



Fukushima nuclear power accidents and human rights remedy through the lens of international human rights law

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Abstract

Since 3/11 in 2011, the Government of Japan has been faced with some recommendations to improve the human rights situation regarding victims of Fukushima nuclear accidents from international human rights bodies which were established on the human rights treaties to which Japan is a State Party. For instance, The Committee on Social and Cultural Rights expressed its concern with the unfulfilled specific needs of disadvantaged and vulnerable groups, such as older persons, persons with disabilities, and women and children, as well as the lack of transparency and disclosure of necessary information regarding the safety of nuclear power installations (2013). The Human Rights Committee on Civil and Political Rights was concerned with the situation on returning to (un)decontaminated areas (2014). Some independent rapporteurs also

visited Japan to research the human rights situation after Fukushima nuclear accident. Especially in his report to the UN Human Rights Council, Special Rapporteur on the right of health, Anand Grover recommended Japan to take some steps to improve the situation regarding the rights of health (2012).

Unfortunately, Japan is not a State Party to any optional protocol which provides for an individual communication procedure. In this situation, at first it is important to ensure that the Government of Japan responds squarely to those recommendations coming from state reporting system and realizes them in good faith. Secondly, it is crucial to explore how to make use of them in the national implementation of international human rights such as lawsuit in Japanese courts.

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I. Introduction

Since 11 March 2011, seven years have passed. Lots of measures to recover and maintain ordinary and peaceful lives for victims of Fukushima nuclear power accidents have been made by Japanese Government and Tokyo Electric Power Company (TEPCO). But now so many people are under evacuation from nuclear radiation and contamination. Some of them made lawsuits nationwide in Japan for remedy of their damage caused by the accidents. In almost cases, issues among national law are focused. However since 2011, the Government of Japan has been faced with some recommendations to improve the human rights situation regarding victims of Fukushima nuclear accidents from international human rights bodies which were established on the human rights treaties to which Japan is a State Party.

This paper views the situation of the damage in Fukushima nuclear disaster through the lens of International Law, especially International Human Rights Law, examining some recommendations by the international human rights bodies.² In addressing this very tough theme, I would like to pick up four points from my angle.

First, regarding nuclear disaster victims, what provisions in respect of human rights or protection of human beings are there in International Law? Secondly,

how broad and lasting is the situation of the damage in Fukushima nuclear accidents now? Thirdly, what human rights violations have been addressed in context of Fukushima nuclear victims especially by international human rights bodies? Lastly, what should we do to make use of those findings of the bodies to improve the situation of Fukushima nuclear victims?

II. International Law and Nuclear disaster victims

In international law in general we do not see a lot of provisions on protection of the nuclear disaster victims. In international nuclear law, we find some treaties on nuclear accidents. The 1994 Convention on Nuclear Safety provides in its Article 16 (2):

Each Contracting Party shall take the appropriate steps to ensure that, insofar as they are likely to be affected by a radiological emergency, its own population and the competent authorities of the States in the vicinity of the nuclear installation are provided with appropriate information for emergency planning and response.

This provision seems to be related to the rights to information for nuclear disaster victims. But it is not specific about

² This paper is based on my presentation at an international congress held on 14 - 17 September 2017 at University of Basel. This congress entitled "Human Rights, Future Generations and Crimes in the Nuclear Age" was organized by PSR/IPPNW Schweiz, IALANA, SAFNA et als., and adopted its final declaration (Basel Declaration on human rights and trans-generational crimes resulting from nuclear weapons and nuclear energy). For the declaration of the congress, see <https://www.events-swiss-ippnw.org/> and annex of this paper.

“appropriate steps” or “appropriate information”. So we cannot find here full protection in respect of the rights to information for individuals concerned.

The 1986 Convention on Early Notification of a Nuclear Accident has also a provision about information to be provided (Article 5). But in its paragraph 3 “Information received... may be used without restriction, except when such information is provided in confidence by the notifying State Party.” This means there is room for confidential information about nuclear accidents. So it does not ensure the rights to information fully.

The 1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency puts on the States Parties the obligation to cooperate between themselves and with the IAEA to facilitate prompt assistance in the event of a nuclear accident “to minimize its consequences and to protect life, property and the environment from the effects of radioactive releases” (Article 1(1)). But it does not provide the treatment of nuclear victims no more in detail.

We also see some treaties on civil liabilities for nuclear damages. Some common features among them, such as absolute liability of the operator for nuclear damage or indiscriminate application of those treaties based upon nationality, domicile or residence, are favor of nuclear

disaster victims.³ But jurisdiction is limited to the courts belong to the states where nuclear accidents happened.⁴ And “the nature, form and extent of the compensation, as well as the equitable distribution thereof,” are under the law of the competent court⁵. According to those elements, the regime of civil liabilities for nuclear damages under international law is depending upon national laws of the states concerned. Then it is not necessarily concluded that the regime of civil liabilities has a decisive role in the remedy of human rights of nuclear disasters victims.

Besides, we know there exist some rules on protection of refugees or internally displaced persons. Especially the Guiding Principles on Internal Displacement was adopted by the UN Commission on Human Rights in 1998.⁶ This instrument does not have a binding force but is intended to “identify rights and guarantees relevant to the protection of persons from forced displacement and to their protection and assistance during displacement as well as during return or resettlement and reintegration”.⁷ According to its definition of the internally displaced persons, the principles undoubtedly apply to nuclear disasters victims, or people evacuated from the contaminated areas. The instrument confirms that the principles reflect and are consistent with international human rights law and international humanitarian law.⁸

³ See for instance Art. 4 (1) and 13 (1) of the 1963 Vienna Convention on Civil Liability for Nuclear Damage.

⁴ See also Art. 11.

⁵ See also Art. 8.

⁶ See *Guiding Principles on Internal Displacement*, E/CN.4/1998/53/Add.

⁷ *Ibid.*, p. 5, para. 1.

⁸ *Ibid.*, p. 5, para. 3.

Therefore in order to find binding principles and rules on remedy of human rights for nuclear disaster victims we must examine the field of international human rights law at least in peace time. At last, we have arrived at the International Human Rights Law.

Before that, we should not ignore the development of principles and rules on the protection of human beings in natural disasters. In 2016 the International Law Commission adopted “Draft articles on the protection of persons in the event of disasters” and decided to recommend to the UN General Assembly the elaboration of a convention on the basis of the draft articles on the protection of persons in the event of disasters.⁹ Now this topic is under consideration.¹⁰

III. The situation of the damage in Fukushima nuclear accident

To begin with, I would like confirm the situation of the damage in Fukushima nuclear accident by introducing some relevant figures.

It has been just about seven years since the Great East Japan Earthquake and Fukushima nuclear accident occurred in 2011. The Fukushima Dai-ichi Nuclear Power Plant accident is considered as “Level 7 (major Accident)” which is the most

serious on the International Nuclear Events Scale (INES).

About 79,000 people are under the nationwide evacuation caused by the Great East Japan Earthquake.¹¹

53,275 persons as of the end of November in 2017 are evacuated in or out of Fukushima Prefecture according to the Fukushima Prefecture Government.¹² This figure related to Fukushima is strongly assumed to be caused by the nuclear accident. Given that effect of the accident is not limited to the Fukushima Prefecture, the number of evacuated persons caused by the accident is supposed to be a little more.

I would like to remind you here of a finding of the 1996 Advisory Opinion by the International Court of Justice (ICJ). The Court held:

The radiation released by a nuclear explosion would affect health, agriculture, natural resources and demography over a very wide area...Ionizing radiation has the potential to damage the future environment, food and marine ecosystem, and to cause genetic defects and illness in future generations.¹³

Of course we should tell the effect of the

⁹ *Official Records of the General Assembly, Seventy-first Session, Supplement No. 10 (A/71/10)*, paras. 43 to 46 and 48.

¹⁰ By resolution 71/141 of 13 December 2016, the General Assembly took note of the draft articles, invited Governments to submit comments on the recommendation by the Commission to elaborate a convention on the basis of the draft articles, and decided to include in the provisional agenda of its seventy-third session, in 2018, an item entitled “Protection of persons in the event of disasters”.

¹¹ Figure as of 13 November 2017, published by Reconstruction Agency on 28 November 2017.

¹² Published by Fukushima Prefectural Government on 4 December 2017, available via <http://www.pref.fukushima.lg.jp/site/portal-english/>, last visited on 5 December 2017.

¹³ See *ICJ Reports 1996*, pp. 243-244, para. 35.

use of nuclear weapons from that of the nuclear accidents. But it is valid that the above mentioned paragraph of the Opinion applies to the effect of nuclear accidents.

I have four points.

First of all, the effect of nuclear accidents and its damage covers a very wide area. In the case of the Fukushima nuclear accident, the area under evacuation order as of June 2011 covered about 1,100 square kilometers.

Second feature is the incredible longevity and continuity of the damage. According to the June 2011 press release of the Nuclear and Industrial Safety Agency, the total amount of radioactive substances discharged by the Fukushima Dai-ichi Nuclear Power Plant accident into the air is estimated at 770,000 terabecquerels (10^{12}). According to the October 2011 press release of the Japan Atomic Energy Agency, estimated total amount of radiation discharged by the Fukushima Dai-ichi Nuclear Power Plant accident into the sea, including radiation fallout, was 15 quadrillion (10^{15}) becquerels. Decontamination work is going on now. But it is difficult to find the completion of that work in the foreseeable future.

So those features lead us to the third one of the damage. It is comprehensiveness and diversity. The effect of nuclear accident covers all aspect of each victim's life. Nuclear victims face the risk of lost. They have lost their families, land, home, workplace, health, safety of food, their community, and were forced to flee to other

areas. And men, women, children, elder people, persons with disabilities, and foreign people etc. are affected. Maybe environment itself is also a victim.

Lastly we should affirm the unpredictability of the damage. As you know, the damage of radiation appears on health in later stage. Now it is under the course of appearance. We need to observe the medical condition of nuclear victims carefully for long time.

Against those features of the damage, we need to make it clear what human rights of Fukushima nuclear disaster victims are violated and how they should be remedied.

IV. Human Rights Violation in Fukushima Nuclear Disaster from viewpoint of Some International Human Rights Bodies

A. The Grover Report (2013)

Then what human rights violations have been addressed in context of Fukushima nuclear victims especially by international human rights bodies?

Japan is now a state party to some treaties regarding international human rights and now also a member of the UN Human Rights Council. The situation of human rights in Japan including that of Fukushima nuclear victims is supposed to be observed from those international human rights standards.

In 2013 the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health issued a report on the base of

¹⁴ See *Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, Anand Grover*, UN Doc. A/HRC/23/41/Add.3

his mission to Japan.¹⁴ The Special Rapporteur, Mr. Anand Grover, visited Japan from 15 to 26 November 2012. During the visit, he ascertained the country's endeavors to implement the right to health, and in particular considered the issues relating to the realization of the right to health in the wake of the nuclear accident at the Fukushima Dai-ichi nuclear power plant 11 March 2011, the events leading up to it, and emergency response, recovery and mitigation. In the report, the Special Rapporteur commended Japan for some steps taken and its commitment to the realization of the right to health. But the report encouraged the Government of Japan to address a number of serious challenges and to consider particular areas for improvements in order to realize that right fully. With a view to facilitating that endeavor, he made a number of recommendations for the Government of Japan. This is the first fact-finding report on the situation of nuclear disaster victims in Japan after Fukushima nuclear accident in viewpoint from international human rights standard in the UN.

The recommendations by the Special Rapporteur cover the following fields relating to the situation of Fukushima nuclear victims. There are seven fields.

- formulation and implementation of its nuclear emergency response system
- health monitoring of the affected population
- policies and information on radiation doses
- decontamination

- transparency and accountability within the regulatory framework
- compensation and relief
- effective community participation in all aspects of the decision-making processes relating to nuclear energy policy and the nuclear regulatory framework

Besides, there are some implementation procedures of the standards established under the international human rights treaties: the state reporting system, the inter-state complaints procedure, and the individual communication procedure. The latter two procedures are not necessarily compulsory. Japan accepted the former one system, and rejected the latter two procedures. Then only through the state reporting system, we can review whether Japan respects the human rights in context of Fukushima nuclear disaster. I would like to pick up here three reports of Japan after Fukushima accidents.

B. CESCR's Observations (2013)

Since 2011, some human rights bodies have issued the Concluding Observations related to the States Party's Reports of Japan. They expressed their concerns about the situation of Fukushima nuclear victims and recommended Japan to take some steps to improve it.

In 2013, the Committee on Economic, Social and Cultural Rights (CESCR) adopted its concluding observations where the Committee said:

24. Noting the complexity of relief response to the consequences of the

Great East Japan Earthquake and the Fukushima nuclear accident, the Committee is concerned that the specific needs of disadvantaged and vulnerable groups, such as older persons, persons with disabilities, and women and children, were not sufficiently met during the evacuation and in the rehabilitation and reconstruction efforts (art. 11, 2(2)).

Noting that the lessons learned from the consequences of the Great East Japan Earthquake and the Fukushima nuclear accident have led to the adoption of new arrangements to better respond to the needs of affected communities, including vulnerable groups, in future relief and reconstruction efforts, the Committee recommends that the State party adopt a human rights-based approach to disaster response, risk mitigation and reconstruction efforts. In particular, the Committee recommends that the State party ensure that disaster management plans do not discriminate or lead to discrimination in the enjoyment of economic, social and cultural rights.

The Committee requests the State party to provide in its next periodic report comprehensive information,

including statistical data disaggregated by sex and vulnerable group, on the management of the consequences of the Great East Japan Earthquake and the Fukushima nuclear accident as well as on victims' enjoyment of economic, social and cultural rights during the evacuation and in the rehabilitation and reconstruction works. The Committee also requests the State party to include information on how victims' right to justice has been guaranteed.¹⁵

And in its para. 25, the Committee recommended that Japan should implement the recommendations of the Grover's Report.

25. The Committee reiterates its concern about the lack of transparency and disclosure of necessary information regarding the safety of nuclear power installations and at the insufficient nationwide community preparation for the prevention and handling of nuclear accidents, which, in the case of the Fukushima nuclear accident, has led to negative impact on the enjoyment of economic, social and cultural rights of victims (arts. 11 and 12).

The Committee recommends, once

¹⁵ See *Concluding observations on the third periodic report of Japan*, adopted by the Committee at its fiftieth session (29 April-17 May 2013), E/C.12/JPN/CO/3, p. 6, para. 24.

again, that the State party increase transparency on issues relating to the safety of nuclear power installations and step up its preparedness to nuclear accidents. In particular, the Committee urges the State party to provide the population with comprehensive, credible and accurate information on potential hazards, preventive measures and response plans, and to ensure prompt disclosure of all information when disasters occur.

The Committee encourages the State party to implement the recommendations of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health from his recent visit to the State party.¹⁶

C. CCPR's Observations (2014)

In 2014 the Human Rights Committee (CCPR) established under the International Covenant on Civil and Political Rights considered the state party's report of Japan. Its concerns and recommendations are below:

Fukushima nuclear disaster

24. The Committee is concerned that the high threshold of exposure level set by the State party in Fukushima and the decision to

cancel some of the evacuation areas give people no choice but to return to highly contaminated areas (arts. 6, 12 and 19).

The State party should take all the necessary measures to protect the life of the people affected by the nuclear disaster in Fukushima and lift the designation of contaminated locations as evacuation areas only where the radiation level does not place the residents at risk. The State party should monitor the levels of radiation and disclose that information to the people affected in a timely manner.¹⁷

The Committee concerned about the returning policy that violated the right to life, the right to move and the right to speech.

D. CEDAW's Observations (2016)

In 2016 the Committee on the Elimination of Discrimination against Women (CEDAW) established under the Convention on the Elimination of All Forms of Discrimination against Women issued its concluding observations on the report of Japan. The Committee concerned the health status of evacuated persons and women, and recommended the following.

Health

36. The Committee notes the efforts

¹⁶ *Ibid.*, pp. 6-7, para. 25.

¹⁷ See *Concluding observations on the sixth periodic report of Japan*, CCPR/C/JPN/CO/6, p. 8, para. 24.

made by the State party to address health concerns related to radiation following the Fukushima Dai-Chi Nuclear Power Plant accident in 2011. The Committee, however, notes with concern the State party's plans to lift the designation as evacuation zones of contaminated areas with radiation exposure levels under 20 millisieverts per year, which may have a disproportionate effect on the health of women and girls.

37. The Committee recommends that the State party reaffirm that the lifting of designation of places as evacuation zones of contaminated areas with radiation exposure is consistent with internationally accepted knowledge on risk factors for women and girls considering that women are more sensitive to radiation than men. It further recommends that the State party intensify the provision of medical and other services to women and girls affected by radiation, in particular pregnant women in the Fukushima Prefecture.

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Disaster risk reduction and management

44. The Committee commends the State party for its leadership in disaster risk reduction and management and its contribution to

global efforts to adopt the Sendai Framework for Disaster Risk Reduction 2015-2030. The committee also commends the State party for mainstreaming gender perspectives into its policies on disaster risk reduction, and the adoption of a national Basic Disaster Management Plan. However, the Committee is concerned at the low participation of women in leadership roles in the area of disaster risk reduction and management at the national and local level following the Great East Japan earthquake in 2011.

45. The Committee recommends that the State party accelerate the participation of women in decision-making and recovery processes related to disasters at all levels, in particular at the local level. It should also continue its efforts aimed at integrating a gender perspective into all sustainable development policies, as well as into disaster risk reduction and post-disaster management.¹⁸

Among those recommendations by the Special Rapporteur and the Committees, there are some common features that we should notice. Those points reflect the current problematic aspects of the situation of Fukushima nuclear victims. I find three aspects here.

¹⁸ See *Concluding observations on the combined seventh and eighth periodic reports of Japan*, CEDAW/C/JPN/CO/7-8, p. 11, paras. 36-37 and pp. 12-13, paras. 44-45.

First whether the policy of lifting evacuation and return is appropriate or not is in issue. Despite CCPR and CEDAW concerned, Japan carried out its plans to lift the designation as evacuation zones of contaminated areas with radiation exposure levels under 20 millisieverts per year.

Secondly, as the Special Rapporteur and CCPR suggested, dissemination of information and findings about effect of radiation exposure is critical. It is important for Fukushima nuclear disaster victims to get sound knowledge on its risk in order that they can enjoy the right to health fully. Ordinary people do not know about what to know about radiation. As we know, the risk of radiation has uncertainty and unpredictability in a short term. Therefore access to information of radiation should be ensured while people affected are not necessarily insightful on that problem. Experts need to explain the risk standing on the side of those ordinary people. And the Government should do promote education about radiation risk more sincerely.

Lastly, as the Special Rapporteur demanded and CEDAW suggested, the Government has to ensure the participation of the victims into a decision making process relating to nuclear energy policy and the nuclear regulatory framework. The Government of Japan now plans to restart nuclear reactors step by step. But as the Grover Report said, “a risk-benefit analysis

is not in consonance with the right to health framework, as it gives precedence to collective interests over individual rights.”¹⁹

It is the case not only with the right to health but also most of all human rights. Now Japan is in the course of economic recovery from the East Japan Great Earthquake and Fukushima nuclear accidents. 2020 Tokyo Olympic is also driving it rapidly. Human-rights-first thinking should be established in that course.

V. Conclusion

Beside those pointed in the concerns and recommendations, there are many other problems to be resolved around the situation of Fukushima nuclear victims. Against this background what should we do to make use of those findings by the international human rights bodies or in the international human rights procedures?

At first, we can explore the way to make use of those recommendations in the domestic litigations. Provisions of treaties concluded by the Government of Japan have legal effect as part of its internal law in accordance with article 98, paragraph 2, of the Constitution of Japan. Whether or not to apply directly provisions of treaties is determined in each specific situation, taking into consideration the purpose, meaning and wording of the provisions concerned.²⁰ Therefore in Japanese domestic courts there is a little case where direct application or

¹⁹ See *Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, Anand Grover, Addendum, A/HRC/23/41/Add.3*, p. 16, para. 47.

²⁰ See *Fourth periodic reports of Japan to the Human Rights committee*, 16 June 1997, CCPR/C/115/Add.3, p. 4, para. 9.

self-execution of international human rights treaties is endorsed. But since the Constitution is interpreted as covering the same range as international human rights instruments in almost case, we can insist on invalidity of laws and administrative measures as they infringe human rights unconstitutionally by referring international human rights treaties or those human rights bodies' recommendations. Let me be clear. We can use international human rights bodies' recommendations as instruments of interpretation of the constitution. But in practice, we do not see so many such cases in litigations regarding Fukushima nuclear victims.

Secondly, it is needed for the government of Japan to respond to those recommendations sincerely. Despite the recommendations do not have binding force, they are authoritative interpretation and application of the relevant provisions in the international human rights treaties to which Japan is a state party. Then Japan has accountability for those recommendations. Fukushima nuclear victims and Civil Society organizations can demand the government to take such necessary steps as legislation or other administrative measures to give effect to the rights about which the human rights bodies expressed their concerns.

Last but not least, Civil societies can monitor this intercourse between the government of Japan and the international human rights bodies, so called "constructive dialogue", and participate in that dialogue by submitting their own counter reports to the bodies. Beside the international human

rights bodies I mentioned here, Japan is also a state party to other human rights treaties regarding children, persons with disabilities and so on. In those treaties the state reporting systems are available. And other Special Rapporteur' visit like Mr. Grover is also available. Japan issued a standing invitation on 1 March 2011. By this invitation Japan always accept requests to visit from all special procedures. Through these procedure, civil societies or human rights NGOs can put it on the table how grave and sever the situation of Fukushima nuclear victims is.

Those international and domestic implementation of international human rights standards are critical to improve the situation of Fukushima nuclear victims and to remedy their human rights. We need to explore the role of international human rights law and its implement procedures more than ever.

Annex

Basel Declaration on human rights and trans-generational crimes resulting from nuclear weapons and nuclear energy

The participants in the international conference Human Rights, Future Generations and Crimes in the Nuclear Age, held in Basel from September 14-17, 2017, affirm that the risks and impacts of nuclear weapons, depleted uranium weapons and nuclear energy, which are both transnational and trans-generational, constitute a violation of human rights, a transgression of international humanitarian and environmental law, and a crime against future generations.

We are convinced that the energy needs of all countries can be met by safe, sustainable, renewable energies, and that the security of all countries can be met without reliance on nuclear weapons. Our conclusions are based on the following;

On Uranium mining

- Uranium mining and enrichment, which provide the fuel for nuclear energy, release long-lasting and highly toxic radionuclides into the environment causing severe impact on the health of current and future generations exposed to the radiation;
- The nuclear fuel chain, especially uranium enrichment and plutonium reprocessing, provide possibilities for countries with these technologies to also produce nuclear weapons, creating additional threats to current and future generations.
- Finally, the financial prospects of uranium mining in the intermediate and long term future seem questionable at best, considering the existing downtrend in utilization of nuclear energy. Subsequently Governments may seriously consider ceasing the exploration of uranium.

On nuclear energy

- Along the chain of production, regular use and waste management of nuclear

fuel for energy generation as well as after nuclear power plant accidents huge amounts of radioactive isotopes are released into the biosphere. Severe health effects as cancer and non-cancer diseases have been demonstrated in populations exposed. In particular resulting genetic changes impact on the health of current and future generations. Modern studies on low dose ionizing radiation (LDIR) corroborate the Linear No Threshold [LNT] concept. Scientifically based understanding calls for acceptance of risk estimations at doses as low as 1 mSv. ICRP-recommendations must be revised as they are outdated one decade after their effective date.

- Many nuclear power plants, particularly in Europe, are located in regions of high population density;
- Any nuclear disaster has cross border effects affecting population of several countries, and would be an infringement of international law requiring states to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states.
- The 2015 Sendai United Nations declaration recognized that accountability for disaster risk creation is needed at all levels. Furthermore, all human rights need to be promoted and protected in any disaster situation, including man made hazards and

technological risks;

- The exorbitantly high costs of nuclear energy production and management (including waste storage) make it an inappropriate investment as compared to renewable energies;
- Nuclear disasters like those at Mayak, Three Mile Island, Sellafield, Chernobyl and Fukushima, release massive quantities of radionuclides into the environment impacting on the health of current and future generations;
- Nuclear power plants, in operation and after their dismantlement, generate huge amounts of radioactive waste, which is dangerous for thousands of years, even longer than any known civilization has lasted. The question of safe long-term storage of radioactive waste over centuries has not been answered so far.

On nuclear weapons

- The use and testing of nuclear weapons has generated severe, trans-generational damage to health and the environment of those in the vicinity of the detonations and also to humanity as a whole;
- Recent research, highlighted by the series of international conferences on the humanitarian impact of nuclear weapons, indicates that any use of nuclear weapons on a populated area

would cause disastrous humanitarian and environmental consequences, and any multiple use of nuclear weapons would cause catastrophic and irreversible damage to the climate in addition to the radiation and blast impacts;

- We affirm that nuclear deterrence is immoral, illegal and of doubtful value for security. The high risks of nuclear weapons being used in current conflicts such as in North East Asia, in other times of tension, and until nuclear weapons are eliminated provides an imperative for nuclear abolition.
- The financial and human investments in the nuclear arms race are deviating required resources from human, social and environmental needs. This includes promoting education, providing basic universal health care, protecting the climate and implementing the sustainable development goals.

On depleted uranium (DU) weapons

- Epidemiological reports indicate that exposure to depleted uranium has health impacts on those exposed and their offspring;
- Use of uranium for armor plating and piercing projectiles release depleted uranium into the environment, where it will be deposited for thousands of years, causing risks to combatants and non-combatants alike.

On international law applicable to nuclear weapons and energy

In addition to general international law, the following branches, inter alia, are applicable to nuclear weapons and nuclear energy:

- International human rights law protects, in particular, the right to life, the right not to be subject to inhuman or degrading treatment, the right to the highest standard of health and to a healthy environment, the right to an adequate standard of living, including the right to food and water, as well as the freedom of expression and the right to seek and receive information. Moreover, special instruments for particularly vulnerable groups, such as women, children, indigenous peoples or persons with disabilities, have been adopted and concluded.
- International humanitarian law: This body of law prohibits the use of weapons or methods of warfare that would indiscriminately impact on civilians, cause unnecessary suffering to combatants, violate neutral territories, be disproportionate to the provocation or cause severe, long-term or irreversible damage to the environment.
- The law of peace and security: This body of law, expressed primarily through the UN Charter, prohibits the threat or use of force except in

legitimate self defence.

- Law protecting the environment and future generations: This body of law, expressed in a number of international treaties, provides a responsibility to ensure a sustainable environment for current and future generations, and to prohibit activities which are known to seriously threaten this. There is also a legal responsibility to prevent and protect the public from exposure to harm, when scientific investigation has found a plausible risk.

The production of nuclear energy violates human rights law and international law protecting the environment and future generations due to the impacts of nuclear energy on human health and the environment as outlined above.

The production, threat and use of nuclear weapons violate all four bodies of law outlined above. As such, we agree with the conclusion of the International Court of Justice that ‘the destructive impact of nuclear weapons cannot be contained in time or space’ and with the affirmation of the Treaty on the Prohibition of Nuclear Weapons that ‘any use of nuclear weapons would be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of international humanitarian law.’ More-over, it would constitute an ecocide.

On rights and responsibilities under the law

- We call for full redress for all people whose health, well-being or livelihoods have been negatively impacted by uranium mining, nuclear energy and nuclear weapons;
- We welcome the provision in the Treaty on the Prohibition of Nuclear Weapons on victim assistance and environmental remediation and call for its full implementation;
- We appeal to all those in the nuclear weapons and energy industries and administering government departments to recognize the illegality of the production of nuclear weapons and energy, and to cease such activities;
- We welcome the conclusions of the International Peoples' Tribunal on Nuclear Weapons and the Destruction of Human Civilisation. held on July 7-9, 2016, that convicted (in absentia) the leaders of the nuclear-armed States (and one of the allied States as a test case) for war crimes, crimes against humanity, crimes against peace, crimes against future generations and crimes of threatening, planning and preparing acts which would constitute ecocide, which is understood as causing serious damage to, or destruction, of an ecosystem or ecosystems, or of causing serious, long-term or irreversible damage to the global commons.
- We welcome the fact that the majority of countries neither produce nuclear energy nor possess nuclear weapons, and we call on all other countries to join them.
- We welcome the establishment of the International Renewable Energy Agency, which provides assistance to countries to develop renewable energies, and we highlight it's 2016 Report REthinking Energy: Renewable Energy and Climate Change which demonstrates the possibilities to completely replace fossil fuels by safe renewable energies, without relying on nuclear energy, by 2030.
- We commend the 184 countries who have joined the Non-Proliferation Treaty as non-nuclear States and the 122 countries who voted in favour of the Treaty on the Prohibition of Nuclear Weapons which also prohibits the threat or use of nuclear weapons. We call on all countries to agree to the prohibition and elimination of nuclear weapons and to adopt, at the 2018 UN High Level Conference on Disarmament, a framework to implement this.
- We call on all countries utilizing nuclear energy to announce a program for phasing out their use of nuclear energy and replacing it with renewable energy sources.
- Finally, as doctors, lawyers, scientists and nuclear experts from 27 countries we consider it as our moral duty to

highlight the facts regarding nuclear energy and weapons, and promote a safe, sustainable and peaceful future for humanity and our planet consistent with human rights and the rights of future generations.

As such we make the following proposals:

1. All countries at the United Nations shall promote human rights, the rights of future generations, and the legal requirements to phase out nuclear energy and nuclear weapons. We support the initiatives that Switzerland has taken to phase out nuclear energy domestically and to prohibit nuclear weapons globally, and we encourage Switzerland to take further efforts at the United Nations to prohibit all aspects of the nuclear energy and weapons industries.
2. The Linear No Threshold [LNT] concept and collective dose-calculations allow extrapolations of health risks in large populations exposed to low doses of ionizing radiation. Current scientifically based understanding calls for acceptance of risk estimations at doses as low as 1 mSv and therefore asks for a revision of the ICRP-recommendations, which are outdated one decade after their effective date.
3. Violations of human rights by ionizing radiation sources must be documented epidemiologically. In this regard medical standards for compensation of victims have to be established. Companies / people found to violate the rights of the concerned workers must be held responsible by national and international courts. Everyone has the right to seek and receive information. Victims must be compensated.
4. The employment of nuclear weapons, as well as indiscriminate damage to health and to the environment resulting from other nuclear activities, should be included as a crime against humanity under the Rome Statute of the International Criminal Court. We also call for amendment of the Rome Statute to include the crime of ecocide.
5. Young people and students need to be alerted to the relation between « Nuclear energy / nuclear weapons – Violations of human rights – Rights of future generations. Their human rights are endangered and therefore they need to become active and encouraged to have their current and future interests respected. Law and medical faculties are encouraged to consider teaching on human rights in their corresponding curricula, in general but also in the mentioned context of the ‘Nuclear fuel chain’, and this also in view of the rights of future generations.
6. The 28 May 1959 agreement between the World Health organization and the IAEA, which leads to conflict of interest and limits the free information on health consequences of nuclear civil use, must be abolished
7. The participants of the Symposium ‘Human Rights, Future Generations and Crimes in the Nuclear Age’ are ready to share these demands and communicate them to decision makers in other countries.