



## RESEARCH COLLECTION

Natacha Wisstt

# EXAMPLES OF RECOGNITION OF VULNERABILITY IN NATURAL DISASTER CONTEXTS (ESPECIALLY EARTHQUAKES) BEYOND NEW ZEALAND

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inter-ministerial National Committee for Mental Health in Emergencies and Disasters, they helped to “conceptualize the populations’ needs and to devise a strategy to fulfil them” in the post-disaster context.<sup>5</sup> This system allowc -0.017 T7f1 Tc 0.054 Tw 0.96 178.92 71w 10ysn-1.83 Td[(p)w [te

## *II Haiti*

At 4.53 pm on 12 January 2010, a 7.0 magnitude earthquake struck Haiti.<sup>13</sup> It caused an estimated 200,000–300,000 deaths and displaced more than 1.5 million people.<sup>14</sup> Concannon Jr and Lindstrom comment that the disaster response and management in the post-disaster period “fail[ed] to adequately respect the human rights of Haitians, especially Haiti’s poor”.<sup>15</sup> This was largely due to the incapacitation of the central government that occurred, which severely limited the institutional capacity to respond and resource allocate.<sup>16</sup> Reportedly 13 out of 15 governmental offices were destroyed in the earthquake, which included the presidential palace and parliament.<sup>17</sup> Furthermore, prior to the earthquake, Haiti represented one of the poorest countries that suffered from a severe lack of resources. It lacked basic human needs, such as water, as well as institutional disaster protection and management resources, such as adequate building codes and seismic information.<sup>18</sup>

Concannon Jr and Lindstrom note that in a post-disaster context there are “five pillars of the rights-based approach: capacity building, participation, transparency, accountability, and non-discrimination”.<sup>19</sup> Each of these facets is instrumental to the realisation of human rights for all individuals, especially those who are most vulnerable in a population. The element of non-discrimination is especially relevant as it “requires that the poorest and most vulnerable Haitians be targeted for priority assistance and empowerment” which requires “conscious outreach and inclusion”.<sup>20</sup>

<sup>13</sup> Reginald DesRoches et al “Overview of the 2010 Haiti Earthquake” (2011) 27 Earthquake Spectra S1 at S1.

<sup>14</sup> Brian Concannon Jr and Beatrice Lindstrom “Cheaper, Better, Longer-Lasting: A rights-based approach to disaster response in Haiti” (2011) 25 Emory Int L Rev 1145 at 1145.

<sup>15</sup> At 1146.

<sup>16</sup> At 1172–1173.

<sup>17</sup> DesRoches, above n 13, at S2.

<sup>18</sup> At S3.

<sup>19</sup> Concannon Jr and Lindstrom, above n 14, at 1172.

<sup>20</sup> At 1189.

Following the Haiti earthquake and tsunami, Haitian women were especially vulnerable as they experienced heightened violence and a lack of access to family and community networks, social services, and overall safety systems.<sup>21</sup> Nifosi-Sutton also identified the vulnerability of internally displaced Haitian women whose vulnerability:<sup>22</sup>

... lies in their exposure to *de facto* discrimination in the enjoyment of the right to adequate housing ... because they could not access the right to adequate housing on the equal basis with those living in areas that were not affected by the 2010 earthquake.

She notes that, while the Haitian government has adopted some measures to approach this issue, it has been insufficient to directly deal with the effects of their vulnerability to the level that international humanitarian obligations require.<sup>23</sup> Concannon Jr and Lindstrom write that Haiti failed to incorporate representatives from vulnerable groups into decision-making processes which addressed the issues post-earthquake.<sup>24</sup> This exclusion “had a direct and profound impact on at-risk populations”.<sup>25</sup>

### ***III India***

On 26 December 2004, an earthquake of magnitude 9.0 struck off the west coast of Sumatra, which was followed by a tsunami that affected coastal areas of Thailand, Myanmar, India, Malaysia, Sri Lanka, the Maldives, Somalia, Kenya and Tanzania.<sup>26</sup> The death toll in India, including those missing, was 16,279, with 730,000 individuals being internally displaced and 157,000 buildings damaged or destroyed.<sup>27</sup> Vulnerability has been discussed in terms of

<sup>21</sup> At 1189.

<sup>22</sup> Ingrid Nifosi-Sutton “A Human Rights-Based Vulnerability Paradigm: Lessons from the case of displaced women in post-quake Haiti” in Flavia Zorzi Giustiniani and others (eds) *Routledge Handbook of Human Rights and Disasters* (Routledge, Abingdon, 2018) at 285.

<sup>22</sup> At 387.

<sup>23</sup> Nifosi-Sutton, above n 22, at 285.

<sup>24</sup> Concannon Jr and Lindstrom, above n 14, at 1189.

surviving the earthquake and tsunami itself, looking especially towards the physiological and social differences of men, women, and children that have impacted mortality rates.<sup>28</sup>

However, in the post-disaster response period, the government identified vulnerable persons as including internally displaced persons and the next of kin of deceased family members. Members of these vulnerable groups received financial aid from the government.<sup>29</sup> However, many who did not lose an immediate family member were excluded from state government assistance and financial aid, despite their livelihoods being destroyed by the natural disasters.<sup>30</sup>

Several weaknesses in the disaster recovery system have been identified, including concerns with: inequity and discrimination in aid distribution, the provision of basic needs in camps for internally displaced persons, the re-establishment of livelihoods, the relief efforts for women and children, and the role of non-governmental organisations (NGOs).<sup>31</sup> These shortcomings affected vulnerable persons in particular.

It has been noted

the most pressing needs of the populations” in order to prevent further death and damage in particularly vulnerable areas or populations.<sup>35</sup>

#### *IV Indonesia*

The death toll from the Indian Ocean earthquake and tsunami of 2004 in Indonesia sits at 165,945, including missing persons, making it the hardest hit by the earthquake and tsunami.<sup>36</sup> In this post-disaster context, the government failed to protect the most vulnerable persons, which included those who were still in immediate danger (such as those washed out to sea or trapped by debris but still alive) and focused only on those who were already safe.<sup>37</sup> Furthermore, aid that was distributed was inappropriate and did not take account of the specific needs of vulnerable populations (such as the female hygiene needs).<sup>38</sup> There was also reported corruption in the distribution of aid as the most vulnerable were not prioritised and military and civil government actors often stole or kept it for themselves.<sup>39</sup> Not only did the government fail to provide for those who were already vulnerable,







has been more successful. However, aid has only reached a fraction of the children affected and there have been no follow-ups to assess vulnerable children's well-being and continued needs.<sup>58</sup> Migrants, another vulnerable group, also struggled with discrimination in receiving assistance in the post natural disaster context.<sup>59</sup>

## *VIII Japan*

In March 2011, an earthquake measuring a magnitude of 9.0 struck Japan, which killed over 16,000 people and left 3,000 missing.<sup>60</sup> It was followed by a tsunami and a nuclear disaster in Fukushima. It has been reported that a large proportion of fatalities were elderly persons. In Iwate, Miyagi, and Fukushima, 56.1 per cent of deaths were those aged 65 or over, despite this age group comprising only 23 per cent of the population.<sup>61</sup>

In the wake of the disaster, Jerry Velasquez, who at the time headed the UNISDR Asia Pacific office, highlighted the need to prioritise vulnerable persons, such as women and the elderly, in disaster management to reduce the number of deaths and lives affected by disasters. He stated that in this identification process they must:<sup>62</sup>

... seek out the counsel of these vulnerable groups; listen to what they have to say; include their views and above all, make them active players in the processes that are being rolled out on their behalf. This is the only way risk reduction will be effective.

In a White Paper report of the Cabinet Office of Japan in 2015, the use of vulnerability as a step in disaster management is highlighted, as well as recommendations of how vulnerable individuals can be further identified and protected in post natural disaster contexts. The report particularly focuses on the evacuation of vulnerable individuals and lists them as including "the elder

support.<sup>63</sup> Evacuation plans for facilities that are used by vulnerable populations have also been devised.<sup>64</sup>

### *IX San Francisco*

The earthquake and tsunami of Japan affected San Francisco in a minor way as it caused damage to ports, harbours, public and private property and forced some residents to flee.<sup>65</sup> While there was not a dynamic impact on the area, the mechanisms that are in place to protect vulnerable people in the event of an earthquake are particularly interesting. The City and County of San Francisco Hazard Mitigation Plan has a section on a “vulnerability analysis” which “identifies potentially vulnerable assets – including people, residential, non-residential, and essential facilities and infrastructure”.<sup>66</sup> The plan recognises that “persons who are older, who have few economic resources, or who rely on electric power for life-saving medical equipment, such as respirators, will be extremely vulnerable in power outages”.<sup>67</sup> While the