

Nuclear Disaster Management and Human Rights : Lessons from the Fukushima Accident

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Author	Munesue, T.
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Nuclear Disaster Management and Human Rights : Lessons from the Fukushima Accident

Tokuko Munesue

Abstract

This article aims to demonstrate that it is necessary and important to introduce a human rights perspective into nuclear disaster management. For that purpose, I will clarify the relationship between human rights and disaster management as well as the characteristics of human rights violations in the situations of disasters through a systematic review of published literature. In addition, I will be using the Fukushima nuclear power plants accident of 2011 as an example to demonstrate the significant human rights challenges arising in the aftermath of nuclear disasters. Then I will point out that human rights monitoring systems and human rights guidelines are necessary for nuclear disaster management in Japan and indicate the essential points of human rights guidelines to protect persons affected by nuclear disasters. Finally, I will point out some future issues on nuclear disaster management and human rights in order to protect the persons affected by nuclear disasters.

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1. Introduction

Japan is located along the Circum-Pacific Mobile Belt and the number of earthquakes it experiences is extremely high. On 11th of March 2011, an earthquake measuring a magnitude 9.0 on the Richter scale occurred in Japan. This earthquake, the most powerful earthquake in Japan's recorded history, was later dubbed "The Great East Japan Earthquake". Matters were made worse by the tsunami that followed in the wake of the earthquake. The Tohoku region, especially its coastal area was devastated. 19,225 people died and damage to property was devastating.¹⁾

From 2004 to 2013, 18.5% of earthquakes in the world measuring more

1) As of March 1st, 2015. Cabinet Office, the Government of Japan, White Paper on Disaster Management 2015, Annex 18.

than 6.0 on the Richter scale occurred in Japan.²⁾ Besides the large numbers killed or injured, the losses to property are catastrophic. The total financial damage due to disasters in the world from 1987 to 2013 was estimated to be about USD 2.4 trillion, of which 17.5% of the total was incurred by Japan.³⁾ The damage caused by the Great East Japan Earthquake alone amounted to USD 210 billion.⁴⁾ It was and still is the world's biggest financial loss resulting from natural causes. Recovering and rebuilding of lives and property damaged by these disasters is vital for economic recovery of the region. Therefore disaster management is an extremely important challenge in Japan and relevant laws and policies have been developed whenever huge disasters occurred.⁵⁾⁶⁾

In addition to the earthquake and tsunami, the Great East Japan Earthquake was followed by the Tokyo Electric Power Company's (TEPCO) Fukushima Daiichi nuclear power plant accident. According to TEPCO, ap-

2) Cabinet Office, the Government of Japan, White Paper on Disaster Management 2014, Annex 1.

3) Cabinet Office, the Government of Japan, White Paper on Disaster Management 2014, Annex 1.

4) Cabinet Office, the Government of Japan, White Paper on Disaster Management 2014, Annex 19.

5) "Disaster" in this article means that "a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources". It includes both natural and man-made one. The United Nations International Strategy for Disaster Reduction, 2009, *UNISDR Terminology on Disaster Risk Reduction*.

6) A Japanese term "Bosai" is interpreted to "Disaster management" and it means a wide-range notion including disaster preparedness, risk mitigation, emergency response, recovery and reconstruction. "Disaster management" is defined that "organization and management of resources and responsibilities for addressing all aspects of an emergency, in particular preparedness, response and initial recovery steps". International Strategy for Disaster Reduction (ISDR), 2009, *UNISDR Terminology on Disaster Risk Reduction*.

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proximately 900 peta-becquerels of radioactive material were released.⁷⁾
The amount of radioactive cesium released due to the accident is estimated
to be 169 times higher than that released by the atomic bomb dropped on
Hiroshima. The influence of this accident is extremely grave. Although this
took place 7 years ago, decontamination procedures are still underway at the
time of writing this manuscript. As of 2017, there are 52,238 Fukushima resi-
dents who have been evacuated from their homes.⁸⁾⁹⁾

This accident and its impact on human lives led to changes globally. The
German and Swiss governments have decided to phase out nuclear power as
an energy source.¹⁰⁾ On the other hand, Japan has restarted the operation of
some nuclear power plants since 2015. Moreover, the demand for nuclear
power plants has not decreased and new nuclear power plants are being con-
structed globally. Currently today, there are 447 nuclear power reactors
operating in 30 countries.¹¹⁾ There are 57 reactors which are under con-
struction in 15 countries as well as 158 reactors which have been planned
for construction in 23 countries.¹²⁾ Thus, the net number of nuclear power
plants has been increasing globally even after the Fukushima accident.

7) Kyodo News. 24 May 2012.

8) Fukushima Prefecture Disaster Control Headquarters, January 4, 2018. The
Report of Damage of the 2011 off the Pacific Coast of Tohoku Earthquake.

9) Population in Fukushima prefecture is 1,879,235 people as of December 2017.
Fukushima Prefecture, 2017, Estimated population in Fukushima prefecture,
December 1, 2016. <https://www.pref.fukushima.lg.jp/uploaded/attachment/247432.pdf>, Last visited 7 January, 2018.

10) The International Federation of Red Cross and Red Crescent Societies, 2013,
World Disaster Report 2013. P. 152.

11) World Nuclear Association, January 2018, World Nuclear Power Reactors and
Uranium Requirements, <http://www.world-nuclear.org/information-library/facts-and-figures/world-nuclear-power-reactors-and-uranium-requireme.aspx>, Last visited 7 January, 2018.

12) Ibid.

Hence, although the present case study evaluates possible approaches in Japan, nuclear disaster management is an extremely important challenge worldwide.

Our first step would be to explore what ideal nuclear disaster management is. The United Nations (UN) Committee on Economic, Social and Cultural Rights in the concluding observations of their third periodic report of Japan in 2013, recommended the adoption of a Human Rights-Based Approach (HRBA) to disaster response, risk mitigation and reconstruction efforts.¹³⁾¹⁴⁾¹⁵⁾ Japan has ratified some major international human rights treaties.¹⁶⁾ Further, the Japanese Constitution stipulates several human rights, not only civil and political rights but also economic, social and cultural rights. Thus, these human rights are inherently indispensable for all national legislation and policies on disaster management formulated by the Japanese government.

Before delving further into this topic, we must answer a few important questions. First, why is a human rights perspective necessary in disaster management? That is, what is the relationship between human rights and

13) The United Nations (UN) Committee on Economic, Social and Cultural Rights is the treaty body of International Covenant on Economic, Social and Cultural Rights (ICESCR). Japan ratified ICESCR in 1979.

14) According to the United Nations Population Fund (UNFPA), a Human Rights-Based Approach (HRBA) constitutes the adoption of an approach to work that is explicitly shaped by human rights and human rights principles. It is not only about the outcome of work supporting human rights; it is also about the processes of work and how human rights principles are embodied in their operation- and also about how these processes will ultimately strengthen the overall rights-related outcomes. United Nations Population Fund, 2010, *A Human Rights-Based Approach to Programming: Practical Implementation Manual and Training Materials*, Harvard School of Public Health and Program on International Health and Human Rights, p. 295.

15) UN Doc. E/C. 12/JPN/CO. 3, para. 24.

16) Japan ratified 8 international human rights treaties and 2 optional protocols.

disaster management? Second, what are the human rights challenges in the situations of nuclear disasters? Third, how can we solve these human rights challenges?

In this body of work, I will examine these questions using the Fukushima nuclear accident as a case study. Firstly, I will clarify the relationship between human rights and disaster management as well as the characteristics of human rights violations in the situations of disasters through a systematic review of published literature. Further, I will clarify the characteristics of human rights violations in the event of a nuclear disaster. Then I will point out that human rights monitoring systems and human rights guidelines are necessary for nuclear disaster management in Japan and indicate the essential points of human rights guidelines to protect persons affected by nuclear disasters. Finally, I will point out some future issues on nuclear disaster management and human rights in order to protect the persons affected by nuclear disasters.

2. Relationship between Human Rights and Disaster Management

2-1 Human Rights Perspective in Natural Disaster Management

Natural disasters are traditionally seen as situation creating challenges mainly related to the provision of humanitarian assistance.¹⁷⁾ There has been less attention on the protection of human rights in this context. However, it has been focusing on the human rights issues in the situations of natural disasters recently. Why is a human rights perspective necessary in natural disaster management? In this regard, I think there are two background reasons why a human rights perspective has been introduced into natural

17) IASC, 2011, *IASC Operational Guidelines on the Protection of Persons in Situations of Natural Disasters*, p. 1.

disaster management.

Firstly, tsunamis, hurricanes and earthquakes, which hit parts of Asia and the Americas in the 2000's, including Hurricane Katrina (2005), as well as the Haiti Earthquake (2010), highlighted the fact that disaster affected people may face multiple human rights challenges in the immediate aftermath of natural disasters.¹⁸⁾ Based on these experiences, we have come to recognize that protection from these human rights violations and abuses is as important as the provision of relief.¹⁹⁾

Secondly, there was a tendency to mainstream a Human Rights-Based Approach (HRBA) within the United Nations system. In 1997, the Secretary-General of the UN, Kofi Annan, brought HRBAs into the mainstream when he called for their adoption by the entire UN system.²⁰⁾ All UN agencies are mandated to adopt the Common Understanding definition of a HRBA.²¹⁾ It is said that there is general agreement that HRBA have now been explicitly referred to and used in diverse fields, not only in the field of

18) Ibid.

19) Mariangela Bizzarri, Chapter 16 Protection of Vulnerable Groups in Natural and Man-Made Disasters, Andrea de Guttery, Marco Gestri and Gabriella Venturini (ed.), *International Disaster Response Law*, Springer, 2012, p. 382.

20) United Nations Population Fund, op. cit., p. 295.

21) The UN Statement of Common Understanding on Human Rights-Based Approaches to Development Cooperation and Programming (the Common Understanding) was adopted by the United Nations Development Group (UNDG) in 2003. See, http://portal.unesco.org/shs/en/files/7733/11212588401SHS-April-S_1.pdf/SHS-April-S%2B1.pdf, Last visited 12 April 2016. The Common Understanding included that ; 1) All programmes of development co-operation, policies and technical assistance should further the realisation of human rights as laid down in the Universal Declaration of Human Rights and other international human rights instruments ; 2) Human rights standards contained in, and principles derived from, the Universal Declaration of Human Rights and other international human rights instruments guide all development cooperation and programming in all sectors and in all phases of the programming process ; and 3) Development cooperation contributes to the development of the capacities.

Nuclear Disaster Management and Human Rights: Lessons from the Fukushima Accident (Munesue) development.²²⁾ In fact, in order to promote and facilitate the HRBA to disaster relief, the UN Inter-Agency Standing Committee (IASC) adopted Operational Guidelines on Protecting Persons in Natural Disasters in 2006.²³⁾ The guidelines were improved and revised in 2011.²⁴⁾ In addition, manuals and checklists were developed to help people to understand the human rights dimensions of their work in disaster response.²⁵⁾

As I mentioned above, the HRBA has already been established and introduced in natural disaster management. That is why the UN Committee on Economic, Social and Cultural Rights recommended that the Japanese government adopt the HRBA to disaster management.

2-2 Human Rights Challenges in the Situations of Natural Disasters

What kind of human rights challenges arise in the situations of natural disasters? According to the IASC, there are common multiple human rights challenges in the aftermath of natural disasters, such as (1) Lack of safety and security (e.g. rampant crime, secondary impacts of natural disasters, etc.), (2) Gender-based violence, (3) Abuse, neglect and exploitation of children, (4) Family separation, particularly for children, older persons, persons with disabilities and other individuals who may rely on family support for their survival, (5) Unequal access to assistance, basic goods and services and discrimination in aid provision, (6) Loss/destruction of personal documentation and difficulties to replace it, in particular due to inadequate birth registration

22) United Nations Population Fund, op. cit., p. 295.

23) IASC, 2006, *Protecting Persons Affected by Natural Disasters: IASC Operational Guidelines on Human Rights and Natural Disasters*.

24) IASC, 2011, op. cit.

25) OHCHR & UNDP, 2007, *Checklists: For Integrating Human Rights in Natural Disaster Management in the Pacific*; Brookings-Bern Project on International Displacement, 2008, *Human Rights and Natural Disasters: Operational Guidelines and Field Manual on Human Rights Protection in Situations of Natural Disaster*.

mechanisms, (7) Inadequate law enforcement mechanisms and restricted access to a fair and efficient justice system, (8) Lack of property restitution and access to land, (9) Lack of effective feedback and complaint mechanisms, (10) Unequal access to employment and livelihood opportunities, (11) Forced relocation, and (12) Unsafe or involuntary return or resettlement of persons displaced by the disaster.²⁶⁾

These challenges were also seen in the Great East Japan Earthquake. For example, regarding (2) Gender-based violence, the survey by Yoshihama et al demonstrated 82 reported cases among disaster affected people who suffered from violence after the Great East Japan Earthquake as well as people who consulted with the victims.²⁷⁾ 90% of the victims reported by this survey were female. There were 45 domestic violence cases, 10 cases of rape or attempted rape and 19 cases of sexual assault without rape. Crime locations reported were 'evacuation centers' in 19 cases. Regarding the offenders without DV cases, the largest number of all was 'the residents or leaders of evacuation centers' (19 cases). There were 6 cases where offenders were 'support staff and volunteers'.

In spite of the findings of the survey, we did not see any increase in the number of police reports on sexual assault. Although there are sexual assault victims who cannot report to police in peacetime, it is more difficult for them to report in an emergency. The survey illustrated that victims thought they had to endure violence because everyone, including their offenders, had experienced difficulty. There were cases in which support staff demanded sexual intercourse as rewards for the support they were providing. Women

26) IASC, 2011, op. cit., P. 1.

27) Mieko Yoshihama, Azumi Tsuge, Tomoko Yunomae et al, 2015, *Violence Against Women and Children After the Great East Japan Disasters : Results from a Case-Finding Survey*. (in Japanese)

Nuclear Disaster Management and Human Rights: Lessons from the Fukushima Accident (Munesue) are often compelled to be patient and silent in Japan. This is especially why a human rights perspective is extremely important in Japan.

2-3 Disasters and People's Vulnerability

Moreover, there is another reason why a human rights perspective is important for disaster management. That is, disasters have the following characteristic. It has been widely recognized that there is a causal association between the impact of disasters and people's vulnerability.²⁸⁾ It is said that "Disasters *per se* do not discriminate. Yet, the consequences are not the same for all those affected, rather they are often determined by discrimination patterns that pre-exist the hazard and undermine the ability of certain groups to resist, accommodate, and recover from it."²⁹⁾ In addition, "pre-existing vulnerabilities and patterns of discrimination usually become exacerbated in situations of natural disasters."³⁰⁾

In the case of the Great East Japan Earthquake, there was a disproportionately higher damage borne by older people and persons with disabilities. The death toll of people over 60 years old in three affected prefectures accounted for 65.8% of total deaths³¹⁾. The total fatality rate in Minami-Sanriku city alone was 4.5%. But among those with disabilities the fatality rate was over 13%.³²⁾ It is almost three times higher.

According a survey report of the Japan Federation of Bar Association, the social workers who were dispatched to rescue and support older people and

28) Ben Wisner, Piers Blaikie, Terry Cannon, and Ian Davis, 2004, *At Risk – Natural hazard, people's vulnerability and disasters* [Second edition], Routledge, p. 49.

29) Bizzarri, *op. cit.*, p. 389.

30) IASC, 2011, *op. cit.*, P. 2.

31) Cabinet Office of Japanese Government, 2012, *Annual Report on the Aging Society*.

32) Cabinet Office of Japanese Government, 2012, *Annual Report on Government Measures for Persons with Disabilities*.

persons with disabilities in the disaster affected areas could not support them positively because there was controversy whether or not the cost of their support activities was covered by the Disaster Relief Act.³³⁾ In addition, there was not a large enough number of evacuation centers in which response for people with special needs was taken care of and there was insufficient response for older people and persons with disabilities at regular evacuation centers.

Women and children are particularly vulnerable. Apart from the above, the survey reported an extreme shortage of women's and baby's goods at evacuation centers, such as sanitary goods, powdered milk and diapers.³⁴⁾ And women needed bathrooms separated by sex and partitioned spaces where they could change clothes and breastfeed. However, as the leaders of evacuation centers were usually men, women could not request these things.³⁵⁾

Regarding sexual minorities, there are reports that they could not tell anyone that they had special needs as LGBTs and they could not receive the support they needed at evacuation centers.³⁶⁾

These survey reports show that it is vital to pay special attention to vulnerable people and groups, such as women, children, older people, persons with disabilities, minorities and so forth in disaster management. Focusing

33) Japan Federation of Bar Association, 2012, *Report on the support for older people and persons with disabilities in the situation of disaster*. (in Japanese)

34) Gender Equality Bureau, Cabinet Office of Japanese Government, 2012, *Survey on the disaster response from the perspective of gender equality*. (in Japanese)

35) Based on these experiences in the aftermath of the Great East Earthquake, the Disaster Countermeasures Basic Act was amended in 2013. It provides that the guideline on the environment of evacuation centers should include the bathrooms separated by sex and partitioned spaces where women can change the clothes and breastfeed.

36) Gender Equality Bureau, Cabinet Office of Japanese Government, op. cit.

on vulnerable people is also requested by human rights norms, equality and non-discrimination. That is to say, human rights provide an important framework both normatively and operationally for disaster management. At the same time, human rights determine where the responsibility lies. Who has to focus on vulnerable people ? Primarily, States have the legal obligation to protect vulnerable people. So when States formulate and implement their laws and policies on disaster management, they should focus on the rights of vulnerable people as their obligation. In this sense, disaster management is not charity or voluntary activity but legal obligation for Governments.

3. Human Rights Challenges in the Situations of Nuclear Disasters

3-1 Common Human Rights Challenges between Natural Disasters and Nuclear Disasters

As mentioned above, it has been already recognized that a human rights-based approach is demanded in the context of natural disaster management. Human rights challenges in the aftermath of natural disasters have been classified and the guidelines and checklists to respond to them have been developed. These theories and practices which have been developed in the context of natural disaster management are applicable to nuclear disaster management. In fact, most of the human rights challenges which the IASC illustrated were present in the aftermath of the Fukushima nuclear power plant accident. To demonstrate my point, I will give actual examples.

Regarding “(1) Lack of safety and security”, according to the Japanese Police Agency, the number of burglaries increased after the Great East Japan Earthquake in the disaster affected areas, such as Iwate, Miyagi and Fukushima.³⁷⁾ Afterward, whereas the number of burglaries in Iwate and

37) The National Police Agency, 2012, *Crime situation in 2011*.

Miyagi have decreased, those in Fukushima have increased. As the residents in Fukushima have been evacuated for a long time because of radioactive pollution, burglaries occurred often especially in the areas under evacuation orders in Fukushima.

Regarding “(2) Gender-based violence” and “(3) Child abuse”, the number of domestic violence and child abuse cases increased in Fukushima after the Great East Japan Earthquake.³⁸⁾ Compared with Miyagi and Iwate which also suffered from the earthquake and tsunami but not nuclear disaster, the increasing ratio of domestic violence and child abuse cases in Fukushima was remarkable, a 64% increase regarding domestic violence and a 76% increase regarding child abuse from the previous year in Fukushima whereas a 33% and a 34% increase in Miyagi and -2% and a 11% in Iwate.³⁹⁾

Regarding “(4) Family separation”, as per a Fukushima University survey, 26.9% of nuclear disaster affected residents have been forced to live separately from their families since the disaster.⁴⁰⁾ Housing is a major problem. Temporary housing is small making it difficult for multiple-generational households to live together. In addition, there have been a lot of cases where only a mother and her children were evacuated to avoid radiation exposure, while the father remained behind in Fukushima to earn a living.⁴¹⁾ Such

38) JIJI.COM, March 10, 2015. http://www.jiji.com/jc/graphics?p=ve_soc_jishin-higashinohon20130308j-07-w270, last visited April 15, 2016.

39) Ibid.

40) Disaster Reconstruction Research Center of Fukushima University, 2012, *The survey on the actual situation of disaster reconstruction conducted among the residents in Futaba region, ver. 2*. <http://fsl-fukushima-u.jimdo.com/%E5%8F%8C%E8%91%89%E5%85%AB%E7%94%BA%E6%9D%91%E4%BD%8F%E6%B0%91%E7%81%BD%E5%AE%B3%E5%BE%A9%E8%88%88%E5%AE%9F%E6%85%8B%E8%AA%BF%E6%9F%BB/>, Last visited April 17, 2016.

41) Kenji Fukuda, 2015, Need for a Rights-Based Approach in Government Support for the Victims of Fukushima Nuclear Accident, *Asian-Pacific Law & Policy Journal*, Winter, Vol. 16(2), p. 188.

households have faced economic and mental difficulties in attempting to live in two places.

Regarding “(5) Unequal access to assistance, basic goods and services and discrimination in aid provision”, there are two types of inequalities among the evacuees of the Fukushima nuclear disaster. Firstly is the inequality among the residents in areas under evacuation orders. Residents can either evacuate to other cities within Fukushima prefecture or move outside of Fukushima prefecture.

The bulk of the temporary housing is located in Fukushima prefecture and so most of the evacuees have been evacuated to other cities within Fukushima prefecture. In these cities, as goods and assistance personal are present, it is easy for evacuees to gain access to goods and services. They also have an opportunity to interact with other evacuees and thus have access to information. Information is vital to keep them updated. On the other hand, it is difficult for evacuees who move outside of Fukushima prefecture to gain similar access to goods, services and information.⁴²⁾ They also lack the opportunity of interacting with other evacuees.⁴³⁾

The second type of inequality is between evacuees who were evacuated from areas under evacuation order and those from the outside of areas under evacuation order, namely, inequality between “forced evacuees” and “voluntary evacuees”. Here, the evacuees who evacuated themselves from outside of areas under evacuation order cannot receive a ‘Disaster Victim Certificate’. This certificate is issued only to residents affected by disasters,

42) Kahoruko Yamamoto, Ryosuke Takaki, Akihiko Yamamoto and Yusuke Yamashita, 2015, *Listening to the voice of evacuees of nuclear disaster*, Iwanami shoten, p. 13.

43) Disaster Support Network Saitama and Faculty of Human Science, Waseda University, 2012, *Report on the result of questionnaire survey among evacuees in Saitama prefecture*.

such as earthquakes, tsunamis and so on. Thus it is issued only to the residents who lived in an area under evacuation order. Some municipalities, including Fukushima prefecture, did not provide assistance under the Disaster Relief Act to people who do not have the Certificate.⁴⁴⁾ In addition, the administrative services relating to medical and social services and educational procedure provided under the Act on Special Measures for Evacuees of Nuclear Disaster are applicable to evacuees from an evacuation zone and it does not apply to voluntary evacuees.⁴⁵⁾

Regarding “(6) Loss / destruction of personal documentation and difficulties to replace it”, there were many cases where it was difficult for victims to receive their ‘Disaster Victim Certificate’ as the municipal offices suffered from tsunamis and personal documentation was lost. On the other hand, the loss of personal documentation was not a problem in the Fukushima nuclear disaster. It is a rather big problem for evacuees of nuclear disaster that they do not have the Certificate of Residence in the place where they have been evacuated to. That is, as they are not regular ‘residents’ in that place, they cannot receive the services for residents. However, a lot of evacuees hope to keep their Certificate of Residence in their original hometown because they are concerned about the reparation and access to information as well as they would like to connect with other residents in their hometown. After the Act on Special Measures for Evacuees of Nuclear Disaster enacted in August 2011, the “forced evacuees” can gain access to the administrative services as I mentioned above. In this regard, a system of “Dual Certificate of Residence” in which evacuees can hold Certificates of Residence for both their hometown and the place where they have been evacuated to is discussed.⁴⁶⁾⁴⁷⁾

44) Yamamoto et al, op. cit. p. 45.

45) Ibid. P. 62.

46) Reiko Seki, 2013, Nuclear Refugees and the ‘Reconstruction of Life and ↗

Regarding “(7) Inadequate law enforcement mechanisms and restricted access to a fair and efficient justice system”, any concrete information about it in the case of the Fukushima nuclear disaster has not been grasped. However, it does not mean that there were not any problems about it in Japan. Although the situation in the penal institutions and detention centers in disaster affected areas were reported partly in the news, it was difficult to seize the human rights situation of people in these institutions as the information was limited.

Regarding “(8) Lack of property restitution and access to land”, compensation is a big issue in the situations of nuclear disasters. There exists, currently a huge disparity in the amount of compensation offered to forced evacuees and voluntary evacuees.⁴⁸⁾ The reparation for forced evacuees also covers property restitution (house and household goods), solatium and compensation for inability to conduct business and work. On the other hand, voluntary evacuees from a ‘voluntary evacuation zone’ and some areas have received only a small amount of compensation, basically around \$1000 per person. Other voluntary evacuees cannot receive even this sum as compensation for their hardship. Nevertheless, voluntary evacuees had to evacuate because there are some areas whose radiation level is the same as or higher than the areas under evacuation orders. It is no wonder that the residents who lived in such high radiation level areas, especially families with small children, are forced to evacuate. This disparity among evacuees was caused by the government’s decision to draw a line and create a forced evacuation zone and voluntary evacuation zone, in spite of these areas having similar exposure to radiation. This has resulted in many of the voluntary evacuees being forced

↘Living’, *The Journal of Environmental Sociology*, Vol. 19, P. 57.

47) Yamamoto et al, op. cit., p. 74.

48) Ibid. p. 11, 56, 62.

to start lawsuits against the government and Tokyo Electric Power Company (TEPCO) across the country, to ensure their fair compensation.

Regarding “(9) Lack of effective feedback and complaint mechanisms”, there are some reports that victims could not receive effective feedback. However they tried to explain about their situation repeatedly and demand the government reflect their needs in their policies, it has never come true. Then they realized that nothing has changed through their efforts and they became disappointed and dispirited.⁴⁹⁾⁵⁰⁾

Regarding “(10) Unequal access to employment and livelihood opportunities”, according to the Construction Agency survey, the proportion of residents without a regular occupation is high in each municipality under evacuation orders, between 20–50%.⁵¹⁾ Especially the ratio of persons without an occupation who were self-employment is 60.6%.⁵²⁾

Regarding “(11) Forced relocation”, many of the forced evacuees did not receive any explanation about the reasons for their evacuation when the evacuation order was issued.⁵³⁾ So evacuees thought that they could come back to their home soon and they did not take anything with them leaving behind their valuables.⁵⁴⁾ In addition, they were forced to resettle multiple times

49) Ibid. p. 47, 52.

50) Seki, op. cit., P. 55.

51) Reconstruction Agency, 2016, *Report of the survey on the residents' intension in nuclear disaster affected municipalities 2015*.

52) Disaster Reconstruction Research Center of Fukushima University, 2012, *The survey on the actual situation of disaster reconstruction conducted among the residents in Futaba region, ver. 2*. <http://fsl-fukushima-u.jimdo.com/%E5%8F%8C%E8%91%89%E5%85%AB%E7%94%BA%E6%9D%91%E4%BD%8F%E6%B0%91%E7%81%BD%E5%AE%B3%E5%BE%A9%E8%88%88%E5%AE%9F%E6%85%8B%E8%AA%BF%E6%9F%BB/>, Last visited April 17, 2016.

53) Yamamoto et al, op. cit., p. 67 ; Disaster Support Network Saitama and Faculty of Human Science, op. cit.

54) Ibid. Disaster Support Network Saitama and Faculty of Human Science.

afterwards and in different locations. According to a survey by Fukushima University, the proportion of the evacuees who resettled once or twice is 17.2%, three times or four times is 47.2%, more than five times is 35.6%.⁵⁵⁾

Regarding “(12) Unsafe or involuntary return or resettlement of persons displaced by the disaster”, the government’s support policies for forced evacuees focuses on making them return to the original residence. Even a year after the evacuation order had been lifted, only 42.7% of Tamura city’s residents and 59% of Kawauchi village’s residents had returned to their hometown.⁵⁶⁾ In Naraha town whose evacuation order was lifted in September 2015, the proportion of the returnees was approximately 6.2% as of March 2016.⁵⁷⁾ According to the Reconstruction Agency survey, there are multiple reasons why residents do not want to return. The most common ones are ‘anxiety about radiation’, ‘anxiety about safety of the nuclear power plants’ and ‘anxiety about drinking water’.⁵⁸⁾ Other common reasons included ‘anxiety about accessibility to medical services’, ‘anxiety about recovery of commercial facilities’ and ‘damage of home’. Although evacuees are anxious about the safety of nuclear power plants and radiation as well as their life once they return to their homes, they are forced to choose whether they want to return or not. And if they choose not to return, they become ‘voluntary evacuees’ after the evacuation orders have been lifted.

3-2 Special Issues on Nuclear Disasters

As I demonstrated above, the IASC’s list of human rights challenges in the aftermath of natural disasters is applicable to nuclear disasters as well. In

55) Disaster Reconstruction Research Center of Fukushima University, op. cit.

56) Yamamoto et al. op. cit., p. 66.

57) Kahoku-shinpo, March 14, 2016. http://www.kahoku.co.jp/tohokunews/201603/20160314_61009.html, Last visited March 14, 2016.

58) Reconstruction Agency, 2016, op. cit.

spite of these commonalities, there are certain issues that are specific to nuclear disasters. To compare the Fukushima nuclear disaster let me draw parallels to the earthquake hit Miyagi and Iwate prefectures of Japan.

Thus far, as per press reports, condolence money was paid to 2,028 people in Fukushima prefecture, 67% of which (1,368 people) were recorded as being due to 'deaths in evacuation from nuclear disaster'.⁵⁹⁾ To put this in context, in the aftermath of the earthquake and tsunami in Miyagi prefecture and Iwate prefecture, condolence money was paid to 920 and 458 people respectively. Thus, in a nuclear disaster, much larger numbers died as was seen in the Fukushima disaster.

Suicide is another issue and over 80 people committed suicide between June 2011 and November 2015 in Fukushima. This is the highest number of recorded suicides among disaster affected areas in Japan till date⁶⁰⁾. Although rates of suicide in Miyagi and Iwate have been decreasing, the numbers in Fukushima have not decreased.

The most common reason for suicide in Fukushima was recorded as a 'health problem' (42 people), with 'economic and daily-life problems' (16 people) and 'family problems' (14 people) being a close second and third most commonly listed cause.⁶¹⁾ It is assumed that this 'health problem' means mainly mental health problem and it is possible for us to think of various reasons for the mental health problems in Fukushima, such as family separation, changes in the living environments, long-term evacuation, obscurity of future

59) Tokyo-newspaper, March 6, 2016. <http://www.tokyo-np.co.jp/article/national/list/201603/CK2016030602000127.html>, Last visited April 22, 2016.

60) Asahi-shinbun, December 28, 2015. <http://www.asahi.com/articles/ASHIDW66F7HWDUTIL01J.html>, Last visited February 14, 2016. Cabinet Office, 2014, Outline of situation of suicide and implementation of policy on suicide prevention in Japan 2014. (in Japanese) The proportion of suicide in Japan in 2014 was 20.1% and in the US in 2010 was 12.1%.

61) Ibid.

prospects and so on. However, they are applicable not only to nuclear disasters but also other type of disasters. I think the most unique factor in the situations of nuclear disasters is anxiety about radiation exposure, forced silence and discrimination related to radiation.

According to the Fukushima city survey, almost 70% of the respondents answered that they are anxious about the health impact resulting from external and internal exposure to radiation.⁶²⁾ Moreover, approximately 80% of the respondents are anxious about the impact of radiation exposure on their family's health.

Although a lot of people are anxious about the health risk of radiation exposure, it is difficult for them to speak up.⁶³⁾ The Japanese government has stated officially that the cumulative radiation dose of the evacuees will not affect their health. With this statement being released, they fear they will be blamed that their acts stoke the anxiety of others. So they are hesitant to raise concerns about their fears and anxiety. However, the truth is that they would like their issues to be addressed with proper and accurate up-to-date information being provided to them. According to Chunichi newspaper, almost 70% of respondents answered that they do not know whether the information about radiation is correct or not.⁶⁴⁾ These are big stressors for evacuees, especially families with small children.⁶⁵⁾

Furthermore, related to the health problems of radiation exposure, large numbers of exposed people are anxious about discrimination. According to the survey conducted by a research group at Chukyo University, 51% of sur-

62) Fukushima city, 2014, *Report of the Survey on the Residents' Recognition on Radiation*. (in Japanese)

63) Yamamoto et al, op. cit., pp. 35-36.

64) Chunichi newspaper, January 11, 2016. <http://www.chunichi.co.jp/article/front/list/CK2016011102000059.html>, last visited January 11, 2016.

65) Ibid.

vey objects' mothers are anxious about discrimination and bullying.⁶⁶⁾ Some mothers are also anxious about the discrimination they will face for the marriage prospects of their children.⁶⁷⁾ In fact, according to the report of the Ministry of Education, Culture, Sports, Science and Technology, there were 13 cases in which children who had been evacuated from Fukushima who were bullied up until 2016.⁶⁸⁾ Among those, some were teased viciously and were told, "Go back to Fukushima" and "Stay away! Radiation infects." And some students from Fukushima became truants.

3-3 Unique Human Rights Challenges in the Aftermath of Nuclear Disasters

In order to deal with these problems, it is necessary to ensure the following things as victims' rights. That is, (1) avoidance of unnecessary radiation exposure, (2) access to credible information on radiation (information on the impact and risk of radiation on our health is included), (3) access to health examination, explanations about the test result and healthcare, and (4) opportunity for the expression of opinion and participation in all levels of decision-making regarding their health.

Indeed, these things have been already ensured as the contents of "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health" (hereafter referred to as the "the right to health"). The right to health is one of the human rights provided in several

66) Ibid.

67) Ibid; Yamamoto et al, op. cit., p. 36.

68) Ministry of Education, Culture, Sports, Science and Technology, 2017, *Follow-up results on the checking of the situation of bullying against children who have been evacuated from Fukushima*. http://www.mext.go.jp/b_menu/houdou/29/04/_icsFiles/afieldfile/2017/04/11/1384371_2_2.pdf, last visited January 7, 2018.

major international human rights treaties, such as the International Covenant on Economic, Social and Cultural Rights (ICESCR). Japan ratified these treaties provided the right to health.

Regarding “(1) avoidance of unnecessary radiation exposure”, Article 12.2 (b) of the ICESCR stipulates the state obligation on “the improvement of all aspects of environmental and industrial hygiene”. It is interpreted that it comprises “the prevention and reduction of the population’s exposure to harmful substances such as radiation ...that directly or indirectly impact upon human health”.⁶⁹⁾ States have the obligation to formulate and implement the laws and policies in order to prevent and reduce of unnecessary radiation exposure.

Regarding “(2) access to credible information on radiation”, accessibility of health-related information is one of the essential elements of the right to health.⁷⁰⁾ States should refrain from censoring, withholding or intentionally misrepresenting health-related information as their obligation.⁷¹⁾ States should also ensure that third parties do not limit people’s access to health-related information.⁷²⁾ In addition, States have an obligation to support people in making informed choices about their health.⁷³⁾

Regarding “(3) access to health examination, explanations about the test result and healthcare”, to ensure accessibility of healthcare services is one of the essential elements of the right to health.⁷⁴⁾ Furthermore, Article 12.2 (C) of the ICESCR provides State’s obligation of “the prevention, treatment and

69) UN Doc. E/C. 12/2000/4. CESCR General Comment No. 14: The Right to the Highest Attainable Standard of Health (Art. 12), para. 15.

70) Ibid. para. 12.

71) Ibid. para. 34.

72) Ibid. para. 35.

73) Ibid. para. 37.

74) Ibid. para. 12.

control of epidemic, endemic, occupational and other diseases". It is interpreted that this provision is the basis of the right to treatment and "the right to treatment includes the creation of a system of urgent medical care in cases of accidents, epidemics and similar health hazards, and the provision of disaster relief and humanitarian assistance in emergency situations".⁷⁵⁾ However, it is necessary to consider that long-term health monitoring is important in the context of nuclear disasters. So it should be interpreted that the right to treatment includes not only urgent medical care but also long-term health examination and healthcare.

Regarding "(4) opportunity for the expression of opinion and participation in all levels of decision-making regarding their health", although it is ensured as the right to freedom of opinion and expression in Article 19 of the Universal Declaration of Human Rights (UDHR) and Article 19 of the International Covenant on Civil and Political Rights (ICCPR), it is also indispensable to realize the right to health. People's opinion and participation are inevitable to formulate and implement national strategies and plans on people's health. "In particular, the right of individuals and groups to participate in decision-making processes, which may affect their development, must be an integral component of any policy, programme or strategy developed to discharge governmental obligations under Article 12" of the ICESCR.⁷⁶⁾

To summarize, there are human rights challenges in the aftermath of nuclear disasters which are common with natural disasters. In addition, there are unique challenges on nuclear disasters, such as "unnecessary radiation exposure", "lack of information on radiation", "unequal access to health examination and healthcare", and "lack of opportunity for the expression of opinion and participation in all levels of decision-making regarding their health".

75) Ibid. para. 16.

76) Ibid. para. 54.

Table 1 Human Rights Challenges in the Situations of Nuclear Disasters

	Human Rights Challenges in the Situations of Nuclear Disasters	International Human Rights Law	Japanese Constitution
1	Lack of safety and security	Art. 3 UDHR; Art. 6 CCPR, Art. 5 UDHR; Art. 7 CCPR, Art. 1 UDHR; Art. 2, para. 1 CCPR, Art. 32 CRC	Art. 13, 18, 14 para. 1, 27 para. 3
2	Gender-based violence		
3	Abuse, neglect and exploitation of children		
4	Family separation,	Art. 12 and 16, para. 3 UDHR; Art. 17 CCPR	Art. 13
5	Unequal access to assistance, basic goods and services and discrimination in aid provision	Art. 2 UDHR; Art. 2, para. 2 CESC, Art. 22 and 25 UDHR; Art. 11 and 12 CESC	Art. 14, para. 1, Art. 25
6	Loss/destruction of personal documentation and difficulties to replace it	Art. 6 UDHR; Art. 16 and 24 CCPR	Art. 10, 13
7	Inadequate law enforcement mechanisms and restricted access to a fair and efficient justice system	Art. 9 and 10 UDHR; Art. 9 and 14	Art. 31, 32, 33, 34
8	Lack of property restitution and access to land	Art. 17 UDHR	Art. 29
9	Lack of effective feedback and complaint mechanism	Art. 19 UDHR; Art. 19 CCPR	Art. 21, para. 1; Art. 16
10	Unequal access to employment and livelihood opportunities	Art. 23 and 24 UDHR; Art. 6 and 7 CESC	Art. 27
11	Forced relocation	Art. 13 UDHR; Art. 12 CCPR	Art. 22
12	Unsafe or involuntary return or resettlement of persons displaced by the disaster		
13	Unnecessary radiation exposure	Art. 25; Art. 12 ICESC	Art. 13 and 25
14	Lack of information on radiation		
15	Unequal access to health examination and healthcare		
16	Lack of opportunity for the expression of opinion and participation in all levels of decision-making regarding their health		

(Source: IASC, 2011, *IASC Operational Guidelines on the Protection of Persons in Situations of Natural Disasters*; Brookings-Bern Project on International Displacement, 2008, *Human Rights and Natural Disasters: Operational Guidelines and Field Manual on Human Rights Protection in Situations of Natural Disaster*.)

Table 1 shows the list of human rights challenges in the situations of nuclear disasters and the corresponding provisions of the human rights in international human rights law and Japanese Constitution. The challenges from No. 1 to 12 are listed by the IASC Operational Guidelines and they are common challenges in the situations of both natural and nuclear disasters. The challenges from No. 13 to 16 are added as the unique challenges in the aftermath of nuclear disasters.

4. Human Rights Protection of Persons affected by Nuclear Disasters

4-1 Necessity of Human Rights Monitoring Systems and Human Rights Guidelines

In order to deal with these human rights challenges in the aftermath of nuclear disasters, it is necessary to formulate national legislation. In this regard, Japan already has extensive laws which can address these human rights challenges. For example, the Disaster Countermeasures Basic Act and the Act on Special Measures Concerning Nuclear Emergency provide the measures of nuclear disaster management. In addition, the Act on Promotion of Measures Supporting Lives of Victims Affected by the TEPCO Fukushima Nuclear Accident enacted in 2012. It aims to contribute to easing health concerns coming from radiation and the rebuilding of a stable life (Art. 1). And the government must formulate basic policies concerning Victim Living Support Measures under this Act (Art. 5). The Victim Living Support Measures must be implemented while accurate information is provided in relation to the disaster situation as well as must ensure that the victims will be supported properly wherever victims chooses and decides to live (Art. 2, Sec. 1-2). In addition, it provides the alleviation of the victims' health concerns relating to external and internal radiation exposure, consideration on the unrea-

sonable discrimination against victims, special consideration on children and pregnant women, and necessity of long-term support for victims (Art. 2, Sec. 3-6).

So the issue in Japan is not the lack of law but rather in its application. Therefore, in order to protect the affected persons' rights, it is inevitable to monitor the implementation of the law and improve its operation. In this regard, there is not a monitoring system of the government's implementation of laws from the perspective of human rights in Japan. That is, Japan has not yet established a National Human Rights Institution independent from the government, unlike some other countries. Moreover, Japan has been given recommendations repeatedly by the treaty bodies to ensure the government's accountability and transparency, to provide the population with credible and acute information as well as to ensure prompt disclosure of all information when disasters occur.⁷⁷⁾ Therefore, the creation of national human rights monitoring systems is one of the most important tasks that we have to deal with immediately.

Furthermore, it is necessary to develop monitoring tools from the perspective of human rights. The human rights guidelines and checklists to respond to natural disasters have already been developed by UN agencies as I mentioned above. While they are applicable to nuclear disaster management, they do not cover the unique challenges of nuclear disasters. Therefore, it is necessary to develop specific human rights guidelines and indicators to monitor the policies on nuclear disaster management.

In this regard, the unique characteristics of human rights challenges in the situations of nuclear disasters are mainly on the right to health. That is why the UN Special Rapporteur on the right to health, Mr. Anand Grover, visited Japan to ascertain what measures were taken by the Japanese Government

77) UN Doc. E/C. 12/1/Add. 67, para. 49; E/C/12/JPN/CO. 3, para. 24.

for the successful realization of the right to health in the context of the nuclear disaster in 2012. His report included several crucial recommendations should be taken into account when we develop the guidelines.⁷⁸⁾

In addition, it is important to pay attention to the Guiding Principles on Internal Displacement⁷⁹⁾ which address the specific needs and rights of internally displaced persons. Internally displaced persons are persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border. People who evacuate due to nuclear disasters are internally displaced persons and these principles are applied to them.

It is also helpful for us to refer the previous works of the United Nation Office of the High Commissioner (OHCHR) and international human rights law researchers. The OHCHR has presented a guide to develop and use the human rights indicators and benchmarks.⁸⁰⁾ Some researchers have also developed indicators of the right to health independently and used them to monitor the observance of this right in each country.⁸¹⁾ They should be useful to develop the indicators to monitor the implementation of laws on nuclear disaster management.

78) UN Doc. A/HRC/23/41/Add. 3.

79) UN Doc. E/CN. 4/1998/53/Add 2.

80) OHCHR, 2012, *Human Rights Indicators- A Guide to Measurement and Implementation*.

81) Backman G., Hunt P. et al., 2008, Health systems and the right to health: an assessment of 194 countries. *The Lancet* Vol. 372, pp. 2047-2085; Toebes B., Ferguson R., Markovic M et al (eds.), *The Right to Health: A Multi-Country Study of Law, Policy and Practice*, T.M.C. Asser Press/ Springer.

4-2 Outline of IASC Operational Guidelines

Most of the human rights challenges in situations of natural disasters which the IASC has listed were also present after the Fukushima nuclear disaster. Therefore, IASC Operational Guidelines on the Protection of Persons in Situations of Natural Disasters are applicable to nuclear disaster management and they can provide the basis and framework of the human rights guidelines on nuclear disaster management.

These Operational Guidelines primarily aim to help international and non-governmental humanitarian organizations and members of IASC to ensure that disaster relief and recovery efforts are conducted within a framework that protects and furthers human rights of affected persons.⁸²⁾ However, they may also be useful for those governmental actors, who are primarily responsible for providing protection and humanitarian assistance to affected persons.⁸³⁾

The Guidelines cover response and recovery in situations of natural disasters. While they do not deal with preparedness and risk reduction as such, references to possible measures for preparedness and included where appropriate.⁸⁴⁾

The Guidelines first set out some general principles, namely non-discrimination, accessibility of information, participation, claiming and exercising rights as well as effective remedies, rights of children and internally displaced persons, monitoring mechanisms, needs of affected persons, and respect for the cultural sensitivities.⁸⁵⁾ The Guidelines also mention the role of States and other actors contributing to the humanitarian response and the

82) IASC, op. cit., p. 7.

83) Ibid, p. 8.

84) Ibid, p. 8.

85) Ibid, pp. 11-12.

Table 2 Structure of the IASC Operational Guidelines

	Phase	Group	Contents
A	during and immediately after the disaster occurs	Protection of life ; security and physical integrity of the person ; and family ties 【civil and political rights】	A.1 Life saving measures, in particular evacuations A.2 Protection against separation of families A.3 Protection against the secondary impacts of natural disasters A.4 Protection against violence, including gender-based violence A.5 Security in host families and communities, or in collective shelters A.6. Dealing with mortal remains
B	during the emergency phase and, to the extent necessary, also at later stages	Protection of rights related to the provision of food ; health ; shelter ; and education 【economic, social and cultural rights】	B.1 Access to and provision of humanitarian goods and services -general principles B.2 Provision of specific goods, such as adequate food, water and sanitation, shelter, clothing ; essential health services, and education
C	once the emergency phase is over and recovery efforts commence	Protection of rights related to housing ; land and property ; livelihoods and secondary and higher education 【economic, social and cultural rights】	C.1 Housing, land and property, and possessions C.2 Transitional shelter, housing and evictions C.3 Livelihood and work C.4 Secondary and higher education
D	The recovery phase lasts	Protection of rights related to documentation ; movement ; re-establishment of family ties ; expression and opinion ; and elections 【civil and political rights】	D.1 Documentation D.2 Freedom of movement, particularly in the context of durable solutions D.3 Re-establishing family ties D.4 Expression, assembly and association, and religion D.5 Electoral rights

(Source : IASC, 2011, *IASC Operational Guidelines on the Protection of Persons in Situations of Natural Disasters.*)

Guidelines clarify that States have the primary duty and responsibility to provide assistance and protection to persons affected by disasters.⁸⁶⁾

For the practical reasons, the Guidelines are divided into four chapters in response to the phase of disaster. For example, Group A responds to the phase of during and immediately after the disaster occurs. Then, the presentation of key principles relevant for the protection of the human rights of affected persons is also divided into four chapters. Table 2 shows the structure of the Guidelines. The contents which are listed in Table 2 illustrate only their items although the Guidelines set out particular activities and measures in each item.

4-3 Essential Points of Human Rights Guidelines to Protect Persons Affected by Nuclear Disasters

Referring to the IASC Operational Guidelines, this article intends to indicate the essential points of human rights guidelines to protect persons affected by nuclear disasters. Firstly, the general principles of the guidelines should be examined. As the general principles of the IASC Guidelines were set out on the basis of relevant international human rights law and human rights guidelines, they are applicable in the situation of nuclear disasters. The lineup of the principles of the guidelines would be almost the same.⁸⁷⁾ That is, (1) non-discrimination, (2) accessibility of information, (3) participation, (4) claiming and exercising rights as well as effective remedies, (5) rights of children, (6) rights of internally displaced persons, (7) monitoring mechanisms, (8) needs of affected persons, and (9) respect for cultural sensitivities.

Regarding (1) non-discrimination, persons affected by nuclear disasters should be recognized and treated as persons entitled to enjoy the same rights

86) Ibid, p. 12.

87) Ibid. pp. 11-12.

and freedoms under international human rights law as others in their country, and to not be discriminated against on the basis of their race, colour, sex, disability, language, religion, political and other opinion, national or social origin, property, birth, age or other status. In the context of nuclear disasters, special attention should be paid for children and pregnant women, as well as for the discrimination on the basis of evacuee status including the status of “forced” or “voluntary” evacuee.

Regarding (2) accessibility of information, affected persons should be provided with easily accessible information in a language they understand concerning; (a) the nature and level of disaster they are facing, (b) the possible disaster risk and vulnerability reduction measures that can be taken, (c) ongoing or planned humanitarian assistances, recovery efforts and their respective entitlements, and (d) their rights under international and domestic law.

Regarding (3) participation, affected persons should be informed and consulted on measures taken on their behalf and given the opportunity to take charge of their own affairs to the maximum extent and as early as possible. They should be able to participate in the planning and implementation of the various stages of the disaster response. Targeted measures should be taken to include those who are traditionally marginalized from participation in decision-making.

Regarding (4) claiming and exercising rights as well as effective remedies, affected persons should be entitled to and supported in claiming and exercising their rights and provided with effective remedies, including unimpeded access to the justice system, in case of violations.

Regarding (5) rights of children, in all decisions and actions concerning children, the best interest of the child should be a primary consideration.

Regarding (6) rights of internally displaced persons, persons who have been ordered or forced to flee or to leave their homes or places of habitual resi-

dence or who have been evacuated as a result of a nuclear disaster or its effects, and have not crossed an internationally recognized State border are internally displaced persons in accordance with the 1998 Guiding Principles on Internal Displacement and should be treated accordingly.

Regarding (7) monitoring mechanisms, the human rights of the affected persons should be regularly monitored. To this effect, existing monitoring mechanisms should be strengthened or new mechanisms should be established. Monitors should be given access to areas where humanitarian operations take place as well as to all affected persons.

Regarding (8) needs of affected persons, protection activities should be undertaken and prioritized on the basis of identified needs of affected persons. Such needs should be identified and assessed on the basis of non-discriminatory and objective criteria, and in consultation with the affected population. Collected data should be disaggregated by age and gender.

Regarding (9) respect for the cultural sensitivities, protection activities should be carried out in a manner that respects the cultural sensitivities prevailing in areas affected by the disaster, providing that they do not contravene existing international human rights standards.

In addition, the guidelines should clarify the role of States. Even though the private sector (e.g. electric power companies) has the primary duty and responsibility in the case of nuclear disasters, as nuclear power policies are states policies as well and several human rights violations arise in the situation of nuclear disasters, States have the duty and responsibility to provide assistance and protection to persons affected by nuclear disasters. In doing so, they are obliged to respect the human rights of affected persons and to protect them from violations of their rights by private actors as well as from dangers arising from the disaster.

As to the structure of the guidelines, although it is also possible to refer to

Table 3 Pilot version of the guidelines to protect nuclear disaster's affected persons

Phase 1: During and immediately after the disaster occurs	Phase 2: During the emergency phase and, to the extent necessary, also at later stages	Phase 3: Once the emergency phase is over and recovery efforts commence	Phase 4: The recovery phase lasts - After the evacuation order is lifted
<ol style="list-style-type: none"> 1. Protection against radiation exposure 2. Life saving measures, in particular evacuations 3. Protection against separation of families 4. Protection against violence, including gender-based violence 5. Security in host families and communities, or in collective shelters 	<ol style="list-style-type: none"> 1. Access to and provision of humanitarian goods and services 2. Provision of specific goods, such as adequate food, water and sanitation, shelter, clothing; health services, and education 	<ol style="list-style-type: none"> 1. Health monitoring and Provision of healthcare, including mental healthcare 2. Housing, land and property, and possession 3. Transitional shelter, housing and evictions 4. Livelihood and work 5. Secondary and higher education 6. Documentation 7. Expression, assembly and association, and religion 	<ol style="list-style-type: none"> 1. Health monitoring and Provision of healthcare, including mental healthcare 2. Freedom of movement, particularly in the context of durable solutions

the IASC Guidelines⁸⁸⁾, there are some points that must be kept in mind. In the cases of nuclear disasters, the phase of Group C (once the emergency phase is over and recovery efforts commence) is prolonged due to a long-term evacuation and the contents of Group C and D (the recovery phase lasts) overlap. Therefore, the phases need to be adjusted. In addition, it is difficult to respond to the phases and rights as in the IASC Guidelines for the same reason. Based on these, it is needed to examine the structure and contents of the human rights guidelines to protect nuclear disaster's affected

88) Ibid. pp. 15-53.

persons. Table 3 shows the structure of the pilot version of the guidelines.

(A) Phase 1: during and immediately after the disaster occurs

In Phase 1, the following items are important; namely, 1. protection against radiation exposure, 2. life saving measures, in particular evacuations, 3. protection against separation of families, 4. protection against violence, including gender-based violence, and 5. security in host families and communities, or in collective shelters.

As to “1. protection against radiation exposure”, the right to health should be respected and protected. It should be understood that it comprises the prevention and reduction of the population’s exposure to harmful substances such as radiation that directly or indirectly impact upon human health. All person affected by nuclear disasters should be provided with accurate information on radiation as soon as possible. States should refrain from censoring, withholding or intentionally misrepresenting related information as well as should ensure that third parties do not limit people’s access to related information. Affected persons should be provided with prevention measures and treatment against the health effects of radiation including providing stable iodine. Affected persons should be provided with radioactivity screening, decontamination and urgent medical care.

Regarding “2. life saving measures”, the life, physical integrity and health of persons exposed to imminent risks created by nuclear disasters, including in particular of persons with specific needs, should be protected, to the maximum extent possible, wherever those persons may be located. If such measures are insufficient to protect them, the departure of endangered persons from the danger zone should be facilitated. To the extent that endangered persons cannot leave on their own they should be evacuated with assistance from the danger zone. Persons unwilling to leave should not be evacuated against their will unless such forced evacuation; (a) is provided for by law,

(b) is absolutely necessary under the circumstances to respond to a serious and imminent threat to their life or health, and less intrusive measures would be insufficient to avert that threat, and (c) is, to the extent possible, carried out after the persons concerned have been informed and consulted. Evacuations, whether voluntary or forced, should be carried out in a manner that fully respects the rights to life, dignity, liberty and security of those affected and that does not discriminate against anyone. To the extent possible, the people concerned should be informed, in a manner that is accessible to them and in a language they can understand, of the likely duration and process of the evacuation as well as the reasons why it is necessary. Persons who leave or are evacuated should be supported to stay as close to their places of habitual residence as the security/safety situation allows. The designated evacuation centres or temporary shelter zones, which affected persons are brought to or received in, should be safe and not expose them to further risks. They should provide living conditions that respect the dignity of the persons concerned.

Regarding “3. protection against separation of families”, family separation should be minimized. To the extent possible, priority should be given to evacuating children together with a parent/grandparent or guardian. Evacuation of children as a group without their parents should be done as a last resort. Relief operations should be designed so as to preserve family unity. Members of internally displaced families who wish to remain together should be allowed and assisted to do so during all phases of the disaster response, and their separation should be prevented. Separated and unaccompanied children should be taken care of until they can be reunited with their families. All interim care arrangements should be in the best interest of the child. Children should be kept fully informed about interim care arrangements and their rights, and their opinions regarding caretakers should be

taken into consideration. Siblings should be kept together when arranging for interim care.

As to “4. protection against violence”, the security of persons affected by the nuclear disaster should be ensured. Affected persons, in particular women and girls, should be protected against gender-based violence and survivors of such violence should be provided with appropriate support. Affected persons should be protected against trafficking, child labour, contemporary forms of slavery such as sale into marriage, forced prostitution, sexual exploitation, and similar forms of exploitation. Access to the affected areas and populations should be facilitated for other mechanisms, such as National Human Rights Institutions, Ombudspersons or local bar associations, in order to address instances of violence and other violations of human rights.

As to “5. security in host families and communities, or in collective shelters”, appropriate monitoring and ombuds-mechanisms should be put into place when internally displaced persons live with host families. Collective evacuation centres for persons displaced by the disaster should, to the extent possible, be located and designed so as to maximize the security and protection of internally displaced persons, including women, older persons and others whose physical security is most at risk, and to minimize their impact on host communities.

(B) Phase 2: during the emergency phase and, to the extent necessary, also at later stages

In Phase 2, the following items are inevitable; 1. access to and provision of humanitarian goods and services and 2. provision of specific goods, such as adequate food, water and sanitation, shelter, clothing; health services, and education.

Regarding “1. access to and provision of humanitarian goods and services”, humanitarian goods and services should be provided on the basis of assessed

needs, without any distinction of any kind other than that of differing needs and without any discrimination as to race, colour, sex, language, disability, religion, political or other opinion, national or social origin, property, birth, age, or other status including the status of “forced” or “voluntary” evacuee. All affected persons should have safe, unimpeded and non-discriminatory access to goods and services necessary to respond to their basic needs. Specific measures such as priority access or separate distribution systems should be taken to the extent necessary to ensure that persons with specific needs have adequate access to humanitarian goods and services.

In addition, humanitarian goods and services provided to affected persons should be adequate. Adequacy of such goods and services requires that they are (i) available, (ii) accessible, (iii) acceptable, and (iv) adaptable. (i) Availability means that these goods and services are provided to the affected population in sufficient quantity and quality. (ii) Accessibility requires that these goods and services (a) are provided to all according to their needs and without discrimination, (b) are within safe reach and can be physically accessed by everyone, including persons with specific needs, and (c) are known to the beneficiaries. (iii) Acceptability refers to the requirement that goods and services provided are respectful of the culture of individuals, minorities, peoples and communities, and sensitive to gender and age requirements. The design of specific programs for humanitarian action should take into account and address gender-specific roles in the society concerned. (iv) Adaptability requires that these goods and services are provided in ways flexible enough to adapt to the change of needs in the different phases of emergency relief, recovery and, in the case of internally displaced persons, return, local integration or settlement elsewhere in the country. Actors contributing to the humanitarian response should strive to achieve all elements of these criteria as soon as feasible. During the immediate emergency phase,

food, water and sanitation, shelter, clothing, and health services are considered adequate if they respond to what is needed for survival and meet internationally recognized standards.

As to “2. provision of specific goods, health services, and education”, the right to food should be respected and protected. It should be understood as the right to have physical and affordable access without discrimination to adequate food in sufficient quantities or the means for its procurement. Food related interventions should be planned accordingly.

The right to water and sanitation should also be respected and protected. It should be understood as the right to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use without discrimination. Water and sanitation related interventions should be planned accordingly. At a minimum, safe water should be provided in a quantity that is necessary to prevent dehydration, and to provide for consumption, cooking, also personal and hygienic requirements necessary for a life in dignity.

In addition, the right to shelter should be respected and protected. It should be understood as the right to have an accommodation allowing persons to live there in security, peace and dignity. Shelter related interventions should be planned accordingly.

Collective centres should be a last resort and should only be established when, and as long as, the possibility of host family arrangements, self-sustainability, or rapid rehabilitation does not exist. Affected persons should be allowed to move freely in and out of collective centres. Such movement should not be restricted or prohibited unless it is necessary for the protection of the security or health of the residents, or that of the population in the vicinity. If there are restrictions, they should not remain in force any longer than absolutely necessary.

The right to health should be respected and protected. It should be under-

stood as the right to timely and appropriate, accessible, culturally acceptable and gender sensitive health care without discrimination as well as to the underlying determinants of health (such as access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing), healthy occupational and environmental conditions, and access to health-related education and information, including on sexual and reproductive health. Health interventions should be planned accordingly.

In the situations of nuclear disasters, all affected persons have the right to access of health examination on radiation impact wherever and whenever they want as well as to be explained about the test result in a language they understand. As the result of the test, if it is necessary, all affected person should be provided healthcare. All affected persons have the right to access to mental healthcare and counseling. All affected persons, the same as citizens in the country, should be provided with risk communication for radiation.

The right to education should also be respected and protected. It should be understood as the right to receive, without discrimination, an education in all its forms and at all available levels that is accessible, acceptable and inclusive. Education interventions should be planned accordingly. At the primary level, education should be compulsory and free. Interventions and activities at all educational levels should be based on the following principles; (a) the return of children and youth, whether displaced or not, to school or education programmes in safe learning environments should be facilitated without discrimination as early and as quickly as possible after the disaster, even if documentation which is usually required has been lost, (b) special efforts should be made to ensure that girls and women, as well as members of marginalized groups who have been affected by the disaster, have full and equal access to education, (c) education should respect the cultural identity, language and tra-

dition of the affected persons, (d) special attention should be paid to the needs of children with disabilities, (e) schools should only be used as collective shelters as a last resort and only as long as required. In such cases alternative classrooms, e.g. tents, should be provided. Furthermore, in the context of nuclear disasters, education should be included in risk communication for radiation.

(C) Phase 3: once the emergency phase is over and recovery efforts commence

In Phase 3, the following items are important; 1. health monitoring and provision of healthcare, including mental healthcare, 2. housing, land and property, and possession, 3. transitional shelter, housing and evictions, 4. livelihood and work, 5. secondary and higher education, 6. documentation, and 7. expression, assembly and association, and religion.

Regarding “1. health monitoring and Provision of healthcare”, all affected persons should be provided with health examination on radiation impact continuously to monitor their health conditions. All affected persons should be provided with healthcare, especially mental healthcare and counseling during an evacuation whenever they need.

As to “2. housing, land and property, and possession”, the right to property should be respected and protected. It should be understood as the right to enjoy one’s house, land and other property and possessions without interference and discrimination. Property and possessions left behind by persons displaced by nuclear disasters should be protected, to the maximum extent possible, against looting, destruction, and arbitrary or illegal appropriation, occupation or use. Houses and lands contaminated with radioactivity should be decontaminated as soon as possible. When existing administrative or judicial procedures are not able to deal with the caseload without undue delay, special mechanisms with simplified procedures to consider competing claims to

land and property should be put in place and made accessible without discrimination. These procedures should include due process guarantees and decide such claims without delay. Access to an independent court or tribunal should be guaranteed if the decision is rejected by one party.

Regarding “3. transitional shelter, housing and evictions”, transitional shelter or housing provided should fulfill the requirements of adequacy in international human rights law. The criteria for adequacy are ; accessibility, affordability, habitability, security of tenure, cultural adequacy, suitability of location, and access to essential services such as health and education. Respect for safety standards aimed at reducing damage in cases of future disasters is also a criterion for adequacy. Appropriate measures to allow for a speedy transition from emergency shelter to transitional shelter or to permanent housing should be taken, without discrimination of any kind, as soon as possible. All affected groups and persons should be consulted and participate in the planning and implementation of transitional shelter and permanent housing programmes, for tenants and owners/occupiers. Any decision to move from emergency shelter to transitional shelter or permanent housing requires the full participation and decision/agreement of the persons concerned.

Should evictions become unavoidable in situations other than forced evacuations and despite consultation and participation, all the following guarantees should be put in place ; (a) an opportunity for genuine consultation with those affected, (b) adequate and reasonable notice prior to the scheduled date of eviction, (c) the timely provision of information in an accessible format on the eviction and future use of the land, (d) the presence of government officials during an eviction, (e) the proper identification and registration of all persons being evicted, (f) the proper identification of all persons carrying out the eviction, (g) the prohibition of evictions during bad weather or at night, (h) provi-

sion of legal remedies, and (i) provision of legal aid, where needed, to seek redress from the courts.

Regarding “4. livelihood and work”, access to livelihoods and employment opportunities as well as projects to restore economic activities, employment opportunities and livelihoods disrupted by the nuclear disaster should be facilitated, without discrimination, as soon and as comprehensively as possible. To the maximum extent possible, such measures should already be initiated during the emergency response phase. Affected persons gaining access to livelihoods and employment opportunities should be protected against unfair, unhealthy and unsafe working conditions. Collective centres as well as permanent relocation sites should not be located in areas depriving affected persons from access to livelihoods and employment opportunities.

Regarding “5. secondary and higher education”, access to secondary and higher education should, to the extent possible, not be disrupted, in particular when students can no longer afford the studies as a consequence of the disaster. Education should be included in risk communication for radiation.

Regarding “6. documentation”, personal documentation for identification and other purposes (e.g. birth, marriage and death certificates, personal identification and travel documents, education and health certificates) that has been lost or destroyed in a disaster should be restored to affected persons as early as possible. Loss of documentation or without residential certification in the places where affected persons evacuate should not be used as reason ; (a) to justify the denial of essential food and relief services, (b) to restrict individuals from travelling to safe areas or from returning to their homes, (c) to impede their access to employment opportunities, (d) to deny access to basic services such as education or essential health care, or (e) to deny their citizenship, including electoral rights.

As to “7. expression, assembly and association, and religion”, affected per-

sons and communities should be allowed and enabled to give feedback and raise complaints or grievances on the disaster relief and recovery response. They should be protected against adverse reaction to such expression of their opinions. Opportunities should be provided for affected persons to conduct peaceful assemblies or to form associations for this purpose. Affected persons should be allowed to participate in formulation and implementation of relevant policies including evacuation zones, dose limits and decontamination policies.

Religious beliefs and cultural traditions should be respected to the extent possible, when planning and implementing humanitarian assistance, in particular in the context of food assistance, health care services, and living and sanitary arrangements. Affected persons should be allowed and provided with opportunities for the exercise of their religious faith and cultural traditions in a manner that respects the rights and beliefs of others and does not incite discrimination, hostility or violence.

(D) Phase 4: the recovery phase lasts - After the evacuation order is lifted

In Phase 4, the following items are indispensable ; 1. health monitoring and provision of healthcare, including mental healthcare, and 2. freedom of movement, particularly in the context of durable solutions.

Regarding “1. health monitoring and provision of healthcare”, all affected persons should be provided with health examination on radiation impact continuously to monitor their health conditions. All affected persons should be provided with healthcare, especially mental healthcare and counseling continuously if it is necessary.

As to “2. freedom of movement”, the right to freedom of movement of affected persons, whether or not displaced, should be respected and protected. This right should be understood as including the right to freely decide whether to remain in or to leave an endangered zone. It should not be sub-

ject to restrictions except those which are ; (i) provided for by law, (ii) serve exclusively the purpose of protecting the safety of the persons concerned, and (iii) are used only when there are no other less intrusive measures. In the case of evacuations, temporary relocation should not last longer than absolutely necessary. After the emergency phase, internally displaced persons should be supported to find a durable solution to their displacement. Durable solutions should be understood as sustainable integration of internally displaced persons ; (a) at the place of origin (“return”), (b) in areas where they took refuge (“local integration”), or (c) in another part of the country (“settlement elsewhere in the country”).

Internally displaced persons should be granted the right to choose freely whether they want to return to their homes and places of origin, to integrate locally in the area to which they have been displaced, or to settle elsewhere in the country. Appropriate measures, such as consultation, information campaigns and go-and-see visits should be taken to enable such persons to take an informed decision in this regard.

Conditions conducive to making return, local integration or settlement elsewhere in the country sustainable should be established as soon as possible. Conditions are considered sustainable if internally displaced persons ; (a) are and feel safe and secure, free from harassment and intimidation, as well as from unmitigated risks of further disasters, (b) have been able to access adequate housing, including, in the case of return, to repossession of and adequate reconstruction or rehabilitation of their homes, and (c) can return to their lives as normally as possible, with access to water, basic services, schools, livelihoods, employment, markets, etc. without discrimination.

In all cases of limitations of freedom of movement, affected persons should be provided with effective legal remedies that respect due process guarantees, including the right to be heard and the right of access to an independ-

ent court or tribunal, as well as to just compensation. Permanent prohibitions of return without the consent of affected persons and communities should only be considered and implemented if the area where people live or want to return to is indeed an area with high and persistent risk for life and security that cannot be mitigated by available adaptation and other protective measures. Any such prohibition must respect all of the following conditions ; (a) it is provided for by law, (b) its only purpose is to protect the lives and health of the affected persons, (c) the affected persons have been informed of the process and the reasons for the decision, (d) the affected persons have been consulted during all phases of the relocation, starting from the choice of the site to the construction of housing, services and access to livelihoods, and were given an opportunity to participate in these decisions and their implementation, and (e) the affected persons are provided with the opportunity for settlement elsewhere in the country in accordance with the following conditions ; (i)the proposed sites are not exposed to secondary impacts of the disaster and are safe from recurrent disasters, and (ii)at such sites, the affected persons have access to safe and culturally appropriate housing ; water, basic health services and education ; livelihoods and employment ; markets ; etc. without discrimination.

5. Future Issues on Nuclear Disaster Management and Human Rights

Nuclear disaster management is an important challenge not only in Japan but also in the world. The net number of nuclear power plants has been increasing globally and there is a possibility that nuclear power plant accidents can happen at anytime and anywhere as the accidents are man-made disasters. Once the accident happens, it is clear that disaster affected people face multiple human rights violations as can be seen in the case of the Fukushima

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accident. It is important to introduce the HRBA into nuclear disaster management in order to prevent human rights violations and protect the affected persons. To do so, it is necessary to formulate national legislation, to create a human rights monitoring system, and to set out human rights guidelines for nuclear disaster management.

Regarding a human rights monitoring system, it is desirable to establish a National Human Rights Institution in Japan as well. By the date when it is established, other sectors, e.g. the Bar Association and other civil societies, should take on the role of the monitoring. When these sectors monitor the human rights situations of the disaster affected people, human rights guidelines are needed. Therefore, this work has attempted to identify the essential points of these guidelines. In this article, although the pilot version of the guidelines was demonstrated, it is still incomplete and enrichment of the contents is demanded. It is necessary to add concrete activities and measures as well as the contents in response to disaster preparedness and risk mitigation. The guidelines will become more practical by these improvements and it is possible to urge policy makers and humanitarian actors to use them. In addition, it has been 7 years since the Fukushima accident and Phase 4, that is the recovery phase, has just started in some areas in Fukushima where the evacuation order has been lifted. On the other hand, there are still many Fukushima residents who have been evacuated from their homes. Thus, as it is one of the characteristics of nuclear disasters that Phase 3 and 4 are prolonged and mixed, we will have to reexamine the contents of Phase 3 and 4 according to the change in the circumstances. The human rights situations of the affected persons in Fukushima deserve continued and increased attention.

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