

# **Japan: Legal Responses to the Great East Japan Earthquake of 2011**

September 2013



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# Japan: Legal Responses to the Great East Japan Earthquake of 2011

*Sayuri Umeda*  
*Foreign Law Specialist*

**SUMMARY** The Great East Japan Earthquake brought the starkest crisis since the desolation of the Second World War. During the emergency period just after the earthquake, the Japanese government tried to do everything it could under existing disaster response systems. However, because large areas were affected and some municipalities lost functions, the existing systems, which placed the responsibility on each affected municipality to take action, did not work well in some parts of the country. The national government therefore made exceptions and stepped in, assuming financial responsibilities for local governments.

Many issues arose as a result of the earthquake, such as food safety concerns and disaster debris management and disposal. The nuclear crisis caused by the earthquake also created long-lasting radiation problems. A new system was created for local governments outside of the disaster area to accept and process debris. The government also established new standards for radiation levels in foods.

In addition to utilizing existing systems and programs, exceptions were made and new systems were created to support disaster victims and ease their hardship, with many laws being amended or new laws created to address the situation. A reconstruction agency was created to coordinate various reconstruction efforts. Based on post-earthquake assessments of the effectiveness of the existing nuclear regulatory authority, a new nuclear regulatory agency and new standards for nuclear power plants were created.

Japan has used the experience to better prepare for future disasters. Laws and regulations were amended, and a new tsunami countermeasure law was enacted.

## I. Introduction

A magnitude 9.0 earthquake, known as the Great East Japan Earthquake, struck off the Pacific Coast of Japan's Tohoku region on March 11, 2011, shaking the region. It caused a tsunami with devastating consequences and a nuclear crisis at the Fukushima nuclear power plants. In an opinion piece published on the one-year anniversary of the earthquake, then Prime Minister Yoshihiko Noda said it “triggered the starkest crisis [Japan] has faced in a generation.”<sup>1</sup> He

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<sup>1</sup> Prime Minister Yoshihiko Noda, Op-ed., *A Year After the Earthquake, Building a New Japan*, THE WASHINGTON POST (Mar. 9, 2012), [http://www.washingtonpost.com/opinions/prime-minister-yoshihiko-noda-japan-has-made-remarkable-progress/2012/03/07/gIQA7AX61R\\_story.html](http://www.washingtonpost.com/opinions/prime-minister-yoshihiko-noda-japan-has-made-remarkable-progress/2012/03/07/gIQA7AX61R_story.html).

compared the level of crisis caused by the earthquake to “the ashes and desolation of World War II.”<sup>2</sup>

**Map: Japan’s Nuclear Power Plants  
Highlighting Those Affected by the 2011 Earthquake and Tsunami**



Source: Wikimedia Commons, [http://en.wikipedia.org/wiki/File:Nuclear\\_plants\\_Japan\\_in\\_2011.svg](http://en.wikipedia.org/wiki/File:Nuclear_plants_Japan_in_2011.svg).

<sup>2</sup> *Id.*

The Japanese government utilized then-existing emergency systems and resources after the earthquake. Some systems did not work well because the scale of destruction from the earthquake, tsunami, and nuclear disaster combined were more than such systems were designed to address. In the wake of the disaster, Japan has enacted and amended many new laws to support victims' daily lives, clear huge mounds of debris, and reconstruct destroyed areas. Nuclear power plant safety has been reexamined. Further, Japan has enacted or amended laws to prepare for and address similar large-scale earthquakes in the future. It is expected that certain parts of Japan will experience huge earthquakes because these earthquakes happen periodically on a long cycle.<sup>3</sup>

The Great East Japan Earthquake also had a tremendous impact on the Japanese economy. Industrial production activities and exports have decreased because of the damage to stock mainly in the affected region, supply chain disruptions, and power constraints.<sup>4</sup>

## II. Actions Taken Under Pre-earthquake Emergency Measures

After the tsunami washed away coastal areas, it was hard to know who had survived, who was missing, and who had died. Power plants were paralyzed, power lines were gone, and roads were disrupted everywhere. The Japanese government undertook extensive efforts to save lives and assist survivors.<sup>5</sup> The damage was not limited to the Tohoku area. The tremor intensity level of Tokyo was five under the Japan Meteorological Agency (JMA) seismic intensity scale.<sup>6</sup> Just after the earthquake, Tokyo, the nation's capitol, was paralyzed by the damage from the earthquake and a lack of electricity. More than five million people in the Tokyo metropolitan area were estimated to have been stranded at their workplace or elsewhere on March 11, 2011.<sup>7</sup> In addition, the nuclear power plant accident caused by the earthquake and tsunami created another crisis of radiation exposure. Various emergency measures were taken based on the following laws:

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<sup>3</sup> *Jisjin wa naze okiru no?* [Why Do Earthquakes Occur?], SHIZUOKA PREFECTURAL EARTHQUAKE PREPAREDNESS EDUCATION CENTER, <http://www.e-quakes.pref.shizuoka.jp/manabu/why/b-03.htm> (last visited June 28, 2013).

<sup>4</sup> *Seisaku suishin shishin – nihon no saisei ni mukete* [Policy promotion guidelines – Toward Japan's Reconstruction], Cabinet Decision, May 17, 2011, [http://www.kantei.go.jp/jp/kakugikettei/2011/\\_icsFiles/afieldfile/2012/03/12/0517shishin.pdf](http://www.kantei.go.jp/jp/kakugikettei/2011/_icsFiles/afieldfile/2012/03/12/0517shishin.pdf) (copy and paste link into browser).

<sup>5</sup> See Message from the Prime Minister (Provisional Translation), PRIME MINISTER OF JAPAN AND HIS CABINET (Mar. 13, 2011), [http://www.kantei.go.jp/foreign/incident/110313\\_1950.html](http://www.kantei.go.jp/foreign/incident/110313_1950.html).

<sup>6</sup> TOKYO METROPOLITAN GOVERNMENT, MEASURES TOKYO METROPOLITAN GOVERNMENT TOOK AND ITS LEARNINGS FROM THE GREAT EAST JAPAN EARTHQUAKE 16 (Sept. 2011), <http://www.bousai.metro.tokyo.jp/japanese/tmg/pdf/230914taiouhonsatu.pdf> (in Japanese). Regarding the seismic intensity scale, see *Tables Explaining the JMA Seismic Intensity Scale*, JMA, <http://www.jma.go.jp/jma/en/Activities/inttable.html> (last visited June 28, 2013). Japan's seismic intensity scale differs from the Richter scale used to measure earthquake intensity in the United States.

<sup>7</sup> *5 Million Stranded in Tokyo Area After Quake*, YOMIURI NEWSPAPER (Nov. 25, 2011) (on file with author).

## A. Disaster Response Basic Law

The Disaster Response Basic Law<sup>8</sup> was enacted in 1961 for comprehensive and well-planned disaster management after a huge monsoon hit the middle part of Japan in 1959.<sup>9</sup> It was amended twice in 1995<sup>10</sup> based on the experiences of the 1995 Great Hanshin Earthquake,<sup>11</sup> and again in 2010.<sup>12</sup>

Pursuant to this Law, the Central Disaster Management Council, which is under the jurisdiction of the Cabinet Office, established the Basic Disaster Management Plan.<sup>13</sup> Based on the Basic Disaster Management Plan, all designated government organizations and designated public corporations established Disaster Management Operation Plans.<sup>14</sup> Also, each prefectural and municipal disaster management council established a Local Disaster Management Plan, reflecting local circumstances.<sup>15</sup> These plans described comprehensive and long-term disaster reduction issues, such as establishment of disaster management systems, disaster reduction projects, disaster recovery, and rehabilitation.<sup>16</sup> These plans were available at the time of the Great East Japan Earthquake. Under the Disaster Response Basic Law, in times of an extraordinary disaster with repercussions for the national economy and public welfare that are serious and far-reaching, the Prime Minister may declare a state of emergency involving the whole or part of the affected area by issuing a Cabinet Notice of Disaster Emergency Situation, which requires implementation of these plans.<sup>17</sup>

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<sup>8</sup> Saigai taisaku kihon hō [Disaster Response Basic Law], Act No. 223 of 1961, 1997 English translation available on the Asian Disaster Reduction Center's website, at <http://www.adrc.asia/documents/law/DisasterCountermeasuresBasicAct.pdf>.

<sup>9</sup> Saigai taisaku kihon hō no gaiyō [Summary of the Disaster Response Basic Law], Cabinet Office, <http://www.bousai.go.jp/taisaku/pdf/090113saitai.pdf> (last visited June 28, 2013).

<sup>10</sup> Act Nos. 110 and 132 of 1995.

<sup>11</sup> The Great Hanshin Earthquake struck a stretch of the southern part of Hyogo Prefecture on January 17, 1995. It was rated at a magnitude of 7.3 on the Japan Meteorological Agency scale (6.9 on the United States Geological Survey scale). Six thousand four hundred people died and 240,956 houses collapsed. *Great Hanshin Earthquake Restoration*, KINKI REGIONAL DEVELOPMENT BUREAU, MINISTRY OF LAND, INFRASTRUCTURE AND TRANSPORT, [http://www.kkr.mlit.go.jp/en/topics\\_hanshin.html](http://www.kkr.mlit.go.jp/en/topics_hanshin.html) (last visited Aug. 13, 2013).

<sup>12</sup> Disaster Response Basic Law, Act No. 223 of 1961, *as amended by* Act No. 65 of 2010, art. 34, para. 1.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.* art. 36.

<sup>15</sup> *Id.* arts. 40, 42. See also *Structure of Basic Disaster Management Plan*, CABINET OFFICE, GOVERNMENT OF JAPAN, [http://www.bousai.go.jp/taisaku/keikaku/english/disaster\\_management\\_plan.html](http://www.bousai.go.jp/taisaku/keikaku/english/disaster_management_plan.html) (last visited Aug. 13, 2013).

<sup>16</sup> CABINET OFFICE, GOVERNMENT OF JAPAN, DISASTER MANAGEMENT IN JAPAN 11 (Feb. 2011), [http://www.bousai.go.jp/1info/pdf/saigaipanf\\_e.pdf](http://www.bousai.go.jp/1info/pdf/saigaipanf_e.pdf).

<sup>17</sup> Disaster Response Basic Law art. 105, *as amended by* Law No. 132 of 1995.

Just after the Great East Japan Earthquake, Prime Minister Naoto Kan established the Headquarters for Emergency Disaster Response and held the first meeting within one hour<sup>18</sup> based on the Disaster Response Basic Law.<sup>19</sup> The Prime Minister is the manager and all ministers are members of the Headquarters.<sup>20</sup> The Headquarters coordinates national agencies and local governments, and oversees implementation of emergency measures.<sup>21</sup> Under the Disaster Response Basic Law, prefectures can ask the national government to dispatch ministry officials to assist with emergency measures.<sup>22</sup> Municipal governments can arrange for the short stay in other municipalities of residents who cannot stay in their homes.<sup>23</sup> A municipal government can request that a prefectural government supply emergency supplies, and a prefecture government can request the same from the national government.<sup>24</sup>

The government tried to “do everything it could do” after the earthquake, including dispatching Self-Defense Forces teams, police emergency units, fire fighters, and emergency medical teams.<sup>25</sup> Designated shelters were opened up in accordance with local government disaster plans.<sup>26</sup> The government sent food, water, blankets, medicine, and toiletries to shelters.<sup>27</sup>

However, the Prime Minister did not declare a state of emergency.<sup>28</sup> When an emergency notice is issued, the Cabinet is authorized to issue cabinet orders if the Diet is closed or the House of Representatives is dissolved in order to control sales and the transfer of necessities and decide prices of goods or services that are necessary for emergency measures and the stability of people’s daily lives.<sup>29</sup> When the earthquake hit Japan, the Diet was in session. Therefore, issuance of an emergency notice would not have made a practical difference.

The Disaster Response Basic Law states that, when a natural disaster is designated as an especially severe one by the Cabinet, the national government may grant money to local governments to pursue projects to restore destroyed areas and help victims in accordance with

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<sup>18</sup> Press Release, Cabinet Secretariat, Cabinet Public Relations Office, Headquarters for Emergency Disaster Response for the 2011 Tohoku – Pacific Ocean Earthquake (Mar. 11, 2011), [http://www.kantei.go.jp/foreign/kan/actions/201103/11touhoku\\_jisin\\_e.html](http://www.kantei.go.jp/foreign/kan/actions/201103/11touhoku_jisin_e.html).

<sup>19</sup> Disaster Response Basic Law, Act No. 223 of 1961, *as amended by* Act No. 65 of 2010, art. 28-2.

<sup>20</sup> *Id.* art. 28-3.

<sup>21</sup> *Id.* art. 28-4.

<sup>22</sup> *Id.* art. 29.

<sup>23</sup> *Id.* arts. 86-2, 86-3.

<sup>24</sup> *Id.* art. 86-7.

<sup>25</sup> Kanbō chōkan kisha happyō [Chief Cabinet Secretary Press Release], Prime Minister of Japan and His Cabinet, Kinkyū saigai taisaku honbu ni tsuite [Regarding Headquarters for Emergency Disaster Response] (Mar. 11, 2011), [http://www.kantei.go.jp/jp/tyoukanpress/201103/11\\_p3.html](http://www.kantei.go.jp/jp/tyoukanpress/201103/11_p3.html).

<sup>26</sup> Disaster Response Basic Law, Act No. 65 of 2010, art. 42.

<sup>27</sup> Chief Cabinet Secretary Press Release, Prime Minister of Japan and His Cabinet, Dai 8 kai me no kinkyū saigai taisaku honbu [The 8th Emergency Measures Headquarters Meeting] (Mar. 13, 2011), [http://www.kantei.go.jp/jp/tyoukanpress/201103/13\\_p4.html](http://www.kantei.go.jp/jp/tyoukanpress/201103/13_p4.html).

<sup>28</sup> Disaster Response Basic Law art. 105, *as amended by* Law No. 132 of 1995.

<sup>29</sup> *Id.* art. 109, para. 1.

other laws enacted for this purpose.<sup>30</sup> To that end, the Act on Special Financial Aid to Respond to Severe Disasters was enacted in 1962.<sup>31</sup> The day after the Great East Japan Earthquake, the Cabinet decided to apply this Act to the disaster, and a Cabinet Order was issued on March 13, 2011.<sup>32</sup> The Cabinet usually waits for reports on damage from a disaster before it decides to apply the Act. The earthquake, however, was obviously so severe that the Cabinet made a swift decision without waiting for reports from areas hit by the disaster.<sup>33</sup> The Cabinet decided to provide financial support for construction to restore infrastructure, farmlands, and cattle farming and aquaculture, as well as small- and mid-size enterprise insurance.<sup>34</sup>

## B. Disaster Rescue Law

Prefectures, in place of the national government, are supposed to conduct rescue activities under the Disaster Rescue Law.<sup>35</sup> Rescue activities under this Law include providing shelter, food, and water; providing or lending clothes, bedding, and other necessities; providing medical services; rescuing people from dangerous places; the initial repair of houses; etc.<sup>36</sup> Cash can be provided to persons in need of support, instead of goods and services, when the prefecture governor decides it is appropriate in a specific situation.<sup>37</sup> Designated government agencies can order businesses to hold or provide goods that are necessary to rescue activities in accordance with a disaster management plan.<sup>38</sup>

A few days after the Great East Japan Earthquake, the government realized that this earthquake was so large-scale and destructive that the system provided under the Disaster Rescue Law did not fit the situation.<sup>39</sup> Under the Law, prefectures and municipalities take primary responsibility for rescue activities and are responsible for rescue costs.<sup>40</sup> Prefectures are financially prepared

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<sup>30</sup> *Id.* arts. 96–99, as amended by Act No. 41 of 2012.

<sup>31</sup> Gekijin saigai ni taisho suru tame no tokubetsu no zaisei enjo tō ni kansuru hōritsu [Act on Special Financial Aid to Respond to Severe Disasters], Act No. 150 of 1962, last amended by No. 67 of 2012, art. 1.

<sup>32</sup> Cabinet Order on Designation of Measures Applied for the Great East Japan Earthquake, Cabinet Order No. 18 of 2011.

<sup>33</sup> CABINET OFFICE, BŌSAI HAKUSHO [DISASTER PREVENTION WHITE PAPER] 2011, ch. 3, § 1, [http://www.bousai.go.jp/kaigirep/hakusho/h23/bousai2011/html/honbun/1b\\_1h\\_3s\\_1.htm](http://www.bousai.go.jp/kaigirep/hakusho/h23/bousai2011/html/honbun/1b_1h_3s_1.htm).

<sup>34</sup> *Id.*

<sup>35</sup> Saigai kyūjō hō [Disaster Rescue Law], Act No. 118 of 1947, last amended by Law No. 65 of 2010, art. 2.

<sup>36</sup> *Id.* art. 23, para. 1.

<sup>37</sup> *Id.* art. 23, para. 2.

<sup>38</sup> *Id.* art. 23-2. Disaster management plans have been established under the Disaster Response Basic Law.

<sup>39</sup> Chief Cabinet Secretary Press Release, Prime Minister of Japan and His Cabinet, Dai 8 kai me no kinkyū saigai taisaku honbu, dai 6 kai me no genshiryoku saigai taisaku honbu, dai 1 kai me no denryoku jukyū kinkyū taisaku honbu, dai 2 kai no keizai jōsei ni kansuru kentō kaigō ni tsuite (Fukuyama naikaku kanbō fuku chōkan) [Regarding 8th Emergency Disaster Headquarters Meeting, 6th Nuclear Disaster Headquarters Meeting, First Emergency Headquarter on Supply and Demand of Electricity Meeting and 2nd Conference on Economy Situation Meeting (Vice Chief Cabinet Secretary Fukuyama)] (Mar. 13, 2011), [http://www.kantei.go.jp/jp/tyoukanpress/201103/13\\_p4.html](http://www.kantei.go.jp/jp/tyoukanpress/201103/13_p4.html).

<sup>40</sup> Disaster Rescue Law art. 33.

by reserving 5% of general-purpose local taxes for the Disaster Rescue Fund.<sup>41</sup> Some municipalities, however, were almost entirely destroyed by the tsunami and therefore could not conduct rescue activities. Also, the burden of costs for local governments was more than expected. The national government usually refunds half of such costs, but if the ratio of the cost per the prefecture's specified tax revenues goes up, the national government refunds up to 90% of the costs.<sup>42</sup> On March 13, 2011, the national government announced that it would take the initiative for rescue activities not covered by the Disaster Rescue Law and assume all financial responsibilities for such rescue activities.<sup>43</sup>

The number of earthquake and tsunami victims who were evacuated to shelters reached 40,146 at its peak. The Emergency Disaster Headquarters established the Disaster Victims' Lives Support Special Headquarters for specialized administration of distribution of food and goods to such victims on March 20, 2011.<sup>44</sup> The Disaster Victims' Lives Support Special Headquarters was transformed into the Disaster Victims' Lives Support Team on May 9, 2011.<sup>45</sup>

### C. Act on Special Measures Concerning Nuclear Emergency Preparedness

Just after the earthquake, a fifteen-meter (approximately forty-nine foot) tsunami disabled the power supply of Fukushima Daiichi Nuclear Power Plant reactors. The emergency core cooling systems stopped working due to a lack of electricity. Then Prime Minister Kan declared a nuclear emergency and established the Nuclear Emergency Response Headquarters.<sup>46</sup> Later that night, he directed two municipalities near the Fukushima Plant to order residents who lived within three kilometers (approximately 1.86 miles) of the plant to evacuate.<sup>47</sup>

These measures were based on the Act on Special Measures Concerning Nuclear Emergency Preparedness that was enacted after the Tōkaimura Criticality Accident in 1999.<sup>48</sup> That accident “was caused by bringing together too much uranium enriched to a relatively high level, causing a

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<sup>41</sup> *Id.* arts. 37, 38.

<sup>42</sup> *Id.* art. 36.

<sup>43</sup> Chief Cabinet Secretary Press Release, *supra* note 39.

<sup>44</sup> Hisaisha seikatsu shien chīmu: taisaku no keika (Jimu kiroku) [Disaster Victims' Lives Support Team: Timeline of Measures (Administrative Records)] 1 (July 22, 2011), <http://www.cao.go.jp/shien/3-info/3-ugoki/jimu.pdf>.

<sup>45</sup> *Hisaisha taisaku shien chīmu ni tsuite* [Regarding Disaster Victims' Lives Support Team], CABINET OFFICE, GOVERNMENT OF JAPAN (Mar. 9, 2012), <http://www.cao.go.jp/shien/1-gaiyo.html>.

<sup>46</sup> Chief Cabinet Secretary Press Release, Prime Minister of Japan and His Cabinet, Genshiryoku kinkyū jitai sengen ni tsuite [Regarding Declaration of Nuclear Emergency Situation] (Mar. 11, 2013), [http://www.kantei.go.jp/jp/tyoukanpress/201103/11\\_p3.html](http://www.kantei.go.jp/jp/tyoukanpress/201103/11_p3.html).

<sup>47</sup> Chief Cabinet Secretary Press Release, Prime Minister of Japan and His Cabinet, Genshiryoku saigai taisaku tokubetsu sochi hō no kitei ni motodoku jūmin e no hinan shiji ni tsuite [Regarding the Evacuation Order for Residents Based on Act on Special Measures Concerning Nuclear Emergency Preparedness] (Mar. 11, 2011), [http://www.kantei.go.jp/jp/tyoukanpress/201103/11\\_p4.html](http://www.kantei.go.jp/jp/tyoukanpress/201103/11_p4.html).

<sup>48</sup> Genshiryoku saigai taisaku tokubetsu sochi hō [Act on Special Measures Concerning Nuclear Emergency Preparedness], Act No. 156 of 1999, *last amended by* Act No. 118 of 2006, English translation available on Japanese Law Translation (maintained by the Ministry of Justice), at [http://www.japaneselawtranslation.go.jp/law/detail\\_main?re=02&vm=02&id=106](http://www.japaneselawtranslation.go.jp/law/detail_main?re=02&vm=02&id=106).

‘criticality’ (a limited uncontrolled nuclear chain reaction), which continued intermittently for 20 hours.”<sup>49</sup> Two workers from the Tōkaimura Plant died.<sup>50</sup> This law aimed to

- (1) take swift initial actions after a nuclear disaster,
- (2) coordinate national and local government activities,
- (3) enhance the emergency management system of the national government, and
- (4) make nuclear business organizations responsible for a disaster.<sup>51</sup>

Based on the Act, a nuclear operator must establish an on-site organization for nuclear emergency preparedness and place a Nuclear Emergency Preparedness Manager at each nuclear site.<sup>52</sup> When a Nuclear Emergency Preparedness Manager finds or is notified that a radiation dose above 5 millisieverts (mSv<sup>53</sup>) per hour<sup>54</sup> has been detected near the border of an area where a nuclear site is located, or that a certain level of radiation is detected somewhere else as specified in the Cabinet Order, he or she must immediately notify the competent ministers, the competent prefectural governor, the competent mayor of the municipality, and the neighboring prefectural governors of the finding.<sup>55</sup> When a minister finds that a nuclear emergency situation has occurred, he or she must immediately report necessary information concerning the situation to the Prime Minister.<sup>56</sup> The Prime Minister must then immediately give the public a nuclear emergency notice.<sup>57</sup> The Act obligates the competent ministers to report abnormal levels of radiation and make a recommendation to the Prime Minister. Upon recommendation, the Prime Minister issues a directive to the prefecture governor(s) and heads of municipalities in the affected area.<sup>58</sup>

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<sup>49</sup> *Tokaimura Criticality Accident*, WORLD NUCLEAR ASSOCIATION (July 2007), <http://world-nuclear.org/info/Safety-and-Security/Safety-of-Plants/Tokaimura-Criticality-Accident/>.

<sup>50</sup> *Id.*

<sup>51</sup> Genshiryoku saigai taisaku tokubetsu sochi hō [Special Measures Law to Counter Nuclear Disaster], Genshiryoku bōsai kiso yōgo shū [Basic Dictionary on Nuclear Disaster Prevention], Kankyō bōsai N netto [Environment & Disaster Prevention N Net], [http://www.bousai.ne.jp/vis/bousai\\_kensyu/glossary/ke21.html](http://www.bousai.ne.jp/vis/bousai_kensyu/glossary/ke21.html) (last visited June 28, 2013).

<sup>52</sup> Act on Special Measures Concerning Nuclear Emergency Preparedness arts. 8, 9.

<sup>53</sup> A sievert is a weighted measure of the absorbed quantity of various types of radiation. It is often expressed in millisieverts (1/1000 of a sievert) in connection with exposure by humans. See *Radiation Doses*, CANADIAN NUCLEAR SAFETY COMMISSION, [http://www.cnsccsn.gc.ca/eng/readingroom/radiation/radiation\\_doses.cfm](http://www.cnsccsn.gc.ca/eng/readingroom/radiation/radiation_doses.cfm) (last visited Aug. 13, 2013).

<sup>54</sup> Genshiryoku saigai taisaku tokubetsu sochi hō shikō rei [Enforcement Order of Act on Special Measures Concerning Nuclear Emergency Preparedness], Cabinet Order No. 195 of 2000, art. 4, para. 1.

<sup>55</sup> Act on Special Measures Concerning Nuclear Emergency Preparedness, art. 10, *last amended by* Law No. 118 of 2006. Act No. 47 of 2012 amended the persons/entities to whom the situation is to be reported from “competent minister” to “the Prime Minister and the Nuclear Regulatory Committee.” See *also* Enforcement Order of Act on Special Measures Concerning Nuclear Emergency Preparedness, Order No. 195 of 2000, art. 4, para. 4.

<sup>56</sup> Act on Special Measures Concerning Nuclear Emergency Preparedness art. 15, para. 1, *last amended by* Law No. 118 of 2006.

<sup>57</sup> *Id.* art. 15, para. 2.

<sup>58</sup> *Id.* art. 15, para. 3.

Soon after the earthquake, then Prime Minister Kan, as head of the Nuclear Emergency Response Headquarters, issued the following directives:

**March 12:** Residents who live within a ten-kilometer radius of the Fukushima Daini Power Plant,<sup>59</sup> and residents who live within a twenty-kilometer radius of the Fukushima Daiichi Power Plant were ordered to evacuate the area.<sup>60</sup>

**March 15:** Residents who live between a twenty-kilometer and a thirty-kilometer radius from the Fukushima Daiichi Power Plant were ordered to stay inside of buildings.<sup>61</sup>

As the situation at the power plants changed, the directives changed as well.<sup>62</sup> On April 21, 2011, the Prime Minister issued a directive that designated the area within a twenty-kilometer radius of the Fukushima Daiichi Plant as a “warn-off” area and directed the heads of local governments to restrict people other than emergency workers from entering the area without the municipalities’ permission.<sup>63</sup> On the same day, the area near the Fukushima Daini Plant where residents had been directed to evacuate was shrunk from within ten kilometers to within eight kilometers from the plant.<sup>64</sup>

On April 22, 2011, the government cancelled the directive that had asked residents in an area of between a twenty-kilometer radius and a thirty-kilometer radius from the Fukushima Daiichi Power Plant to stay inside of buildings.<sup>65</sup> Instead, the government set new designated areas. One was a “planned evacuation area” where the total accumulation of radiation per year is expected to reach 20 mSv, in which residents were required to evacuate within one month. The other addressed “areas prepared for emergency evacuation” where the possibility of radiation exposure cannot be eliminated, depending on the situation of the power plant, and the government has asked residents to be ready to evacuate at any time.<sup>66</sup>

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<sup>59</sup> Shiji [Directive], Prime Minister, Mar. 12, 2011, 17:39 [time designation], <http://www.kantei.go.jp/jp/kikikanri/jisin/20110311miyagi/20110312siji21.pdf>.

<sup>60</sup> Shiji [Directive], Prime Minister, Mar. 12, 2011, 18:25, <http://www.kantei.go.jp/jp/kikikanri/jisin/20110311miyagi/20110312siji11.pdf>.

<sup>61</sup> Shiji [Directive], Prime Minister, Mar. 15, 2011, 11:00, <http://www.meti.go.jp/press/20110315012/20110315012-2.pdf>.

<sup>62</sup> See *Kako no hinan shiji ni tsuite* [Past Evacuation Directives], METI, [http://www.meti.go.jp/earthquake/nuclear/hinan\\_history.html](http://www.meti.go.jp/earthquake/nuclear/hinan_history.html) (last visited Aug. 13, 2013). See also *Hinan shiji to no keii* [History of Evacuation Directives, etc.], FUKUSHIMA PREFECTURE, <http://www.cms.pref.fukushima.jp/download/1/01240331.pdf> (last visited Aug. 13, 2013).

<sup>63</sup> Shiji [Directive], Prime Minister, Head of Fukushima First and Second Nuclear Plants Disaster Headquarters, Apr. 21, 2011, <http://www.kantei.go.jp/saigai/pdf/20110421110001shiji.pdf>; Act on Special Measures Concerning Nuclear Emergency Preparedness, Act No. 156 of 1999, last amended by Act No. 118 of 2006, art. 20, para 3.

<sup>64</sup> Shiji [Directive], Prime Minister, Apr. 21, 2011, 11:00, [http://www.meti.go.jp/earthquake/nuclear/shiji\\_0421002.pdf](http://www.meti.go.jp/earthquake/nuclear/shiji_0421002.pdf).

<sup>65</sup> Shiji [Directive], Head of Fukushima Daiichi and Daini Nuclear Disaster Headquarters, Apr. 22, 2011, 9:44, <http://www.meti.go.jp/press/2011/04/20110422004/20110422004-3.pdf>.

<sup>66</sup> *Id.*; Nuclear Disaster Victim’s Lives Support Team, “Keikakuteki hinan kuiki” oyobi “Kinkyūji hinan junbi kuiki” no settei ni tsuite [Regarding Designation of “Planned Evacuation Area” and “Prepared for Emergency Evacuation”] (Apr. 22, 2011), <http://www.meti.go.jp/press/2011/04/20110422004/20110422004-2.pdf> (in Japanese).

On June 16, 2011, the government decided that residents would be notified of the locations where the total accumulation of radiation per year was expected to reach 20 mSv.<sup>67</sup> Because residents do not stay in the same location all the time, the actual radiation accumulation per resident would be lower than the level where broader areas were subject to radiation. Therefore, evacuation from the specified locations was recommended, but not required by the government.<sup>68</sup> The designation of “areas prepared for emergency evacuation” was cancelled on September 30, 2011, when the government recognized that the possibility of accidents inside the nuclear plants was low.<sup>69</sup>

The Nuclear Emergency Response Headquarters confirmed that the nuclear reactors had reached a state of cold shutdown in December 2011,<sup>70</sup> and Prime Minister Noda announced that the nuclear crisis was under control.<sup>71</sup> As the Fukushima disaster came under control, the government adopted an annual effective radiation dose of 20 mSv as a limit on exposure to radiation for residents and decided to review the designation of restricted areas.<sup>72</sup> As a result of that review, on March 30, 2012, certain areas within a twenty kilometer radius of the Fukushima Daiichi Nuclear Power Plant were removed from the warn-off zone.<sup>73</sup> At the same time, the government reclassified the planned evacuation area (the area where evacuation was directed). The government designated the areas in which the radiation level was below 20 mSv per year as “areas prepared for cancellation of the evacuation directive (*Hinan shiji kaijo junbi kuiki*).” In these areas, cancellation of the designation of “planned evacuation area” is expected in the near future, after infrastructure is restored and decontamination of locales with radiation has progressed.<sup>74</sup>

The government also designated a “restricted residential use area” in which the radiation level is between 20 and 50 mSv per year. Residents of that area are permitted to stop by their houses or other places within the area if they have a reason to go there, but they must leave after the

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<sup>67</sup> Nuclear Disaster Headquarters, Regarding Measures for Specified Spots Where the Total Accumulation of Radiation per Year is Expected to Reach 20 mSv (June 16, 2011), <http://www.meti.go.jp/press/2011/06/20110616007/20110616007-2.pdf> (in Japanese).

<sup>68</sup> Regarding “Planned Evacuation Areas” and “Specified Spots Where Evacuation Was Recommended”, METI, <http://www.meti.go.jp/press/2011/06/20110616007/20110616007.html> (in Japanese; last visited June 28, 2013).

<sup>69</sup> Nuclear Disaster Headquarters, Regarding Cancellation of Areas Prepared for Emergency Evacuation (Sept. 30, 2011), <http://www.meti.go.jp/press/2011/09/20110930015/20110930015-2.pdf> (in Japanese).

<sup>70</sup> Summary of the 22nd Meeting of Nuclear Emergency Response Headquarters (Dec. 16, 2011), [http://www.kantei.go.jp/jp/singi/genshiryoku/pdf/gensai\\_gaiyo\\_22.pdf](http://www.kantei.go.jp/jp/singi/genshiryoku/pdf/gensai_gaiyo_22.pdf) (in Japanese).

<sup>71</sup> Press Conference by Prime Minister Yoshihiko Noda (Dec. 16, 2011), [http://www.kantei.go.jp/foreign/noda/statement/201112/16kaiken\\_e.html](http://www.kantei.go.jp/foreign/noda/statement/201112/16kaiken_e.html).

<sup>72</sup> Nuclear Emergency Response Headquarters, Regarding Basic Ideas on Review of Warn-Off Area (*Keikai kuiki*) and Emergency Evacuation Preparation Areas (*Hinan shiji kuiki*) upon Completion of Step 2 and Future Agenda, at 1–4 (Dec. 26, 2011), [http://www.meti.go.jp/earthquake/nuclear/pdf/111226\\_01a.pdf](http://www.meti.go.jp/earthquake/nuclear/pdf/111226_01a.pdf) (in Japanese).

<sup>73</sup> Nuclear Emergency Response Headquarters, Regarding Decision Based on the Review on Designation of the Warn-Off Zone and of Emergency Evacuation Preparation Areas (Mar. 30, 2012), [http://www.meti.go.jp/earthquake/nuclear/pdf/20120330\\_02a.pdf](http://www.meti.go.jp/earthquake/nuclear/pdf/20120330_02a.pdf) (in Japanese).

<sup>74</sup> Regarding Notions on Activities in the New Evacuation Directive Areas, Nuclear Disaster Victims’ Lives Support Team (Mar. 30, 2012), [http://www.meti.go.jp/earthquake/nuclear/pdf/20120330\\_02h.pdf](http://www.meti.go.jp/earthquake/nuclear/pdf/20120330_02h.pdf).

purpose of the visit is achieved.<sup>75</sup> The government further designated those areas in which the radiation level is over 50 mSv per year and in which the level is not likely to go below 20 mSv per year as “difficult-to-return-home” areas. Entry to such areas is more restricted and protective equipment is required for entry.<sup>76</sup>

Since July 2012, the government has allowed certain kinds of businesses to operate in the “restricted residential use area.” Such businesses include (1) businesses that are essential for keeping or creating employment, such as local manufacturing businesses; and (2) businesses that are required while the reconstruction plan is implemented, such as banks, gas stations, and trash removal services.<sup>77</sup> Employers must pay special attention to employees’ radiation exposure and minimize such exposure, however.<sup>78</sup>

In addition to the required or recommended evacuations, many persons voluntarily evacuated areas due to their fear of a high amount of radiation exposure.<sup>79</sup>

#### **D. Electricity Shortage and Measures Taken Pursuant to TEPCO Power Supply Contract**

A large number of electricity generating stations sustained damage from the Great East Japan Earthquake, including the Fukushima nuclear power plants. Therefore, it was expected that the supply of electricity would fall short of demand in the Tohoku region and Tokyo metropolitan area.<sup>80</sup> The Prime Minister established the Emergency Headquarters on Supply and Demand of Electricity on March 13, 2011, to address this contingency.<sup>81</sup> A planned power outage was discussed in the Headquarters’ first meeting.<sup>82</sup> The Tokyo Electric Power Company (TEPCO) implemented planned power outages in areas near Tokyo on March 14, 2011, in order to avoid

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<sup>75</sup> *Id.*

<sup>76</sup> *Id.* The current map of designated areas is available on METI’s website, at [http://www.meti.go.jp/earthquake/nuclear/pdf/130807/130807\\_01f.pdf](http://www.meti.go.jp/earthquake/nuclear/pdf/130807/130807_01f.pdf) (last visited Aug. 13, 2013).

<sup>77</sup> Regarding Exceptional Business Continuing and Reopening in the Restricted Residential Use Areas, Nuclear Disaster Victims’ Lives Support Team & Nuclear Disaster On-Site Headquarters (June 18, 2012), [http://www.meti.go.jp/earthquake/nuclear/pdf/20120618\\_01a.pdf](http://www.meti.go.jp/earthquake/nuclear/pdf/20120618_01a.pdf) (in Japanese).

<sup>78</sup> *Id.*

<sup>79</sup> *Fukushima kennai ni okeru jishu hinan no genjo* [State of Voluntary Evacuees in Fukushima], FUKUSHIMA NO SHINRO [PATH OF FUKUSHIMA] (Aug. 2012), [http://fkeizai.in.arena.ne.jp/pdf/cyousa/cyousa\\_2012\\_08\\_1.pdf](http://fkeizai.in.arena.ne.jp/pdf/cyousa/cyousa_2012_08_1.pdf).

<sup>80</sup> Message from the Prime Minister, *supra* note 5.

<sup>81</sup> Announcement, Prime Minister of Japan and His Cabinet, Denryoku jukyū ni kansuru kentō kaigō no kaisai nit suite [Concerning Establishment of Conference on Supply and Demand of Electricity] (Mar. 13, 2011, last amended Feb. 10, 2012), [http://www.kantei.go.jp/jp/singi/electricity\\_supply/kousei.pdf](http://www.kantei.go.jp/jp/singi/electricity_supply/kousei.pdf).

<sup>82</sup> Agency for Natural Resources and Energy, Kongo no denryoku jukyū oyobi keikaku teiden ni tsuite [Regarding Supply and Demand of Electricity and Planned Power Outage From Now On] (Mar. 13, 2011), [http://www.kantei.go.jp/jp/singi/electricity\\_supply/0313\\_electricity\\_supply\\_01\\_00.pdf](http://www.kantei.go.jp/jp/singi/electricity_supply/0313_electricity_supply_01_00.pdf) (copy and paste link into browser).

massive blackouts in its service area.<sup>83</sup> This measure was taken based on the power supply contract between TEPCO and its customers.<sup>84</sup>

The government could have taken similar actions based on the Electricity Business Law, but did not do so. That Law states that, when a shortage of electricity supply adversely affects the national economy and the public's living standard, the Minister of Economy, Trade and Industry may restrict the use of electricity supplied by an electricity utility firm by limiting power usage or peak load, by specifying the purpose of use or the date and time when power usage should be stopped, or by restricting the receipt of electricity from an electric utility firm by limiting the capacity for receiving electricity.<sup>85</sup> Experts explained that it would take too much time to implement restrictions on electric power use by businesses and residences based on the Electricity Business Law.<sup>86</sup>

The government did impose restrictions on large businesses from July to September 2011. Large electricity customers who had contracted for a supply of 500 kilowatts or more and concluded electricity supply-demand contracts directly with TEPCO and Tohoku Electric Power Company were required not to exceed 85% of their maximum electric power use per hour over the previous year (a 15% reduction of maximum use, compared with the previous year).<sup>87</sup>

## E. Food Sanitation Law and Related Measures

Within a few days of the onset of the crisis at the Fukushima nuclear power plants, government tests detected higher radiation levels in spinach and milk that were produced near the nuclear plants.<sup>88</sup> There were no legally binding standards for levels of radiation in food in Japan at that time. The Food Sanitation Law, however, has a provision that prohibits the sale, use, or supply of foods that are poisonous or harmful for human consumption.<sup>89</sup> On March 17, 2011, the Ministry of Health, Labor and Welfare (MHLW) issued a notice that specified provisional standard values for radiation levels in food.<sup>90</sup> The MHLW tentatively adopted the Indices

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<sup>83</sup> *TEPCO Begins Power Blackouts*, JAPAN TODAY (Mar. 14, 2011), <http://www.japantoday.com/category/national/view/tokyo-power-outages-to-start-later-than-planned-trains-reduce-services>.

<sup>84</sup> *Keikaku teiden, kiki taiō, tōden makase [Planned Power Outage, Response to Crisis, Left to TEPCO]*, YOMIURI NEWSPAPER (Mar. 15, 2011), [http://www.yomiuri.co.jp/atmoney/special/jishintokeizai/jtk110315\\_10.htm](http://www.yomiuri.co.jp/atmoney/special/jishintokeizai/jtk110315_10.htm).

<sup>85</sup> *Denki jigyō hō [Electricity Business Law]*, Law No. 170 of 1964, last amended by Act No. 47 of 2012, art. 27, translated in [http://www.japaneselawtranslation.go.jp/law/detail\\_main?re=02&vm=02&id=51](http://www.japaneselawtranslation.go.jp/law/detail_main?re=02&vm=02&id=51).

<sup>86</sup> YOMIURI NEWSPAPER, *supra* note 84.

<sup>87</sup> *Denki jigyō hō ni motoduku denryoku shiyō seigen no hakko ni tsuite [Regarding Implementation of Restriction of Electric Power Use Based on the Electric Business Act]*, METI (June 30, 2011), <http://www.meti.go.jp/setsuden/pdf/seigenrei.pdf>. See also *Regarding Putting into Effect the Restriction of Electricity Use Based on Article 27 of the Electricity Business Act*, METI, <http://www.meti.go.jp/english/earthquake/electricity/restriction.html> (last visited Sept. 5, 2013).

<sup>88</sup> Fredrik Dahl, *Japan Mulls Fukushima Food Sale Ban: IAEA*, REUTERS (Mar. 19, 2011), <http://www.reuters.com/article/2011/03/19/us-japan-nuclear-food-idUSTRE7211X120110319>.

<sup>89</sup> *Shokuhin eisei hō [Food Sanitation Law]*, Law No. 233 of 1947, amended by Law No. 49 of 2009, art. 6, item 2.

<sup>90</sup> Press Release, MHLW, Handling of Food Contaminated by Radioactivity (Mar. 17, 2011), <http://www.mhlw.go.jp/stf/houdou/2r9852000001558e-img/2r98520000015apy.pdf>; Handling of Food Contaminated by Radioactivity,

Relating to Limits on Food and Drink Ingestion that was a part of the Nuclear Safety Commission of Japan's (NSC's) regulatory guideline, Emergency Preparedness for Nuclear Facilities.<sup>91</sup> The NSC issued this guideline in 1980 in the wake of the Three Mile Island accident in the United States and updated it in 1998 and 2000.<sup>92</sup> The following table reflects selected parts of the Indices.

**Table 1: Indices Relating to Limits on Food and Drink Ingestion (Excerpts)**

Nuclide	Index Values Relating to Ingestion Limits in Guidelines for Coping with Nuclear Facility Disasters (Bq <sup>93</sup> /kg)	
<b>Radioactive iodine</b>  <b>(Representative radio-nuclides among mixed radio-nuclides: 131I):</b>	Drinking water	300
	Milk, dairy products	300
	Vegetables (except root vegetables and tubers)	2,000
<b>Radioactive cesium</b>	Drinking water	200
	Milk, dairy products	200
	Vegetables	500
	Grains	500
	Meat, eggs, fish, etc.	500

*Source:* Data excerpted from Nuclear Safety Commission, Genshiryoku shisetsu tō no bōsai taisaku ni tsuite [Emergency Preparedness for Nuclear Facilities] 23 (June 1980, *last amended* Aug. 2010), <http://www.nsr.go.jp/archive/nsr/anken/sonota/houkoku/bousai220823.pdf>.

Food Safety Dept. Notice No. 0317-3 (Mar. 17, 2011), MHLW, <http://www.mhlw.go.jp/stf/houdou/2r9852000015av4.pdf>.

<sup>91</sup> Nuclear Safety Commission, Genshiryoku shisetsu tō no bōsai taisaku ni tsuite [Emergency Preparedness for Nuclear Facilities] 23 (June 1980, *last amended* Aug. 2010), <http://www.nsr.go.jp/archive/nsr/anken/sonota/houkoku/bousai220823.pdf>.

<sup>92</sup> Shinichi Suga and Ryushi Ichikawa, Bōsai shishin ni okeru inshokubutsu sesshu seigen shihyō no kaitei ni tsuite [On the Revision of Control Index Levels on the Ingestion of Food and Water in the Guidelines for Radiological Emergency Preparedness and Countermeasures in Japan], 35 HOKEN BUTSURI 4, 449 (2000), [https://www.jstage.jst.go.jp/article/jhps1966/35/4/35\\_4\\_449/\\_pdf](https://www.jstage.jst.go.jp/article/jhps1966/35/4/35_4_449/_pdf).

<sup>93</sup> A “becquerel” (Bq), one of several units used to measure radioactivity, “represents a rate of radioactive decay equal to 1 disintegration per second.” *Glossary*, UNITED STATES NUCLEAR REGULATORY COMMISSION, <http://www.nrc.gov/reading-rm/basic-ref/glossary/becquerel-bq.html> (last updated Dec. 10, 2012).

Based on the general power to implement emergency measures in cases of nuclear disaster, the Prime Minister, as head of the Nuclear Emergency Response Headquarters, issued instructions to governors of the relevant prefectures on March 21, 2011, concerning restrictions on the distribution of food items with radiation levels exceeding the provisional limit values.<sup>94</sup> First, the government instructed that spinach and one other leafy vegetable produced in Fukushima and three more prefectures, and raw milk produced in Fukushima prefecture were not to be distributed. Many more instructions have followed.<sup>95</sup> Some of these restrictions were later cancelled when the detected radiation levels at three consecutive weekly examinations proved to be lower than the upper limit.<sup>96</sup>

At the same time, the government started deliberations on permissible radiation levels in various foods. Establishing these standards is a complicated and time-consuming process involving government councils and different agencies, and conformity with various related regulations is required:

- On March 20, 2011, the MHLW requested that the Food Safety Commission conduct an assessment of the effect of radioactive nuclides in food on human health.<sup>97</sup> When setting standards for food safety under article 6, item 2 of the Food Sanitation Law, the MHLW must consult with the Food Safety Commission.<sup>98</sup> The Food Safety Commission submitted its *Risk Assessment Report on Radioactive Nuclides in Foods* to the MHLW on October 27, 2011.<sup>99</sup> The Food Safety Commission concluded that more than 100 mSv of the extra cumulative effective doses (cumulative effective dose of radiation during a person's lifetime) of food could increase the risk of negative effects on health.<sup>100</sup> This mSv level was much lower than the assumption that the tentative indices were based on, which had indicated that more than 500 mSv of the extra cumulative effective doses would be harmful to humans.<sup>101</sup>

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<sup>94</sup> Press Release, MHLW, Shokuhin no shukka seigen ni tsuite [Regarding Distribution Restriction on Foods] (Mar. 21, 2011), <http://www.mhlw.go.jp/stf/houdou/2r98520000015p8a.html>; Act on Special Measures Concerning Nuclear Emergency Preparedness, Law No. 156 of 1999, amended by Law No. 118 of 2006, art. 20, para. 3.

<sup>95</sup> The Ministry of Agriculture, Forestry and Fisheries has compiled all restrictions and cancellations on its website, [http://www.maff.go.jp/noutiku\\_eikyo/mhlw2.html](http://www.maff.go.jp/noutiku_eikyo/mhlw2.html) (in Japanese; last visited Aug. 29, 2013).

<sup>96</sup> Nuclear Emergency Response Headquarters, Kensa keikaku, shukka seigen to no hinmoku kuiki no settei kaijo no kangae kata [Regarding Basic Policy on Examination Plan, and Establishment and Cancellation of Distribution Restriction], <http://www.mhlw.go.jp/stf/houdou/2r98520000017tmu-att/2r98520000017ts1.pdf>. The basic policy was amended in June and August 2011. Amended policies are available on the MHLW website, at <http://www.mhlw.go.jp/stf/houdou/2r9852000001h0ni-att/2r9852000001h0tr.pdf> (June 2011), and <http://www.mhlw.go.jp/stf/houdou/2r9852000001lbnq-att/2r9852000001lbu3.pdf> (Aug. 2011).

<sup>97</sup> Shokuhin chū no hōshasei busshitsu no aratana kijunchi ni tsuite [Regarding New Indices of Radioactive Substances in Food], MHLW, at 14, <http://www.mhlw.go.jp/topics/bukyoku/iyaku/syoku-anzen/iken/dl/120117-1-03-01.pdf>.

<sup>98</sup> Shokuhin anzen kihon hō [Food Safety Basic Law], Law No. 48 of 2003, art. 24, para. 1, item 1.

<sup>99</sup> FOOD SAFETY COMMISSION, ABSTRACT, RISK ASSESSMENT REPORT ON RADIOACTIVE NUCLIDES IN FOODS (Oct. 2011), [http://www.fsc.go.jp/english/emerg/abstract\\_risk\\_assessment\\_report.pdf](http://www.fsc.go.jp/english/emerg/abstract_risk_assessment_report.pdf).

<sup>100</sup> *Id.*

<sup>101</sup> *Shokuhin no shin kijunchi nenkan 1 miri siberuto ni hikisage e* [Reduce the Limit in Food to 1mSv per Year], SANKEI NEWSPAPER (Oct. 28, 2011) (on file with author).

- The Minister of Health, Labor and Welfare asked the Pharmaceutical Affairs and Food Sanitation Council to draft the standards of permissible levels of radioactive nuclides in foods, based on the Food Safety Commission's conclusion, on October 28, 2011.<sup>102</sup> The Radioactive Nuclides Countermeasures branch of the Council issued draft standards on December 22, 2011.<sup>103</sup>
- The Minister of Health, Labor and Welfare then asked the Radiation Council of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) whether those standards were appropriate under the Law Concerning Technical Standards of Radiation Hazards Prevention.<sup>104</sup> Any government agency must ask the Council's opinion before they set technical standards that relate to radiation hazards.<sup>105</sup> Though some members of the Radiation Council stated during the meetings that the new standards were too strict, the Council determined on February 17, 2012, that the new standards were appropriate.<sup>106</sup>
- Since all consultation with other agencies was complete, the Radiation Council and the Pharmaceutical Affairs and Food Sanitation Council moved to adopt the draft standards that were drafted by its branch committee and submitted them to the Minister of Health, Labor and Welfare on February 24, 2012.<sup>107</sup>
- The MHLW implemented all necessary amendments to its Ordinance and Notifications on standards for milk and milk products and for food and food additives on March 15, 2012, and announced it would make the new standards effective on April 1, 2012.<sup>108</sup> The new upper limits of cesium in foods are as follows:

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<sup>102</sup> Food Sanitation Law, Act No. 233 of 1947, *amended by* Act No. 49 of 2009, art. 11, para. 1; Shigeki Yamamoto, Yakuji •shokuhin eisei shingikai, shokuhin eisei bunkakai hōshasei busshitu taisaku bukai hōkoku ni tsuite [Regarding a Report from Radioactive Nuclides Countermeasures Branch, Food Sanitation Sub-council, Pharmaceutical Affairs • Food Sanitation Council] (Feb. 23, 2012), <http://www.mhlw.go.jp/stf/shingi/2r98520000023nbs-att/2r98520000023ng2.pdf>.

<sup>103</sup> Shokuhin chū no hōshasei bussitsu ni kakaru kikaku kijun no settei ni tsuite [Regarding Establishing Standards of Radioactive Nuclides in Foods], Radioactive Nuclides Countermeasures Branch, Food Sanitation Sub-council, Pharmaceutical Affairs • Food Sanitation Council] at 2 (Dec. 22, 2011), <http://www.mhlw.go.jp/stf/shingi/2r98520000023nbs-att/2r98520000023ng2.pdf>.

<sup>104</sup> Press Release, MHLW, Shokuhin chū no hōshasei busshitsu ni kakaru kijun chi no settei ni kansuru hōshasen shingikai e no shimon ni tsuite [Regarding a Request for Advice from the Radiation Council Concerning Indices of Radioactive Nuclides in Foods] (Dec. 27, 2011), <http://www.mhlw.go.jp/stf/houdou/2r9852000001z9vp.html>.

<sup>105</sup> Hōshasen shōgai bōshi no gijutsu teki kijun ni kansuru hōritsu [Law Concerning Technical Standards of Radiation Hazards Prevention], Act No. 162 of 1958, art. 6.

<sup>106</sup> *Shokuhin no hōshasen ryō shin kijunchi an* [New Indices of Radiation Levels in Foods], SANKEI NEWSPAPER (Feb. 17, 2012) (on file with author).

<sup>107</sup> Kōsei rōdō shō, Iyaku shokuhin kyoku, Shokuhin anzen bu [Food Safety Sec., Pharmaceutical Affairs and Food Sanitation Dept., MHLW], Shokuhin chū no hōshasei busshitsu no kikaku kijun no settei ni tsuite [Regarding Establishment of New Standards on Radioactive Nuclides in Foods ], MHLW (Feb. 24, 2012), <http://www.mhlw.go.jp/stf/houdou/2r98520000023zsw-att/2r98520000023zsb.pdf>.

<sup>108</sup> Food Safety Dept. Notice No. 0315-1 (Mar. 15, 2012), [http://www.mhlw.go.jp/shinsai\\_jouhou/dl/tuuchi\\_120316.pdf](http://www.mhlw.go.jp/shinsai_jouhou/dl/tuuchi_120316.pdf).

**Table 2: Limits for Radioactive Cesium in Foods**

Category	Limit (Bq/kg)
Drinking water	10
Milk	50
General Foods	100
Infant Foods	50

*Source:* Department of Food Safety, Pharmaceutical & Food Safety Bureau, MHLW, New Standard Limits for Radionuclides in Foods, at 3, [http://www.mhlw.go.jp/english/topics/2011eq/dl/new\\_standard.pdf](http://www.mhlw.go.jp/english/topics/2011eq/dl/new_standard.pdf) (provisional translation; last visited July 8, 2013).

The Japanese standards are well below maximum levels allowed by international safety standards, as fixed by the Codex Alimentarius international standards body.<sup>109</sup>

### III. Victim Support

Laws to support disaster victims were also enacted, and the government implemented various measures to support disaster victims' daily lives. The followings measures reflect some of those efforts:

#### A. Tracking Evacuees

Many residents who lived in the area hit by the disaster were required to move, temporarily or for a long period of time, due to destruction of houses and neighborhoods or radiation levels. In order to distribute grants and donated items or provide administrative notice to residents who were evacuating, municipal governments needed to know their whereabouts. In Japan, administrative services are provided through municipal governments for their residents. Residents must report any changes to their specified information to the municipal governments, and municipal governments must register all resident addresses in the "resident basic books."<sup>110</sup> The system, however, was not made for tracking evacuees. There were also evacuees who did not know whether or when they would be able to return home, and therefore did not report their change of residence. An evacuees' information management system was needed. The Ministry of Internal Affairs and Communication (MIC) built such a system to enable the municipal governments that were affected by the nuclear disaster to track and locate their former residents

<sup>109</sup> Codex Secretariat, Fact Sheet on Codex Guideline Levels for Radionuclides in Foods Contaminated Following a Nuclear or Radiological Emergency (May 2, 2011), <http://www.fao.org/crisis/27242-0bfe658358a6ed53980a5eb5c80685ef.pdf>.

<sup>110</sup> Resident Basic Book Act, Act No. 81 of 1967, *amended by* Act No. 102 of 2012, art. 3.

who had evacuated from their hometowns in March 2011.<sup>111</sup> The MIC sent a notice to local governments and instructed them on how to report evacuees on April 12, 2011.<sup>112</sup>

Concerning nuclear disaster victims, in August 2011, the Diet enacted the Act on Exceptions of Administrative Matters for Nuclear Disaster Evacuees.<sup>113</sup> The Act established a special procedure that enables a local government in whose jurisdiction a nuclear disaster evacuee resides to cover specified administrative services for another local government in whose jurisdiction the evacuee is registered in the resident basic book. Upon request of the local government for the jurisdiction where an evacuee resides, the MIC may issue a notification specifying what administrative matter the local government for the place of the evacuee's residence may cover.<sup>114</sup> Local governments do not have to negotiate and make agreements one by one. Examples of matters that can be covered by these agreements include elderly living assistance, vaccines for children, and nursery school enrollment.<sup>115</sup>

The government reported that the total number of evacuees was 124,594 as of June 15, 2011,<sup>116</sup> and 91,552, as of July 20, 2011.<sup>117</sup> These numbers did not include evacuees who secured residences, such as rental houses. In November 2011, the government counted the number of these evacuees as well and reported the number of total evacuees as approximately 330,000.<sup>118</sup> Currently, the Reconstruction Agency is reporting the number of evacuees monthly.<sup>119</sup> As of

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<sup>111</sup> Seiji Kanda, *Doing Right by the Evacuees*, ASAHI NEWSPAPER (Mar. 9, 2013), [http://ajw.asahi.com/article/special/prometheus\\_futaba/AJ201303090015?page=3](http://ajw.asahi.com/article/special/prometheus_futaba/AJ201303090015?page=3).

<sup>112</sup> Regarding Cooperation by Local Governments in order to Make Evacuees' Original Municipalities Know the Whereabouts of Those Who Evacuated Due to the Great East Japan Earthquake (Notice), So-gyo-ju No. 62 (Apr. 12, 2011), [http://www.soumu.go.jp/main\\_content/000110312.pdf](http://www.soumu.go.jp/main_content/000110312.pdf) (in Japanese).

<sup>113</sup> Higashi nihon daishinsai ni okeru genshiryoku hatsudensho no jiko ni yoru saigai ni taisho suru tame no hinan jumin ni kakaru jimu shori no tokurei oyobi jusho iten sha ni kakaru sochi ni kansuru hōritsu [Act on Exceptions of Administrative Matters on Evacuees and Measures on Evacuees Who Moved Residences in Response to Disaster Caused by Nuclear Plant Accident after the Great East Japan Earthquake (Act on Exceptions of Administrative Matters for Nuclear Disaster Evacuees)], Act No. 98 of 2011.

<sup>114</sup> Local Autonomy Administration Dept., MIC, Summary of the Act on Exceptions of Administrative Matters on Nuclear Disaster Evacuees (Aug. 2011), [http://www.soumu.go.jp/main\\_content/000124807.pdf](http://www.soumu.go.jp/main_content/000124807.pdf) (in Japanese).

<sup>115</sup> See, e.g., Regarding Designated Municipalities and Exceptional Administrative Matters Based on the Act on Exceptions of Administrative Matters on Nuclear Disaster Evacuees, MIC (Nov. 15, 2011), [http://www.soumu.go.jp/menu\\_kyotsuu/important/48479.html](http://www.soumu.go.jp/menu_kyotsuu/important/48479.html).

<sup>116</sup> Cabinet Office, Zenkoku no hinansha tō no kazu [Number of Evacuees Nationwide] (June 15, 2011), <http://www.cao.go.jp/shien/1-hisaisha/pdf/6-hinansha.pdf>.

<sup>117</sup> Cabinet Office, Zenkoku no hinansha tō no kazu [Number of Evacuees Nationwide] (July 20, 2011), [http://www.cao.go.jp/shien/1-hisaisha/pdf/6-hinansha\\_110720.pdf](http://www.cao.go.jp/shien/1-hisaisha/pdf/6-hinansha_110720.pdf).

<sup>118</sup> Great East Japan Reconstruction Headquarters Secretariat, Zenkoku no hinansha tō no kazu [Number of Evacuees Nationwide] (Nov. 24, 2011), <http://www.reconstruction.go.jp/topics/20111124hinansha.pdf>.

<sup>119</sup> Reconstruction Agency, Zenkoku no hinansha tō no kazu [Number of Evacuees Nationwide], <http://www.reconstruction.go.jp/topics/post.html> (last visited July 8, 2013).

August 2013, about two and half years after the earthquake, the number of evacuees was approximately 290,000.<sup>120</sup>

## B. Financial Grants

Pursuant to Japanese law, the eligible family-member survivors of a person who died from a disaster of a certain scale can receive condolence money.<sup>121</sup> The amount may vary depending on the municipality because municipalities determine the details of disaster condolence money.<sup>122</sup> Payments are typically 5 million yen (about US\$50,000) or less.<sup>123</sup> Disaster victims who are disabled by a disease or injury caused by the disaster may also receive condolence money.<sup>124</sup>

Households that sustained damages to their houses can also receive money from the prefectures. There had been arguments as to whether public money should be granted for personal property losses caused by natural disasters. The Diet reached the conclusion that it is permissible to provide such payments because houses are one of the basics of people's lives, it is important to promote recovery from the loss of houses, and reconstruction of houses is important for the area.<sup>125</sup> A household that has lost a house and rebuilds it can receive up to 3 million yen (about US\$30,000).<sup>126</sup> A designated public corporation processes the grants.<sup>127</sup> The national government pays for half of each grant.<sup>128</sup>

## C. Special Loans

Where a head of household is injured and needs treatment for his or her injury for more than one month, or where a house is destroyed entirely or in part, a disaster victim support loan is available for a family if it satisfies applicable annual income limit requirements.<sup>129</sup> The

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<sup>120</sup> Reconstruction Agency, *Zenkoku no hinansha tō no kazu* [Number of Evacuees Nationwide] (Aug. 22, 2013), [http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-1/20130822\\_hinansha.pdf](http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-1/20130822_hinansha.pdf). Number of evacuees are reported monthly on the Reconstruction Agency's website, at <http://www.reconstruction.go.jp/topics/post.html>.

<sup>121</sup> *Saigai chōikin no shikyū tō ni kansuru hōritsu* [Act on Grants of Disaster Condolence Money and Others], Law No. 82 of 1973, *last amended by* Law No. 86 of 2011, art. 3.

<sup>122</sup> *Id.*

<sup>123</sup> CABINET OFFICE, *HISAISHA SHIEN NI KANSURU KAKUSHU SEIDO NO GAIYO (HIGASHI NIHON DAISHINSAI HEN)* [SUMMARY OF VARIOUS SYSTEMS CONCERNING DISASTER VICTIM SUPPORT (FOR GREAT EAST JAPAN EARTHQUAKE)] 9 (June 30, 2012), <http://www.bousai.go.jp/taisaku/hisaisyagyousei/pdf/kakusyuseido.pdf>.

<sup>124</sup> Act on Grants of Disaster Condolence Money and Others art. 8.

<sup>125</sup> Toshiaki Yagi, *Hisaisha no seikatsu saiken shien o meguru rōgi to rippo no kei* [Discussions and Legislative Process on Supports on Reconstruction of Disaster Victim's Livings], RIFARENSU [REFERENCE], Nov. 2007, at 46, [http://www.ndl.go.jp/jp/data/publication/refer/200711\\_682/068202.pdf](http://www.ndl.go.jp/jp/data/publication/refer/200711_682/068202.pdf).

<sup>126</sup> *Hisaisha seikatsu saiken shien hō* [Disaster Victims' Living Reconstruction Support Act], Act No. 66 of 1998, *last amended by* Act No. 100 of 2011, art. 3. *See also* SUMMARY OF VARIOUS SYSTEMS CONCERNING DISASTER VICTIM SUPPORT, *supra* note 123, at 22.

<sup>127</sup> Disaster Victims' Living Reconstruction Support Act art. 6.

<sup>128</sup> *Id.* art. 18.

<sup>129</sup> Act on Grants of Disaster Condolence Money and Others, Act No. 82 of 1973, *last amended by* Law No. 86 of 2011, art. 10.

maximum loan amount is 3.5 million yen (about US\$35,000).<sup>130</sup> Usually, the loan term is ten years and loan interest does not accrue for the first three years. The no-interest term can be extended for up to five years.<sup>131</sup> For the victims of the Great East Japan Earthquake, special legislation extended the loan term to thirteen years, and interest does not accrue for the first six years. This can be extended for up to eight years.<sup>132</sup>

Emergency loans for low-income residents were extended for the victims of the Great East Japan Earthquake.<sup>133</sup> Special treatment and exceptions were also made for public loans for single mothers. For example, the deadline for repayment of loans by single mothers was extended for those who were victims of the earthquake.<sup>134</sup>

For reconstruction or repair of houses damaged by designated large-scale disasters, the Japan Housing Finance Agency (JHFA) provides low-interest-rate loans for disaster victims.<sup>135</sup> The JHFA is the only Japanese government-owned financial institution that specializes in securitizing housing loans. Even if their houses were not physically damaged, nuclear disaster victims are eligible for the loan, if their houses are located within the area where the government directed residents to evacuate.<sup>136</sup>

#### **D. Loans for Lost Houses and Existing Business Debts**

Individuals or businesses that had debts may need new loans for living or business expenses after the earthquake, while their old debts still exist and assets that served as collateral for the loans are gone. For example, some lost houses still have housing loans. If the owners borrow money for a new house, they will have two loans. This is called the “double debts” problem in Japan. In June 2011 the government recommended that “the national and local governments, lenders and borrowers share the pain.”<sup>137</sup> Acting on that recommendation, financial institutions established a committee to determine how to provide relief for disaster victims with debts. In July 2011 the committee issued Guidelines for Individual Debtor Out-of-Court Workouts, which

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<sup>130</sup> Enforcement Order of Act on Grants of Disaster Condolence Money and Others, Order No. 374 of 1973, *last amended by* Order No. 57 of 2010, art. 7, para. 1.

<sup>131</sup> *Id.* art. 7, para. 2.

<sup>132</sup> Act on Special Financial Supports Responding to the Great East Japan Earthquake, Act No. 40 of 2011. *See also* Regarding Special Measures on Disaster Support Loans Implemented by Act on Special Financial Supports Responding to Great East Japan Earthquake, Sha-en 0502, No. 1 (May 2, 2011), <http://www.mhlw.go.jp/stf/houdou/2r9852000001bd6k-img/2r9852000001be2t.pdf> (in Japanese).

<sup>133</sup> Regarding Exception of Welfare Loan, Sha-en 0502, No. 3 (May 2, 2011), [http://www.mhlw.go.jp/shinsai\\_jouhou/dl/110502.pdf](http://www.mhlw.go.jp/shinsai_jouhou/dl/110502.pdf) (in Japanese). *See also* Disaster Rescue / Life Support, MHLW, [http://www.mhlw.go.jp/shinsai\\_jouhou/saigaishien.html](http://www.mhlw.go.jp/shinsai_jouhou/saigaishien.html) (in Japanese; last visited Apr. 16, 2013).

<sup>134</sup> Notice Regarding Single Mother Welfare Loan System – For Victims of Great East Japan Earthquake, Hokkaido, <http://www.pref.hokkaido.lg.jp/hf/kms/boshikafujishin.htm> (in Japanese; last visited Apr. 16, 2013).

<sup>135</sup> Incorporated Administrative Agency Japan Housing Finance Agency Act, Act No. 82 of 2005, art. 4.

<sup>136</sup> Riyō jōken / Yūshi taishō [Conditions /Eligibility], JHF (Apr. 1, 2013), <http://www.jhf.go.jp/shinsai/joken.html>.

<sup>137</sup> Nijū saimu mondai e no taiō hōshin [Policy on the Double Debts Problem], at 1 (June 17, 2011), <http://www.cas.go.jp/jp/siryō/pdf/20110617taiouhousin.pdf> (translation by author).

provide guidance on how financial institutions may release or reduce individuals' debts in accordance with an out-of-court debt workout.<sup>138</sup>

## E. Tax Relief

Various measures to reduce the tax burden on disaster victims were implemented. Regarding local taxes, disaster victims could deduct the loss from the disaster from taxable income in the previous tax year (ending in December 2010). Also, victims could carry forward such losses for five years, rather than the usual three years. The areas where the tsunami reached were exempted from real estate tax. An exemption from the Car Acquisition Tax was created for those situations where a new car is the replacement for a car damaged or lost during the disaster. In addition, disaster victims could delay local tax payments.<sup>139</sup> These were temporary measures, but they were extended through fiscal year 2012.<sup>140</sup>

Concerning national taxes, the Act on Reduction, Exemption, and Moratorium of Tax for Disaster Victims exempts or reduces the income taxes of persons who suffered severe damage to their houses or other assets and whose annual taxable income is less than 10,000,000 yen (about US\$100,000).<sup>141</sup> Some businesses severely damaged by the disaster may be eligible for reduced alcohol tax, tobacco tax, oil tax, or other taxes, or the deadline for payment of taxes may be extended.<sup>142</sup> In addition, a special law was enacted after the earthquake, the Act on Exceptional Treatment of Disaster Victims Concerning National Taxes, which extended the due date for disaster victims' income tax payments.<sup>143</sup> The losses resulting from the earthquake are deductible from the disaster victim's income or profit and the tax deduction limit for donations was increased.<sup>144</sup>

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<sup>138</sup> Research Committee for the Guidelines for Individual Debtor Out-of-Court Workouts, Guidelines for Individual Debtor Out-of-Court Workouts, at 7 (July 2011), <http://www.kgl.or.jp/guideline/pdf/guideline2.pdf> (unofficial translation).

<sup>139</sup> Act on Partial Amendment of the Local Tax Law, Act No. 30 of 2011; Act on Partial Amendment of the Local Tax Law and Act on Special Financial Support in order to Handle a Disaster of Nuclear Accident Caused by the Great East Japan Earthquake, Act No. 96 of 2011. See also Misako Takenouchi, *Higashi nihon dai shinsai ni kakaru chihōzei zaisei jō no taiō* [Great East Japan Earthquake Measures Concerning Local Tax], RIPPŌ TO CHŌSA No. 318, 12 (July 2011), [http://www.sangiin.go.jp/japanese/annai/chousa/rippou\\_chousa/backnumber/2011pdf/20110701012.pdf](http://www.sangiin.go.jp/japanese/annai/chousa/rippou_chousa/backnumber/2011pdf/20110701012.pdf).

<sup>140</sup> Act on Partial Amendment of the Local Tax Law, Act No. 120 of 2011.

<sup>141</sup> Saigai higaisha ni taisuru sozei no genmen, chōshū yūyo tō ni kansuru hōritsu [Act on Reduction, Exemption and Moratorium of Tax for Disaster Victims], Act No. 175 of 1947, last amended by Act No. 13 of 2009, art. 2.

<sup>142</sup> *Id.* arts. 7 & 8.

<sup>143</sup> Higashi nihon daishinsai ni hisaisha ni kakaru kokuzei kankei hōritsu no rinji tokurei ni kansuru hōritsu [Act on Exception on National Tax-Related Laws Concerning Great East Japan Earthquake], Law No. 29 of 2011 (Apr. 27, 2011).

<sup>144</sup> National Tax Agency, *Shinsai tokureihō to no kaisetsu* [Explanation of Act on Exceptional Treatment of Disaster Victims Concerning National Taxes], FINANCE, June 2011, at 23, [http://www.mof.go.jp/public\\_relations/finance/201106d.pdf](http://www.mof.go.jp/public_relations/finance/201106d.pdf).

## F. Unemployment Benefits

Based on the Act on Special Financial Aid to Respond to Severe Disasters,<sup>145</sup> the MHLW issued a notification that people who cannot work and receive payment because their workplace is not functioning may be entitled to receive unemployment benefits even though they are not technically unemployed because they have not yet lost their jobs.<sup>146</sup> In addition, the length of time for which those who lost their jobs because of the disaster can receive benefits was extended by sixty days,<sup>147</sup> from 150 to 210 days. For victims who lived in the areas that were hit by the tsunami or nuclear disaster, the period was extended by ninety days.<sup>148</sup>

Media tracked whether people who received the extended unemployment benefits were employed or not. More than half did not get jobs, even though the number of job openings itself is high.<sup>149</sup> Some did not look for jobs, and some were waiting for their former employer to reopen or for job openings in positions similar to those they had previously.<sup>150</sup>

## G. Job Creation

Many disaster victims lost their jobs. The MHLW implemented various measures to help victims find new employers.<sup>151</sup> For example, the government granted 900,000 yen (about US\$9,000) to small- or medium-sized companies that hired a job-seeking disaster victim by September 30, 2012.<sup>152</sup> The national government also tapped into the existing Employment

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<sup>145</sup> Gekishin saigai ni taisho suru tame no tokubetsu no zaisei enjo tō ni kansuru hōritsu [Act on Special Financial Aid to Respond to Severe Disasters], Act No. 150 of 1962, *last amended by* Act No. 31 of 2003, art. 25.

<sup>146</sup> Regarding the Exception of Employment Insurance Resulting from Designation of Severe Disaster, MHLW, Shoku 0313 No. 1 (Mar. 13, 2011), *available at* [http://www.jassa.jp/member/2010/110323sankou\\_2.pdf](http://www.jassa.jp/member/2010/110323sankou_2.pdf) (in Japanese).

<sup>147</sup> Act on Special Financial Supports Responding to the Great East Japan Earthquake, Act No. 40 of 2011, art. 82. *See also*, Regarding enforcement of the Act on Special Financial Supports Responding to the Great East Japan Earthquake, Employment Security Bureau, MHLW, Circular Shoku-Hatsu 0502, No. 6 (May 2, 2011), <http://www.mhlw.go.jp/stf/houdou/2r9852000001bd6k-img/2r9852000001bd88.pdf> (in Japanese).

<sup>148</sup> *Re-extension of unemployment benefit periods for coastal areas of three prefectures (Iwate, Miyagi, Fukushima)*, EMPLOYMENT INSURANCE SECTION, EMPLOYMENT DEPARTMENT, MHLW (Sept. 27, 2011), <http://www.mhlw.go.jp/stf/houdou/2r9852000001pgxa.html> (in Japanese).

<sup>149</sup> *Shitsugyo teate kireta hito no 6wari cho, shushoku dekizu hisai 3ken [More than 60% of People Whose Unemployment Benefit Expired Did Not Get Jobs: 3 Prefectures Hit by Disaster]*, ASAHI NEWSPAPER (Sept. 1, 2012), <http://www.asahi.com/special/10005/TKY201208310176.html>. *See also* *Higashi nihon dai shinsai: hisaichi no shitsugyo teate enchō shūryō [Great East Japan Earthquake: Extension of Unemployment Benefit in Disaster Area Ended]*, MAINICHI NEWSPAPER (Sept. 28, 2012), <http://mainichi.jp/feature/20110311/news/20120928ddm041040184000c.html>.

<sup>150</sup> *Id.*

<sup>151</sup> *Higashi nihon daishinsai kanren jōhō, Koyō/Rōdō [Information Relating to the Great East Japan Earthquake, Employment/Labor]*, MHLW, [http://www.mhlw.go.jp/shinsai\\_jouhou/koyou.html](http://www.mhlw.go.jp/shinsai_jouhou/koyou.html) (last visited July 8, 2013).

<sup>152</sup> Heisei 24 nen gyousei jigyo rebyu shito, Jigyo bango 921 [2002 Agency Business Review Sheet, Business No. 921], MHLW, [http://www.mhlw.go.jp/jigyo\\_shiwake/gyousei\\_review\\_sheet/2012/h23\\_pdf/0921.pdf](http://www.mhlw.go.jp/jigyo_shiwake/gyousei_review_sheet/2012/h23_pdf/0921.pdf). *See also* *Hisaisha koyo kaihatsu joseikin no goannai [Introduction of Grant for Disaster Victim Employment Support]*, MHLW, <http://www.mhlw.go.jp/general/seido/josei/kyufukin/dl/c-top120517.pdf> (last visited July 8, 2013).

Creation Fund, which distributes funds to local governments that hire the unemployed for a limited time to create jobs and decrease unemployment numbers.<sup>153</sup> While the fund has been criticized as a waste of public money by some,<sup>154</sup> it was expanded in May and November 2011 in order to add funds to employ disaster victims.<sup>155</sup>

## H. Shelters/Emergency Housing

During the Great East Japan Earthquake, houses were damaged, collapsed, or were washed away by the tsunami. Even if the damage to a particular house was not so severe, the area where the house was located was in some cases unsafe to live in. Many people needed shelter or places to stay. Places that serve as emergency shelters—usually schools or community centers—are designated in the local Disaster Management Plans (see Part II(A), above).<sup>156</sup> A week after the earthquake, the total number of public emergency shelters was 2,182, and the number of evacuees in these shelters and in hotels and inns was 386,739. In June 2011 (three months after the earthquake), the number of the shelters was 1,459 and the numbers of evacuees in these shelters, hotels, and inns was 88,361. Among them, 41,143 evacuees were in shelters.<sup>157</sup>

Public houses (housing for public servants' families and public rental houses for low-income families) within the three prefectures that were hit hard by the earthquake were provided for disaster victims. In addition, local governments outside of these prefectures provided their public houses for disaster victims voluntarily or upon the request of the affected prefectures.<sup>158</sup> With regard to nuclear disaster victims, the national government requested that local governments provide them with public houses as well.<sup>159</sup> The national government also rented

<sup>153</sup> *Koyō sōshutsu no kikin ni yoru jigyo* [Business Run by Fund to Create Employment], MHLW, <http://www.mhlw.go.jp/bunya/koyou/chiiki-koyou3/> (last visited July 8, 2013).

<sup>154</sup> There are blogs and Internet posts that criticize the fund for not creating long-term jobs. For example, Yoshiko Kanoh, a municipal councilor, mocked the use of the fund as *baramaki* (free distribution or waste) in her blog in 2009 (before the earthquake). Yoshiko Kanoh, (*Uchide no koduchi*) *kara ken ni, sara ni 100 oku en* [Further 10 Billion Yen to Prefecture from (Magic Hammer)], KANOY YOSHIKO NO “SHITEN” [KANOY YOSHIKO’S “VIEW”], (June 4, 2009, 7:02 AM), <http://kanou-miyashiro.blog.so-net.ne.jp/2009-06-04>.

<sup>155</sup> *Business Run by Fund to Create Employment*, MHLW, *supra* note 153. See also Heisei 23nendo Koseirodoshō daiichiji hōsei yosan (an) no gaiyō [Summary of MHLW Budget First Amendment of 2003 Fiscal Year], <http://www.mhlw.go.jp/wp/yosan/yosan/11hosei/dl/hosei01.pdf> (last visited July 7, 2013).

<sup>156</sup> Disaster Response Basic Law, Act No. 223 of 1961, amended by Act No. 65 of 2010, art. 42, para. 2. See also Iga city, Hinanjo no shitei henkō gaiyō [Summary on Change of Designations of Emergency Shelters], at 1, <http://www.city.iga.lg.jp/kbn/Files/1/52311/attach/3-1.pdf> (last visited July 10, 2013).

<sup>157</sup> Disaster Victims Support Team, Hinanjo seiktsusha no suii [Change of Numbers of Evacuees Who Are in Shelters], at 3 (July 2011), <http://www.cao.go.jp/shien/1-hisaisha/pdf/5-hikaku.pdf>.

<sup>158</sup> See, e.g., *Regarding Rental of Houses Run by Aomori Prefecture for Great East Japan Earthquake Victims*, AOMORI PREFECTURAL GOVERNMENT (Aug. 1, 2012), <http://www.pref.aomori.lg.jp/life/sumai/kennei/zyuutaku2.html> (in Japanese).

<sup>159</sup> Regarding Summary of the Press Release Concerning Provision of Public Houses for Great East Earthquake Victims, Mar. 17, 2011, [http://www.pref.ehime.jp/h40100/1194239\\_2299.html](http://www.pref.ehime.jp/h40100/1194239_2299.html) (in Japanese).

its employee housing<sup>160</sup> to disaster victims.<sup>161</sup> An independent administrative organization, the Urban Renaissance Agency (UR), also rented houses to them, in some cases free of charge.<sup>162</sup> The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) established the Public Housing Information Center for Disaster Victims on March 21, 2011.<sup>163</sup> These were emergency measures and rental terms were relatively short, typically ranging from six months to two years. However, as nuclear disaster victims cannot return to their homes for a more extended period of time, some rental terms have been extended.<sup>164</sup>

The construction of temporary houses started a week after the earthquake.<sup>165</sup> Just fifteen minutes after the earthquake, the MLIT requested the Japan Prefabricated Construction Suppliers and Manufacturers Association to prepare for the construction of temporary houses.<sup>166</sup> Three days later the Minister of the MLIT asked the Japan Federation of Housing Organizations to develop a plan to build 30,000 temporary houses in two months.<sup>167</sup> Temporary house construction is authorized under the Disaster Rescue Law,<sup>168</sup> and construction contracts were made between prefecture governments and construction companies.<sup>169</sup> However, for the construction itself, many government agencies and local governments are involved.<sup>170</sup> Prefectures apply for a

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<sup>160</sup> In Japan, national and local governments provide rental houses for their employees. National government employee houses are established and managed based on the National Government Employee Housing Act, Act No. 117 of 1949.

<sup>161</sup> Ministry of Finance, Higashi nihon daishinsai e no taio [Responses Against Great East Japan Earthquake], at 5, [http://www.mof.go.jp/about\\_mof/councils/fiscal\\_system\\_council/sub-of\\_national\\_property/proceedings\\_np/material/zaisana230628g.pdf](http://www.mof.go.jp/about_mof/councils/fiscal_system_council/sub-of_national_property/proceedings_np/material/zaisana230628g.pdf) (last visited Aug. 29, 2013).

<sup>162</sup> Summary of Projects Done by Urban Renaissance Agency Concerning Great East Japan Earthquake, UR, July 1, 2013, at 1, <http://www.ur-net.go.jp/saigai/pdf/torikumi.pdf> (in Japanese).

<sup>163</sup> Press Release, MLIT, Establishment of the Public Housing Information Center for Disaster Victims (Mar. 21, 2011), [http://www.mlit.go.jp/report/press/house03\\_hh\\_000048.html](http://www.mlit.go.jp/report/press/house03_hh_000048.html).

<sup>164</sup> See, e.g., Regarding Extension of Rental Terms of City Public Housing for Great East Japan Earthquake Victims, Hiroshima City (Sept. 5, 2012), <http://www.city.hiroshima.lg.jp/www/contents/000000000000/1346822684179/files/siryoushi.pdf>.

<sup>165</sup> Housing Dept., MLIT, Regarding Commencement of Construction of Temporary Emergency Housing (Mar. 18, 2011), <http://www.mlit.go.jp/common/000138109.pdf> (in Japanese).

<sup>166</sup> House Production Div., Housing Dept., MLIT, Regarding Our Business on Construction of Temporary Houses After the Great East Japan Earthquake, at 4, <http://www.mlit.go.jp/common/000170090.pdf> (last visited July 11, 2013).

<sup>167</sup> *Id.*

<sup>168</sup> Disaster Rescue Law, Act No. 118 of 1947, amended by Law No. 65 of 2010, art. 23.

<sup>169</sup> *From Occurrence of Disaster to Construction / Delivery*, JAPAN PREFABRICATED CONSTRUCTION SUPPLIERS & MANUFACTURERS ASSOCIATION, <http://www.purekyo.or.jp/measures/index.html> (in Japanese; last visited July 11, 2013).

<sup>170</sup> MLIT, Regarding Our Business on Construction of Temporary Houses After the Great East Japan Earthquake, *supra* note 166, at 4–10.

government subsidy through the MHLW, which has jurisdiction over the Disaster Rescue Law.<sup>171</sup> MLIT has general jurisdiction over construction.

Some temporary houses are popular, such as those that are located in a big city, but some are unpopular, such as those that are constructed far from the area where the disaster victims lived. Some cities did not have suitable lands to build temporary houses. For example, Kesenuma city is located on the ria coastline, and has little flat land that is suitable for temporary houses.<sup>172</sup> The construction of approximately 10,000 temporary houses was completed by May 11, 2011, and approximately 30,000 by June 11, 2011.<sup>173</sup>

Temporary houses are exempt from certain requirements under the Building Standards Law but must not be used for more than two years.<sup>174</sup> The government agency that built the houses can extend the term year by year if the safety of the houses is confirmed and the disaster was severe and has long-term effects.<sup>175</sup> A year after the earthquake, in April 2012, the government announced that the term would be extended by one year. In April 2013, the MHLW issued a circular stating that the term can be extended further upon the discretion of local governments.<sup>176</sup>

## I. Special Treatment Concerning Administrative Obligations

When a severe disaster hits an area and infrastructures are paralyzed, it is difficult or impossible for affected people to comply with the deadlines for various things that were scheduled before the disaster. After the 1995 Great Hanshin Earthquake, the Diet enacted the Special Measures Act on Protection of Rights and Interests of Designated Disaster Victims, which extends the due dates of administrative actions by victims and exempts them from the application of certain regulations.<sup>177</sup> The Great East Japan Earthquake was designated as a disaster to which this Law applied.<sup>178</sup>

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<sup>171</sup> Disaster Rescue Law art. 36. See also Ryōichi Higure, *Jūtaku gyōkai ga ōkyū kasetsu jūtaku no kensetsu ni chakushu* [Housing Industry Started Construction of Temporary Houses], TOYO KEIZAI (Mar. 16, 2011), <http://toyokeizai.net/articles/-/6302>.

<sup>172</sup> *Yahari jimpto de naito ...? Kasetsu jutaku, rinken wa funinki* [Must Be Within Local Area? Temporary Houses in Adjacent Prefecture Unpopular], YOMIURI ONLINE (Aug. 16, 2011), <http://www.yomiuri.co.jp/national/news/2011/0816-OYT1T00654.htm>.

<sup>173</sup> Housing Dept., MLIT, Temporary Houses: Numbers of Houses Under Construction / Completed (graph) (Mar. 11, 2012), <http://www.mlit.go.jp/common/000143900.pdf> (in Japanese).

<sup>174</sup> Kenchiku Kijun hō [Building Standards Law], Act No. 201 of 1950, last amended by Act No. 20 of 2013, art. 85.

<sup>175</sup> Tokutei hijō saigai no higaisha no kenri riei no hozon tō o hakaru tame no tokubetsu sochi ni kansuru hōritsu [Special Measures Act on Protection of Rights and Interests of Designated Disaster Victims], Act No. 85 of 1996, art. 7.

<sup>176</sup> Regarding Extension of Temporary Houses Built After the Great East Japan Earthquake, Fuku-hon No. 564, Sha-en-so-hatsu 0402 No.1 & Koku-ju-shi No. 4827 (Apr. 2, 2013), <http://www.mhlw.go.jp/stf/houdou/2r9852/000002yvvh8-att/2r9852000002yvkv.pdf> (in Japanese).

<sup>177</sup> Special Measures Act on Protection of Rights and Interests of Designated Disaster Victims, Act No. 85 of 1996, art. 1.

<sup>178</sup> Cabinet Order on Designation of Disaster Caused by 2011 Great East Japan Earthquake as Designated Disaster and Measures Applied, Order No. 19 of 2011 (Mar. 13, 2011).

## J. Relief Donations

Relief donations that were collected by major organization in Japan, such as the Japan Red Cross and the Central Community Chest of Japan, were distributed to prefectures. The Relief Donation Allocation Committee was established on April 7, 2011, to determine the allocation of donations among prefectures. Committee members consist of three academic experts, representatives from four organizations that collect donations, and representatives of the prefectures. The MHLW is involved in the Committee.<sup>179</sup> Prefectures distribute to residents donations that national organizations have collected, in addition to donations that prefectures received themselves.<sup>180</sup>

To help disaster victims spend money that has been distributed out of relief donations to ease their day-to-day hardships, the Diet enacted the Act on Prohibition of Attachment of Distributed Relief Donation That Was Collected in Relation to the Great East Japan Earthquake.<sup>181</sup> Under this Act, creditors of disaster victims cannot take a relief donation that has been granted to those victims.

## IV. Removal of Debris

### A. General Waste Management Measures

After the 1995 Great Hanshin Earthquake, the MHLW established the Guidelines on Disaster Waste Disposition Management in 1998. The Guidelines promoted the establishment of an emergency system of waste management by local governments.<sup>182</sup> However, the damage from the Great East Japan Earthquake was greater than the Guidelines anticipated. The Great East Japan Earthquake and tsunami generated approximately 20 million tons of debris along the coast. In addition, the tsunami brought between 13 and 28 million tons of sand and dirt to land. Of that sand and dirt, 10 million tons needed to be removed.<sup>183</sup> The amount of waste in Miyagi prefecture alone is nineteen times larger than the amount of waste that the area usually generates in a year.<sup>184</sup>

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<sup>179</sup> Press Release, MHLW, Regarding Establishment of Relief Donation Distribution Committee (Apr. 7, 2011), <http://www.mhlw.go.jp/stf/houdou/2r98520000018en2-img/2r98520000018eoj.pdf> (in Japanese).

<sup>180</sup> Koichiro Ito, *Nisseki no gienkin haibun, naze osoi?* [Why Does It Take Such a Long Time for Japan Red Cross to Distribute Contributions?], SANKEI NEWSPAPER (July 17, 2011), <http://sankei.jp.msn.com/affairs/news/110717/dst11071718010020-n1.htm>.

<sup>181</sup> Higashi nihon daishinsai kanren gienkin ni kakaru sashiosae kinshi tō ni kansuru hōritsu [Act on Prohibition of Attachment of Distributed Relief Donation That Was Collected in Relation to the Great East Japan Earthquake], Act No. 103 of 2011 (Aug. 30, 2011).

<sup>182</sup> Water Environment Div., Environmental Health Bureau, MHLW, Guidelines on Disaster Waste Disposition Management (Oct. 1998), <http://www.env.go.jp/recycle/waste/disaster/earthquake/gl-main.pdf> (in Japanese).

<sup>183</sup> MOE, Schedule for Processing of Disaster Debris from Great East Japan Earthquake, Aug. 7, 2012, last amended on May 7, 2013, at 2, <http://kouikishori.env.go.jp/news/pdf/20130507c.pdf> (in Japanese).

<sup>184</sup> *Higashi nihon daishinsai to gareki shori* [The Great East Japan Earthquake and Waste Management], at 1, JIJI PRESS (Mar. 2, 2012), <http://www.jiji.com/jc/v4?id=saigai-haikibutsu0001>.

Removing huge amounts of debris was not easy. If the government landfills and incinerates debris, it may rapidly reduce the volume of debris to be processed. However, waste disposal is strictly regulated in Japan. The Ministry of Environment (MOE) collected information on disaster waste immediately after the earthquake and started to coordinate support with other local governments in areas that were not so severely damaged.<sup>185</sup> The Japanese government also implemented emergency waste disposal measures.<sup>186</sup> For example, on March 31, 2011, an MOE ordinance was amended to ease the thirty-day advance notice requirement that is imposed when an industrial waste management facility deals with nonindustrial waste.<sup>187</sup> Although dumping waste in the ocean is prohibited, the MOE amended its notifications in April and June 2011, so that rotten seafood in destroyed storage facilities could be discarded in the ocean.<sup>188</sup> The MOE also issued guidelines on how to deal with collapsed building, cars, ships, and other private property.<sup>189</sup> Disaster debris was gathered at tentative storage places designated by local governments where the debris was sorted out to be processed or stored.<sup>190</sup> While the guidelines do not have legally binding effect, they provide much-needed guidance to local governments.

The MOE issued the Master Plan on disaster waste, the Guidelines on Treatment of Disaster Waste Generated by the Great East Japan Earthquake, on May 16, 2011.<sup>191</sup> The Guidelines set forth a system to promote disaster waste treatment/disposal, and related financial measures, treatment methods, and schedules. Local governments made plans to treat disaster waste in accordance with the Guidelines.<sup>192</sup> The treatment of debris from the Great East Japan Earthquake and tsunami is expected to be completed by March 2014.<sup>193</sup>

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<sup>185</sup> Kazuhiro Kaneko, *Higashi nihon dai shinsai ni okeru saigai haikibutsu no gaikyō to kadai* [States and Issues of Disaster Waste Created by the Great East Japan Earthquake], RIPPŌ TO CHŌSA No. 316, May 2011, at 65, 70, [http://www.sangiin.go.jp/japanese/annai/chousa/rippou\\_chousa/backnumber/2011pdf/20110501065.pdf](http://www.sangiin.go.jp/japanese/annai/chousa/rippou_chousa/backnumber/2011pdf/20110501065.pdf).

<sup>186</sup> Saigai haikibutsu taisaku [Responses to Disaster Waste], MOE, <http://www.env.go.jp/jishin/#haikibutsu> (last visited July 15, 2013).

<sup>187</sup> Enforcement Ordinance of the Law on Waste Disposal and Clean-Up, Ministry of Health and Welfare Ordinance No. 35 of 1971, art. 12-7-7, *as amended by* Ministry of the Environment Ordinance No. 6 of 2011.

<sup>188</sup> Emergency Disposal into the Ocean, MOE Notification Nos. 44 & 48 of 2011 (Apr. 7 & June 17, 2011), [http://www.env.go.jp/jishin/attach/an23\\_44b.pdf](http://www.env.go.jp/jishin/attach/an23_44b.pdf) and [http://www.env.go.jp/jishin/attach/an23\\_48b.pdf](http://www.env.go.jp/jishin/attach/an23_48b.pdf).

<sup>189</sup> Guidelines on Removal of Collapsed Buildings and Others Caused by the Great East Japan Earthquake, MOE (Mar. 26, 2011), <http://www.env.go.jp/jishin/sisin110326.pdf>.

<sup>190</sup> *Id.*

<sup>191</sup> MOE, *Higashi nihon dai shinsai ni kakaru saigai haikibutsu no shori hōshin (masuta puran)* [Guidelines on Treatment of Disaster Waste Generated by the Great East Japan Earthquake (Master Plan)] (May 16, 2011), [http://www.env.go.jp/jishin/attach/haiki\\_masterplan.pdf](http://www.env.go.jp/jishin/attach/haiki_masterplan.pdf).

<sup>192</sup> Schedule of Treatment and Disposal of Disaster Waste Generated by the Great East Japan Earthquake, MOE (Aug. 7, 2011, *last amended on* May 27, 2013), at 1, <http://kouikishori.env.go.jp/news/pdf/20130507c.pdf> (in Japanese).

<sup>193</sup> Progress on Treatment of Debris by the Great East Japan Earthquake, MOE (Feb. 22, 2013), <http://www.env.go.jp/en/recycle/eq/ptd20130222.pdf>.

In August 2011, Japan enacted the Comprehensive Disaster Waste Management Act in order to quickly and adequately manage disaster waste.<sup>194</sup> Under this law, the national government may process disaster waste, instead of local governments. The national government supports the local government's waste disposal financially.<sup>195</sup> In addition, this law enabled the national government to request that local governments outside the disaster area accept disaster waste and manage it at the national government's expense.<sup>196</sup> The quantity of disaster waste was more than the affected local governments could deal with. Initially, disaster waste was not treated at the expected speed because only a small number of local governments were willing to voluntarily accept such waste.<sup>197</sup> Residents outside of the affected areas are afraid of the possibility that the waste has a higher radioactive level than normal and therefore oppose the acceptance of disaster waste in their localities.

As of early March 2012, only 6% of about 23 million tons of waste had been handled. Then, the national government decided to utilize the system established by the Comprehensive Disaster Waste Management Act. On March 16, 2012, Prime Minister Noda sent letters asking prefectures and the largest cities that had not yet accepted disaster waste to accept and manage it.<sup>198</sup> According to the MOE, "Iwate and Miyagi prefectures have requested other prefectures to cooperate in the disposal of a part of their debris (0.69 million tons). . . . 65 projects in 15 prefectures [had] already started and treated 0.25 million tons of debris" as of March 2013.<sup>199</sup>

## B. Contaminated Waste Management and Decontamination

Dealing with disaster waste in Fukushima was even harder because of possible radiation. Based on the Nuclear Safety Commission's advice,<sup>200</sup> the Ministry of Economy, Trade and Industry (METI), the MOE, and the MHWL issued guidelines on tentative treatment of disaster waste in Fukushima on May 2, 2011.<sup>201</sup> The guidelines stated that

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<sup>194</sup> Saigai haikibutsu no shori ni kansuru tokubetsu sochi ho [Special Measures Act on Disaster Waste Management], Act No. 99 of 2011.

<sup>195</sup> Summary of Special Measures Act on Disaster Waste Management, MOE, [http://www.env.go.jp/jishin/attach/law23\\_99a.pdf](http://www.env.go.jp/jishin/attach/law23_99a.pdf) (in Japanese; last visited May 15, 2013).

<sup>196</sup> *Id.* art. 6.

<sup>197</sup> *Shōten – dai shinsai kara Inen/mienu “deguchi” fukkō kobamu / gareki kōiki shori susumazu* [Focus – 1 Year After the Great Earthquake / Solution Not Seen Yet and Reconstruction Disturbed / No Progress on Wide Area Debris Disposal], KAHOKU ONLINE NETWORK (Mar. 4, 2012), [http://www.kahoku.co.jp/spe/spe\\_sys1071/20120304\\_01.htm](http://www.kahoku.co.jp/spe/spe_sys1071/20120304_01.htm).

<sup>198</sup> *Ukeire yosei bunsho hassō: seifu* [Written Requests for Acceptance Sent: National Government], YOMIURI ONLINE (Mar. 17, 2012), <http://www.yomiuri.co.jp/feature/eq2011/information/20120317-OYT8T00268.htm>.

<sup>199</sup> Progress on Treatment of Debris by the Great East Japan Earthquake, MOE, *supra* note 193.

<sup>200</sup> Regarding Background of Release of “Regarding Tentative Policy on Securing Safety Concerning Disposal and Treatment of Waste That Is Connected to Tokyo Electric Company Fukushima Daiichi Nuclear Plant Accident”, Nuclear Safety Commission Secretariat (Aug. 19, 2011), [http://www.nsr.go.jp/archive/nsc/info/20110603\\_a\\_dis.pdf](http://www.nsr.go.jp/archive/nsc/info/20110603_a_dis.pdf) (in Japanese).

<sup>201</sup> Fukushima ken-nai no saigai haikibutsu no tōen no toriatsukai ni tsuite [Regarding Tentative Treatment of Disaster Waste in Fukushima], MHWL, METI & MOE, May 2, 2011, at 5 & 6, <http://www.env.go.jp/jishin/saigaihaikibutsu.pdf>.

- (1) disaster waste located in areas where evacuation was directed or expected were to be left alone, and not moved;
- (2) disaster waste located in areas near the coastline and middle part of Fukushima, excluding the areas above, will be collected and taken to a tentative storage area, but not processed until surveyed; and
- (3) disaster waste that is located in areas other than 1 and 2 above are to be processed and disposed of.

The MOE established a policy on disposal/treatment of disaster waste in Fukushima on June 23, 2011, based on advice from the NSC and the Disaster Waste Safety Evaluation Committee. The policy stated that it was desirable to incinerate or recycle disaster waste, if possible, in order to reduce landfill because the landfill capacity in Japan is limited. It also stated that the safety of residents and waste disposal workers has priority. It set criteria for facilities that incinerate waste that may contain low-level radiation, including criteria for how to treat ashes and the monitoring of radiation levels, among other things.<sup>202</sup>

The Diet enacted the Act on Special Measures Concerning the Handling of Radioactive Pollution in August 2011.<sup>203</sup> This Act established the basic approach for the disposal of waste contaminated by radioactive materials. Based on the Act, areas that were most contaminated by radioactive materials were designated as “the area where countermeasures against contaminated waste are implemented (countermeasures area).”<sup>204</sup> The MOE released the Waste Disposal Plan in the Countermeasures Area in June 2012.<sup>205</sup> Disaster waste near the coast was moved to temporary storage sites by the end of 2012.<sup>206</sup> Disaster waste was sorted and some of it burned to reduce the volume. Some waste has been recycled. Strict safety standards are set for all of

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<sup>202</sup> MOE, Fukushima ken nai no saigai haikibutsu no shori no hōshin [Policy on Disposal/Treatment of Disaster Waste in Fukushima] (June 23, 2011), [http://www.env.go.jp/jishin/attach/fukushima\\_hoshin110623.pdf](http://www.env.go.jp/jishin/attach/fukushima_hoshin110623.pdf).

<sup>203</sup> Act on Special Measures Concerning the Handling of Environmental Pollution by Radioactive Materials Discharged by the Nuclear Power Station Accident Associated with the Tohoku District – Off the Pacific Ocean Earthquake that Occurred on March 11, 2011 (on Special Measures Concerning the Handling of Radioactive Pollution), Act No. 110 of 2011.

<sup>204</sup> *Id.* art. 11.

<sup>205</sup> *Id.* art. 13. MOE, Waste Disposal Plan in the Countermeasure Area (June 2012), [http://www.env.go.jp/press/file\\_view.php?serial=19845&hou\\_id=15180](http://www.env.go.jp/press/file_view.php?serial=19845&hou_id=15180) (in Japanese).

<sup>206</sup> Waste Disposal Plan in the Countermeasure Area, *supra* note 205, at 2.

these processes.<sup>207</sup> The government has plans to establish final disposal places for waste,<sup>208</sup> but there are many problems involved in finding the sites and building facilities.<sup>209</sup>

Under the Act on Special Measures Concerning the Handling of Radioactive Pollution, the national government has established a system to monitor and record contamination levels of various places and let the public know the results.<sup>210</sup> Managers of sewer and storm drain facilities and incinerators must monitor radioactive levels of dirt, ashes, and other byproducts of incineration. When the radioactive level of this waste is more than the level that the MOE has set, it is designated as special waste.<sup>211</sup> The national government manages treatment and disposal of this designated waste.<sup>212</sup>

The Act on Special Measures Concerning the Handling of Radioactive Pollution also has a section on decontamination.<sup>213</sup> Based on the Act, the Minister of Environment can designate two types of areas. One is “the special decontamination area” where decontamination is implemented by the national government.<sup>214</sup> Eleven municipalities in Fukushima prefecture where the annual cumulative dose of radiation could be more than 20 mSv were designated. The other is the “intensive contamination survey area,” where decontamination is implemented by each municipality with financial and technical support from the national government.<sup>215</sup> According to the MOE, “[a]s of December 1, 2012, 104 municipalities in 8 prefectures, in which over 1 mSv/y of additional exposure dose were observed, were designated under the Act.”<sup>216</sup> The national government prepares a decontamination implementation plan,<sup>217</sup> and

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<sup>207</sup> *Id.* at 3.

<sup>208</sup> Shitei haikibutsu no kongo no shori no hōshin ni tsuite (gaiyō) [Policy on Designated Waste Disposal (summary)], MOE (Mar. 30, 2012), [http://www.env.go.jp/jishin/rmp/attach/memo20120330\\_waste-shori\\_gaiyo.pdf](http://www.env.go.jp/jishin/rmp/attach/memo20120330_waste-shori_gaiyo.pdf). See also Shitei haikibutsu shori jōhō saito [Designated Waste Disposal Information Site], MOE, <http://shiteihaiki.env.go.jp/> (last visited July 16, 2013).

<sup>209</sup> Shitei haikibutsu no saishu shobunjo kohochi no sentei ni kakaru keii no kensho oyobi kongo no hoshin [Examination of Process to Select Candidates of Final Disposal Places of Designated Wastes Disposal and Its New Policy], MOE (Feb. 25, 2013), [http://www.env.go.jp/jishin/rmp/attach/waste\\_fds-candidate\\_20130225-2.pdf](http://www.env.go.jp/jishin/rmp/attach/waste_fds-candidate_20130225-2.pdf).

<sup>210</sup> Act on Special Measures Concerning the Handling of Radioactive Pollution, Act No. 110 of 2011, art. 8.

<sup>211</sup> *Id.* art. 16.

<sup>212</sup> *Id.* art. 19.

<sup>213</sup> *Id.* ch. 4, § 3.

<sup>214</sup> *Id.* art. 25.

<sup>215</sup> *Id.* art. 32.

<sup>216</sup> Measures for Decontamination of Radioactive Materials Discharged by TEPCO’s Fukushima Daiichi NPS Accident, MOE, <http://josen.env.go.jp/en/> (last visited July 15, 2013). See also Press Release, MOE, (Notice) Regarding Designation of Contaminated Waste Countermeasures Area, Special Decontamination Area and Intensive Contamination Survey Area Based on the Act on Special Measures Concerning the Handling of Radioactive Pollution (Dec. 19, 2011), <http://www.env.go.jp/press/press.php?serial=14598> (in Japanese).

<sup>217</sup> Act on Special Measures Concerning the Handling of Radioactive Pollution art. 36.

decontaminates the area in accordance with the plan.<sup>218</sup> The MOE issued standards for decontamination and safety standards for the process.<sup>219</sup>

Among the special decontamination areas, decontamination has been completed in one city. In other municipalities, preliminary decontamination was mostly complete as of July 2013, and all municipalities had established decontamination plans. Five municipalities had started decontamination, and three municipalities were negotiating decontamination contracts.<sup>220</sup> In an “intensive contamination survey area” outside Fukushima, schools, nurseries, parks, and other places where children stay have priority for decontamination. In a third progress report on decontamination issued in June 2013, the MOE reported that decontamination of schools and nurseries was almost completed. Regarding decontamination of parks and sports facilities, 80% of the projects have been ordered, and 80% of ordered works have been completed. Regarding farm and farm animal lands, 60% of projects were ordered and completed. However, only a quarter of the decontamination of roads and houses was completed.<sup>221</sup>

## V. Nuclear Crisis at Fukushima

As noted above, within hours of the earthquake and ensuing tsunami, government officials became aware of the tsunami-related damage to the Fukushima Daiichi plant, declared a nuclear emergency, and began evacuating affected individuals. Similar measures were undertaken with regard to the area surrounding Fukushima Daini plant soon thereafter.<sup>222</sup>

### A. Act to Support Nuclear Disaster Victims’ Daily Lives

The nuclear accident caused an ongoing problem of radiation. As mentioned above, some people were forced to vacate their houses and lands due to contamination and still cannot return. These nuclear disaster victims needed special support, separate from victims who suffered directly from the earthquake and tsunami. In June 2012, the Diet enacted the Act to Support Nuclear Disaster Victims’ Daily Lives.<sup>223</sup> This Act established the philosophy and framework of government support for nuclear disaster victims. Under the Act, the government must establish a basic policy to support nuclear disaster victims.<sup>224</sup> The concrete measures and details were determined by

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<sup>218</sup> *Id.* art. 38.

<sup>219</sup> *Id.* arts. 40, 41.

<sup>220</sup> Josen tokubetsu chiiki ni okeru shinchoku jōkyō [Progress in Decontamination Special Area], MOE, <http://josen.env.go.jp/area/index.html> (last visited July 15, 2013).

<sup>221</sup> Press Release, MOE, Osen jōkyō jūten chōsa chiiki ni okeru josen no shinchoku jōkyō chōsa (dai 3 kai) no kekka ni tsuite (oshirase) [Regarding Survey Results on Progress of Decontamination of Priority Areas (Third) (Notice)] (June 7, 2013), <http://www.env.go.jp/press/press.php?serial=16745>.

<sup>222</sup> See discussion, *supra*, Part II(C).

<sup>223</sup> Tokyo denryoku genshiryoku jiko ni yori hisai shita kodomo o hajime to suru jūmin tō no seikatsu o mamori sasaeru tame no hisaisha no seikatsu shien tō ni kansuru sesaku no suishin ni kansuru hōritsu [Law on Promotion of Measures Concerning Disaster Victims’ Daily Life Support in Order to Protect and Assist Residents Who Suffered from the Tokyo Electric Company’s Nuclear Accident, Especially Children], Law No. 48 of 2012, June 27, 2012.

<sup>224</sup> *Id.* art. 5, para. 1.

Cabinet orders and ministry ordinances. The Act states that those measures must reflect disaster victims' opinions.<sup>225</sup>

Under the Act, the government must implement the necessary measures to suppress radiation released from the soil, with priority given to areas in which children and pregnant women stay or pass by, such as their houses, schools, and daycare and school commuting routes.<sup>226</sup> In the areas where evacuation is no longer recommended, the government must implement measures to make medical services available to residents, help children who missed school due to the disaster catch up on the grade-appropriate curriculum, secure the safety of food prepared in the home and by lunch services at schools, etc.<sup>227</sup> The government is also obligated under the Act to support people who moved out of the evacuation area or who returned to it, by assisting them in finding places to live and jobs, among other things.<sup>228</sup>

However, more than one year after the measure's enactment, the government still has not established a basic policy for supporting nuclear disaster victims, and concrete measures have not been implemented. One of the reasons for the delay is there has not been a consensus on the definition of areas that should be covered by the Act. One possible criterion may be an area where there is more than 1 mSv of radiation per year. If this criterion were adopted, the area would include 101 municipalities over eight prefectures and a large number of people would be supported. However, the government may not be able to afford such an expansive program.<sup>229</sup>

## **B. Compensation for Nuclear Damage**

Since Japan started nuclear power development in the late 1950s and 1960s, various laws relating to nuclear power have been enacted. In 1961, the Act on Compensation for Nuclear Damage was enacted.<sup>230</sup> This Act imposes nuclear operator no-fault liability<sup>231</sup> and does not allow liability to be shared with others.<sup>232</sup> This Act ensures that nuclear operators secure basic funds for the smooth implementation of compensation for nuclear damages. In order to undertake reactor operation, a nuclear operator must provide financial security for the

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<sup>225</sup> *Id.* art. 5, para. 3.

<sup>226</sup> *Id.* art. 7.

<sup>227</sup> *Id.* art. 8.

<sup>228</sup> *Id.* arts. 9 & 10.

<sup>229</sup> Masato Wakabayashi, *Sakunen seiritsu no genpatsu jiko hisaisha shien hō, senryō kijun ya chiiki, fumeikaku* [Nuclear Accident Victim Support Act Enacted Last Year, Criterion and Areas to Be Covered Undecided], KAHOKU SHINPŌ (May 5, 2013), <http://archive.is/tv2GJ>.

<sup>230</sup> Act on Compensation for Nuclear Damage, Act No. 147 of 1961, English translation including amendments through 2009 available on the OECD website, at <http://www.oecd-nea.org/law/legislation/japan-docs/Japan-Nuclear-Damage-Compensation-Act.pdf>.

<sup>231</sup> Act on Compensation for Nuclear Damage, Act No. 147 of 1961, amended by Act No. 47 of 2012, art. 3.

<sup>232</sup> *Id.* art. 4.

compensation of nuclear damages.<sup>233</sup> This financial security must involve one of the following measures and be approved by the MEXT:

- Conclusion of a liability insurance contract for nuclear damage with insurance companies and an indemnity agreement for compensation of nuclear liability with the government
- A deposit of money
- Other measures equivalent to the above

The financial security amount for specific types of nuclear operation is designated within the range that is specified in the cabinet order. For reactor installations whose thermal output exceeds 10,000 kilowatts, the amount is 120 billion yen (about US\$1.2 billion) per site.<sup>234</sup> The government may enter into an indemnity agreement for compensation of nuclear liability with nuclear operators, in preparation for a situation where the operators run short of money despite insurance or deposits. In such a case, the government assists the nuclear operator, and the operator later returns the money based on the Act on Indemnity Contract for Damages by Nuclear Operation (Indemnity Act).<sup>235</sup>

The Act on Compensation for Nuclear Damage states that a Dispute Reconciliation Committee for Nuclear Damage Compensation (Reconciliation Committee) may be established as an organization attached to the MEXT.<sup>236</sup> The Reconciliation Committee was established on April 11, 2011.<sup>237</sup> This Committee is in charge of mediating reconciliation of any dispute arising from compensation for nuclear damage and sets guidelines that establish the scope of the nuclear damage and other matters to help operators reach a voluntary settlement of the dispute.<sup>238</sup> The Committee issued several different guidelines as they discussed specific matters. The Committee issued the first guidelines on April 28 and the second guidelines on May 31, which were supplemented on June 20, 2011. The Committee then released interim guidelines that incorporated the first and second guidelines on August 5, 2011. These interim guidelines have been supplemented three times.<sup>239</sup> The second supplement of the interim guidelines issued in March 2012 provided that “6 million yen should be given in a lump sum to each person who is not allowed to return to his or her home, located in a ‘difficult-to-return’ zone . . . for at least five

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<sup>233</sup> *Id.* art. 6.

<sup>234</sup> Enforcement Order of Act on Compensation for Nuclear Damage, Cabinet Order No. 44 of 1962, *amended by* Order No. 235 of 2012, art. 2.

<sup>235</sup> Act on Indemnity Contract for Damages by Nuclear Operation, Act No. 148 of 1961, *amended by* Act No. 47 of 2012.

<sup>236</sup> Act on Compensation for Nuclear Damage art. 18.

<sup>237</sup> Cabinet Order on Establishment of Dispute Reconciliation Committee for Nuclear Damage Compensation, Cabinet Order No. 99 of 2011.

<sup>238</sup> Act on Compensation for Nuclear Damage art. 18.

<sup>239</sup> Genshiryoku songai baishō funsō shinsakai [Dispute Reconciliation Committee for Nuclear Damage Compensation], MEXT, [http://www.mext.go.jp/b\\_menu/shingi/chousa/kaihatu/016/index.htm](http://www.mext.go.jp/b_menu/shingi/chousa/kaihatu/016/index.htm) (last visited Sept. 16, 2013).

years.”<sup>240</sup> These people may also receive the full value of their homes and lands as calculated before the nuclear accident.<sup>241</sup> The latest supplement, issued on January 30, 2013, expanded compensation for business entities in the agriculture, forestry, and fishery industries, and for processing and distribution industries if they lost income due to harmful rumors, such as false rumors concerning contamination of products by radiation.<sup>242</sup>

To mediate reconciliation of disputes relating to compensation for damage caused by the nuclear accident, “the Center for Dispute Resolution for Compensating Damages” was opened under the auspices of the Dispute Reconciliation Committee on August 28, 2011.<sup>243</sup> By December 2011, about 130 mediators and thirty researchers had been appointed. As of December 2012, the number of mediators was 205 and the number of researchers ninety-one. In FY2011 (September to December), 521 cases were filed, and in 2012, 4,542 cases were filed. By the end of 2012, 1,862 cases had been concluded. Among them, reconciliations were completed in about two-thirds of cases.<sup>244</sup>

Because the total payment for nuclear damage compensation would be larger than the existing system could deal with, the Diet enacted a new law that established the Nuclear Damage Compensation Facilitation Corporation.<sup>245</sup> The Corporation receives contributions from nuclear operators and reserves funds in preparation for nuclear damage compensation. When a nuclear operator is in need of assistance in order to compensate nuclear damage, the Corporation may grant financial assistance, such as providing funds, share subscriptions, a loan of funds, and acquisition of bonds, etc. In order to raise the funds necessary for financial assistance, the Corporation may issue government-guaranteed bonds and borrow funds from financial

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<sup>240</sup> TEPCO to Seek Billions More for Fukushima Compensation, THE ASAHI SHIMBUN (Mar. 21, 2012), <https://ajw.asahi.com/article/0311disaster/fukushima/AJ201203210049>. See also Dispute Reconciliation Committee for Nuclear Damage Compensation, Second Supplement to the Interim Guidelines on Criteria for Determining Nuclear Damage Indemnification Coverage Caused by TEPCO Fukushima Daiichi and Daini Nuclear Power Plants (Regarding Damage Relating to Government Review on Evacuation Areas) at 4 (Mar. 16, 2012), [http://www.mext.go.jp/b\\_menu/shingi/chousa/kaihatu/016/houkoku/\\_icsFiles/afieldfile/2012/03/16/1318795.pdf](http://www.mext.go.jp/b_menu/shingi/chousa/kaihatu/016/houkoku/_icsFiles/afieldfile/2012/03/16/1318795.pdf) (in Japanese).

<sup>241</sup> Second Supplement to the Interim Guidelines, *supra* note 240, at 12–13.

<sup>242</sup> Dispute Reconciliation Committee for Nuclear Damage Compensation, Third Supplement to the Interim Guidelines on Criteria for Determining Nuclear Damage Indemnification Coverage Caused by TEPCO Fukushima Daiichi and Daini Nuclear Power Plants (Damages to the Agriculture, Forestry and Fishery Industries and the Food Industry Caused by Harmful Rumors) (Jan. 30, 2013), [http://www.mext.go.jp/component/a\\_menu/science/detail/\\_icsFiles/afieldfile/2013/02/12/1329116\\_7.pdf](http://www.mext.go.jp/component/a_menu/science/detail/_icsFiles/afieldfile/2013/02/12/1329116_7.pdf) (in Japanese). See also Press Release, TEPCO, Revision of Compensation Eligibility Criteria for Damages to the Agriculture, Forestry and Fishery Industries and the Processing and Distribution Industries Caused by Harmful Rumors (Mar. 25, 2013), [http://www.tepco.co.jp/en/press/corp-com/release/2013/1225847\\_5130.html](http://www.tepco.co.jp/en/press/corp-com/release/2013/1225847_5130.html).

<sup>243</sup> Genshiryoku songai baishō funsō kaiketsu senta [Center for Dispute Resolution for Compensating Damages], MEXT, [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) (last visited July 16, 2013).

<sup>244</sup> REPORTS ON ACTIVITIES OF CENTER FOR DISPUTE RESOLUTION FOR COMPENSATING DAMAGES – REGARDING STATUS IN 2012 (Feb. 2013), [http://www.mext.go.jp/component/a\\_menu/science/detail/\\_icsFiles/afieldfile/2013/03/05/1329118\\_010.pdf](http://www.mext.go.jp/component/a_menu/science/detail/_icsFiles/afieldfile/2013/03/05/1329118_010.pdf) (in Japanese).

<sup>245</sup> Genshiryokuu songai baisho shien kiko ho [Nuclear Damage Compensation Facilitation Corporation Establishment Act], Act No. 94 of 2011, English translation available at [http://www.japaneselawtranslation.go.jp/law/detail\\_main?vm=02&id=2082](http://www.japaneselawtranslation.go.jp/law/detail_main?vm=02&id=2082).

institutions. When the Corporation needs to receive special government aid for giving financial assistance to a nuclear operator, the Corporation and the nuclear operator jointly prepare a special business plan and obtain approval from the government. The special business plan includes the forecast of the total amount of compensation, measures for implementing prompt and appropriate compensation for damages, the contents and the amount of financial assistance, and measures for rationalization of management, among other things.<sup>246</sup> The Corporation and TEPCO established the first special plan on October 28, 2011. Since then, the plan has been amended several times. Financial support for TEPCO has been provided since November 2011.<sup>247</sup>

Because the payment of full compensation would take time due to the large number of victims and the complex nature of the damage, TEPCO and the government decided to offer provisional payments to certain victims, such as evacuees.<sup>248</sup> TEPCO announced on April 15, 2011, that it would pay one million yen (about US\$10,000) to evacuated households of two or more people and 750,000 yen (about US\$7,500) for the evacuation of single households,<sup>249</sup> and started payment on April 26, 2011.<sup>250</sup> TEPCO also made provisional payments to farmers and fishermen through their cooperatives starting on May 31, 2011.<sup>251</sup> TEPCO made additional provisional payments in July. TEPCO paid 100,000, 200,000 or 300,000 yen (about US\$1,000, 2,000, or 3,000) per person, depending on the length and method of evacuation.<sup>252</sup> However, provisional payments of compensation by TEPCO did not cover some disaster victims. The Act on Emergency Measures Against Damage from the 2011 Nuclear Accident was enacted on August 5, 2011.<sup>253</sup> This Act enabled the national government to make provisional compensation for damage caused by the nuclear accident, in place of TEPCO. After the payment, the

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<sup>246</sup> Cabinet Secretariat, Outline of the Nuclear Damage Compensation Facilitation Corporation Act (Aug. 2011), [http://www.meti.go.jp/english/earthquake/nuclear/roadmap/pdf/20111012\\_nuclear\\_damages\\_2.pdf](http://www.meti.go.jp/english/earthquake/nuclear/roadmap/pdf/20111012_nuclear_damages_2.pdf).

<sup>247</sup> Tokubetsu jigyo keikaku [Special Business Plan], Nuclear Damage Liability Facilitation Fund, [http://www.ndf.go.jp/gyomu/tokuji\\_index.html](http://www.ndf.go.jp/gyomu/tokuji_index.html) (last visited July 18, 2013).

<sup>248</sup> Heisei nijūsan nen genshiryoku jiko ni yoru higai ni kakaru kinkyo sochi ni kansuru hōritsu [Act on Emergency Measures on Damage Caused by Nuclear Accident in 2011], Act No. 91 of 2011. *See also Regarding Provisional Payment Based on Act on Emergency Measures on Damage Caused by Nuclear Accident in 2011*, MEXT, [http://www.mext.go.jp/a\\_menu/genshi\\_baisho/jiko\\_baisho/detail/1329401.htm](http://www.mext.go.jp/a_menu/genshi_baisho/jiko_baisho/detail/1329401.htm) (in Japanese; last visited Sept. 9, 2013).

<sup>249</sup> Press Release, TEPCO, Regarding Payment of ‘Provisional Compensation’ for Damages for Evacuees (Apr. 15, 2011), <http://www.tepco.co.jp/cc/press/11041502-j.html> (in Japanese).

<sup>250</sup> Tokyo denryoku, hinan jūmin e no hoshōkin karibarai o kaishi [TEPCO Started to Pay Provisional Compensation], NEWS24 (Apr. 26, 2011), <http://www.news24.jp/articles/2011/04/26/06181681.html>.

<sup>251</sup> Press Release, TEPCO, Regarding Status of Payment of Provisional Compensation for Damages for Evacuees (May 31, 2011), <http://www.tepco.co.jp/cc/press/11053104-j.html> (in Japanese).

<sup>252</sup> Press Release, TEPCO, Regarding Payment of ‘Additional Provisional Compensation’ for Damages for Evacuees (July 5, 2011), <http://www.tepco.co.jp/cc/press/11070501-j.html> (in Japanese).

<sup>253</sup> Act on Emergency Measures Against Damage from the 2011 Nuclear Accident, Act No. 91 of 2011.

government can claim the amount of payment against TEPCO. The government paid provisional compensation to sightseeing businesses in Fukushima and three other neighboring prefectures.<sup>254</sup>

### C. New Nuclear Regulatory Authority and New Regulations

The nuclear regulatory authority at the time of the Great East Japan Earthquake was the Nuclear and Industrial Safety Agency (NISA) under the jurisdiction of METI. The NISA was criticized for failing to ensure the safety of nuclear plants after the earthquake. Critics claimed this was because the NISA was placed under METI, which promotes nuclear power.<sup>255</sup> The then ruling Democratic Party of Japan called for separating the NISA from METI to ensure that it could actually wield watchdog authority without the constraints of vested interests.<sup>256</sup> The Cabinet released the Basic Policy on the Reform of an Organization in Charge of Nuclear Safety Regulation in August 2011, which stated that a new nuclear regulatory agency would be created as an affiliated organization of the MOE in view of the separation of nuclear regulation and promotion.<sup>257</sup> Acting on this policy, the Cabinet then established the Advisory Committee for Prevention of Nuclear Accident to deliberate on the proposed nuclear safety regulatory organization and ways to further strengthen nuclear safety regulations.<sup>258</sup>

At the beginning of the regular Diet session in 2012, two bills were introduced: one was submitted by the Cabinet, and the other was submitted by two opposition parties. Later, the ruling party, two opposition parties, and independent members cooperated and submitted another bill, and the previous two bills were withdrawn. The independence of the new agency was more enhanced than in the Cabinet bill.<sup>259</sup> The Diet enacted a new law to create an independent Nuclear Regulatory Authority (NRA) for nuclear plant safety in June 2012.<sup>260</sup> The NRA is an external branch of the Environment Ministry, but was established based on a different provision of the National Government Organization Act than the usual external branches to ensure its independence.<sup>261</sup>

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<sup>254</sup> *Genpatsu baisho kuni no karibarai uketsuke kaishi [Nuclear Compensation, Open for Application for Provisional Payment from the State]*, NHK “KABUN” BLOG (Sept. 21, 2011, 6:05 AM), <http://www9.nhk.or.jp/kabun-blog/200/95821.html>.

<sup>255</sup> *Nuke Regulatory Reform Easier Said than Done*, JAPAN TIMES (June 24, 2011), <http://www.japantimes.co.jp/news/2011/06/24/national/nuke-regulatory-reform-easier-said-than-done/>.

<sup>256</sup> Kazuaki Nagata, *Time to Give Nuke Watchdog Teeth*, JAPAN TIMES (June 21, 2011), <http://www.japantimes.co.jp/news/2011/06/21/reference/time-to-give-nuke-watchdog-teeth/>.

<sup>257</sup> Basic Policy on the Reform of an Organization in charge of Nuclear Safety Regulation, Cabinet Decision (Aug. 15, 2011), [http://www.cas.go.jp/jp/genpatsujiko/pdf/kakugi\\_en\\_110815.pdf](http://www.cas.go.jp/jp/genpatsujiko/pdf/kakugi_en_110815.pdf).

<sup>258</sup> *Advisory Committee for Prevention of Nuclear Accident*, NUCLEAR REGULATION AUTHORITY, [http://www.nsr.go.jp/english/e\\_nra/outline/03\\_01.html](http://www.nsr.go.jp/english/e_nra/outline/03_01.html) (last visited July 18, 2013).

<sup>259</sup> *Genshiryoku kisei, Dokuritsusei takai shin soshiki ni [Nuclear Regulatory, More Independence to New Organization]*, NEW KŌMEITO (June 14, 2012), [https://www.komei.or.jp/news/detail/20120614\\_8341](https://www.komei.or.jp/news/detail/20120614_8341).

<sup>260</sup> *Genshiryoku kisei iinkai secchi hō [Nuclear Regulatory Authority Establishment Act]*, Act No. 47 of 2012. See also Basic Policy on the Reform of an Organization in Charge of Nuclear Safety Regulation, Cabinet Decision, Aug. 15, 2011, [http://www.cas.go.jp/jp/genpatsujiko/pdf/kakugi\\_en\\_110815.pdf](http://www.cas.go.jp/jp/genpatsujiko/pdf/kakugi_en_110815.pdf).

<sup>261</sup> *Kokka gyōsei soshiki hō [National Government Organization Law]*, Act No. 120 of July 10, 1948, art. 3.

At the same time, the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors was amended in order to adjust to the regulatory authority change and tighten nuclear reactor regulation.<sup>262</sup> Under this Act, the operators of nuclear reactors are obligated to prepare measures to prevent serious accidents.<sup>263</sup> The operational period of nuclear reactors is forty years, with a one-time possible extension of up to twenty years.<sup>264</sup> The task of developing new safety standards under the Act was delegated to the NRA.

The NRA was established in September 2012,<sup>265</sup> and adopted the new safety standards on nuclear power plants on June 19, 2013.<sup>266</sup> The new standards were implemented on July 8, 2013.<sup>267</sup> The new standards require operators to make much tougher assumptions regarding earthquakes and tsunamis that may hit their facilities. The 2006 Anti-Seismic Guidelines prohibit the construction of nuclear reactors above fault lines that have been active since the Tarantian Age (126,000 to 11,700 years ago).<sup>268</sup> This prohibition was upgraded from a “guideline” to a “standard.” Faults are regarded as active if the possibility that they may have moved cannot be ruled out. The new standard added a provision that when no judgment can be made as to whether a fault line was active during the period, geological and other research must be conducted for any signs of fault movement up to 400,000 years ago.

The new standards require plant operators to install filtered vent systems on boiling water reactors, in order to release radioactive steam inside reactor containers in the event of a serious accident. However, a five-year grace period is granted to operators of pressurized water reactors with large containment vessels. The standards also require power companies to build second control rooms, which would serve as backups to existing control rooms if a severe accident were to render them unusable. A five-year grace periods was provided for implementation of this standard as well.<sup>269</sup> In addition, the formulation of new safety standards for test and research reactors and nuclear fuel facilities is also underway with an enforcement deadline of December 2013.

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<sup>262</sup> Kaku genryō busshitsu, kaku nenryō busshitsu oyobi genshiro no kisei ni kansuru hōritsu [Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors], Act No. 166 of June 10, 1957, *last amended by* Act No. 47 of 2012, English translation available at [http://www.japaneselawtranslation.go.jp/law/detail\\_main?re=02&vm=02&id=1941](http://www.japaneselawtranslation.go.jp/law/detail_main?re=02&vm=02&id=1941).

<sup>263</sup> *Id.* arts. 43-3-5 & 43-3-6.

<sup>264</sup> *Id.* art. 43-3-31.

<sup>265</sup> *Japan Gets a New Nuclear Safety Body, Now Needs to Write Rules*, ASAHI SHIMBUN (Sept. 20, 2012), <http://ajw.asahi.com/article/0311disaster/fukushima/AJ201209200081>.

<sup>266</sup> 2013 Nuclear Regulatory Authority 11th Meeting Minutes, June 19, 2013, at 22, <http://www.nsr.go.jp/committee/kisei/data/20130619-kisei.pdf> (in Japanese).

<sup>267</sup> “Genshiryoku kisei iinkai secchihō no ichibu no shikō kijitsu o sadameru seirei” ga kakugi kettei saremasita [Cabinet Decision Made on “Order to Set Implementation Date of Act on Nuclear Safety Agency Establishment”], NRA, June 21, 2013, [http://www.nsr.go.jp/law/130621\\_02seirei\\_kakugi.html](http://www.nsr.go.jp/law/130621_02seirei_kakugi.html).

<sup>268</sup> Nuclear Safety Commission, Hatsuden yō genshiro shisetsu ni kansuru taishin sekkei shinsa shishin [Guidelines on Anti-seismic Architectonics Examination Concerning Nuclear Power Plants] § 5 (Sept. 19, 2006), <http://www.nsr.go.jp/archive/nsc/shinsashishin/pdf/1/si004.pdf>. For additional information on the Tarantian Age, see John P. Rafferty, *Tarantian Stage*, ENCYCLOPÆDIA BRITANNICA ONLINE ACADEMIC EDITION, <http://www.britannica.com/EBchecked/topic/1352430/Tarantian-Stage> (last visited Aug. 28, 2013).

<sup>269</sup> *Nuclear Agency Adopts New Power Plant Safety Standards*, JAPAN NEWS (June 20, 2013) (on file with author).

The NRA also established the Nuclear Disaster Response Guidelines on June 5, 2013.<sup>270</sup> Based on the Guidelines, the NRA released new Manuals for distribution and administration of iodine tablets on July 19, 2013.<sup>271</sup> It expanded the recommendation for iodine tablets in case of nuclear disaster to people of all ages living within thirty kilometers of a nuclear plant. Previously, the government recommended the tablets for people under forty years of age. The previous guidelines were established in 2002 by the NRA's predecessor, the Nuclear Safety Commission.<sup>272</sup>

## VI. Reconstruction

The Diet enacted the Basic Act on Reconstruction from the Great East Japan Earthquake in June 2011.<sup>273</sup> The Act set the policy for reconstruction, enabled the government to issue reconstruction bonds and establish special zones for reconstruction, and authorized the establishment of the Headquarters for the Reconstruction at the Prime Minister's Office and the future establishment of the Reconstruction Agency. The Headquarters for the Reconstruction was established immediately after the legislation was enacted.<sup>274</sup> The Headquarters then issued the Basic Policy on Reconstruction from the Great East Japan Earthquake on July 29, 2011, based on the Basic Act.<sup>275</sup> The Basic Policy "presents the overall vision of the measures directed toward full-fledged reconstruction" and "sets out concrete measures to be implemented, the project cost, and financial resources, based on the local opinions as well."<sup>276</sup> The term of reconstruction was estimated at ten years, but reconstruction activities will be more intense for the first five years.<sup>277</sup> Twenty-five trillion yen (about US\$250 billion) has been budgeted for the first five years.<sup>278</sup>

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<sup>270</sup> Genshiryoku saigai taisaku shishin [Nuclear Disaster Response Guidelines], Oct. 31, 2012, *last amended* June 5, 2013, [http://www.nsr.go.jp/activity/bousai/data/130605\\_saitaishishin.pdf](http://www.nsr.go.jp/activity/bousai/data/130605_saitaishishin.pdf).

<sup>271</sup> *Manuals for Distribution and Administration of Iodine Tablets*, NRA (July 19, 2013), [http://www.nsr.go.jp/english/e\\_news/2013/0719.html](http://www.nsr.go.jp/english/e_news/2013/0719.html).

<sup>272</sup> *Recommendation for Iodine Tablets in Case of Nuclear Disaster Expanded to All Ages*, THE MAINICHI (July 20, 2013), <http://mainichi.jp/english/english/newsselect/news/20130720p2a00m0na007000c.html>.

<sup>273</sup> Basic Act on Reconstruction from the Great East Japan Earthquake, Act No. 76 of 2011, English translation available on the Reconstruction Agency's website, at [https://www.reconstruction.go.jp/english/topics/Basic\\_Act\\_on\\_Reconstruction.pdf](https://www.reconstruction.go.jp/english/topics/Basic_Act_on_Reconstruction.pdf).

<sup>274</sup> Press Release, Prime Minister of Japan and His Cabinet, Prime Minister in Action: Headquarters for the Reconstruction from the Great East Japan Earthquake (June 28, 2011), [http://www.kantei.go.jp/foreign/kan/actions/201106/28fukkou\\_honbu\\_e.html](http://www.kantei.go.jp/foreign/kan/actions/201106/28fukkou_honbu_e.html).

<sup>275</sup> Basic Act on Reconstruction from the Great East Japan Earthquake, Act No. 76 of 2011, art. 3; Press Release, Prime Minister of Japan and His Cabinet, Prime Minister in Action: Headquarters for the Reconstruction from the Great East Japan Earthquake (July 29, 2011), [http://www.kantei.go.jp/foreign/kan/actions/201107/29KAIGI\\_fukkou\\_e.html](http://www.kantei.go.jp/foreign/kan/actions/201107/29KAIGI_fukkou_e.html).

<sup>276</sup> Prime Minister in Action (July 29, 2011), *supra* note 275.

<sup>277</sup> Basic Policy on Reconstruction from the Great East Japan Earthquake, Headquarters for the Reconstruction from the Great East Japan Earthquake decision on July 29, 2011, modified by the decision on Aug. 11, 2011, at 3, <http://www.reconstruction.go.jp/topics/110811kaitei.pdf>.

<sup>278</sup> *Progress Report*, RECONSTRUCTION AGENCY (Mar. 11, 2013), <http://www.reconstruction.go.jp/english/topics/2013/03/2nd-anniversary-report.html>.

In December 2011, the Act on Special Zones for Reconstruction after the Great East Japan Earthquake<sup>279</sup> was enacted, as directed by the Basic Act.<sup>280</sup> Because conditions of areas—such as the degree of damage from the disaster, existing industry, and the pace of recovery—vary from area to area, reconstruction plans are best planned by the local governments.<sup>281</sup> The special zones system provides a framework and measures can be taken following consultations between the national and local governments. The special zones system offers a range of measures to support reconstruction efforts. Regulations and statutory procedures, such as eligibility requirements for public housing and granting special permits for certain business establishments, may be eased. Land-use restructuring may be facilitated. A range of tax breaks to stimulate investment and employment in the afflicted areas may be implemented. Special grants may be provided for reconstruction projects.<sup>282</sup>

The Reconstruction Agency was created in February 2012,<sup>283</sup> eleven months after the Great East Japan Earthquake, and the Reconstruction Headquarters was abolished. The Agency's mission has been to accelerate structural reconstruction and revitalization in the affected areas, by supporting implementation of government policies and coordinating reconstruction strategy and initiatives among national government agencies and local governments.<sup>284</sup> Coordination of reconstruction efforts include continued efforts towards the removal of debris, rebuilding infrastructure and housing, issues surrounding the Fukushima crisis, advancing decontamination, improving food safety, boosting local industry and the economy, and promoting investment and tourism.<sup>285</sup> According to the Agency's Progress Report at the second anniversary of the earthquake, the reconstruction is being carried out as planned.<sup>286</sup>

Because the Fukushima nuclear disaster is different from the tsunami disaster, the Diet enacted a special act for the reconstruction of Fukushima, the Act on Special Measures for Fukushima Reconstruction and Revitalization, at the end of March 2012.<sup>287</sup> The Act obligates the government to construct infrastructure and public facilities, clean public facilities to make them functional, provide medical exams for residents, give tax breaks to residents and firms, and restore industries in Fukushima.

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<sup>279</sup> Higashi nihon dai shinsai fukkō tokubetsu kuiki hō [Act on Special Zones for Reconstruction from Great East Japan Earthquake], Act No. 122 of 2011, *last amended by* Act No. 55 of 2013.

<sup>280</sup> Basic Act on Reconstruction from the Great East Japan Earthquake art. 10.

<sup>281</sup> See *Fukko tokku seido* [Special Zones System for Reconstruction], PRIME MINISTER OF JAPAN AND HIS CABINET, <http://www.kantei.go.jp/fukkou/organization/reconstructionzones.html> (last visited Aug. 16, 2013).

<sup>282</sup> *Our Mission*, RECONSTRUCTION AGENCY, <http://www.reconstruction.go.jp/english/topics/2013/03/about-us-our-mission.html> (last visited Aug. 29, 2013).

<sup>283</sup> Fukkō chō secchi hō [Act on Establishment of Reconstruction Agency], Act No. 125 of 2011.

<sup>284</sup> *About Us*, RECONSTRUCTION AGENCY, <http://www.reconstruction.go.jp/english/topics/about-us.html> (last visited Aug. 16, 2013).

<sup>285</sup> *Progress to Date*, RECONSTRUCTION AGENCY, <http://www.reconstruction.go.jp/english/topics/progress-to-date.html> (last visited Aug. 16, 2013).

<sup>286</sup> *Progress Report*, *supra* note 278.

<sup>287</sup> Act on Special Measures for Fukushima Reconstruction and Revitalization, Act No. 25 of 2012.

## VII. Public Finance Measures

Post-earthquake emergency, recovery, and reconstruction measures cost huge amounts of money. At the beginning, a reserve fund became the source of money. The Constitution of Japan states that “in order to provide for unforeseen deficiencies in the budget, a reserve fund may be authorized by the Diet to be expended upon the responsibility of the Cabinet.”<sup>288</sup> Japan’s fiscal year runs from April 1 to March 31.<sup>289</sup> Expenses for emergency measures from March 11 to March 31, 2011, were covered by the 2010 reserve fund. A total of 67.8 billion yen (about US\$678 million) was used.<sup>290</sup> Reserve funds totaling 5.03 billion yen (about US\$50.3 million) from FY2011 were allocated for expenses for emergency measures, such as building shelters, on April 19, 2011.<sup>291</sup>

The government also used the supplementary budget system to make money available for post-earthquake measures. When something unexpected happens after the budget has been approved by the Diet, the Cabinet may formulate and submit a supplementary budget to the Diet.<sup>292</sup> The first 2011 fiscal year supplemental budget was approved by the Diet on May 2, 2011. Four trillion yen (about US\$40 billion) was allocated for recovery from the disaster. The financial source was created by reducing the national child allowance<sup>293</sup> and suspending the project to eliminate highway tolls, among other things.<sup>294</sup>

The second FY2011 supplementary budget was approved by the Diet on July 25, 2011. Two trillion yen (about US\$20 billion) was allocated for recovery from the disaster. This spending was covered by the surplus from the 2010 budget.<sup>295</sup> The third FY2011 supplementary budget was approved on November 21, 2011. The total amount authorized in the third supplementary budget was 12 trillion yen (about US\$120 billion), the second biggest supplemental budget in

<sup>288</sup> KENPŌ [CONSTITUTION OF JAPAN], 1946, art. 87, English translation available on the Ministry of Justice’s website, at [http://www.japaneselawtranslation.go.jp/law/detail\\_main?re=02&vm=02&id=174](http://www.japaneselawtranslation.go.jp/law/detail_main?re=02&vm=02&id=174).

<sup>289</sup> Zaisei hō [Public Finance Law], Act No. 34 of 1947, *last amended by* Act No. 152 of 2002, art. 11.

<sup>290</sup> Ministry of Finance, General Budget Reserve Fund General Records on Spending and Each Ministry and Agency’s Records on Spending for Fiscal Year 2011 (No. 2) (For Submission to the 177th Diet Session), at 3, <http://www.bb.mof.go.jp/server/2010/dlpdf/DL2010e1013.pdf> (in Japanese).

<sup>291</sup> MIC, Q&A Concerning Measures to Counter the Great East Japan Earthquake (Local Government Administration and Finance), at 12 (June 10, 2011), [http://www.soumu.go.jp/main\\_content/000117828.pdf](http://www.soumu.go.jp/main_content/000117828.pdf) (in Japanese).

<sup>292</sup> Public Finance Law art. 29.

<sup>293</sup> The Democratic Party of Japan promised to provide a monthly child allowance of 26,000 yen (about US\$260) for each child aged fifteen or younger to all child-rearing families during the 2009 Lower House election campaign. It began providing half the amount in fiscal year 2010. *Child Allowance Devoid of Principle*, JAPAN TIMES (Mar. 29, 2012), <http://www.japantimes.co.jp/opinion/2012/03/29/editorials/child-allowance-devoid-of-principle/>.

<sup>294</sup> Ministry of Finance, Explanation of 2011 Fiscal Year Supplementary Budget (Apr. 2011, 177th Diet Session), at 1, [http://www.mof.go.jp/budget/budger\\_workflow/budget/fy2011/sy230428/sy230428b.pdf](http://www.mof.go.jp/budget/budger_workflow/budget/fy2011/sy230428/sy230428b.pdf) (in Japanese).

<sup>295</sup> Ministry of Finance, Explanation of 2011 Fiscal Year Second Supplementary Budget (July 2011, 177th Diet Session), at 1, [http://www.mof.go.jp/budget/budger\\_workflow/budget/fy2011/sy230715/sy230715b.pdf](http://www.mof.go.jp/budget/budger_workflow/budget/fy2011/sy230715/sy230715b.pdf) (in Japanese).

Japan's history.<sup>296</sup> Of that amount, 9 trillion yen (about US\$90 billion) was for expenses for disaster relief, disposal of disaster waste, additional public works, disaster-related public financing programs, local allocation tax grants, Great East Japan Earthquake Reconstruction grants, reconstruction from the nuclear disaster, national disaster prevention, and other measures.<sup>297</sup> The financial source was created by cutting 164.8 billion yen (about US\$1.648 million) of previously-authorized expenses, allocating 18.7 billion yen (about US\$ 187 million) of additional non-tax revenues, and issuing 11.55 trillion yen (about US\$115.5 billion) of reconstruction bond issues.<sup>298</sup>

Japan also enacted laws to create funds for recovery and reconstruction. The Act on Special Measures to Secure a Source of Funds Necessary to React to the Aftermath of the Great East Japan Earthquake<sup>299</sup> was enacted at the same time that the first 2011 fiscal year supplemental budget was approved. This Act made it possible to transfer certain funds in the special account to the general account, and to transfer highway tolls that are managed by the Japan Expressway Holding and Debt Repayment Agency to the national treasury.

The Act on Special Measures for Securing Financial Resources Necessary for Reconstruction from the Great East Japan Earthquake<sup>300</sup> was enacted at the same time that the third FY2011 supplemental budget was approved. The Act authorized the government to transfer money between specified special accounts, created special income and corporate taxes, and allowed for the issuance of reconstruction bonds, among other things.<sup>301</sup> The Act also imposed a temporary tax increase of 2.1% on the standard national income tax starting January 1, 2013, which will expire on December 31, 2037.<sup>302</sup> The corporation tax will be increased by 10% for three years.<sup>303</sup> The revenue from these special taxes is solely to be used for reconstruction from the Great East Japan Earthquake.<sup>304</sup>

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<sup>296</sup> *Dai3ji hosei yosan, seiritsu . . . fukkō kanren 9chō en chō* [The Third Supplementary Budget Approved . . . Over 9 Trillion Yen for Reconstruction Related Expenses], YOMIURI ONLINE (Nov. 21, 2011), <http://www.yomiuri.co.jp/politics/news/20111121-OYT1T00762.htm>.

<sup>297</sup> The Outline of the 3rd Supplementary Budget of FY2011 (Provisional Translation), Ministry of Finance, <http://www.mof.go.jp/english/budget/budget/fy2011/11sb03.pdf>.

<sup>298</sup> *Id.* See also Ministry of Finance, Explanation of 2011 Fiscal Year Third Supplementary Budget (Oct. 2011, 179th Diet session), at 1, [http://www.mof.go.jp/budget/budger\\_workflow/budget/fy2011/sy231028/sy231028b.pdf](http://www.mof.go.jp/budget/budger_workflow/budget/fy2011/sy231028/sy231028b.pdf).

<sup>299</sup> Higashi nihon daishinsai ni taisho suru tame ni hitsuyō na zaigen no kakuho o hakaru tame no tokubetsu sochi ni kansuru hōritsu [Act on Special Measures to Secure a Source of Funds Necessary to React to the Aftermath of the Great East Japan Earthquake], Act No. 42 of 2011.

<sup>300</sup> Higashi nihon daishinsai kara no fukkō no tame no sesaku o jisshi suru tame ni hitsuyō na zaigen no kakuho ni kansuru tokubetsu sochi hō [Act on Special Measures for Securing Financial Resources Necessary for Reconstruction from the Great East Japan Earthquake], Act No. 117 of 2011.

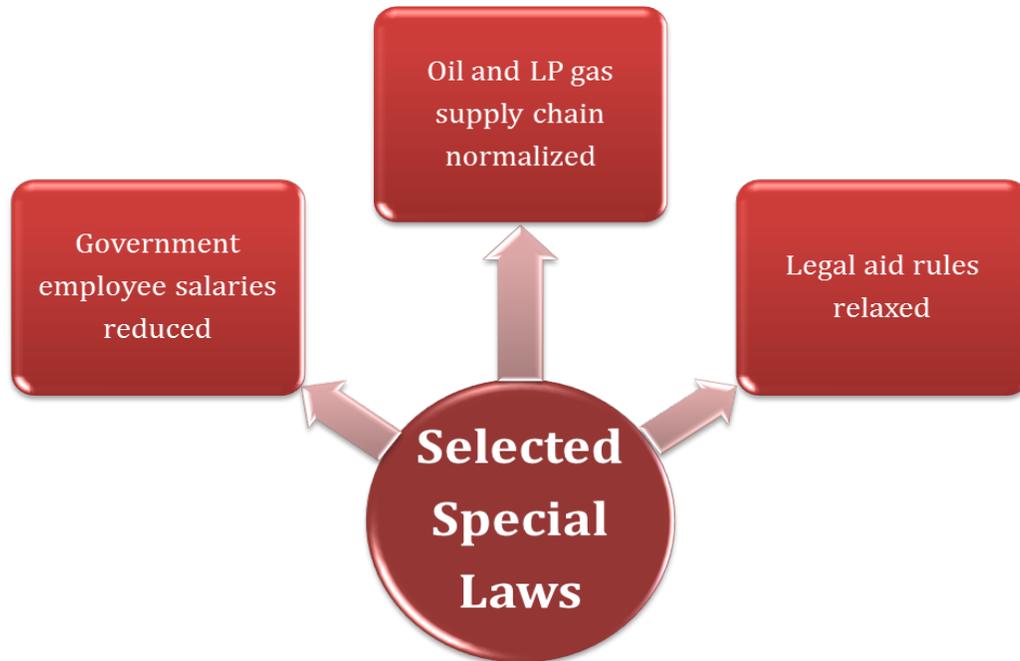
<sup>301</sup> See Yukihiro Oga & Kenya Ozawa, *Concerning Act on Special Measures for Securing Financial Resources Necessary for Reconstruction from the Great East Japan Earthquake*, FAINANSU [FINANCE], Dec. 2011, at 32, [http://www.mof.go.jp/public\\_relations/finance/201112e.pdf](http://www.mof.go.jp/public_relations/finance/201112e.pdf).

<sup>302</sup> Act on Special Measures for Securing Financial Resources Necessary for Reconstruction from the Great East Japan Earthquake arts. 8, 9 & 13.

<sup>303</sup> *Id.* arts. 42, 43, 45 & 48.

<sup>304</sup> *Id.* art. 72, para. 1.

### VIII. Miscellaneous Special Laws



In addition to those measures discussed above, the Diet has enacted numerous other laws and regulations concerning the Great East Japan Earthquakes. Among the enacted measures, thirty-four bills were submitted by the Cabinet.<sup>305</sup> Bills that were submitted by Diet members also became law. In addition, 141 Cabinet Orders have been issued.<sup>306</sup>

The initial legislation addressed temporary emergency measures, such as postponing elections and providing special exceptions to taxation, land use, and construction regulations. In addition, existing laws were amended to make the national government share more of the financial burdens of local governments for recovery from the disaster. Later, legislation shifted to recovery and reconstruction. The following are some of the special measures enacted by the Diet after the Earthquake:

<sup>305</sup> *Bills Submitted by the Cabinet and Cabinet Orders Concerning Great East Japan Earthquake (List of [Bill] Names)*, CABINET LEGISLATION BUREAU, [http://www.clb.go.jp/contents/diet\\_sinsai/law\\_sinsai.html](http://www.clb.go.jp/contents/diet_sinsai/law_sinsai.html) (in Japanese; last visited Aug. 16, 2013).

<sup>306</sup> *Id.*

- **Government employees' salaries were reduced to cope with the national financial burden for recovery from the disaster.**

The Diet enacted a law to cut members' salaries by 3 million yen (US\$30,000) per member per year soon after the earthquake.<sup>307</sup> Then Prime Minister Naoto Kan voluntarily returned his salary to the national treasury starting in June 2011.<sup>308</sup> The Cabinet submitted bills to the Diet to reduce the salaries of public servants (including the Prime Minister and other Ministers), public prosecutors, and judges in June 2011.<sup>309</sup> The two bills to reduce public prosecutors'<sup>310</sup> and judges' salaries<sup>311</sup> became law the following year. The original bill to reduce public servants' salaries did not become law, but a similar bill submitted by Diet members was passed by the Diet.<sup>312</sup> The reduction will end in March 2014.

- **The Oil Stock Act was enacted to address post-earthquake disruptions in the oil and liquefied petroleum (LP) gas supply chain.**

Six among twenty-seven oil refineries stopped working, and refinery capacity went down by about 70%.<sup>313</sup> The Minister of Economy, Trade and Industry released oil stock (oil reserves) based on the emergency provision of the Oil Stock Act.<sup>314</sup> Under the 1974 Agreement on an International Energy Program (IEP), Japan and other IEP member countries are required to "hold oil stocks equivalent to at least 90 days of net oil imports and – in the event of a major oil supply disruption – to release stocks, restrain demand, switch to other fuels, increase domestic production or share available oil, if necessary."<sup>315</sup> The Oil Stock Act was enacted in response to the 1974 IEP Agreement. The Act restricts the circumstances in which the government may decrease the oil stock. The Act has a provision that allows the government to release the oil stock when the supply chain to Japan is disrupted, but not when the supply chain is disrupted only to a part of Japan.<sup>316</sup> METI planned to amend the Oil Stock Act in

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<sup>307</sup> Act on Special Reduction of Diet Members' Salaries to Support Recovery and Reconstruction from the 2011 Pacific Tohoku Earthquake, Act No. 11 of 2011.

<sup>308</sup> *Kan Prime Minister Stated "The Government Is Also Responsible" for Nuclear Accident, Returns His Salary*, SPORTS NIPPON (May 11, 2011), <http://www.sponichi.co.jp/society/news/2011/05/11/kiji/K20110511000794010.html> (in Japanese).

<sup>309</sup> Cabinet Bill Nos. 78, 79 & 80 of 177th Diet Session.

<sup>310</sup> Act on Partial Amendment of the Law on Prosecutors' Salaries, Act No. 5 of 2012.

<sup>311</sup> Act on Partial Amendment of the Law on Judges' Salaries, Act No. 4 of 2012.

<sup>312</sup> Act on Amendment and Special Exceptions on Public Servants' Salaries, Act No. 2 of 2012.

<sup>313</sup> Yasumitsu Nawata, *Saigai ji ni okeru sekiyu / sekiyu gasu tō no antei kyōkyū kakuho* [Securing Stable Supply of Oil and Gas During Disaster], RIPPON CHOSA, No. 327, at 52 (Apr. 2012), [http://www.sangiin.go.jp/japanese/annai/chousa/rippou\\_chousa/backnumber/2012pdf/20120402050.pdf](http://www.sangiin.go.jp/japanese/annai/chousa/rippou_chousa/backnumber/2012pdf/20120402050.pdf).

<sup>314</sup> *Sekiyu no bichiku no kakuho to ni kansuru hōritsu* [Securing Oil Stock Act], Act No. 96 of 1975, art. 7, para. 1.

<sup>315</sup> INTERNATIONAL ENERGY AGENCY, IEA RESPONSE SYSTEM FOR OIL SUPPLY EMERGENCIES 2012, at 3, [http://www.iea.org/publications/freepublications/publication/EPPD\\_Brochure\\_English\\_2012\\_02.pdf](http://www.iea.org/publications/freepublications/publication/EPPD_Brochure_English_2012_02.pdf).

<sup>316</sup> Oil Stock Act art. 7, para. 3, *amended by* Act No. 55 of 2001.

late 2011. The bill was submitted to the Diet in early 2012<sup>317</sup> and passed in the late summer of 2012.<sup>318</sup> The 2012 amendment made it clear that the government can release the oil stock when the supply chain is disrupted only in a part of Japan.<sup>319</sup> The 2012 amendment also established a system to make oil wholesalers cooperate with each other during the disaster<sup>320</sup> and a system that made large gasoline stations serve as hubs for gasoline distribution.<sup>321</sup>

- **In order to provide legal aid to disaster victims, the Act Concerning Special Legal Aid by the Japan Legal Support Center to Assist Victims of the Great East Japan Earthquake was enacted in March 2012.**<sup>322</sup>

After the Great East Japan Earthquake, many people in the Tohoku region of Japan have faced various legal problems, such as how to exercise the right to succession from quake victims and the need to obtain special relief from housing loans for destroyed houses and damage stemming from the nuclear disaster. The Japan Legal Support Center (JLSC), a public corporation, previously loaned legal fees to people whose income or assets were below a set amount.<sup>323</sup> The new Act removes these income and asset limitations for earthquake victims.<sup>324</sup> It also expands the types of procedures that JLSC services cover. Whereas regular legal aid, as covered under the Comprehensive Legal Support Act,<sup>325</sup> is available to cover civil, family, or administrative legal procedures, the Special Act additionally covers a procedure to claim damages directly from TEPCO, which is held responsible for the nuclear disaster, as well as alternative dispute resolution procedures relating to the nuclear disaster.<sup>326</sup> The Special Act also stipulates coverage of legal aid procedures carried out under the jurisdiction of administrative agencies, such as complaints based on the denial of welfare or special tax deductions or exemptions.<sup>327</sup>

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<sup>317</sup> Cabinet Bill No. 27 of 180th Diet Session. *See also Regarding a Bill to Amend the Securing Oil Stockpile Act in Order to Deal with Oil Shortage During Disasters*, METI (Feb. 10, 2012), <http://www.meti.go.jp/press/2011/02/20120210002/20120210002.html> (in Japanese).

<sup>318</sup> Act to Partially Amend the Act on Securing Oil Stockpile to Cope with Oil Shortage During Disaster, Act No. 76 of 2012.

<sup>319</sup> Oil Stock Act, Act No. 96 of 1975, *amended by* Act No. 76 of 2012, art. 7, para. 3.

<sup>320</sup> *Id.* arts. 13 & 14.

<sup>321</sup> *Id.* art. 27, para. 1, item 5.

<sup>322</sup> Higashi Nihon dai shinsai no hisaisha ni taisuru enjo no tame no Nihon Shihō Shien Senta no gyōmu no tokurei ni kansuru hōritsu [Act Concerning Special Legal Aid by the Japan Legal Support Center to Assist Victims of the Great East Japan Earthquake (Special Legal Aid Act)], Act No. 6 of 2012, art. 1.

<sup>323</sup> The JLSC was established under the Comprehensive Legal Support Act [Sōgō hōritsu shien hō], Act No. 74 of 2004.

<sup>324</sup> Special Legal Aid Act art. 3.

<sup>325</sup> Sōgō hōritsu shien hō [Comprehensive Legal Support Act], Act No. 74 of 2004.

<sup>326</sup> Special Legal Aid Act art. 3. *See also* Press Release, JLSC, “Higashi Nihon dai shinsai hisaisha enjo tokurei hō (Shinsaitokurei hō)” ni tsuite [Regarding “Special Act on Legal Aid for Victims of the Great East Japan Earthquake (Earthquake Victim Special Act)”] (Mar. 23, 2012), <http://www.houterasu.or.jp/cont/100483827.pdf>.

<sup>327</sup> *Id.*

## IX. Preparation for the Next Disaster – Japan’s Disaster Management System

Japan is an earthquake-prone country, “located in the Circum-Pacific Mobile Belt where seismic and volcanic activities occur constantly.”<sup>328</sup> The Japanese disaster management system “has been developed and strengthened following the bitter experiences of large-scale disasters and accidents.”<sup>329</sup> That system was again enhanced following the Great East Japan Earthquake.

### A. Disaster Response Basic Law

As stated above, the Disaster Response Basic Law is Japan’s basic disaster management law.<sup>330</sup> However, the Disaster Response Basic Law did not provide a system for local governments to cooperate with each other in a systematic way when a disaster that leaves serious damage over several prefectures occurs. The experience of the Great East Japan Earthquake prompted the government to establish such a system. In June 2012, the Law was amended<sup>331</sup> to obligate managers of emergency measures for local governments to share information with other local and national governments. If a municipal government loses its ability to function, the prefecture can collect necessary information instead of the municipal government.

The amendment also enabled the national government to coordinate municipal governments’ assistance to each other and the scope of assistance was broadened. After the earthquake, the national government provided food and goods without the legally required request of municipal governments, because some municipal governments were not functioning well enough to submit requests. The amendment added provisions that enable the national and prefectural governments to supply goods to municipal governments on their own initiative. Further, provisions were added to enable the national and prefectural governments to coordinate with municipal governments to take in disaster victims regardless of their jurisdiction over such victims.<sup>332</sup>

The Disaster Response Basic Law was amended again in 2013 to further prepare for large-scale disaster. Where a local government’s ability to function is paralyzed immediately after a disaster, the national government can conduct certain emergency measures usually carried out by local governments, such as removing objects from the roads and destroying buildings in order to help emergency rescue teams reach victims. Before the amendment, shelters or evacuation sites were designated in local emergency plans, but not directly prescribed by law. The amendment added provisions for shelters and evacuation sites and required local governments to designate qualified buildings and sites. Further, the amendment obligated municipal governments to prepare lists of

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<sup>328</sup> CABINET OFFICE, DISASTER MANAGEMENT IN JAPAN, *supra* note 16, at 1.

<sup>329</sup> *Id.* at 5.

<sup>330</sup> Disaster Response Basic Law, Act No. 223 of 1961, *last amended by* Act No. 54 of 2013.

<sup>331</sup> Act to Amend Disaster Response Basic Law, Act No. 41 of 2012.

<sup>332</sup> Fire and Disaster Management Agency, Saigai taisaku kihon hō no ichibu o kaisei suru hōritsu no gaisetsu [Summary of the Amendment of the Disaster Rescue Basic Law], Shobō no ugoki [Fire Management Updates] (Aug. 2012), [http://www.fdma.go.jp/ugoki/h2408/2408\\_06.pdf](http://www.fdma.go.jp/ugoki/h2408/2408_06.pdf).

people who may need special assistance, such as the elderly and disabled, and provide those lists to firefighters and other officials.<sup>333</sup>

The Disaster Rescue Law was amended in 2013 at the same time as the Disaster Response Rescue Law was amended. The amendment added provisions that establish a system for the national government to reimburse the costs of emergency rescue operations incurred by prefectures.<sup>334</sup>

## **B. Special Act on Large-Scale Earthquake Response and Related Laws**

The Special Act on Large-scale Earthquake Response was enacted after the Izu-Oshima Earthquake in 1978,<sup>335</sup> in order to prepare for the anticipated Great Tōkai Earthquake. The Special Act established a system for the observation and prediction of earthquakes, and enhanced the disaster prevention system.<sup>336</sup> This Act was not specifically amended after the Great East Japan Earthquake. Based on the Act the Prime Minister has designated areas where large-scale earthquake are likely to cause severe damage as “enhanced earthquake response areas.”<sup>337</sup> Within the enhanced earthquake response areas, the national government provides extra subsidies for costs that the local governments need in order to make roads, ports, schools, and hospitals resilient to large-scale earthquakes based on the Act on Special Financial Measures for Urgent Earthquake Countermeasure Improvement Projects in Enhanced Earthquake Response Areas.<sup>338</sup> The local governments can also issue special bonds for these projects.<sup>339</sup>

The government has enhanced monitoring of earthquake-related information and surveys in the area.<sup>340</sup> The Japan Meteorological Agency continually monitors anomalies relating to earthquakes.<sup>341</sup> When anomalies are observed that are interpreted as indicating that an earthquake is expected to occur, the Prime Minister issues a warning.<sup>342</sup> The national and local

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<sup>333</sup> Cabinet Office, New and Old Articles of the Bill to Amend Disaster Response Basic Law and Others, [http://www.bousai.go.jp/taisaku/hourei/pdf/hourei\\_taisyuu.pdf](http://www.bousai.go.jp/taisaku/hourei/pdf/hourei_taisyuu.pdf) (in Japanese; last visited Aug. 16, 2013). *See also* Cabinet Office, Saigai taisaku kihon hō tō no ichibu o kaisei suru hōritsu no gaiyō [Summary of the Amendment of the Disaster Rescue Basic Law], [http://www.bousai.go.jp/taisaku/hourei/pdf/hourei\\_gaiyou.pdf](http://www.bousai.go.jp/taisaku/hourei/pdf/hourei_gaiyou.pdf) (last visited Aug. 16, 2013).

<sup>334</sup> Disaster Rescue Law, Law No. 118 of 1947, arts. 20 & 21, *amended by* Act No. 54 of 2013.

<sup>335</sup> Daikibo jishin taisaku tokubetsu sochi hō [Special Act on Large-scale Earthquake Response], Act No. 73 of 1978, *last amended by* Act No. 41 of 2012.

<sup>336</sup> *Id.* art. 1.

<sup>337</sup> *Id.* art. 3, para. 1.

<sup>338</sup> Jishin bōsai taisaku kyōka chiiki ni okeru jishin taisaku kinkyū seibi jigiyō ni kakaru kuni no zaiseijō no tokubetsu sochi ni kansuru hōritsu [Act on Special Financial Measures for Urgent Earthquake Countermeasure Improvement Projects in Areas Needing Intensified Measures], Act No. 63 of 1980, *last amended by* Act No. 12 of 2010, art. 4.

<sup>339</sup> *Id.* art. 5.

<sup>340</sup> Special Act on Large Scale Earthquake Response art. 4.

<sup>341</sup> Japan Meteorological Agency Organization Ordinance, MLIT Ordinance No. 3 of 2001, arts. 19–21.

<sup>342</sup> Special Act on Large Scale Earthquake Response art. 9.

governments establish earthquake response plans for the area.<sup>343</sup> Training and emergency response practices are conducted. Currently, areas expected to be affected only by the Great Tōkai Earthquake are designated under the Act.<sup>344</sup>

As more studies have been done on other expected large earthquakes, the Diet has enacted special laws for two expected earthquakes. In 2002, the Act on Special Measures for Promotion of Tōnankai and Nankai Earthquake Disaster Management was enacted.<sup>345</sup> Based on this Act,<sup>346</sup> the Prime Minister in 2003 designated areas where disaster prevention measures are needed because of a high possibility of severe damage in the event of Tōnankai and Nankai earthquakes as “countermeasures promotion areas.” The local governments in these areas are obligated to prepare for the expected earthquakes. The national government is providing financial support for such preparation. The national government established the Tōnankai and Nankai Earthquake Countermeasures Basic Plan in 2004.<sup>347</sup>

Also in 2004, the Diet enacted the Act on Special Measures for Promotion of Disaster Management for Trench-type Earthquakes in the Vicinity of the Japan and Chishima Trenches.<sup>348</sup> “Countermeasures promotion areas” were designated and the Countermeasures Basic Plan for Trench-type Earthquakes in the Vicinity of the Japan and Chishima Trenches was established. The relevant organizations have their own plans based on the Basic Plan.<sup>349</sup> Both acts obligate the government to enhance monitoring and surveying systems relating to the earthquakes. When the government is able to predict these earthquakes with more accuracy, the areas will be designated as “enhanced earthquake response areas” under the Special Act on Large-scale Earthquake Response, and these acts will be abolished.

### C. New Law on Tsunami Measures

When the tsunami caused by the Great East Japan Earthquake hit Japan’s East Coast in March 2011, Japan had various laws concerning earthquakes, but there was no law that primarily addressed tsunami countermeasures. The largest nonruling coalition at that time, comprised of the Liberal Democratic Party and the Kōmei party, had submitted a bill concerning promotion of countermeasures against tsunamis in June 2010,<sup>350</sup> after observing the damage caused by a

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<sup>343</sup> *Id.* arts. 5–7.

<sup>344</sup> CENTRAL DISASTER MANAGEMENT COUNCIL, JISHIN BŌSAI TAISAKU KYŌKA CHIIKI NO SHITEI NI TSUITE [REGARDING DESIGNATION OF ENHANCED EARTHQUAKE RESPONSE AREA] (May 12, 1979), <http://www.bousai.go.jp/kaigirep/chuobou/kyoka-area1.html>. See also *Jishin bōsai taisaku kyōka chiiki* [Enhanced Earthquake Response Area], IFINANCE, <http://www.ifinance.ne.jp/bousai/words/bswd370.html> (last visited Aug. 29, 2013).

<sup>345</sup> Tōnankai • Nankaijishin ni kakaru jishin bōsai taisaku no suishin ni kansuru tokubetsu sochi hō [Act on Special Measures for Promotion of Tōnankai and Nankai Earthquake Disaster Management], Act No. 92 of 2002.

<sup>346</sup> *Id.* art. 3.

<sup>347</sup> CABINET OFFICE, DISASTER MANAGEMENT IN JAPAN, *supra* note 16, at 28.

<sup>348</sup> Nihon kaikō • Chishima kaikō shūhen kaikō gata jishin ni kakaru jishin bōsai taisaku no suishin ni kansuru tokubetsu sochi hō [Act on Special Measures for Promotion of Disaster Management for Trench-type Earthquakes in the Vicinity of the Japan and Chishima Trenches], Act No. 27 of 2004.

<sup>349</sup> CABINET OFFICE, DISASTER MANAGEMENT IN JAPAN, *supra* note 16, at 29.

<sup>350</sup> House of Representatives Bill No. 28, 174th Diet Session, 2010.

tsunami generated by the 2010 earthquake in Chile, which hit that country's shores on February 27, 2010. However, the bill was never discussed in the Diet in 2010. After the earthquake, the same sponsors reintroduced the 2010 bill and the Diet passed it in June 2011.<sup>351</sup> This law, the Act on Promotion of Tsunami Countermeasures, is the basic law on tsunami countermeasures. It sets forth basic policies, enhances tsunami research systems, implements tsunami education and tsunami evacuation training, and establishes necessary facilities to cope with tsunamis.

Further, in December 2011 the Act on Making Local Areas Resistant to Tsunamis was enacted in order to implement concrete measures, on the basis of the Act on Promotion of Tsunami Countermeasures.<sup>352</sup> The new law promotes the comprehensive construction, use, and preservation of areas in order to prevent or mitigate damage from tsunamis. Based on this Act,<sup>353</sup> the MLIT established the Basic Guidelines on Promotion of Making Areas Resistant to Tsunamis in January 2012.<sup>354</sup>

This law also prescribes that the prefecture governors conduct surveys and determine which areas are expected to be hit by tsunamis. The Act facilitates counter-tsunami city planning by municipal governments and requires that they make counter-tsunami plans.<sup>355</sup> It also clarifies prefectural and municipal government responsibilities for the installment, improvement, and maintenance of counter-tsunami facilities, such as levees, and makes it easier for them to carry out these responsibilities by restricting the rights of private parties. The governors may designate "tsunami warning areas."<sup>356</sup> In such areas, the building of facilities that accommodate people who have difficulty evacuating in an emergency, such as hospitals, nurseries, and schools, must satisfy special requirements, such that these facilities will not be destroyed by tsunamis and will have higher floors to accommodate people who cannot evacuate.<sup>357</sup> The governor can also designate "tsunami special warning areas" where construction and changes in the use of buildings can be restricted.<sup>358</sup>

#### **D. Other Measures for the Prevention and Mitigation of Damage**

After the 1995 Great Hanshin Earthquake, the Diet enacted the Act on Special Measures for Earthquake Disaster Countermeasures.<sup>359</sup> Based on this law, prefectures must have a Five-Year

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<sup>351</sup> Tsunami taisaku no suishin ni kansuru hōritsu [Act on Promotion of Tsunami Countermeasures], Act No. 77 of 2011.

<sup>352</sup> Tsunami bōsai chiiki dukuri ni kansuru hōritsu [Act on Making Local Areas Resistant to Tsunami], Act No. 123 of 2011.

<sup>353</sup> *Id.* art. 3.

<sup>354</sup> Tsunami bōsai chiiki dukuri no suishin ni kansuru kihon teki na shishin [Basic Guidelines on Promotion of Making Areas Resistant to Tsunamis], MLIT Notification No. 51 of 2012 (Jan. 16, 2012).

<sup>355</sup> Act on Making Local Areas Resistant to Tsunami, Law No. 123 of 2011, art. 10.

<sup>356</sup> *Id.* art. 53.

<sup>357</sup> *Id.* art. 56.

<sup>358</sup> *Id.* art. 72.

<sup>359</sup> Jishin bōsai taisaku tokubetsu sochihō [Act on Special Measures for Earthquake Disaster Countermeasures], Act No. 111 of 1995, *last amended by* Act No. 51 of 2012.

Plan on Urgent Earthquake Disaster Management Projects, and prepare and strengthen facilities to protect people from earthquake disasters.<sup>360</sup> The national government provides additional subsidies for such projects.<sup>361</sup> Also, prefectures are required to strengthen surveys that help predict earthquakes.<sup>362</sup>

## **X. Concluding Remarks**

The Great East Japan Earthquake created a crisis of proportions that Japan has not seen since the Second World War, presenting a variety of challenges generated by the earthquake itself and the ensuing tsunami and nuclear power plant meltdowns. The Japanese government immediately responded under then existing emergency response systems, which were already quite robust given Japan's unique geology, but was also forced to enact a number of new laws and regulations to expand those systems due to the sheer magnitude of the disaster.

Among other innovations, the government created a new system to process debris that involved local governments far removed from the disaster area. A reconstruction agency was created to coordinate various reconstruction efforts and a new tsunami countermeasures law was enacted. Based on post-earthquake assessments of the effectiveness of the existing nuclear regulatory authority, a new nuclear regulatory agency and new standards for nuclear power plants were created. New standards for acceptable radiation levels in food were also promulgated.

Japan has used the experience to better prepare for future disasters. As then Prime Minister Yoshihiko Noda said on the one-year anniversary of the earthquake, “[o]ur goal is not simply to reconstruct the Japan that existed before March 11, 2011, but to build a new Japan. We are determined to overcome this historic challenge.”<sup>363</sup>

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<sup>360</sup> *Id.* arts. 3 & 4.

<sup>361</sup> *Id.* art. 4.

<sup>362</sup> *Id.* art. 7.

<sup>363</sup> Prime Minister Yoshihiko Noda, *supra* note 1.