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Recommendations on human rights and medical management in nuclear disasters

Following the International Symposium on Legal and medical Aspects of Nuclear Disaster and Human Rights organized at Waseda University (Tokyo, Japan) by the International Center for Comparative Law (Limoges, France) and the Waseda University Institute of Comparative Law, on 14 and 15 October 2014, the following recommendations were adopted for transmission to the 3rd World Conference of the United Nations Disaster Risk Reduction to be held in Sendai (Japan) 14 - 18 March 2015.

Considering that:

1. Nuclear disasters unfortunately are no longer considered hypothetical, on the contrary disasters in aging Nuclear power plants (NPP) are more likely.
2. Of the 440 nuclear power plants (NPPs) in 28 countries many are located in regions of high population density.
3. Any nuclear disaster has cross-border effects affecting several countries, particularly in Europe.
4. Implementing safety and security measures as e.g. after the Fukushima disaster does not lead to zero risk given the multiplicity and diversity of possible causes of accidents (technical malfunctions, human error, aging facilities, fire, natural risks, exceptional weather events, terrorism, plane crashes).
5. In a nuclear disaster the possibility of the simultaneous occurrence of a natural disaster must be taken into account and vice versa.
6. Nuclear disasters are very complex and not comparable to other types of natural or technological disasters because of their magnitude, the serious environmental consequences by the associated radioactive contamination (large diversity of released invisible, odorless and long lasting radionuclides), and the consequences for human health of present and future generations. Due to possibly high radiation levels at the site of the accident, emergency measures are always difficult to implement and may be also influenced by the regional topography and the meteorological situation
7. In no case should the search for profitability outweigh safety.
8. The management measures after a nuclear disaster should not be made to reassure people or give confidence to the public, but rather to meet the obligation for States to ensure public safety effectively while respecting human rights.
9. Because after nuclear disasters there is a high risk for genetical damage in future generations, careful health follow-up particularly of children is mandatory and special precautionary measures and continued monitoring of radioactivity by laboratories, independent from nuclear energy providers and public authority, are suggested.
10. The current international and national legal framework does not address fully and adequately the measures to take in relation to human rights before, during and after the nuclear disaster to effectively limit the consequences for health and the environment.

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11. Beyond the law, the nuclear risks humanity is faced with, represent a serious ethical problem as well as a question of survival.

And noting that:

1. The current legal framework is not based on a "human rights" approach. Under international law, such an approach should be applied to all states even in the case of nuclear disaster, since the right to health and the right to life are non-negotiable rights.
2. The 2014 ENCO report "Review of Current Off-site Nuclear Emergency Preparedness and Response in EU Member States and Neighbouring Countries" prepared for the European Commission makes no mention of human rights in case of a nuclear accident.
3. According to the resolution adopted by the UN Human Rights Council, the promotion and protection of human rights "in relief, rehabilitation and reconstructions efforts [in post-disaster and post-conflict situations]" should focus on the implementation of the human rights "while respecting the humanitarian principles of humanity, impartiality, neutrality and independence" (22/16 resolution of March 21, 2013).
4. The International Law Commission of the United Nations in the draft articles adopted in August 2014 on the protection of people in disasters states in Article 6 that "persons affected by disasters are entitled to respect for their human rights."
5. The Committee on Economic, Social and Cultural Rights in its General Comment No. 14 (2000) on the right to health considers that "improving environmental and industrial hygiene" requires the prevention and reduction of the population's exposure to harmful effects of radiation.
6. The report of December 30, 2013 of the independent expert of the Human Rights Council on the issue of human rights obligations relating to the enjoyment of a safe environment clean, healthy and sustainable environment, John H. Knox, recalled that the Human Rights Committee asked States to describe the measures taken to protect the right to life from the risk of nuclear disaster under the International Covenant on Civil and Political Rights.
7. The International Agency on Atomic Energy Agency (IAEA), in response to the Fukushima accident, pledged during the General Conference in September 2011 to implement the highest standards of nuclear safety, to strengthen and increase the effectiveness of the international legal framework for preparedness and emergency response, and to increase transparency and improve the dissemination of information.

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Taking into consideration the report of May 2, 2013, of Anand Grover, Special Rapporteur on the right to health of the Human Rights Council of the United Nations, following his visit to Fukushima, as well as its 29 recommendations:

Recommends that the 2015 World Conference on Disaster Risk Reduction adopt and / or study the following measures:

I. On an international level:

- 1) Complete and strengthen existing international agreements in the nuclear sector:
 - by introducing a human rights approach in the provisions on emergency measures in case of a nuclear accident: specifically cover rights to life, health, information, nondiscrimination and the rights of vulnerable people. The rights of individuals must be protected fully and indivisible considering both social and cultural and economic rights civil and political rights including the right to a healthy environment.
 - by removing restrictions on information based on confidentiality.
 - by applying the provision of the 1986 Convention on Early Notification of a Nuclear Accident to any accident whatever the cause.
 - by eliminating civil and criminal statutes of limitations for damages resulting from a nuclear accident given the fact that diseases caused radioactive contamination may become apparent more than ten years or thirty years after the fact by affecting future generations genetically.
 - by treating damage to health and the environment resulting from a nuclear incident as a crime against humanity under the Rome Statute of the International Criminal Court.
- 2) Adopt an international agreement transforming the International Commission on Radiological Protection (ICRP) into an official organ of the United Nations, ending the undemocratic system of appointment with a pluralistic composition of elected members ensuring cultural and scientific diversity, improved and transparent administrative and scientific governance and the obligation to declare conflicts of interest.
- 3) Repudiate, terminate or amend the agreement between the WHO and the IAEA on 28 May 1959, which leads to conflicts of interest between international organizations and limits the right to health, which must remain ethically independent of the "Agreement" of an organization that serves to promote nuclear energy.
- 4) Because the 1992 Helsinki Convention on the Transboundary Effects of Industrial Accidents excludes nuclear accidents and radiological emergencies, prepare an international convention or guidelines on the management of nuclear disasters taking into account human rights, not just "international notification" and "assistance" as provided by the 1986 post-Chernobyl conventions.
- 5) Apply in Europe and extend further the principles of the Aarhus and Espoo Conventions, which are relevant to the nuclear sector.
- 6) Make IAEA standards generally mandatory, particularly those on security.
- 7) Transform into an international treaty the Guiding Principles on Internal Displacement following a nuclear or other disaster, taking into account the evacuations of people that are made necessary, often on a large scale.
- 8) Invite the special rapporteurs of the Human Rights Council of the United Nations to conduct joint work on nuclear disasters in general, building on the 2013 report of the Special Rapporteur on the right to health concerning Fukushima.

II. On a national level

- 1) Make the right to health and the protection of future generations a priority in the management of nuclear disasters.

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- 2) Develop and adapt the legal and institutional framework for nuclear disasters to meet the specifics of this type of catastrophic event by introducing the concern for human rights in the management of nuclear disasters.
- 3) Consult government and non-government agencies responsible for the protection of human rights and integrate them in the institutions concerned with prevention, response and recovery in the event of nuclear disaster.
- 4) For all nuclear facilities, establish a local information committee with the participation of civil society and several doctors differing opinions and give this committee an advisory role in preparing the nuclear risk monitoring and management by providing transparency of its proceedings by live video.
- 5) Develop, fully publish and regularly update contingency plans identifying the responsible authorities, evacuation zones and permissible levels of contamination, taking into account that periods of emergency can last several weeks.
- 6) Implement radiological emergency measures whatever the cause of the nuclear accident.
- 7) Make room in documents related to emergency measures in case of a nuclear accident for measures related to fundamental rights:

a) RIGHT TO INFORMATION AND PARTICIPATION

- Information on the levels of radioactivity (in air, soil, food and water) must be made as soon as possible under the responsibility of the operator and government, backed up by measurements made by one or more independent laboratories. The lack of timely information or erroneous information or truncated should be subject to criminal penalties both for the operator that public officials.
- Organize the right of whistleblowers and protection.
- The information must be given continuously throughout the crisis using current technologies such as SPEEDI.
- The classic warning by siren coupled with an automatic phone alert.
- Establish an instant smartphone application to guide people to be evacuated taking into account the real-time measurement of the cloud or radioactive emanations and the current weather.
- Provide the public with personal dosimeters for individuals to independently decide to evacuate in case of absence of organized evacuation instructions.
- Data radioactivity measurements must be made accessible to the public in their raw form.
- Organize effective public participation, in particular vulnerable groups, throughout the decision-making process concerning evacuation, dose limits, health checks and settlement of compensation.

b) RIGHT TO GO AND COME

- Evacuation zones cannot follow the path of concentric circles and they should take into account hot spots.

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- Because evacuation is inevitable, its trigger conditions must be clearly planned and widely disseminated in the media and individually before disaster occurs.
- Evacuation of pets and livestock should be anticipated and planned for.
- The immediate zone should be at least 10km; the next area should be 50km.
- Confinement of people during the crisis phase should be of very short duration in the case of preventive non-evacuation.
- Precautionary evacuation should be preferred to crisis evacuation.
- Spontaneous evacuation should be preferred.
- Forced evacuation schemes are possible but must be prepared rigorously (population census, transport requisitions, priority for the vulnerable, shelters far from the disaster site (over 60km)).
- The evacuation of vulnerable people (hospitals, nursing homes and the disabled) should be subject to special treatment.
- Evacuation of transients and tourists must be taken into consideration.
- Public authorities should not allow people to return unless the level of contamination is again less than 1 mSv. per year.
- Evacuation should be planned along railways and roads used by convoys of nuclear materials or radioactive waste.
- The right to be relocated for people forced to evacuate, using social protection tools (vacant public housing and work as instance, respecting non-discrimination).
- Displaced people are provided assistance in order to maintain and restore their community and social relations, considering their importance.

c) RIGHT TO HEALTH

- Measurements of radiation must be performed by organizations without a conflict of interest and be validated by independent laboratories.
- A test for sensitivity to iodine should be required.
- Systematic distribution of stable iodine tablets for children, adolescents and pregnant women as of the pre-alert, whatever the level of contamination.
- Distribution to adults and ingestion on demand.
- Dose limit triggering the evacuation as a precaution should be 5mSv.per year. It should take into account, as soon as possible, all kinds of radio isotope elements.
- Regular medical monitoring and epidemiological measures.
- Monitoring internal radiation using a human radiation spectrometer.
- Special measures for vulnerable people: children, adolescents, pregnant women, elderly, disabled.
- Do not limit health screening of children to the thyroid gland only.
- Prepare and distribute a list of diseases related to nuclear accidents.
- Disseminate research on the harmful effects of low doses.
- Organize ongoing psychological follow-up for victims and displaced persons.
- Medical follow-ups should be the direct responsibility of the operator.
- Recall the basic principle of "first do no harm."
- Duty of public authorities to avoid overexposure of accidental irradiation of victims.

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- Health protection should be prioritized over economic interests by avoiding benefit risk analysis for implementation of the right to health regarding nuclear disaster including for evacuation.
- When an abnormal change of radiation in the environment is detected, States have a duty to notify and/or evacuate the affected population even in advance of a presumed nuclear accident

d) RIGHT TO ADEQUATE HOUSING

- Limit the length of time in temporary accommodation.
- Provide decent housing for the long-term, with priority for social housing.

e) RIGHT TO HEALTHY EATING

- Healthy eating zones cannot follow the path of concentric circles and should take into account hot spots.
- A precautionary ban on agriculture, livestock and fishing in the contaminated area regardless of distance.
- Prohibit fishing in areas of territorial seas exposed to releases.
- Impartial radiation testing of food.
- During and after a disaster, according to the non-regression principle, States should not weaken protection standards including ones related to food.
- Unsafe products should not reach consumer markets and the precautionary rule should apply to prevent contaminated products from being placed or kept on consumer markets. It is the responsibility of economic operators or, by default, of the competent public authorities, to recall or withdraw contaminated products.

f) RIGHT TO A HEALTHY ENVIRONMENT

- Provide a special plan of systematic decontamination of buildings, land in rural and urban areas, and urban vegetation to reduce contamination to a level resulting in a dose less than 1 mSv.per year.
- Activate this plan after the accident, under the responsibility of the operator, in a zone of 60 km surrounding the accident site.
- Consolidation, storage and management of radioactive waste collected in a dedicated, appropriate and controlled site.
- Conduct radioactivity testing in groundwater and marine waters.
- Conduct testing of ionizing radiation on flora and fauna.

g) RIGHT TO WORK

- Permanent and individual health checks for employees and unskilled workers, subcontractor workers and emergency workers involved in responding to the accident or collecting and treating waste from the accident.
- Intervention of emergency response or clean-up workers in areas at high risk of radiation on a voluntary basis, only after they have been given information from more than one independent source on the radiation risks involved.

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- Special measures for hiring and ranking of displaced persons at the place to which they have been evacuated, whether they chose or were forced to evacuate.

h) RIGHT TO EDUCATION

- Provide in school books and education programs data on radiation risks and the risk of accidents without hiding the greater vulnerability of children and adolescents.
- Facilitate and organize the continuation of education of children and adolescents at evacuation sites.
- Disseminate widely scientific research on the effects of ionizing radiation on human health, flora and fauna.

i) RIGHTS TO JUSTICE AND REMEDIES

- Access to civil and criminal justice must be ensured for individuals and groups.
- Reparations for tangible, material, economic, social and environmental damage shall be secured in a timely manner and provided by the State provisionally before settlement of issues of liability between the State and the responsible party.
- In case of compulsory long term resettlement of populations, expropriation of real property should be required, with compensation.
- Testimony of victims of ionizing radiation who are likely to die should be taken as possible to preserve evidence for trial.

j) RIGHTS AND REMEDIES TO REPAIR ECOLOGICAL DAMAGE

- Access to justice must be ensured for all public bodies as well as for foundations and associations involved in protection of the environment and nature.
- Damages to ecosystem structure and functions are an objective injury. They must be assessed impartially.
- Preventive measures must be implemented to prevent potential ecological damage.
- Repair of ecological damage shall be secured in a timely manner. It has to be done primarily in kind.