

## Right to housing after Fukushima nuclear disaster: through a lens of international human rights perspective

By Miki Ishimori

Department of Law and Criminology of Aberystwyth University

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### *Abstract*

The 2011 Fukushima nuclear accident has caused large-scale evacuation of residents. At its peak in June 2012, approximately half of 347,000 evacuees originated in Fukushima, and over 97,000 individuals remain displaced after six years from the accident. From a perspective of international human rights law, the paper critically analyses whether the victims' right to housing has been compromised during the evacuation and subsequent policies of compensation and assistance programs in Japan, and whether existing international law and domestic law provide an effective remedy to housing restoration for victims.

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'Human rights-based approach' is defined as '[a] conceptual framework [...] normatively based on international human rights standards and operationally directed to promoting and protecting human rights.'<sup>1</sup> Within the international rule-making realm on the disaster, the importance of observing human rights standards in disaster prevention, mitigation and management has been recognized in the Sendai Framework for Disaster Risk Reduction 2015-2030<sup>2</sup> and the Draft articles on the protection of persons in the event of disasters, as adopted by the International Law Commission.<sup>3</sup> While the International Covenant on Economic, Social and Cultural Rights (ICESCR) does not contain explicit provision stating that the situations of natural or man-made disasters fall under the scope of application, with respect to victims of 2011 Great East Japan Earthquake and the accident at the Fukushima nuclear power plant (NPP), the U.N. Committee on Economic, Social and Cultural Rights (CESCR) recognized negative impacts on their enjoyment of rights enshrined in Article 11 (right to an adequate standard of living) and 12 (right to highest attainable standard of health)<sup>4</sup>, and recommended adoption of human rights-based approach to Japan's disaster response, risk mitigation and reconstruction efforts<sup>5</sup>.

This paper will focus on the evacuation and relocation of residents due the Fukushima nuclear accident and question whether the human rights-based approach is a useful tool to address the challenges to their right to adequate housing. After providing some background information on the origin of the accident and subsequent evacuation ('nuclear evacuation') (I), it will analyze shortcomings in Japan's key housing recovery assistance programs (II), and the nuclear compensation scheme (III). Each section contains discussion on the applicability of international human rights norms, flaws in policy response, and limitations of the

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<sup>1</sup> The Office of the High Commissioner for Human Rights 'Frequently Asked Question on a Human Rights Based approach to Development Cooperation' <<http://www.ohchr.org/Documents/Publications/FAQen.pdf>> accessed 22 June 2017.

<sup>2</sup> Sendai Framework for Disaster Risk Reduction 2015-2030, UN Doc. A/CONF.224/CRP.1 (18 March 2015), the first guiding principle.

<sup>3</sup> International Law Commission, the Draft Articles on the Protection of Persons in the Event of Disasters, UN Doc A/CN.4/L.871 (27 May 2016), arts 2 and 5.

<sup>4</sup> CESCR, Concluding Observations on the Third Periodic Report of Japan, E/C.12/JPN/CO/3 (June 10, 2013) para 25.

<sup>5</sup> *ibid* para 24.

international framework. Finally, the paper will consider the role of domestic courts in the aftermath of disasters, and end with concrete policy recommendations to avoid delay in housing recovery and a protracted displacement.

### (I) BACKGROUND INFORMATION

On 11 March 2011, at the Fukushima NPP, the seismic tremors of magnitude 9.0 damaged the electricity transmission systems, causing an off-site electricity loss; 51 minutes after the earthquake, tsunami waves as high as 14 meters reached the plant site, overwhelming the protecting wall of 5.7 meters, which resulted in the total loss of power supply for cooling of nuclear reactors in several units. Consequently, the NPP suffered a fuel melting, and a series of hydrogen explosions occurred on 12, 14 and 15 March, damaging the reactors' buildings<sup>6</sup> and causing a release of radioactive materials into the atmosphere, water, food chains, and soil.<sup>7</sup> Approximately four hours after the earthquake, the Prime minister declared a state of nuclear emergency<sup>8</sup>.

However, lacking real-time information on the severity of nuclear fallout, and unprepared for a simultaneous occurrence of natural disasters and a nuclear disaster, the responsible authorities were neither efficient nor effective in implementing a geographically and demographically large-scale evacuation.<sup>9</sup> In contrast to the International Atomic Energy Agency's guidelines recommending prompt evacuation of population from zones located within 3-to-30 km radius from a NPP in emergency situations,<sup>10</sup> the Japanese government only gradually evacuated the zones within 30 km-radius from the NPP, issuing orders<sup>11</sup> on seven separate occasions from 11 March until 22 April 2011.<sup>12</sup> Between March and September 2011, the government identified areas that had a radiation level exceeding 20 millisieverts (mSv)<sup>13</sup>, but were located beyond the zones initially designated by its first set of orders, then ordered or instructed evacuation to affected residents, albeit tardily. Evacuees voiced strong dissatisfaction with how the government administered the evacuation, citing lack of timely, clear, consistent and reliable information from the government on the duration of evacuation, possibility of return, and on-going situation of nuclear accidents as well as risks of radiation exposure in the places of residence or shelter.<sup>14</sup>

In December 2011, the Prime Minister declared that the nuclear reactors were in a stable state of cool shutdown<sup>15</sup>, and categorized the zones subject to evacuation orders according to radiation levels<sup>16</sup>, as follows:

<sup>6</sup> The National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission (NAIIC) 'Executive Summary' (2012), 12-13; Organization for Economic Cooperation and Development (OECD) Nuclear Energy Agency (NEA), 'Timeline for the Fukushima Daiichi nuclear power plant accident' (7 March 2012) <[www.oecd-nea.org/news/2011/NEWS-04.html](http://www.oecd-nea.org/news/2011/NEWS-04.html)> accessed 21 September 2017.

<sup>7</sup> The right to health is outside the scope of this paper's discussion. However, the World Health Organization (WHO) has confirmed that cancer developments following the Fukushima nuclear accident are highly unlikely. WHO, 'FAQs: Fukushima Five Years On' <[http://www.who.int/ionizing\\_radiation/a\\_e/fukushima/faqs-fukushima/en/](http://www.who.int/ionizing_radiation/a_e/fukushima/faqs-fukushima/en/)> accessed 13 July 2017.

<sup>8</sup> The Act on Special Measures Concerning Nuclear Emergency Preparedness, Act No. 156 of 1999, as last amended by the Law No. 15 of 14 April 2017 (Nuclear Emergency Act), art 15. See also NAIIC 'Main report' (Archived on 25 October 2012; <http://warp.da.ndl.go.jp/info:ndljp/pid/3856371/naic.go.jp/en/report/>) accessed 27 October 2017, s. 3.3.1.1.

<sup>9</sup> NAIIC (n 8) ss 3.2.1.2, 3.2.3, 3.5.2.

<sup>10</sup> NAIIC (n 8) s 4.3.1.3.

<sup>11</sup> Nuclear Emergency Act (n 8) art 26.

<sup>12</sup> NAIIC (n 8) ss 3.3.4.(1)-(2).

<sup>13</sup> NAIIC (n 8) ss 4.2.2.9)a.-b; ICRP, 'The 2007 Recommendations of the International Commission on Radiological Protection. ICRP Publication 103' (2007) 37 (2-4) *Annals of the ICRP*. According to ICRP, the existence of radiation level of 20 mSv justifies implementation of effective radiological protection measures.

<sup>14</sup> NAIIC (n 8) ss 3.3.4.(1)-(3), 4.2.1.,4.2.2.(6)-(9); Reiko Hasegawa, *Disaster Evacuation from Japan's 2011 Tsunami Disaster and the Fukushima Nuclear Accident*, Study No. 05/13, IDDR. May 2013, 22-42.

<sup>15</sup> OECD NEA (n 6).

<sup>16</sup> C.H. Clement (ed) 'ICRP Publication 111: Application of the Commission's Recommendations to the Protection

- 'Difficult-to-return Area' (Area 1), with more than 50mSv (and not expected to be less than 20 mSv in the next 5 years);
- 'Restricted residence Area'(Area 2), with more than 20mSv and subject to evacuation recommendation for radiological protection of population;
- 'Evacuation order cancellation preparation Area' (Area 3), with less than 20mSv.

Due to this categorization, evacuees from the above Areas have unofficially been called 'mandatory evacuees' and those from zones other than such Areas are referred to as 'self-evacuees.' By accelerating decontamination of soil,<sup>17</sup> the government has gradually lifted evacuation orders for Area 2 and 3 in March and September 2014, August 2015, May, June and October 2016, and March 2017.<sup>18</sup> As a general rule of return policy, one year after the lifting of the evacuation order, the compensation to mandatory evacuees will be terminated. Such policy has met sharp criticisms as compelling the evacuees to choose between return, and relocation without governmental support. Nevertheless, the return rate of residents after the lifting of the evacuation orders stagnates between 8 and 22 % in early 2017, because of the variance in individual risk perception on the cancer risks caused by low-level radiation, and lack of healthcare facilities and many businesses such as local supermarkets.<sup>19</sup>

### Discussion

When a disaster forces people to relocate away from their home or means of subsistence, the right to an adequate standard of living, which encompasses the right to adequate housing (ICESCR Article 11(1)), is particularly affected.<sup>20</sup> Therefore, the evacuation to escape from land inhabitable due to radioactive contamination in Fukushima is easily understood as posing challenges to the right to housing of evacuees. Although the exact wording of '(man-made) disaster-induced evacuation' cannot be found in the normative framework on the right to housing, the situation in Fukushima may fit the description of 'forced evictions,' characterized as the permanent or temporary removal of individuals from their homes against their will without appropriate legal protections.<sup>21</sup> Under the established normative framework, forced evictions are illegal unless they conform with two fundamental safeguards, namely: (1) the procedural requirements before the eviction takes place<sup>22</sup> and (2) appropriate compensation to the evictees,<sup>23</sup> which will later be discussed in (III). Although the evacuation orders may be allowed to protect safety and health, lack of information on the proposed eviction, lack of adequate and reasonable notice prior to eviction, and lack of presence of government officials during the eviction were Japanese State's failings observed during the evacuation in Fukushima.<sup>24</sup>

Additionally, the Guiding Principles on Internal Displacement (Guiding Principles), though without legally binding force but recognized as having a considerable authority to all relevant

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of People Living in Long-term Contaminated Areas after a Nuclear Accident or a Radiation Emergency' (2009) 39 Annals of the ICRP, s 3.3.

<sup>17</sup> NAIIC (n 8) s 4.5.2.

<sup>18</sup> Prime Minister of Japan and His Cabinet 'Announcement on Decision to Enforce or Lift Evacuation Orders (archive)' <<http://www.kantei.go.jp/saigai/anzen.html>> accessed 16 August 2017.

<sup>19</sup> Kota Kawasaki, 'Shift of Fukushima Revitalization Policies and "2020 Problem"' (2017) 132 Journal of Architecture and Building Science 44.

<sup>20</sup> Bridget Lewis and Rowena Maguire, 'A Human Rights-based Approach to Disaster Displacement in the Asia-Pacific' (2016) 6 Asian Journal of International Law 335.

<sup>21</sup> CESCR, General Comment No.7, The Rights to Adequate Housing (Art.11(1) of the Covenant): Forced Evictions, UN doc. E/1998/22, 20 May 1997, para 3.

<sup>22</sup> *ibid*, para 15.

<sup>23</sup> *ibid*, para 13; Rebecca J. Barber, 'Protecting the Right to Housing in the Aftermath of Natural Disaster: Standards in International Human Rights Law' (2008) 20 International Journal of Refugee Law 461.

<sup>24</sup> Barber (n 23) 462; Charles W. Gould, 'The Right to Housing Recovery After Natural Disasters' (2009) 22 Harvard Human Rights Journal 175.

actors, and reflective and consistent with international human rights law<sup>25</sup>, define internally displaced persons (IDPs) as those 'forced or obliged to leave their homes or places of habitual residence' 'as a result of or in order to avoid the effects of natural or human-made disasters'<sup>26</sup>, so the evacuation induced by a nuclear accident would fall within the scope of applicability of Guiding Principles. As such, after the emergency evacuation, Guiding Principles 22 and 28 require State to make information available pertaining to any ongoing elements of the disaster as well as the response, so that people can make free and informed decisions on their return or relocation.<sup>27</sup> Furthermore, as a concrete policy guidance, the United Nations' Inter-Agency Standing Committee's Framework on Durable Solutions for Internally Displaced Persons (IASC Durable Solutions)<sup>28</sup> mentions, as an example contrary to Guiding Principle 28(2), coercion in tacit forms, such as making assistance conditional on specific choices, setting arbitrary time limits to end assistance before the minimum conditions conducive for returns, or resettlement. Therefore, Japan's return and compensation policies concerning Fukushima may be contrary to Guiding Principles.

On the other hand, there may be several reasons for the above failings. Because forced evictions are mostly associated with armed conflicts or development projects<sup>29</sup>, and Guiding Principles are similarly associated with 'conflict-induced migration',<sup>30</sup> the authorities may have overlooked, ignored or neglected<sup>31</sup> human rights-based approach in dealing with the nuclear evacuation. Furthermore, the element of coercion in a displacement induced by slow-onset disasters is not always easy to identify: in case of Fukushima's self-evacuees, the government contends that their decision to flee the inhabitable land is unfounded. Lack of definitional clarity in international norms exists as to from which point the displacement is no longer 'voluntary' and becomes 'forced'.<sup>32</sup>

## *(II) POST DISASTER HOUSING RECOVERY PROGRAMS*

Under the Japanese institutional framework on the post-disaster response, victims whose housing is lost or damaged may receive in-kind support in the form of emergency shelters and temporary housing units, in principle free of charge, without proof of income.<sup>33</sup> However, that does not mean that disaster victims are not vested with the right to claim or receive assistance as an aspect of the right to life<sup>34</sup> or right to adequate standard of living<sup>35</sup> enshrined in the Japanese Constitution; the main instrument on disaster risk reduction (DRR) is even wary of discouraging self-support through disaster recovery assistance.<sup>36</sup>

In the aftermath of 3/11, more than 53 000 temporary housing units were newly constructed. Moreover, as an exceptional measure from early April 2011, the public authorities provided more than 68 000 private renting units of evacuees' choice, by signing residential tenancy

<sup>25</sup> Walter Kälin, 'Guiding Principles on Internal Displacement' (2008) 38 *Studies in Transnational Legal Policy* vii-viii.

<sup>26</sup> Guiding Principles, UN Doc. E/CN.4/1998/53/Add.2 (11 February 1998), introduction to Guiding Principles, para 2.

<sup>27</sup> Lewis and McGuire (n 20) 337.

<sup>28</sup> IASC Durable Solutions, UN Doc.A/HRC/13/21/Add.4 (9 February 2010) 18.

<sup>29</sup> CESCR (n 21) paras 5-7.

<sup>30</sup> Roberta Cohen and Megan Bradley, 'Disasters and Displacement: Gaps in Protection' (2010) 1 *International Humanitarian Legal Studies* 103.

<sup>31</sup> Lewis & McGuire (n 20) 332; IASC Durable Solutions (n 28) 2.

<sup>32</sup> Cohen and Bradley (n 30) 97,104,108.

<sup>33</sup> The Disaster Relief Act, Act No.118 of 1947, as last amended by Law No.42 of 2014, art 4, enumerating emergency evacuation shelters, temporary housing, basic supply of food, water, clothing and medical care as forms of emergency relief provided by prefectural governments; the Basic Act on Disaster Control Measures (Basic Act) (Act No.223 of 1961, as last amended by Law No.47 of 20 May 2016) art 2.

<sup>34</sup> The Constitution of Japan, Constitution November 3, 1946, art 13.

<sup>35</sup> *ibid*, art 25.

<sup>36</sup> The Basic Act, art 2-2 (5) states that public assistance policies should not impede voluntary recovery efforts of population.

agreements with private owners.<sup>37</sup> In the reconstruction phase, low-income individuals may be eligible for permanent public renting units, normally located within the disaster-affected areas.<sup>38</sup>

Nevertheless, shortcomings in housing recovery assistance have been reported in Fukushima, especially in taking into account the degree of individual needs, or variance of living conditions or financial situation of nuclear evacuees. On 14 March 2011, at its peak, 550 000 evacuees from tsunami, earthquake and nuclear accident stayed at emergency shelters,<sup>39</sup> which overwhelmed the capacity of many municipalities to guarantee access to nutritious food, water, hygiene, and healthcare, as well as respect for privacy and safety for the most vulnerable groups.<sup>40</sup> It was not until February 2012 that all the shelters were closed in Fukushima.<sup>41</sup>

The most severe consequences of unpreparedness in the nuclear evacuation were 60 cases of 'disaster-related' deaths by the end of March 2011, reported among elderly residents of the areas subject to mandatory evacuation orders.<sup>42</sup> Such disaster-related deaths were indirect results of physical and mental exhaustion caused by harsh conditions at shelters or during displacement, and worsening of pre-existing illnesses due to inaccessibility to health care.<sup>43</sup> Until June 2017, 2147 cases of 'disaster-related deaths' have originated in Fukushima Prefecture.<sup>44</sup>

Nuclear evacuees faced challenges in transitioning from emergency shelters to temporary or permanent housing units. According to Akira Imai's surveys, nuclear evacuees from Fukushima tended to move frequently, by average, 3.3 to 4 times in 3 months after the nuclear accident<sup>45</sup>, and 20% of the respondents moved again one year after the accident.<sup>46</sup> They are spread across Japan, perhaps in compliance with frequent evacuation orders and for avoidance of radiation effects. More than 50% of respondents have also experienced family separation, due to limited space in temporary housing<sup>47</sup>. While the post-disaster provision of private renting units offered high adaptability to the individual needs, it accelerated the geographical dispersion of nuclear evacuees, which may have left them out of continued needs assessment and meaningful participation in the decision-making process on return policy and durable solutions for housing recovery. Three years after the accident, the evacuees responded that the government should have taken measures such as the renovation of temporary housing units into permanent residence, monetary compensation for

<sup>37</sup> Takeshi Fukuda, 'Current Issues regarding Temporary Housing'\* (2017) 966 National Diet Library Issue Brief, 5-8.

<sup>38</sup> The Act on Public Housing, Act No. 193 of 1951, as last amended by Law No. 45 of 2 June 2017, art 8.

<sup>39</sup> Reconstruction Agency 'Statistics of evacuees'\* (28 January 2014)  
<[http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-1/20140128\\_hinansha.pdf](http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-1/20140128_hinansha.pdf)> accessed 15 August 2017.

<sup>40</sup> Human Rights Now, 'Submission to CESCR' (28 April 2012)  
<[http://www2.ohchr.org/english/bodies/cescr/docs/ngos/HRN\\_Japan\\_CESCRWG49\\_Report.pdf](http://www2.ohchr.org/english/bodies/cescr/docs/ngos/HRN_Japan_CESCRWG49_Report.pdf)> accessed 12 October 2017.

<sup>41</sup> '5 Years After the Disaster – Evacuation of Residents and Nuclear Disaster-related Deaths: Considerable Delay in Housing Recovery'\* *Fukushima Mimpo* (Fukushima, 12 February 2016)  
<[http://www.minpo.jp/pub/topics/jishin2011/2016/02/post\\_13208.html](http://www.minpo.jp/pub/topics/jishin2011/2016/02/post_13208.html)> accessed 16 October 2017.

<sup>42</sup> NAIIIC (n 8) s 4.2.3.1)b).

<sup>43</sup> M. Hayakawa, 'Increase in disaster-related deaths: risks and social impacts of evacuation' (2016) *Annals of the ICRP* 1, paras 2-3.

<sup>44</sup> Reconstruction Agency 'Disaster-related Deaths'\* (30 June 2017)  
<[http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-6/20170630\\_kanrenshi.pdf](http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-6/20170630_kanrenshi.pdf)> accessed 16 October 2017.

<sup>45</sup> Akira Imai, 'First Survey of Inhabitants who were Evacuated from the Nuclear Power Plant Disaster'\* (2011) 393 *Monthly Review of Local Government*, 1-37; 'Second Survey of Inhabitants who were Evacuated from the Nuclear Power Plant Disaster'\* (2011) 398 *Monthly Review of Local Government*, 17-41.

<sup>46</sup> Akira Imai, Third Survey of Inhabitants who were Evacuated from the Nuclear Power Plant Disaster'\* (2012) 402 *Monthly Review of Local Government*, 24-56.

<sup>47</sup> Imai, (n 45).

a new construction of housing property or provision of permanent housing for disaster victims in their place of relocation.<sup>48</sup>

On the other hand, because of considerable delay in constructing permanent public housing<sup>49</sup>, the elderly and low-income households, unable to bear moving costs, tend to remain in publicly-owned temporary housing units with limited durability and decreasing habitability over time.<sup>50</sup>

### Discussion

The nuclear evacuees remain entitled to the protection of their right to adequate housing, in accordance with the criteria set out by CESCR<sup>51</sup>. Similarly, Guiding Principles provide for the relevant rights of IDPs and corresponding obligations of States<sup>52</sup>. Nuclear evacuees have to be provided with appropriate accommodation at the places of evacuation; nevertheless, lack of adequate space<sup>53</sup>, privacy,<sup>54</sup> and security<sup>55</sup> at emergency shelters, limited durability of temporary housing units, which results in a decrease of habitability over time<sup>56</sup>, may indicate failings of Japan's post-disaster housing assistance. Furthermore, sufficient consideration of adequate location<sup>57</sup> with regard to healthcare facilities during the evacuation and relocation of elderly patients could probably have decreased disaster-related deaths. Enhancement of accessibility to permanent housing units for vulnerable groups<sup>58</sup> should also be given priority. Improvements of housing restoration policies should be made by ensuring effective and meaningful consultation with evacuees and their participation in decision-making.<sup>59</sup>

Nevertheless, the factors constituting the adequacy of housing may be progressively realized by State, as part of its obligations to fulfill, by taking appropriate steps – including a mix of public and private sector measure, as necessary-, in the shortest possible time in accordance with the maximum available resources.<sup>60</sup> It may be difficult to assert that Japan did not even discharge its minimal duty to address and satisfy the urgent humanitarian needs such as basic shelter and housing, as it resorted to exceptional measures such as procurement of private renting units. As the international framework emphasizes on the satisfaction of urgent, subsistence needs, it lacks globally-agreed upon indicators which measure the appropriateness and adequate progress of housing recovery.<sup>61</sup>

### (III) NUCLEAR COMPENSATION

In the case of Fukushima accident, the government has regarded the nuclear compensation

<sup>48</sup> Akira Imai, Fourth Survey of Inhabitants who were Evacuated from the Nuclear Power Plant Disaster\*(2014) 424 Monthly Review of Local Government, 70-103.

<sup>49</sup> According to Fukushima Mimpo (n 41), only 20% of planned units have been completed, as opposed to 70% for tsunami evacuees, as of January 2016.

<sup>50</sup> Building Standards Act, Act No. 201 of 1950, in arts 85 (3) and (4), provides for construction of temporary housing having durability of up to 2 years and 3 months, but the use of temporary housing has exceptionally been allowed after the 2011 earthquake under the Act on Special Measures concerning Preservation of Rights and Interests of Victims of Specified Disaster (Act No.85 of 1996, as last amended by Law No.54 of 21 June 2013, art 8).

<sup>51</sup> CESCR, General Comment N o.4, The Right to Adequate Housing (Art 11(1) of the Covenant), UN doc. E/1992/23, 13 December 1991.

<sup>52</sup> Guiding Principles (n 26) principle 3(1); principle 7(2); principle 18.

<sup>53</sup> CESCR (n 51) para 8(d).

<sup>54</sup> *ibid*, para 9.

<sup>55</sup> *ibid*, para8(b).

<sup>56</sup> *ibid*, para 8(d).

<sup>57</sup> *ibid*, paras 8(b), 8(f).

<sup>58</sup> *ibid*, para 8(e).

<sup>59</sup> *ibid*, para 12.

<sup>60</sup> *ibid*, para 14.

<sup>61</sup> Gould (n 24) 184-87.

scheme as the main tool for evacuees' recovery. However, rather than tort law principles, it has adopted social welfare principles<sup>62</sup> of administrative efficiency, and operational methods using government's discretionary power to decide eligibility criteria and the amount and extent of assistance.

The victims' right to remedy for nuclear damages has been established under the Japanese law.<sup>63</sup> The government initially predicted at least 3 to 5 trillion JPY<sup>64</sup> and now expects total payments of 7.9 trillion JPY<sup>65</sup> for compensation of Fukushima's evacuees. It pressured TEPCO<sup>66</sup> not to invoke liability exemption<sup>67</sup> due to a causal link between the nuclear accident and a grave natural disaster of an exceptional character, and established, through legislative actions, a new financing structure for compensation<sup>68</sup> and mediation procedures by the Dispute Reconciliation Committee for Nuclear Damage Compensation (Reconciliation Committee)<sup>69</sup>. The mediation scheme started operating from 28 August 2011 at the Nuclear Damage Compensation Dispute Resolution Center (ADR Center), to accelerate voluntary settlement between TEPCO and the evacuees. There are three possibilities for victims to file compensation claims: direct claims to TEPCO, mediation procedures, or litigation.

As administrative, non-litigation scheme, the mediation procedures do not require commission fee and provide administrative efficiency and low transactional costs for the victims who seek speedy compensation to rebuild their lives. Out of total 22 739 cases filed, the ADR Center has led 17 081 cases to an agreement<sup>70</sup>, with an average processing time of 6 months per case.<sup>71</sup> It adopts a more relaxed evidentiary standard in mediation than in civil proceedings.<sup>72</sup> Furthermore, because the mediation procedures are operated under a comprehensive set of rules, namely Reconciliation Committee's non-legally binding guidelines which set standards of compensatory damages, the scheme offers general procedural fairness and uniformity in the treatment of victims. Moreover, to increase predictability and transparency, ADR Committee has published over 1200 settlement

<sup>62</sup> Matthew Diller, 'Tort and Social Welfare Principles in the Victim Compensation Fund' (2013) 53 DePaul Law Review, 726-733 (explaining characteristics of social welfare policy).

<sup>63</sup> The Act on Compensation for Nuclear Damage, Act No.147 of 1961, as amended by Act No.19 of 17 April 2009 (Compensation Act); the Act on Indemnity Agreements for Compensation of Nuclear Damage No.148 of 1961; Ximena Vasquez-Maignan, 'The Japanese Nuclear Liability Regime in the context of the International Nuclear Liability Principles' in OECD NEA Legal Section (eds) *Japan's Compensation System for Nuclear Damage As Related to the TEPCO Fukushima Daiichi Nuclear Accident (Japan's Compensation System)*, (OECD 2012) 11-13.

<sup>64</sup> Noriko Endo, 'Analysis on the Japan's Nuclear Damage Compensation Scheme- Fukushima Daiichi Case Study\*' (Summary of Ph.D. thesis, University of Kyoto 2014) 3.

<sup>65</sup> Stephen Stapczynski and Ichiro Suzuki, 'Japan Fukushima Cost Seen Almost Doubling to \$188 Billion' *Bloomberg* (9 December 2016)

<<https://www.bloomberg.com/news/articles/2016-12-09/japan-fukushima-cost-seen-nearly-doubling-to-21-5-trillion-yen>> accessed 4 September 2017.

<sup>66</sup> Endo (n 64) 10-12.

<sup>67</sup> Compensation Act (n 63) s 3.

<sup>68</sup> Compensation Act (n 63) s 16; Nuclear Damage Compensation Facilitation Corporation Act, Act No. 94 of on 10 August 2011, as amended by the Law No. 40 of 21 May 2014.

<sup>69</sup> Compensation Act (n 63) s 18(3); Cabinet Order on Establishment of Dispute Reconciliation Committee for Nuclear Damage Compensation, Cabinet Order No.99 of 2011.

<sup>70</sup> ADR Center 'Current Status of Compensation Settlements\*' (25 August 2017) <[http://www.mext.go.jp/a\\_menu/genshi\\_baisho/jiko\\_baisho/detail/1329118.htm](http://www.mext.go.jp/a_menu/genshi_baisho/jiko_baisho/detail/1329118.htm)> accessed 5 September 2017.

<sup>71</sup> '5 Years After the Disaster – Compensation of Nuclear Damage: Delay in ADR Process, TEPCO's Refusal to Settle, Is ADR only a Façade?\*' *Fukushima Mimpo* (Fukushima, 5 March 2016) <[http://www.minpo.jp/pub/topics/jishin2011/2016/03/post\\_13397.html](http://www.minpo.jp/pub/topics/jishin2011/2016/03/post_13397.html)> accessed 15 August 2017.

<sup>72</sup> 'Interim Guidelines on Determination of the Scope of Nuclear Damage resulting from the Accident at the TEPCO Fukushima Daiichi and Daini NPPs (the Interim Guidelines) (unofficial translation)' in OECD NEA Legal Section (eds) *Japan's Compensation System* (OECD 2012) 126; ADR Center, '2012 Report\*' (February 2013) <[http://www.mext.go.jp/a\\_menu/genshi\\_baisho/jiko\\_baisho/detail/pdf/PDF-5\\_adr\\_003.pdf](http://www.mext.go.jp/a_menu/genshi_baisho/jiko_baisho/detail/pdf/PDF-5_adr_003.pdf)> accessed 5 September 2017, 19-20.

agreements and statements of reasons for settlement proposals.<sup>73</sup>

However, ADR Center is criticized for lack of impartiality and reliability, despite composed of independent legal experts and officers.<sup>74</sup> Because the Reconciliation Committee is an organ attached to Ministry of Education, Culture, Sports, Science and Technology (MEXT), which promotes the non-military use and research of nuclear power, the ADR Center is seen as politically motivated to forestall litigation against TEPCO and State, while ensuring high predictability for the policy-makers.<sup>75</sup> Moreover, the effectiveness of mediation is contingent upon the will of the perpetrator: in fact, TEPCO has repeatedly engaged in unfair practice, such as rejection of direct claims by victims who filed applications for both ADR and TEPCO, refusal to compensate damages as 'lacking sufficient legal cause' when they are not specifically and literally listed in the Interim Guidelines, or delaying response to settlement proposals, despite the ADR Center's instruction to pay additional damages.<sup>76</sup> Finally, lack of meaningful participation by affected municipalities and residents in formulating the ADR Center's guidelines amounts to the sense of unfairness among victims.<sup>77</sup>

Regarding substantive aspects of the mediation, the Reconciliation Committee is criticized for disregarding the magnitude and variance of losses<sup>78</sup>, while creating a difference in treatment among recipients of awards as well as between recipients and non-recipients. The compensation is mainly targeted at mandatory evacuees, granting only a small amount of compensation for self-evacuees (120, 000 JPY per person, and additional amount of 400,000 JPY for minors and expecting mothers)<sup>79</sup> and recognizes the higher amount of compensation for Area 1 than Area 2 or 3.

Reconciliation Committee's standards have departed from tort law principles of full financial compensation for economic and noneconomic losses, by implementing compensation payments in accordance with a table of presumptive awards for categories of losses, including pre-determined fixed amounts<sup>80</sup>. The most controversial category has been the fixed compensation amount of 100 000 JPY per month (which has been decreased by 50% after the elapse of 6 months-period from the occurrence of the accident) for emotional distress caused by radiation exposure and increase in living costs due to evacuation.<sup>81</sup> ADR Center is strongly criticized for inaccurate or under-compensation of a long suffering caused by the protracted displacement, such as loss of communities as informal care system to residents.<sup>82</sup> Indeed, it is questionable whether the assessment of damages by analogy of compensation standards for emotional distress due to road traffic accidents (i.e., loss of normal life due to psychological distress or physical injury) is appropriate.<sup>83</sup>

With respect to damages to housing and land, the Reconciliation Committee seemed more

<sup>73</sup> ADR Center 'Statute of Mediation Procedures\*' (published 26 August 2011, as last amended 28 March 2012), art 30(2) <[http://www.mext.go.jp/a\\_menu/genshi\\_baisho/jiko\\_baisho/detail/1329128.htm](http://www.mext.go.jp/a_menu/genshi_baisho/jiko_baisho/detail/1329128.htm)> accessed 5 October 2017.

<sup>74</sup> Vasquez-Maignan (n 63) 24.

<sup>75</sup> Ryoichi Yoshimura, 'Compensation for Emotional Distress' in Takehisa Awaji, Ryoichi Yoshimura, and Masafumi Yokemoto (eds), *Studies on the Fukushima Nuclear Accident Compensation\** (Nippon Hyoronsha, 2015) 125.

<sup>76</sup> Masao Takase, 'Nuclear Compensation ADR: Progress and Challenges\*' (2015) 27 Fukushima University Administration and Social Sciences Review, 6.

<sup>77</sup> Yoshimura (n 75) 127-8.

<sup>78</sup> Takase (n 76) 17.

<sup>79</sup> 'First and Second amendments to the Interim Guidelines (unofficial translation)' in OECD NEA Legal Section (eds) *Japan's Compensation System* (OECD 2012), 163-68, 181-83.

<sup>80</sup> Interim Guidelines (n 72) 124-5. The schedule of compensable damages includes: transport and accommodation expenses for evacuation, business damages, loss or reduction of property value, mental anguish, damages arising from incapacity to work, injury or death, etc.

<sup>81</sup> Interim Guidelines (n 72) 133.

<sup>82</sup> Takase (n 76) 18, 23-32.

<sup>83</sup> Yoshimura (n 75) 132-8; Interim Guidelines (n 72) 133-37.

concerned with avoiding upward redistribution or over-compensation than assisting adequate and speedy housing recovery at the victims' place of relocation. The adopted methods of calculation have been criticized for not fully taking into account actual costs of replacement or substitution: first, it decided to measure the loss in reference to market value, even though the evacuees had restricted access and virtually no freedom to dispose of or sell the property on the market. Thus, the compensatory damage was assessed as the difference in the market value of a property before the occurrence of the accident and the market value of the same property after the accident, plus costs of restoration.<sup>84</sup> Only the homeowners originating in Area 1 would receive the amount equivalent to the full market value of the property before the occurrence of the accident.<sup>85</sup> According to Reconciliation Committee's estimate, the average compensation amounts for loss of land and housing properties for Area 1 is 16.7 million JPY; for Area 2: 13.9 million JPY; and for Area 3: 8.3 million JPY.<sup>86</sup>

Nevertheless, Reconciliation Committee implemented additional compensation by reflecting to some extent the costs of replacement or substitution.<sup>87</sup> The compensation amount for damage to residential house is assessed as the difference between the actual costs incurred by acquiring a new residential house and the market value of the property prior to occurrence of the accident, and should not exceed 75% of the difference between the market value of the property before the accident and the market value of the same property at the time of construction. Regarding the damage to land, it is assessed as the difference between the actual cost of acquiring a new land (calculated in reference to the average market value in urban areas of Fukushima Prefecture) and the market value of the land prior to the occurrence of the accident. Additional compensation amount is estimated to be 14.9 million JPY for Area 1; and for Area 2 & 3, 13.8 million JPY<sup>88</sup>.

## Discussion

Under the international law, ambiguities remain as to whether the right to compensation exists in situations of disasters when the right to adequate housing has been violated. As an aspect of obligation to respect, CESCR imposes appropriate compensation as the fundamental safeguard to illegal displacement.<sup>89</sup> Similarly, Guiding Principle 29 (2) recognizes the right of returned or resettled IDPs to recover their property or possessions or to obtain appropriate compensation or other forms of just reparation if recovery is impossible. In contrast, the Principles on Housing and Property Restitution for Refugees and Displaced Persons ('Pinheiro Principles') are primarily conceived as right to restitution of property for persons displaced as a result of conflict<sup>90</sup>, and although the wording of Pinheiro Principles does not exclude situations of disasters, it has been disputed whether the victims of disasters are included in the international principles covering internal displacement. Nevertheless, the Basic Principles and Guidelines on the Right to Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law (the Basic Principles and Guidelines on Remedy and Reparation) may be applicable to violations of right to housing, provided that the following is established according to principle 15<sup>91</sup>: (1) Government's failure to respect, protect, or fulfill human rights,

<sup>84</sup> Interim Guidelines (n 72) 141-42

<sup>85</sup> Second Amendment to Interim Guidelines (n 79) 180-81.

<sup>86</sup> Reconciliation Committee 'Estimate of compensable damages per household\*' (26 December 2013) <[http://www.mext.go.jp/b\\_menu/shingi/chousa/kaihatu/016/shiryo/\\_icsFiles/afiedfile/2013/12/26/1342848\\_3\\_1.pdf](http://www.mext.go.jp/b_menu/shingi/chousa/kaihatu/016/shiryo/_icsFiles/afiedfile/2013/12/26/1342848_3_1.pdf)> accessed 30 October 2017.

<sup>87</sup> Reconciliation Committee, 'Fourth Amendment to Interim Guidelines\*' (26 December 2013) <[http://www.mext.go.jp/component/a\\_menu/science/detail/\\_icsFiles/afiedfile/2017/02/03/1329116\\_011\\_2.pdf](http://www.mext.go.jp/component/a_menu/science/detail/_icsFiles/afiedfile/2017/02/03/1329116_011_2.pdf)> accessed 7 September 2017.

<sup>88</sup> Reconciliation Committee (n 86).

<sup>89</sup> CESCR (n 21) para 13; Barber (n 23) 461.

<sup>90</sup> Barber (n 23) 451-53; Gould (n 24) 193-94.

<sup>91</sup> The Basic Principles and Guidelines on Remedy and Reparation, UNGA res. 60/147, UN doc. A/Res/60/147, 21 March 2006; Barber (n 23) 444; Gould (n 24) 195-96.

(2) the existence of gross human rights violations, (3) and a causal link between Government's actions or omissions and violations. Since the Commission of Human Rights has affirmed that forced evictions constitute a gross violation of human rights, in particular the right to adequate housing,<sup>92</sup> according to principle 18 of the Basic Principles and Guidelines on Remedy and Reparation, the victims of displacement may be provided with 'full and effective reparation' in the form of restitution, or compensation, among others. Such approach is useful when the right to adequate housing has been violated by reasons of the government's response to the disaster.

However, the realization of 'full and effective compensation' as advocated in the international law is a symbolic entitlement, and thus in practice dependent on the domestic enforcement mechanisms of redress. In the case of Fukushima, although the nuclear compensation scheme has assigned responsibility for harm to TEPCO, it has not led to the admission of State's liability or TEPCO's acceptance of all compensation claims.

Since domestic courts have more coercive power than international courts, the reparative justice may be achieved through domestic judicial systems. As such, the ruling by a Japanese lower court<sup>93</sup> is of particular interest as it is one of the first cases where the courts rejected some of the foundational principles of the nuclear compensation and mediation scheme. The court recognized reasonableness of the evacuees' decision to flee; it rejected the arguments by TEPCO and State that grave natural disasters (earthquake and tsunami) caused the nuclear accident and the subsequent evacuation, thus admitting the causal link between negligence of State<sup>94</sup> and TEPCO<sup>95</sup> in failing to foresee and prevent the nuclear accident, and the infringement of victims' constitutional right to lead a peaceful life.<sup>96</sup> Such right was defined as encompassing the right not to live under anxiety or fear for radiation exposure, freedom of movement and right to be free from mental anguish.<sup>97</sup> Then it corrected the ADR Center's compensation standards, by granting additional awards to those who continue evacuation after the lifting of the governmental orders,<sup>98</sup> and rejecting calculation methods by analogy of road traffic accident compensation.<sup>99</sup>

In addition to recognizing broader scope of damages than in the existing compensation/mediation scheme, the ruling had a symbolic nature to admit past wrongs and advance understanding on the cause of the accident, and played the role of exhibiting social solidarity with victims.<sup>100</sup> The domestic court, therefore, played the similar role as a rights-based approach, i.e., (1) to determine human needs worthy of legal protection (2) to give guidance on appropriate policies and actions through balancing of interests of affected communities and public order (e.g., weighing benefits of evacuation against return) (3) to assist disaster-affected people or community to claim rights and participation or consultation in disaster management and planning policies and (4) to allocate the responsibility of harm to a tortfeasor, and in case of policy failures leading to human rights violations, and hold duty bearers accountable by claiming reparation.<sup>101</sup>

<sup>92</sup> UN Commission on Human Rights res.1993/77, UN doc E/Cn.4/Res/193/77, 10 March 1993

<sup>93</sup> Maebashi District Court, 17 March 2017, 2013 (wa) No. 478.

<sup>94</sup> *ibid*, 617-25.

<sup>95</sup> *ibid*, 172-75.

<sup>96</sup> *ibid*, 180-84; the Constitution of Japan (n 34) art 13 on right to life, liberty and pursuit of happiness and respect for personal autonomy; art 22 on freedom to choose or change its own residence and occupation.

<sup>97</sup> *ibid*, 186-87

<sup>98</sup> *ibid*, 210-11.

<sup>99</sup> *ibid* 235.

<sup>100</sup> Daniel A. Farber, 'Basic Compensation for Victims of Climate Change' (2006) 155 *University of Pennsylvania Law Review*, 1641-44.

<sup>101</sup> Walter Kälin, 'A Human Rights-based Approach to Building Resilience to Natural Disasters' (*The Brookings Institution*, 6 June 2011)

<<https://www.brookings.edu/research/a-human-rights-based-approach-to-building-resilience-to-natural-disasters/>> accessed 20 October 2017.

Finally, as lessons from Fukushima, in addition to the incorporation of a human-rights based approach in DDR strategies, the following should be taken into consideration when planning for adequate housing recovery in post-disaster situations:

- The assessment of damages in a post-disaster compensation scheme should be based on costs of replacement or substitution of housing, rather than market value;
- To avoid protracted displacement and resulting human rights challenges such as damages to physical and mental health, continuous needs-assessment of the displaced is necessary. In the case of Japan, instead of one-time provision of housing which could cost 5.6 million JPY at the maximum, vouchers of the equivalent amount, only usable for housing purposes and conditional upon dual residency registration at the initial place of residence and place of relocations, could be distributed to the evacuees, so that the authorities can keep track of them and ensure effective participation in decision-making and periodic needs assessment (including assessment of evacuees' financial situations or their specific needs for social welfare programs).