Opinion on the Measures to be Taken by Japan and Tokyo Electric Power Company to Address the Destruction of Health, Environment and Life Caused by the Fukushima Daiichi Nuclear Power Plant Disaster

August 17, 2011

Earthquake Relief Project of Human Rights Now

<u>1. Summary of this Opinion</u>

We are requesting that the government of Japan and Tokyo Electric Power Company ("TEPCO") assume their responsibilities for causing the damage resulting from the Fukushima nuclear disaster, as follows:

- 1. Take all necessary measures to protect the health and restore the living environment of the residents living in areas where the radiation dose exceeds 1mSv per year (excluding background radiation) in accordance with international standards and the standards applicable to the contaminated zones following the Chernobyl nuclear disaster.
- 2. Follow the practices of the Soviet Union, the Russian Federation, the Ukraine and other countries after the Chernobyl nuclear disaster by designating the contaminated areas which are subject to a radiation dose in excess of 5mSv per year as evacuation areas, and in areas where the radiation dose exceeds 1mSv per year, recognize the right of the residents to compensation and support for relocation and by providing food supplies, medical care and assistance in their daily life:
 - for residents living in areas where the radiation dose exceeds 1mSv per year (excluding background radiation), to take measures for compensation, and for the people who were deprived of their livelihood by relocation, to secure the comprehensive reconstruction of their daily life;
 - in areas where the radiation dose exceeds 1mSv per year (excluding background radiation), to monitor constantly and disclose levels of radioactive contamination to the residents, to undertake immediate decontamination for a restoration of the prior environment, to protect from radiation, to provide food supplies, to take measures to provide medical examinations and medical compensation in connection with the influence of long-term exposure to radiation, including internal radiation, and to protect people from radiation injuries; and
 - to reconsider the designation of the evacuation areas based on the actual status of the contamination.

2. Reasons for this Opinion

<u>1.</u> Situating the Problem

Due to radioactive contamination resulting from TEPCO's Fukushima Daiichi nuclear power plant disaster, the health and daily life of a large number of people that live in the nuclear plant's surroundings are being subject to considerable risk. Following the disaster, it is prohibited to enter an area within 20 kilometers around the nuclear plant. The area within 30 kilometers around the nuclear plant has been categorized as an "Emergency Evacuation Preparation Area," and areas such as Iidatemura have been categorized as a "Planned Evacuation Areas."

The government is using a 20mSv per year standard to direct evacuation programs and designate areas where evacuation is encouraged, and for areas and spots that may become subject to higher radiation levels than this threshold it will undertake evacuations or other measures. However, despite the confirmation of highly radioactive "hot spots" outside the 20-kilometer radius, only part of the households in the city of Date, 72 households in the city of Minamisoma and one household in Kawauchimura in the Fukushima prefecture have been categorized as "Designated Evacuation Encouraged Areas." In addition, according to the news, a decision has been taken to cancel the categorization of certain areas as "Emergency Evacuation Preparation Areas" at the beginning of September 2011.¹

Due to the Fukushima Daiichi nuclear disaster, it has been estimated that the amount of radioactive materials released is over 168 times that which was released by the atomic bomb in Hiroshima,² and this creates serious risks to the health of the population, in particular expecting mothers, infants, children and the young generations most vulnerable to harm from radiation, living in wide areas which have not been designated as evacuation areas.

In areas which have not been designated as evacuation areas by the government, some households with expecting mothers, infants and children have independently decided to evacuate, but there has been practically no public financial support for such evacuees.

As for the residents who do not have the financial means to relocate, to the extent that the government does not provide sufficient compensation to evacuate, they are left with no other choice but to remain in contaminated areas even though they may be exposed to health risks. The interim report of the Dispute Reconciliation Committee for Nuclear Damage Compensation released on August 5, 2011 indicates that residents outside the designated evacuation areas could also receive compensation, however no clear standards are specified.³

The government established in April of this year that a very high amount of radiation of 3.8μ Sv per hour would constitute the limit to decide whether children may attend elementary and

¹ <u>http://www.atomdb.jnes.go.jp/content/000118461.pdf</u>:

Reports regarding the cancellation of the qualification of certain areas as "Emergency Evacuation Preparation Area" were made in the Asahi Shimbun dated August 10, 2011, as well as other newspapers.

² http://sankei.jp.msn.com/science/news/110826/scn11082619220001-n1.htm

³ According to the Committee, "generally speaking, setting aside residents of the areas subject to the guidelines, in the event that the evacuation measures to avoid the danger of exposure are reasonably accepted by society, the evacuation costs can be considered as damage that should be compensated." However, the Committee also stated that "the issue is that there is no adequate standard to judge whether an independent decision to evacuate is reasonable or not," indicating that there is not any clear guideline. (13th meeting of the Committee held on August 5, 2011, document number 3)

junior high schools.⁴ After receiving criticism of this decision, on May 27 the government announced that it aimed to lower radiation exposure in school facilities to 1mSv per year and that it would provide financial support to reduce the amount of radiation in the soil.

However, in reality, the limit of the amount of radiation for the outdoor school grounds will not be decreased from 3.8μ Sv per hour to one-twentieth of that amount.⁵ In addition, with regards to the living environment other than schools, counter-measures are virtually non-existent. Therefore the government is using a standard of 20mSv per year to determine evacuation and compensation measures, however there are no counter-measures in place for the protection and restoration of the health and living standards of the residents living in areas which are subject to a lower radiation amount.

Five months have passed since the nuclear disaster and we are now requesting that permanent counter-measures be taken instead of "provisional standards." The current situation whereby the health of residents is put at risk by applying slack standards conspicuously departing from international norms cannot be tolerated.

2. Request Pursuant to International Human Rights Laws

As a result of serious radiation damage, the people's right to health (Article 25 of the Constitution of Japan, Article 12 of the International Covenant on Economic, Social and Cultural Rights) is extensively and systematically being infringed upon and the people's inherent right to life (Article 6, clause 1 of the International Covenant on Civil and Political Rights) is seriously threatened.

The government's first and foremost obligation is to protect the life and health of the people, and considering the damage situation, we are requesting the following measures be taken: (1) measures to prevent infringements upon human rights, (2) a thorough investigation of the infringements upon human rights, and (3) providing victims with appropriate compensation.⁶

Compensation must include: (1) monetary compensation, (2) restoration, (3) medical treatment and rehabilitation, and (4) other satisfactory measures (such as public disclosure, legislation and apologies to prevent any similar disaster from occurring).⁷

The guarantees provided by the right to health in Article 12 of the International Covenant on Economic, Social and Cultural Rights ratified by Japan include a government's obligation to take prompt action and implement policies to allocate and eradicate air, water and soil

⁴ If one were to stand in a schoolyard eight hours of every day and spend the remaining 16 hours in a wooden house built on the same schoolyard for the rest of the day, and this for an entire year, the radiation dose received would equal approximately 20mSv.

⁵ Q&A on "Tentative Reflections Regarding the Use of School Buildings and Schoolyards in Fukushima Prefecture," Ministry of Education, Culture, Sports, Science and Technology ("MEXT") http://www.mext.go.jp/a_menu/saigaijohou/syousai/1307458.htm

⁶ Velásquez Rodrígues (Velásquez Rodrígues Case, Judgment of 29 July 1988, Inter-American Court of Human Rights (Ser. C.) No. 4 (1988)), para 174

⁷ Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law (UN General Assembly resolution 60/147 of 16 December 2005)

contamination.⁸ In addition, as a state party to the United Nations Convention on the Rights of the Child, Japan has an obligation to ensure to the maximum extent possible the survival and development of children (Article 6) as well as to consider a child's best interests as a primary consideration in all actions concerning children (Article 3).⁹

3. Designation of Contaminated Areas and the Protection of Residents Based on International Standards, International Precedents and Domestic Law

In order to protect the people's lives and health from the damage caused by radiation and to prevent the future infringement of rights (such as the right to health), the first issue is to determine the scope of appropriate counter-measures.

Human Rights Now ("HRN") believes that by using international standards and considering international precedents, at the very least the government has an obligation to take aggressive counter-measures for the affected residents and land in areas where radiation dose (excluding background radiation) is 1mSv per vear ("1mSv/year.")¹⁰

(1) International Standards – ICRP

The International Commission on Radiological Protection ("ICRP") has set that the effective radiation dose to public be limit to 1mSv/year^{11} (the most recent determination was made in ICRP Publication 103 in 2007).

The basis for this standard, among other, is that a radiation dose of 1mSv/year represents a risk of death of 1% for all age groups, a risk of illness of one in a thousand, a life-time risk of one in a thousand, and even for age groups where the risk of exposure to radiation is the greatest, a dose of 1mSv/year does not significantly increase all the risks.¹² While there is criticism that even this standard constitutes an underestimation. it is clear that a radiation dose limit that exceeds 1mSv/year creates meaningful risk.

According to the recommendation of the ICRP published on March 21, 2011 regarding the Fukushima Daiichi nuclear plant disaster,¹³ in accordance with ICRP Publication 2009b "[the

⁸ International Covenant on Economic, Social and Cultural Rights, Article 12

⁹ <u>http://www2.ohchr.org/english/law/crc.htm</u>

¹⁰ This proposal seeks to clarify the minimum obligations that the Japanese government needs to assume and not to reject proposals for an even stricter standard of a combined internal and external radiation dose to 1mSv/year including background radiation. Because a lot of the current radiation measurements do not separate background radiation from artificial radiation, the background radiation results obtained prior to March 11, 2011 should be deducted from current radiation measurements in determining whether the hourly radiation, when estimated over a year, exceeds 1mSy. (Please refer to the following link regarding background radiation: http://www.geosociety.jp/hazard/content0058.html. However, areas in the proximity of the nuclear plant should be evaluated separately due to high background radiation.) ¹¹ <u>http://www.mext.go.jp/b_menu/shingi/housha/sonota/__icsFiles/afieldfile/2010/02/16/1290219_001.pdf</u>, p.

¹² Kusama, Shinozaki, Yoshizawa, "Considerations regarding acceptance of radiation risks," Hoken Butsuri, 22-15-20 (1987)

¹³ http://www.icrp.org/docs/Fukushima%20Nuclear%20Power%20Plant%20Accident.pdf Japanese translation: http://www.u-tokyo-rad.jp/data/fukujap.pdf

ICRP] recommends choosing reference levels in the band of 1 to 20mSv per year, with the longterm goal of reducing reference levels to 1mSv/year." However, this is based on the assumption that "[a]uthorities will often implement all necessary protective measures to allow people to continue to live there rather than abandoning these areas." This recommendation is certainly not a suggestion that establishing a scope of radiation dose of between 1mSv/year and 20mSv/year means additional governmental measures and expenditures to protect the health of the people are unnecessary.

Even at times of emergency, it is not that the exposure level for meaningful risk of more than 1mSv/year increases, as the exposure that would contribute to a 1% risk of death does not increase from 1mSv/year, and so the national government's responsibility to protect the health of the people should not be relieved when the dose of 1mSv/year has been exceeded.

(2) The Experience of the Chernobyl Disaster

1) The Soviet Union's Response

It can hardly be said that the Soviet Union's response to the Chernobyl disaster was sufficient. In addition to prohibiting the mass media and the Ministry of Health from publicly disclosing information about the accident recovery work until the middle of May 1986, the Soviet Union's leaders and the Ministry of Atomic Industry of the time—fearing panic among the population —kept radiation contamination maps and radiation level data classified until 1989. A cover-up of the effects of the Chernobyl disaster took place, causing great harm and stress to its citizens.¹⁴

In 1991, the Soviet Union changed its policy by adopting rules and standards (known as the "Chernobyl concept") for countermeasures to limit to the greatest extent possible the damage from the Chernobyl disaster. Based on these new guidelines, <u>a policy of protecting the residents</u> of contaminated areas with 1mSv/year or more was established and came to be carried out.¹⁵

The Soviet Union designated areas with soil contamination of $555kBq/m^2$ or more of Cs-137 (having a half-life of 30 years) as strict radiation control, the equivalent of Japan's mandatory evacuation areas. Furthermore, Cs-137 depositions of more than $37kBq/m^2$ were designated as the provisional minimum contamination level.

According to "Chernobyl's Legacy: Health, Environmental and Socio-Economic Impacts," a report released by The Chernobyl Forum—comprised of eight U.N. agencies, including the IAEA, WHO, OCHA, UNDP, and UNEP, and the governments of Belarus, Russia and the Ukraine—twenty years after the Chernobyl disaster,¹⁶ after the disaster, about 400,000

¹⁴ National Report of Ukraine, "20 Years after Chernobyl Catastrophe: Future Outlook,"

<u>http://www.mns.gov.ua/chornobyl/20_year/03/n_report_ENG.pdf</u>, p. 8. This report, twenty years after the disaster, acknowledges that such handling of information caused citizens to lose their sense of trust in their government and caused citizens social and psychological stress and that there was no doubt that concealing information about the catastrophe was an error.

 ¹⁵ Professor Tetsuji Iwanaka (Kyoto University Research Reactor Institute) et al, "An Overview of Russia's Legal Framework and Effect Research," <u>http://www.rri.kyoto-u.ac.jp/NSRG/Chernobyl/saigai/Ryb95-J.html</u>.
 ¹⁶ http://www.iaea.org/Publications/Booklets/Chernobyl/chernobyl.pdf

people were living in areas contaminated by Cs-137 in high concentrations of 555kBq/m² or more and, among them, the Soviet Union mandated evacuation of 336,000 people from contaminated to non-contaminated areas.¹⁷

The same report states that soil deposition of Cs-137 equal to 37kBq/m² was chosen as a provisional minimum contamination level, because: (a) this level was about ten times higher than the Cs-137 deposition in Europe from global fallout; and (b) at this level human dose during the first year after the accident was about 1mSv and was considered to be radiologically important.¹⁸

The new policy established in 1991, in respect of areas in which contamination exceeded 1mSv/year, specified that the government had a duty to take protective actions and the residents of such areas had the right to make their own decision as to whether to continue living in such areas or to relocate elsewhere after receiving unbiased information about the radiation, socio-economic and other aspects of life.¹⁹ Based on the designation of such contaminated areas, "[p]eople who continued to live in the heavily contaminated areas were given compensation and offered annual medical examinations by the government. Residents of less contaminated areas are provided with medical monitoring. Compensation is provided for residents whose annual dose is greater than 1mSv."²⁰

2) The Response of Russia, Ukraine, etc.

After the collapse of the Soviet Union, each succeeding country took over the protection of its own citizens. Under the laws of Russia, Ukraine, and Belarus, the three countries most heavily contaminated by the accident, areas with soil deposition of Cs-137 equal to 37kBq/m² (1Ci/km²) or more are classified as a contaminated area and the government takes measures for such areas and residents.²¹ According to a report on the Chernobyl disaster issued by the Russian Federation, the Russian Federation would take over the Soviet Union's policies and contaminated areas would be categorized and handled as follows:²²

a) 30-kilometer radius exclusion zone (article 8)	Places where the deposition of Cs-137 exceeds 555kBq/m ² .	Evacuated or resettled.
b) Resettlement zone (article	Places outside of the 30-	Residents evacuated, resettled

¹⁷ In "Environmental Consequences of the Chernobyl Accident and Their Remediation: Twenty Years of Experience," a report released in the twentieth year after the Chernobyl nuclear disaster, the IAEA explains that the reason that the soil deposition of Cs-137 was chosen in the mapping of the deposition after the Chernobyl disaster was that it is easy to measure and is of radiological significance. The same report also explains that Cs-134 was also important for the first years.

http://www-pub.iaea.org/MTCD/publications/PDF/Pub1239_web.pdf ¹⁸ *Id.* at 23.

¹⁹ "Evolution of Regulation Related to the Chernobyl Accident," p. 544,

http://www.jaea.org/inis/collection/NCLCollectionStore/ Public/29/013/29013454.pdf.

²⁰ Chernobyl: Assessment of Radiological and Health Impacts (2002), (2002 Update of Chernobyl: Ten Years On, OECD, 1996), p. 54, http://www.oecd-nea.org/rp/reports/2003/nea3508-chernobyl.pdf.

²¹ Environmental Consequences of the Chernobyl Accident and their Remediation: Twenty Years of Experience, p. 24, http://www-pub.iaea.org/MTCD/publications/PDF/Pub1239 web.pdf.

²² Chernobyl Accident: Ten Years On, Russian National Report, 1996, Table 2, http://chernobyl.undp.org/english/docs/rus natrep 1996 eng.pdf.

9)	kilometer zone where the deposition of Cs-137 exceeds 555kBq/m ² (areas where, due to this, the annual radiation dose is 5mSv or more).	and compensated.
c) Areas with a right of relocation (article 10)	Places outside of the 30- kilometer zone where the deposition of Cs-137 is 185 to 555kBq/m ² (areas where, due to this, the annual radiation dose is 1mSv or more).	Residents' right to be able to voluntarily relocate recognized.
d) Areas with socio-economic rights (article 11)	The deposition of Cs-137 is 37 to 185kBq/m ² (areas where, due to this, the annual radiation dose is 1mSv or less).	Measures taken so residents may live an average or better life.

Measures corresponding to the above are set forth beginning in article 7 of Russia's "Law On Social Protection of Citizens who Suffered in Consequence of the Chernobyl Catastrophe."²³ In particular:

Article 8: No residents shall be permitted to live within a 30-kilometer radius.

Article 9: Areas in which it is confirmed that there is contamination from which the amount of annual radiation exposure due to the accumulation of contaminating matter (Cs-137) exceeds 5mSv shall be evacuation areas and evacuated residents shall receive compensation.

Article 10: Areas in which it is confirmed that there is contamination from which the amount of annual radiation exposure due to the accumulation of contaminating matter (Cs-137) is 1mSv or more shall be designated as areas with a right to evacuate. Residents shall receive unbiased information and shall have the right to voluntarily relocate. Those who decide to relocate to another area shall have the right to receive compensation for losses incurred and social assistance.

Article 11: Socio-economic measures shall be taken to care for people in areas in which it is confirmed that there is contamination from which the amount of annual radiation exposure due to the accumulation of contaminating matter (Cs-137) is less than 1mSv.

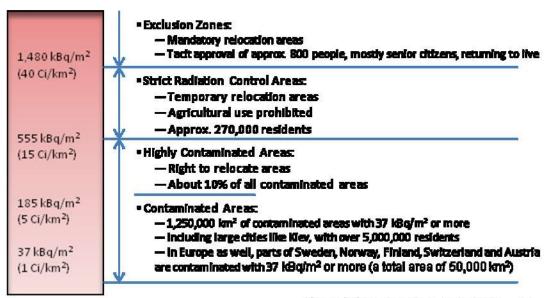
²³ The Russian Federation Law On Social Protection of Citizens who Suffered in Consequence of the Chernobyl Catastrophe (June 18, 1992), as amended.

Article 18: Compensatory measures shall also be taken for people living in areas in which it is confirmed that there is contamination from which the amount of annual radiation exposure due to the accumulation of contaminating matter (Cs-137) is 1mSv or more. Measures to decontaminate, provide food products that are uncontaminated based on international standards, reduce radiation exposure, protect health, etc., shall be taken and social benefits provided.²⁴

Moreover, in the Ukraine and Belarus as well, areas with 5mSv/year or more similarly became priority relocation areas. In areas that exceeded 1mSv/year, the state recognized a right to voluntarily relocate with state compensation and assistance.²⁵ In the Ukraine, residents of areas exceeding 1mSv/year from early on have been receiving compensation, such as one type of compensation in an amount equal to 40% of minimum wage.²⁶ In Belarus, the average annual dose, excluding background radiation but including both internal and external exposure, may not exceed 1mSv. If the population's average dose does exceed 1mSv/year, measures to protect affected residents must be taken.²⁷

²⁴ In his presentation entitled "The Soil Contamination Problem and Solutions to It" at the 16th meeting of the Japan Atomic Energy Commission on May 24, Tomio Kawada (a NUMO fellow) also laid out the soil contamination categories as follows. <u>http://www.aec.go.jp/jicst/NC/iinkai/teirei/siryo2011/siryo16/siryo2.pdf</u>





Chernobyl: Ten Years On, OECD 1996 14

²⁵ <u>http://chernobyl.undp.org/english/docs/strategy_for_recovery.pdf</u>, p. 43. C.f. Table 3.1, p. 36.
 ²⁶ The Law on the Status and Social Protection of the Population Who Suffered from the Chernobyl Catastrophe (February 2, 1991), article 37, <u>http://www.crdp.org.ua/data/upload/publication/main/ua/453/report_prof_jerzy_osiatynski_eng.pdf</u>, p. 9.

²⁷ Belarus' Law on the Social Protection of Citizens Affected by the Disaster at the Nuclear Power Plant of Chernobyl (as amended in 2001). ICRP, Publication 111, p. 54, http://www.icrp.org/docs/P111%28Special%20Free%20Release%29.pdf

3) Japan's Response

Japanese residents are not being protected up to the standards of the Chernobyl disaster.

First, as stated above, the amount of exposure for a person in the areas contaminated with Cs-137 of 37kBq/m² or more in the first year after the nuclear disaster was about 1mSv. Those areas were designated contaminated areas under law in the three most contaminated countries— Russia, Ukraine, and Belarus—and measures were taken for both the areas and the residents of them. Moreover, after the disaster, contamination areas with Cs-137 in concentrations of 185kBq/m² or greater were given rights to relocate and receive compensation. In Japan, however, such measures have not been taken and compensation has not been given even to voluntary evacuees.

Second, according to "The Soil Contamination Problem and Solutions to It" by Mr. Tomio Kawada (a NUMO fellow), mentioned above,²⁸ the soil deposition of Cs-137 is as high as or higher than the mandatory evacuation areas of the Chernobyl disaster not only in the 20kilometer radius zone and the planned evacuation areas, but also in some areas outside of them.²⁹ In spite of that, the Japanese government has taken no measures applicable to heavily contaminated areas. The safeguards put in place for residents in Japan are thus currently below international standards and below those of the Chernobyl disaster.

(3) Domestic Law

After the Fukushima Daiichi Nuclear Plant disaster, the Japanese government drastically relaxed the previously announced and specified standard of "1mSv as the effective dose per year."³⁰ However, the Japanese government's current safeguards for residents are even below the levels that Japan itself established in its domestic law.

1) The "Ordinance on Prevention of Ionizing Radiation Hazards,"³¹ established under the rules of the Industrial Safety and Health Act and the Enforcement Order of the Industrial Safety and Health Act, designates areas where the total effective dose from external radiation and radioactive substances in the air may exceed 1.3mSv over a three-month period (or

²⁸ http://www.aec.go.jp/jicst/NC/iinkai/teirei/siryo2011/siryo16/siryo2.pdf

²⁹ In the above document, MEXT's soil monitoring results (April 30) are explained through a graphic superimposing the measured values of Cs-137 soil contamination density and a dosage rate map (p. 6). Furthermore, MEXT's July 16 measured values (Asahi Shimbun, August 11, 2011, p. 5) also show a broad area of cesium contamination of 555kBq/m².

³⁰ To begin with, an annual effective does of 1mSv is the domestic standard. Article 1.6 of the Rules on the Installation, Operation, etc., of Actual Electricity-Generating Nuclear Reactors under the regulations in the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors and its implementing rules stipulates that the "surrounding surveillance zones" is an area that does not exceed the dose limit established by the Minister of Economy, Trade and Industry. Announcements under these regulations set "an effective dose of 1mSv per year." Furthermore, article 19.1 of the implementing rules under the Act on Prevention of Radiation Disease Due to Radioactive Isotopes, etc., stipulates that waste in exhaust equipment may only be discarded within the dose limit set by the Minister of Economy, Trade and Industry of Economy, Trade and Industry and that dose limit is 1mSv per year.

³¹ Ordinance of the Ministry of Health, Labor and Welfare No. 41, September 30, 1972, http://law.e-gov.go.jp/htmldata/S47/S47F04101000041.html

 0.6μ Sv per hour) as radiation "controlled areas,"³² restricts the entry of people other than radiation workers to such areas (article 3.4) and prohibits activities like eating and drinking within such areas (article 41.2). If this law is applied, the entry of ordinary citizens, such as children and pregnant women, to places with high levels of radiation that could be considered as designated "controlled areas" shall be restricted, and routine activities, such as eating and drinking, in such "controlled areas" shall not be permitted.

Moreover, according to articles 6.1 and 6.2 of the same rule, the exposure of pregnant female radiation workers, from the time they are determined to be pregnant until giving birth, should be no more than an effective dose of 1mSv in internal exposure and 2mSv in exposure to the abdominal surface. This rule has been followed for decades.

However, because controlled areas, under normal circumstances, are established to "strictly regulate places with strong radiation sources," MEXT holds this as not applicable to ordinary pregnant women and children. Furthermore, the MHLW's workers' compensation approval requirements for radiation exposure have been established in order to provide workers' compensation, therefore MEXT does not apply this to the current situation.³³ However, the logic that children, pregnant women and workers are fine at an even lower level of protection than adult radiation workers does not hold any water at all. The health of ordinary citizens must be protected from radiation exposure, especially children and pregnant women who may be highly sensitive to radiation and may be deeply affected by radiation exposure.

Currently, ordinary citizens like women and children are in the equivalent of controlled areas into which they should not enter. And, Fukushima's contaminated areas are in a situation in which they do not even have regulations such as those restricting pregnant women engaged in work in controlled areas to 2mSv on the abdominal area over the course of the pregnancy.

(4) Conclusion

Reflecting on this situation and setting aside the 30-kilometer radius and very limited other areas, the attitude of the government, which will not take any measures to protect the people from radiation damage, falls below both international standards and the response to the Chernobyl disaster and is even less than is provided by domestic law. It must be said that this is a serious violation of the government's duty to protect its citizens' rights with respect to health.

In introducing the abovementioned ICRP standard domestically, even taking into account that background radiation is excluded and again in light of the Chernobyl precedent, the Japanese government should at least have an obligation to protect from radiation residents living in areas in which the annual amount of radiation exposure (excluding background radiation) is more than <u>1mSv</u>. For the people living in such areas, all necessary measures to protect their health, guarantees of their right to relocate with government assistance and compensatory measures, decontamination, etc., will be necessary.

Accordingly, HRN seeks the following from the government and from TEPCO:

³² http://peacephilosophy.blogspot.com/p/blog-page_05.html

³³ http://www.mext.go.jp/a_menu/saigaijohou/syousai/1307458.htm

- To take all necessary measures in order to protect people's health from radiation damage in areas where the amount of residents' annual radiation exposure (excluding background radiation³⁴) is more than 1mSv per year and to also take all necessary measures in order to repair damage to the living environment.
- To provide necessary information in respect of radiation damage to the residents living in areas where the amount of residents' annual radiation exposure (excluding background radiation) is more than 1mSv per year and to recognize a right to relocate. When residents of such areas decide to relocate, for the government to support such relocation, to give such displaced persons the appropriate protections of internally displaced persons³⁵ and to take necessary or sufficient compensatory measures to allow them to rebuild their lives.
- In contaminated areas where radioactive cesium exceeds 555kBq/m² (or where the annual amount of radiation exposure is 5mSv or more), based on the recognition that there is seriously contaminated land equivalent to the mandatory evacuation areas of the Chernobyl disaster, at the same time as decontaminating as soon as possible, to establish a relocation assistance policy and, for those for whom relocation would be a hardship, to take measures to protect their health comparable to relocation.
- For people in areas in which the dose of the effective amount of external radiation will exceed 1.3mSv over a three-month period (or 0.6µSv per hour) meeting the definition of "controlled areas" and for pregnant women living in areas in which exposure will exceed 2mSv over the course of the pregnancy, because domestic law is being violated, to recognizing and announce a right of relocation as soon as possible and to provide compensation to allow such people to rebuild their lives.

4. Regarding Concrete Measures to be Taken by the Government and TEPCO

HRN requests the government and TEPCO to immediately take following measures.³⁶

(1) Investigation and Disclosure of Contamination

In order to protect the residents from damage from radiation and to enable such residents to decide whether to evacuate, a comprehensive and continuous investigation on soil and air

³⁴ <u>http://www.mext.go.jp/b_menu/shingi/chousa/gijyutu/004/006/shiryo/04070501/003.htm</u>: ICRP's 1990 recommendation show the thoughts behind also taking background radiation into consideration for radiation protection. Under the Japanese standard, background radiation is excluded. http://www.mext.go.jp/b_menu/shingi/housha/sonota/81009.htm#66

http://www.mext.go.jp/b_menu/shingi/housha/sonota/81009.htm#66 ³⁵ Based on the United Nations' Guiding Principles on Internally Displacement (E/CN.4/1998/53/Add.2, adopted by the United Nations Human Rights Commission in 1998), human rights should be guaranteed and protected. HRN explained in detail the steps the government should take based on such principles in our April 2011 white paper entitled "Protecting the Rights of Disaster Victims and Residents in Connection with the Great Eastern Japan Earthquake." <u>http://hrn.or.jp/activity/20110405_shinsai.pdf</u>

³⁶ TEPCO should be the primary bearer of responsibility related to restoration and compensation. We request the following measures to be taken with national and public expenditure, but a liability claim should ultimately be brought against TEPCO.

contamination, as well as information disclosure to the residents is essential. If the government fails to inform residents of necessary information despite their living environment suffering grave contamination and their lives and livelihoods facing crisis, it can only be described as a breach of its obligation to protect human rights.³⁷ However, the current level of information disclosure on soil contamination is clearly insufficient and despite reports on grave soil contamination from private organizations, our national government has yet to disclose the reports of its surveys.³⁸ With regards to radiation dosage and soil contamination, it is extremely unclear as to how to determine the actual areas of serious contamination from the point of view of those living in the area.³⁹ According to the MEXT, given that there is no concrete concept of a "hot spot," they are not in a position to specify or publicize such locations (inquired as of August 5 and August 12, 2011).

HRN requests the government to take the following measures:

- to amend the current method of measurement, to perform detailed and constant radiation monitoring tailored to daily lives of people, and to disclose such results in a manner easily recognizable by the residents;
- based on Section 3 above at a minimum, to directly provide the residents with information.

Regarding "soil contamination"

to identify, disclose and announce spots with radioactive cesium depositions of more than $555 kBq/m^2$

to identify, disclose and announce spots with radioactive cesium depositions of more than $185 k B q/m^2$

Regarding "radiation dosage"

to identify, disclose and announce areas with annual radiation exposure (excluding background radiation) greater than 1mSv and 5mSv/year, respectively

EUROPEAN COURT OF HUMAN RIGHTSCASE OF GUERRA AND OTHERS v. ITALY(116/1996/735/932)

³⁷ European Court of Human Rights has determined a violation of human rights and ordered the Italian government to pay compensatory damage in the case of mass hazardous matters contaminating living environment upon an accident at private chemical factory. The residents continued to reside and engage in agricultural activities upon the accident as a result of the Italian government's failure to provide all necessary information disclosure and notification of gravity of the contamination.

 $http://www.iidh.ed.cr/comunidades/libertadexpression/docs/le_europeo/guerra\%20 and\%20 others\%20 v.\%20 ital y.htm$

³⁸ According to the study conducted by a private organization, there have been reports of serious soil contamination even in the Tokyo metropolitan area. <u>http://doc.radiationdefense.jp/dojyou1.pdf</u>

³⁹ Soil contamination monitoring map currently in process of creation seems to measure by 2km-mesh within 80km areas and by 10km-mesh for 80 to 100km areas. Considering the current expanding and dispersing radioactive damages, we understand this to be extremely insufficient.

(2) Regarding Evacuation

1) Regarding designation of evacuation area

After the Chernobyl accident, locations with Cs-137 depositions of more than 555kBq/m² (areas greater than 5mSv exposure per year) were designated as mandatory evacuation areas. Taking this into consideration, we believe that the designation of evacuation areas must be re-examined.

In this regard, however, we should abide by international guidelines stating that those unwilling to evacuate shall remain unless the below requirements are met thereby constituting a forced evacuation.⁴⁰

(a) evacuation is provided for in the law

(b) there exists a grave and immediate threat to the victims' lives or health and evacuation is therefore absolutely necessary, and such threat cannot be avoided by any other less invasive measures

(c) execute evacuation upon disseminating information to and consulting with relevant parties to the extent possible

We request for immediate recognition and notification of evacuation rights to those people in the "controlled zone" (areas with effective dosage from external radiation greater than 1.3mSv per three months or 0.6µSv per hour) and pregnant women in areas with exposure of greater than 2mSv during the term of pregnancy, and provide disaster relief compensation.

2) Regarding evacuation of people outside the designated area

For those residents in the areas with annual radiation exposure (excluding background radiation) greater than 1mSv per year, necessary information regarding radiation damage should be provided and their evacuation right should be recognized.

In particular, there is a greater need for measures to protect the health of families with pregnant women, babies and elementary to middle school children by providing for evacuation and relocation. We urge the government to devise necessary policies to encourage evacuation by providing the necessary schools and living environment.

As stated in Section 3(4) above, we request immediate recognition of evacuation rights to those people living in the contaminated areas with radioactive cesium depositions of more than $555kBq/m^2$, those in the "controlled zone" (areas with effective dosage from external radiation greater than 1.3mSv per three months (or 0.6µSv per hour) and pregnant women in areas with exposure greater than 2mSv during the term of pregnancy, and provide proactive evacuation relief.

⁴⁰ IASC Operational Guidelines on the Protection of Persons in Situations of Natural Disasters, p. 16 http://www2.ohchr.org/english/issues/idp/docs/OperationalGuidelines.pdf

(3) Decontamination

Our country and TEPCO should be the bearer of primary responsibility for restoration of radiation contamination.

However, the current governmental approach to decontamination has been segmentalized across ministries and it can hardly be said that we have formulated or promoted a comprehensive decontamination policy on a national level.⁴¹

Though decontamination of the affected region has been delegated to each local municipality⁴², given the limitations on budgets and human resources, municipalities are unable to decontaminate privately owned land. Local authorities have made statements such as "decontamination should be carried out by the national government and TEPCO" and "we have been rejected repeatedly by TEPCO with our request for decontamination," but no actual decontamination by the national government and TEPCO has been carried out. At the moment, policymaking discussions on decontamination by the national government are said to be ongoing.⁴³

The people of Fukushima Prefecture, who have yet to receive any proactive support on decontamination from the national government even after nearly five months since the nuclear incident, have been voluntarily conducting temporary decontamination efforts using water and other methods across the region and in their homes.⁴⁴ However, water used for decontamination covering wide areas flows to be used as agricultural water downstream and could cause a secondary disaster.⁴⁵ A report titled "Twenty Years of Chernobyl Accident, Results and Problems in Eliminating Its Consequences in Russia (2006)," published twenty years after the Chernobyl disaster by the Russian government has shown that the decontamination work in a thirty kilometer radius contaminated by radioactive materials with high concentration caused environmental harm and many of the workers engaged in decontamination later faced long-term health damages and social consequences.⁴⁶

HRN requests the government and TEPCO to take the following measures:

http://www.youtube.com/watch?v=LunV27H3oW8&feature=youtube_gdata_player

⁴¹ For example, the MEXT is in charge of decontamination of soils at school properties and thereby replaces contaminated soils and bears the cost of such decontamination. However, once outside of the school ground, the MEXT takes no part in decontamination. Municipalities are in charge of soil decontamination of their respective public streets and individual families are in charge of their yards.
⁴² When we inquired Fukushima prefecture about decontamination within the prefecture, they responded

⁴² When we inquired Fukushima prefecture about decontamination within the prefecture, they responded saying no direct measure is being taken by the prefecture itself. The prefecture has prepared pamphlets regarding decontamination and distributed them to residents through municipalities, leased out dosimeters, and paid the cost of purchasing high-pressure washing machines, but the rest lies in the hands of each municipality. (August 5, 2011)

⁴³ Asahi Shimbun, August 16, 2011, etc.

⁴⁴ Yomiuri Shimbun, August 10, 2011, <u>http://headlines.yahoo.co.jp/hl?a=20110810-00000301-yomidr-soci</u>

⁴⁵ From the experience of itai-itai disease in Japan, it has become evident that decontamination not carried out properly could cause secondary disaster of cadmium (from the testimony of Professor Kodama, head of Radioisotope Center, the University of Tokyo, at the Committee on Welfare and Labor in the Lower House of the Japanese Diet on July 27).

⁴⁶http://www.iaea.org/inis/collection/NCLCollectionStore/ Public/37/079/37079086.pdf (13p)

- to promptly measure and decontaminate contaminated areas using state-of-the-art technology to reduce the radiation exposure dose (excluding background radiation) to less than 1mSv/year, with the national government and TEPCO bearing such responsibility;
- to make decontamination of locations used for residences with radioactive cesium depositions of more than 555kBq/m² as the first priority, and promptly follow up to address all areas with radioactive cesium depositions of more than 185kBq/m²;
- in particular, to take immediate measures on all schools and educational institutions, as well as school zones, parks and other living environments affecting children;
- to immediately restore areas currently used as evacuation areas at the moment; and
- to promptly introduce legislation regarding decontamination, including the transportation or storage of radioactive cesium and other radioactive isotopes in order to promptly and smoothly conduct decontamination works.

(4) Measures and Policies Regarding Radiation Protection

In addition to decontamination, we request the government to take all necessary steps for radiation protection. In particular, children and pregnant women need special consideration. The following measures should be taken:

1) Disclosure of radiation risk and providing thorough education regarding protection measures

After the nuclear incident, the MEXT distributed documents titled "Understanding radiation" and "To those affiliated with schools" to places of education. These documents have included statements such as "excessive measures could lead to interference in everyday activities or create prejudice," "living in areas with less than 3.86μ Sv per hour should cause no difficulty for everyday life," and "let us take back our sense of assurance by carrying on a normal lifestyle and support growth of our children."⁴⁷ As a result, the people of Fukushima prefecture have been educated with the danger of radiation grossly underestimated. It seems one teacher has told a parent to "if you cannot trust in the national government you should give up being a Japanese citizen."⁴⁸

Furthermore, the MHLW has issued a pamphlet titled "Answering concerns of expectant mothers and mothers with small children," publicizing announcements far from the reality, such

⁴⁷http://www.mext.go.jp/component/a_menu/other/detail/__icsFiles/afieldfile/2011/06/24/1305089_0624_1.pd f

⁴⁸SUGANAMI, Kaori (NHK "*Shiten / Ronten*" July 14) In addition, with the aim of not prompting further fear, teachers have educated their students not to discuss about radiation with their friends. On the other hand, there have been reports from teachers with concerns on radiation measures that any act in the interest of the children could be seen as violation of professional conduct and could be subject to sanctions.

as there being no radiation impact to fetuses outside the areas under evacuation order, tap water being suitable for drinking by children, foods sold at stores being safe and not causing any impact to health even if their radiation level is beyond the restricted amount, and playing outdoors being safe so long as there is no evacuation order, etc. Up until today, the ministry has not rescinded these announcements.⁴⁹

Given the current unsafe situation, the national government should withdraw the existing erroneous announcements and notices, and take responsibility to move to provide accurate radiation protection, information and education in educational, medical and governmental settings.

In addition, we request the following measures to be taken:

- 2) For all areas with an exposure level greater than 1mSv/ year, dosimeters should be provided at public expense to all children of middle school age and younger as well as to all pregnant women in order to manage total radiation dosage individually.
- 3) During times when the radiation dosage is high, the government should issue a notice to, refrain from any outdoor activities at school events.
- 4) Measures such as allowing students to go to a school with low radiation dosage outside their school zone should be taken in accordance with the actual radiation dosage.⁵⁰

(5) Regarding Internal Exposure and Health Study

According to the estimated calculation by SPEEDI, a cumulative internal exposure dosage of 100mSv equivalent dose (one year olds, for thyroid gland) or greater has been simulated over a wide area of Fukushima Prefecture since March 12^{th 51}. There seems to be a serious danger of internal exposure.

Currently, Fukushima Prefecture is conducting "Prefectural Health Study Survey," intended for all residents of the prefecture. Though the survey items include internal exposure, its execution speed is extremely slow and does not prioritize children or pregnant women.

Though a conclusive evaluation method for internal exposure has yet to be confirmed internationally, given the foreseeable grave danger, the national government must stand on precautionary principle and take measures protecting residents from health damage as a result of internal exposure.

HRN requests the government to take the following measures:

⁴⁹ http://www.mhlw.go.jp/stf/houdou/2r98520000014hcd-img/2r98520000014hdu.pdf

⁵⁰ It has been pointed out that there have been instances in Minamisoma city of changing school zones to those with higher dosage. Attending schools outside the original zone should be done based on actual condition with accurate radiation monitoring.

⁵¹ <u>http://www.nsc.go.jp/mext_speedi/0312-0324_in.pdf</u>

- to set up the necessary number of whole-body counters to conduct measurement of residents' and evacuees' internal exposure dosage for the areas with annual radiation exposure (excluding background radiation) greater than 5mSv/year and subsequently 1mSv/year, with the national government and TEPCO bearing such responsibility;
- to make measurement of children's internal exposure dosage as the first priority; and
- depending on the results, to immediately conduct medical procedures and consider evacuation of residents with serious internal exposure.

(6) Maintaining Safety of Food

After the Fukushima Daiichi nuclear power plant disaster, the government has used expressions like "harmful rumors" as if the currently available food supply has not been contaminated by radiation, and failed to actively prevent such distribution, including through adequate regulation, inspection and information disclosure. This has lead to food safety and wide range of people's health being threatened today.

Rights to food safety need to be protected under Article 25 of the Constitution addressing social rights, and having safe and hazard-free foods is an indispensable condition to such rights. The government must carry out its duty to provide safe foods, prevent distribution of foods that are not safe through regulation and inspection, and instead distribute and provide foods that are contamination-free under international standards.

With regards to contaminated foods, the national government must take measures such as buying them to prevent distribution, and such loss should ultimately be borne by TEPCO.

1) Re-evaluate provisional standards for food and regulate under international standards

This March, the government has immediately set out provisional standards for food in the wake of the Fukushima nuclear plant disaster⁵², but such standards are set unusually low compared to standards set by WHO or other countries.

For example, WHO's standard for radionuclide in drinking water is set at no more than 10Bq/L for I-131, Cs-134 and Cs-137, respectively⁵³, whereas the Japanese standard for ordinary people is set at no more than 300Bq/L for radioactive iodine such as I-131 and no more than 200Bq/L for radioactive cesium, and set at no more than 100Bq/L for infants.⁵⁴ With regards to the level of radioactive cesium in foods consumed by infants, while it is set at no more than

⁵⁴ Handling foods contaminated by radiation, issued by the

⁵² "Handling Radiation Contaminated Foods," issued by the MHLW on March 17, 2011 http://www.mhlw.go.jp/stf/houdou/2r9852000001558e-img/2r9852000001559v.pdf

⁵³ World Health Organization, "Guidelines for Drinking-water Quality, third edition" p. 203 <u>http://whqlibdoc.who.int/publications/2004/9241546387_jpn.pdf</u>

MHLWhttp://www.mhlw.go.jp/stf/houdou/2r9852000001558e-img/2r9852000001559v.pdf

37Bq/kg in Belarus, 40Bq/kg in Ukraine and 40 to 60Bq/kg in Russia⁵⁵, the Japanese provisional standard for vegetables is set at no more than 500Bq/kg for radioactive cesium and no more than 2000Bq/kg for radioactive iodine such as I-131, with no restrictive standard for foods consumed by children.

The provisional standards are simply levels set as an interim measure given that there was no domestic legislation regulating foods contaminated by radiation. However, in light of the likelihood for current radioactive material leakage lingering on, immediate implementation of regulatory standards giving due consideration to children becomes essential.⁵⁶

The provisional standard allows for a radioactive cesium level of 200Bq/kg for drinking waters and dairy products, and 500Bq/kg for other food products. This is five times greater than the radioactive waste clearance level⁵⁷ used by the Nuclear Safety Commission of Japan, which set the level by recommendation from ICRP. We take no comfort in our government's stance of consuming foods with contamination five times greater than the existing standard for radioactive waste being safe for residents, particularly families with infants, children and pregnant women.

HRN requests the government to take the following measures:

- to immediately take measures to implement food safety standards suitable for residents. In particular,
- to implement a safe regulatory framework based on international standards to ensure safety, and
- to set stricter standards for infants and children as compared with adults.

In addition, such standard must not be below those set by WHO.

2) Using state-of-the-art technology and implementation of the inspection of all products

Nowadays, regardless of the fact that food contaminated with radiation is an issue, all food products are not being inspected. Despite some areas being subject to high radiation contamination, as long as there is little sampling or sampling that does not target all food ingredients, foodstuffs are not being thoroughly inspected and it is not possible to prevent the circulation of highly contaminated food products. Also, in inspection results, the presence of

⁵⁵ Environmental Consequences of the Chernobyl Accident and Their Remediation: Twenty years of experience, IAEA (2006) P71

⁵⁶ Sankei Shinbun "The provisional standard, possibility for reduction for children"

http://sankei.jp.msn.com/life/news/110721/trd11072122470032-n1.htm

⁵⁷ Radioactive waste related – Regarding clearance level (the Nuclear Safety Commission of Japan website) http://www.nsc.go.jp/haiki/page5/050408-2.pdf (p. 4)

Clearance level is a radiation standard used to distinguish "those that need to be treated as radioactive waste" from "those without a need to be treated as radioactive waste." It is determined by the Japanese government with an understanding that impact to human health should not be more than 10μ Sv (or 0.01mSv) per year. According to this standard, waste contaminated by 100Bq/kg(or 0.1Bq/g) of Cs-134 or Cs-137 needs to be disposed as radioactive waste.

alpha particles such as plutonium is not being officially reported nor are they being targeted in the inspection.

HRN is requesting that the government take the following measures:

- the urgent inspection for contamination of seafood as well as the soil and agricultural produce in farms and plantations in all regions of the country, as well as decontamination of the soil in accordance with the results of such inspection, and
- the use of state-of-the-art technology and the establishment of a system of inspection of all products associated with all food ingredients⁵⁸
- 3) School lunches and the supply of safe food to the people living in the affected areas

Special measures are necessary to address the school lunches that are compulsorily fed to children. Ingredients produced in Fukushima prefecture are being used to prepare the lunches in the schools located in that prefecture, but every provider of school lunches should either use a radiation meter and inspect the ingredients independently, or should use ingredients from outside Fukushima prefecture for the preparation of the lunches.

Regarding this issue, in Belarus, one measure to lower the exposure of children in contaminated areas to radiation has been the free supply of non-contaminated lunches to the more-than 200,000 school children and students. We are requesting that the Japanese government consider this measure.⁵⁹

In addition, Article 18 of the law of Belarus' "Law on Social Protection of Citizens Who Suffered from the Chernobyl Nuclear Power Plant Disaster" provides that radiation doses be less than the internationally established radiation standards for those people who decided to remain in areas where the radiation dose is more than 1mSv/year. Also, the same article requires the supply of ingredients with guaranteed nutritional value and that come from outside the affected areas. The Japanese government should be considering this measure.

(7) Medical Indemnification and Health Measures

Including considering the calculation by SPEEDI, the possibility of a short-term internal radiation exposure of no less than 100mSv among people in a wide area in Fukushima is

⁵⁸ Professor Kodama, the head of Tokyo University's Radioisotope Center, stated that, "If we use state-of-the-art technology, we can instantly ascertain the contamination of many food products graphically. Japan's technology in this field is the best in the world. Manufacturers say this can be done in three months, but the government is not hammering out any countermeasures. From here on, rice and seafood problems are probably going to emerge. In order to support food safety, countermeasures of urgently developing up-to-date measuring devices and lining them up to be detected on a production line before each municipal government are needed." http://mainichi.jp/select/science/news/20110808k0000m040085000c.html

⁵⁹ http://www.usa.belembassy.org/eng/chernobyl/consequences_of_the_chernobyl_di

extremely high.⁶⁰ It is also reported that, the workers in charge of handling the disaster were exposed to radiation.

After the Chernobyl disaster, the former Soviet Union and the succeeding governments categorized the people who had been exposed to a short-term radiation dose of 50mSv or a longterm radiation dose exceeding 70mSv as "exposed persons." Persons who have been injured by the radiations or who have been determined to have fallen ill were categorized as "victims." The registration of both "exposed persons" and "victims" in the state epidemiology registry was imposed and medical support and rehabilitation programs were implemented for the benefit of all exposed persons and victims.⁶¹ Also, in Belarus, in order to ensure the health of the residents in contaminated areas, measures to lower the risk of illness were strongly considered. The announced measures included yearly medical examinations, free medical care and convalescence, medicine, drinking water, non-contaminated food, medical support, rehabilitation and convalescence in sanatoriums.⁶² In Ukraine, measures reported to have been implemented in order the reduce radiation affecting children included the participation in summer camps for children during their two-to-three-month summer vacations as well as the supply of noncontaminated food ⁶³

The government should consider these precedents and should put into place certain measures of long-term monitoring as well as long-term measures to reduce the risk of illness for the residents of areas where the radiation dose is no less than 1mSv/year (excluding background radiation). In particular, the healthcare of children should be the focal point of the measures.

Furthermore, it is important to determine as promptly as possible the persons who have been exposed to a short-term radiation dose of 50mSv or a long-term radiation dose exceeding 70mSv as well as those who experienced severe exposure, and provide them with free medical care and rehabilitation.

(8) Measures for Indemnification and the Reconstruction of Living Standards

On August 5, 2011, the Dispute Reconciliation Committee for Nuclear Damage Compensation provided guidelines for compensation. According to the Committee, because the interim guidelines represent the "current apparent picture" of nuclear damage and "under circumstances where damage from the disaster continues to expand, the guidelines indicate certain identifiable categories for which compensation should be provided and their extent." Prompt, fair and suitable compensation should be provided, including for types of damage not yet categorized.

From now on, in order to ensure that the persons who have been exposed to radiation contamination benefit from a prompt recovery and reconstruction of their living standards,

⁶³ Nuclear Safety and the environment Proceedings of the Workshop on restoration strategies for contaminated territories resulting from the Chernobyl accident, European Commission 2000, http://ec.europa.eu/energy/nuclear/studies/doc/other/eur18193.pdf, p. 84

⁶⁰ http://www.nsc.go.jp/mext_speedi/0312-0324_in.pdf

 ⁶¹ <u>http://www.iaea.org/inis/collection/NCLCollectionStore/_Public/33/023/33023269.pdf</u>, p. 83
 ⁶² <u>http://www.usa.belembassy.org/eng/chernobyl/consequences of the chernobyl di</u>

TEPCO must provide immediate compensation, as set forth in the terms of the compensation guidelines. In addition, we reiterate that even outside the evacuation areas, TEPCO should indemnify the residents who decided to evacuate from the areas where the radiation dose exceeds 1mSv/year (excluding background radiation).

However, if we take into account the loss of hometowns and employment, property, manufacturing tools and land as well as the fact that a great number of people suffering from the damage have to rebuild their lives from scratch, the compensation measures set forth in the guidelines are not sufficient. The national government and TEPCO must implement comprehensive compensation measures. Due consideration must be given to the types of losses not categorized in the guidelines.

Together with complete damage indemnification and comprehensive compensation, we are requesting that the government implement comprehensive measures for social support in favor of the people who have sustained damage.

Pursuant to Russia's "Law On Social Protection of Citizens who Suffered in Consequence of the Chernobyl Catastrophe," the residents living in areas where the radiation dose exceeds 1mSv/year, evacuees and persons who have relocated based on their right to evacuate have the right to obtain further compensation in addition to monetary indemnification. This includes compensation for the loss of property such as their home or livestock, delivery of a lump sum after they have moved out, payment for moving costs, preferential employment assistance, and employment support for those who cannot obtain employment and income compensation measures, and other social protection (Articles 10 and 17).

In Ukraine, evacuees and persons who have relocated based on their right to evacuate can also claim compensation for damage caused by the loss of industrial assets (such as residences and other facilities, grains, trees for nuts and fruit), free medical treatment in sanatoriums or mobile treatment centers, yearly medical examinations, free supply of medicine, coverage of the cost of medical treatment during convalescence, supply of resources to rebuild one's living standards, cuts in the cost of water, fuel and electricity, preferential admissions into educational institutions, measures to accelerate the payment of pensions and additional pension amounts.⁶⁴ In Belarus, in order to protect the people who have suffered damage as a result of the nuclear disaster, a system has been established to provide social protection and reconstruction as well as to accelerate pension payments and increase the pension amounts.⁶⁵

In order to restitute completely the living standards of the people affected by the recent nuclear disaster, as a country which respects human rights, the Japanese government must put into place measures for appropriate compensation and comprehensive social support based on the constitution of Japan, international treaties and the Chernobyl disaster precedent.

⁶⁴ "The law of Ukraine on the status and social protection of the citizens who suffered as a result of the Chernobyl catastrophe" (1991)

⁶⁵ <u>http://www.usa.belembassy.org/eng/chernobyl/consequences_of_the_chernobyl_di</u>