provided practical benefits but also ensured that the rebuilt environment reflected their cultural heritage (Kenney & Phibbs, 2015). This culturally sensitive approach to rebuilding helped strengthen community resilience and cultural identity.

Collaboration with Authorities

The recovery efforts of the Māori community were sometimes supported by collaborative partnerships with governmental and non-governmental organisations, however this was also not the case and hurdles remain in truly collaborative approaches (Jayasinghe et al, 2020). These partnerships respected and integrated Māori cultural practices into broader disaster management frameworks. For instance, the Māori Recovery Network, established in the aftermath of the earthquake, worked alongside the New Zealand government and other agencies to ensure that Māori perspectives and needs were addressed in the recovery process (Jayasinghe et al, 2020).

This collaboration also included examples of involvement of Māori leaders in decision-making processes, ensuring that recovery plans were more culturally appropriate and inclusive (Jayasinghe et al, 2020). The integration of Māori cultural heritage into official disaster management strategies when achieved, highlighted the importance of culturally informed approaches in achieving effective and sustainable recovery outcomes (Jayasinghe et al, 2020).

Outcomes and Lessons Learned

The successful integration of Maori cultural heritage in the recovery from the Christchurch earthquake demonstrated the resilience and adaptability of the Maori



Image 2: 185 empty chairs was an unofficial memorial for the 185 individuals who died in the 2011 Christchurch earthquake.

community (Kenney & Phibbs, 2015). By leveraging their cultural practices, the Maori not only supported immediate relief efforts but also facilitated long-term recovery and rebuilding. The use of marae as community hubs, the application of traditional knowledge in construction, and the incorporation of cultural rituals in healing processes were key factors in their effective response (Kenney & Phibbs, 2015).

This case study underscores the importance of recognising and integrating cultural heritage into disaster management (Kenney & Phibbs, 2015, Phibbs et al, 2022). It highlights how cultural practices and traditional knowledge can enhance community cohesion, provide emotional and psychological support, and ensure that recovery efforts are inclusive and culturally relevant (Kenney & Phibbs, 2015, Phibbs et al, 2022). The experience of the Maori in Christchurch offers valuable lessons for other communities and disaster management practitioners worldwide, emphasising the need for culturally informed approaches in disaster preparedness and recovery strategies (Jayasinghe et al, 2020).



Image 3: Damage caused by the 2011 Christchurch earthquake.

The use of traditional knowledge by the Aymara in Bolivia's drought response

The Aymara people, an indigenous group in Bolivia, provide a compelling example of how cultural identity and traditional knowledge can be harnessed to respond to and recover from disasters (Flores-Palacios et al, 2023). Bolivia, a country located in South America is often affected by severe droughts as well as other natural hazards, has witnessed the Aymara community use their cultural practices and ancestral knowledge to mitigate the impacts of disasters and build a level of resilience (Flores-Palacios et al, 2023).

Traditional Agricultural Practices

The Aymara have long adapted to the harsh climatic conditions of the Andean highlands with sophisticated agricultural techniques (Covarrubia, 2022). Among these is the construction and maintenance of sukakollos, raised field systems that conserve water and improve soil fertility (Covarrubia, 2022). These ancient farming practices, dating back to pre-Incan civilisations, have been crucial in managing water resources during droughts (Covarrubia, 2022). By maintaining these traditional methods, the Aymara sustain crop production and ensure food security even in challenging climatic conditions (Covarrubia, 2022).



Image 4: Aymara Women, El Alto, Bolivia

Community-Based Water Management

The Aymara's approach to water management is deeply rooted in their communal identity (Marston, 2015). Through a system known as uyunis, water is managed collectively, ensuring equitable and efficient distribution (Hines, 2021). This system prioritises agricultural needs while fostering communal cohesion (Marston, 2015 & Hines, 2021). During droughts, uyuni leaders are pivotal in organising community efforts to repair and maintain irrigation canals and in conducting rituals to appeal for rain (Hines, 2021).

Cultural and Spiritual Practices

Cultural and spiritual practices are integral to the Aymara's disaster management (Barié & Zuazo, 2022). Their deep spiritual beliefs are closely tied to the natural environment, and they perform traditional ceremonies to honor Pachamama (Mother Earth) and seek her blessings for rain and fertility (Oostra, 2021). Rituals such as the Ch'alla, involving offerings and prayers, aim to restore balance and harmony with nature (Stenn, 2021). These practices not only provide psychological comfort and hope during droughts but also reinforce community solidarity and collective action.



Image 5: Aymara men with the Wiphala (the flag of the Aymara)

Collaborative Efforts with Authorities

The Aymara's drought response is often influenced by collaboration and interactions with governmental and non-governmental organisations (Flores-Palacios et al, 2023). These interactions are often constructive, but can also be at odds with the official response and the response of the Aymara culture (Flores-Palacios et al, 2023). Recognising the value of traditional knowledge, these organisations have sometimes aimed to integrate Aymara practices into broader disaster management frameworks, which support the maintenance and expansion

of sukakollos and offer technical assistance that respects and builds upon traditional methods (Flores-Palacios et al, 2023). Initiatives to document and disseminate Aymara water management practices ensure that this valuable knowledge is preserved and effectively utilised (Arango, 2015).

Education and Knowledge Transmission

Education and the transmission of traditional knowledge are vital for sustaining the Aymara's resilient practices (Flores-Palacios et al, 2023). Elders play a crucial role in teaching younger generations about traditional agricultural techniques, water management systems, and cultural rituals (Flores-Palacios et al, 2023). Schools and community workshops often incorporate traditional knowledge, ensuring these practices continue to thrive. This intergenerational transfer of knowledge preserves cultural identity and equips younger Aymara with skills to face future environmental challenges (Sou, 2015).

Outcomes and Lessons Learned

The Aymara community's use of traditional knowledge and cultural practices in drought response has proven highly effective. By relying on their ancestral techniques and communal systems, they have mitigated the impacts of drought, maintained agricultural productivity, and ensured food security. The success of the Aymara underscores the importance of integrating traditional knowledge into contemporary disaster management strategies, highlighting how cultural identity can play a crucial role in resilience-building.

Conclusion

The experiences of the Maori in New Zealand and the Aymara in Bolivia illustrate how cultural minorities intersect with broader societal vulnerabilities during times of disaster. These case studies highlight that cultural heritage and traditional knowledge can significantly enhance disaster resilience, yet they also underscore the additional challenges faced by minority groups. Cultural minorities often reside in socio-economically disadvantaged areas, which are more susceptible to the impacts of disasters. These groups may lack access to critical resources, such as safe housing, healthcare, and financial support, which exacerbates their vulnerability. The systemic inequities and historical marginalisation of these communities further compound their risks, limiting their ability to recover and rebuild effectively.

Despite these challenges, the integration of cultural heritage into disaster management strategies provides a pathway to resilience for cultural minorities. The Maori's use of marae as community hubs and the Aymara's traditional agricultural and water management practices demonstrate the strength and adaptability inherent in indigenous knowledge systems. These culturally informed approaches not only address immediate needs during disasters but also foster long-term recovery and community cohesion. However, for such integration to be truly effective, it requires the recognition and support of broader societal structures, including governmental policies and collaborative efforts with non-governmental organisations. By valuing and incorporating the unique cultural assets of minority groups, disaster management can become more inclusive and equitable, ultimately leading to more resilient societies as a whole.

Images

- **Image 1:** Rotorua, NZ - Maori Versammlungshaus Rotowhio-Marae. Accessed under wiki commons - https://commons.wikimedia.org/wiki/File:00_1563_Rotorua,_NZ_-_Maori_Versammlungshaus_Rotowhio-Marae.jpg
- **Image 2:** Christchurch banner 185 Empty Chairs December 2014. Accessed under wiki commons - https://en.wikivoyage.org/wiki/File:Christchurch_banner_185_Empty_Chairs_December_2014.jpg
- **Image 3:** Geof Wilson. Christchurch Earthquake 22/02/11. Accessed under creative commons - <https://www.flickr.com/photos/geoftheref/5520873252>
- **Image 4:** Aymara Women, El Alto, Bolivia (2173402729). Accessed under wiki commons - https://commons.wikimedia.org/wiki/File:Aymara_Women,_El_Alto,_Bolivia_%282173402729%29.jpg
- **Image 5:** Aymara ceremony copacabana. Accessed under wiki commons - https://commons.wikimedia.org/wiki/File:Aymara_ceremony_copacabana_1.jpg

References

- Yadav, A., Lundeberg, M., DeSchryver, M., Dirkin, K., Schiller, N.A., Maier, K. and Herreid, C.F., 2007. Teaching science with case studies: A national survey of faculty perceptions of the benefits and challenges of using cases. *Journal of College Science Teaching*, 37(1), p.34.
- Grynszpan, D., Murray, V. and Llosa, S., 2011. Value of case studies in disaster assessment?. *Prehospital and disaster medicine*, 26(3), pp.202-205.
- Grover, H., Islam, T. and Slick, J. eds., 2022. *Case Studies in Disaster Mitigation and Prevention: Disaster and Emergency Management: Case Studies in Adaptation and Innovation Series*. Butterworth-Heinemann.
- Laine, J.S., 2016. *Cultural Competence, Emergency Management, and Disaster Response and Recovery Efforts Among African Americans*. Walden University.
- Karki, R., 2022. *Community perception about climate change: Investigating experiences of Himalayan communities involved in the tourism industry* (Doctoral dissertation, Brac University).
- Jigyasu, R. and Jokilehto, J., 2024. Can Our Past Save Our Future?: Traditional Knowledge and Disaster Risk Management for Cultural Heritage. In *Managing Disaster Risks to Cultural Heritage* (pp. 133-151). Routledge.
- Mercer, J., Gaillard, J.C., Crowley, K., Shannon, R., Alexander, B., Day, S. and Becker, J., 2016. Culture and disaster risk reduction: Lessons and opportunities. In *Natural hazards and disaster risk reduction* (pp. 4-25). Routledge.
- Hermans, T.D., Šakić Trogrlić, R., van den Homberg, M.J., Bailon, H., Sarku, R. and Mosurska, A., 2022. Exploring the integration of local and scientific knowledge in early warning systems for disaster risk reduction: a review. *Natural Hazards*, 114(2), pp.1125-1152.
- Phibbs, S., Kenney, C. and Solomon, M., 2022. Māori community response and recovery following the Canterbury Earthquake Sequence. In *A Decade of Disaster Experiences in Ōtautahi Christchurch: Critical Disaster Studies Perspectives* (pp. 187-210). Singapore: Springer Nature Singapore.
- Kaiser, A., Holden, C., Beavan, J., Beetham, D., Benites, R., Celentano, A., Collett, D., Cousins, J., Cubrinovski, M., Dellow, G. and Denys, P., 2012. The Mw 6.2 Christchurch earthquake of February 2011: preliminary report. *New Zealand journal of geology and geophysics*, 55(1), pp.67-90.
- Kenney, C.M. and Phibbs, S., 2015. A Māori love story: Community-led disaster management in response to the Ōtautahi (Christchurch) earthquakes as a framework for action. *International Journal of Disaster Risk Reduction*, 14, pp.46-55.
- Jayasinghe, K., Kenney, C.M., Prasanna, R. and Velasquez, J., 2020. Enacting “accountability in collaborative governance”: lessons in emergency management and earthquake recovery from the 2010–2011 Canterbury Earthquakes. *Journal of Public Budgeting, Accounting & Financial Management*, 32(3), pp.439-459.

- Flores-Palacios, X., Ahmed, B. and Barbera, C., 2023. Micro-narratives on people's perception of climate change and its impact on their livelihood and migration: voices from the indigenous Aymara people in the Bolivian Andes. In *Rebuilding communities after displacement: Sustainable and resilience approaches* (pp. 29-57). Cham: Springer International Publishing.
- Covarrubia, P., 2022. Knitting a future for the Aymara's weavers: The Andean project 1. In *Transboundary Heritage and Intellectual Property Law* (pp. 205-224). Routledge.
- Marston, A.J., 2015. Autonomy in a post-neoliberal era: Community water governance in Cochabamba, Bolivia. *Geoforum*, 64, pp.246-256.
- Hines, S.T., 2021. *Water for all: Community, property, and revolution in modern Bolivia*. Univ of California Press.
- Oostra, M., 2021. Indigenous Movements in South America: Culture, Politics, and Territories in the Andean and Amazon Regions. In *Social, Political, and Religious Movements in the Modern Americas* (pp. 220-246). Routledge.
- Barié, C.G. and Zuazo, M., 2022. Plurinational state and ecological conscience in Bolivia. *European Review of Latin American and Caribbean Studies/Revista Europea de Estudios Latinoamericanos y del Caribe*, (114), pp.89-114.
- Stenn, T., 2021. Quechua/Aymara Perspective of Social, Economic, and Environmental Sustainability in the Bolivian Andes: Sustainability and Contradictions in Bolivia's Royal Quinoa Heartland. In *Clan and Tribal Perspectives on Social, Economic and Environmental Sustainability: Indigenous Stories from Around the Globe* (pp. 65-86). Emerald Publishing Limited.
- Arango, J.S., 2015. *Slope Settlement and Post-Disaster Health Needs of Urban Displacement in La Paz, Bolivia*. University of South Florida.
- Sou, G., 2015. *Risk Perceptions and responses in disaster-prone cities of the Global South* (Doctoral dissertation, The University of Manchester (United Kingdom)).

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