



人权理事会

第二十四届会议

议程项目 3

增进和保护所有人权——公民权利、政治权利、
经济、社会和文化权利，包括发展权

危险物质及废料的无害环境管理和处置对人权的影响问题 特别报告员卡林·杰奥尔杰斯库的报告

增编

对匈牙利的访问(2012 年 10 月 4 日至 11 日)* **

内容概要

在本报告中，危险物质及废料的无害环境管理和处置对人权的影响问题特别报告员在对匈牙利进行的访问基础上陈述访问结果并提出建议。在访问过程中，特别报告员设法评估以从环境角度来看不适当的方式管理和处置危险物质和废料的作法对人权造成的影响。

特别报告员侧重的是涉及危险物质的工业事故。在这方面，他对 Ajka 工业事故对人权的影响和政府为缓解不利影响所作的努力进行了评估。在报告的最后部分，特别报告员提出了相关建议。

* 本报告内容提要以所有正式语文分发。报告本身见内容提要附件，仅以原文分发。

** 迟交。

Annex

[English only]

Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes on his mission to Hungary (4 – 11 October 2012)

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I. Introduction

1. The Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Calin Georgescu, conducted a visit to Hungary from 4 to 11 October 2012, at the invitation of the Government. The Special Rapporteur wishes to express his gratitude to the Government for its invitation, as well as for the cooperation extended to him during the visit. He also thanks all those who met with him, gave their time and cooperated with him during the visit.
2. The purpose of the visit was to assess the efforts made by Hungary in implementing its obligations under human rights and environmental law to ensure the safe and environmentally sound management and disposal of hazardous products and wastes. The Special Rapporteur focused on the impact on human rights of the Ajka industrial incident, including the Government's efforts to mitigate that impact.
3. During his visit, the Special Rapporteur met with a range of authorities, including representatives from the Ministry of Foreign Affairs, the Office of the Commissioner for Fundamental Rights, the Sustainable Development Committee of the Parliament, the Inspectorate for Environment, Nature and Water, the National Directorate General for Disaster Management, the National Directorate General for Industrial Safety, the National Public Health and Medical Officer Service and the Hungarian Atomic Energy Agency, as well as a judge from the Budapest Capital Court. He also met with representatives of the World Health Organization (WHO) and members of civil society, including survivors of the Ajka industrial incident during a site visit to Devecser and to Kolontár.
4. The Special Rapporteur thanks the Ministry of Foreign Affairs for coordinating his visit to Hungary, especially the Department of International Organizations and human rights. He particularly appreciated the support given by the National Directorate General for Disaster Management during the visit to the site.

II. Legal and institutional framework

A. International obligations

5. Hungary is party to nine core international human rights treaties and eight optional protocols, including the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights and the Optional Protocols thereto. Pursuant to these treaties, the State has obligations to protect individuals and communities within its jurisdiction by eliminating, or reducing to a minimum, the risks that hazardous products and wastes pose to the enjoyment of several substantive human rights, including the rights to life, health, safe and healthy working conditions, adequate food, safe drinking water and adequate housing. In addition, Hungary has the obligation to ensure access to information, effective public participation, access to justice and effective remedies, in the context of the management and disposal of hazardous products and wastes. Hungary has ratified a number of regional human rights treaties adopted under the auspices of the Council of Europe, including the Convention for the Protection of Human Rights and Fundamental Freedoms, the European Social Charter, its Amendment Protocol and its Revised Charter.
6. Hungary is party to several multilateral environmental agreements regulating the sound management and disposal of toxic and dangerous products and wastes, including the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for

Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants, and is signatory to the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal. It is also party to several conventions negotiated under the auspices of the Economic Commission for Europe (ECE), including the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters and the Protocol thereto on Pollutant Release and Transfer Registers.

7. Hungary is also party to several conventions of the International Labour Organization (ILO) related to the protection of workers from health and safety hazards associated with dangerous working activities, including the Occupational Cancer Convention, 1974 (No. 139), the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977 (No. 148) and the Occupational Safety and Health Convention, 1981 (No. 155). It has not yet ratified the Chemicals Convention, 1990 (No. 170) and the Prevention of Major Industrial Accidents Convention, 1993 (No. 174).

8. According to article 24(3) c of the new Constitution of Hungary (in force since January 2012), the Constitutional Court may annul any legislation that is contrary to an international agreement to which the State is a party, therefore giving international agreements a constitutional standing.¹ Consequently, recognized international human rights norms and international agreements ratified by Hungary become part of the domestic legal order and may be directly applied in national courts; other sources of international law may be directly applicable under national law if enacted through national legislation. The Constitution in force at the time of the Ajka incident was Act XX of 1949; article 18 of the Constitution declared the right to a healthy environment.

B. Constitutional, legislative, policy and institutional framework

9. The new Constitution recognizes various rights relevant to the management and disposal of hazardous substances and waste. Article P, under the “Foundation” section, declares that all natural resources form part of the nation’s common heritage and that the State and every person are required to protect, sustain and preserve them for future generations. The Constitution further recognizes, *inter alia*, the rights to life and human dignity (art. II), to have access to data of public interest (art. VI), to physical and mental health, including by managing industrial safety and health care and by ensuring environmental protection (art. XX), as well as the right of every person to a healthy environment (art. XXI). With regard to the right to a healthy environment, the Constitution states that any person who causes damage to the environment is required to restore it or to bear all costs of restoration incurred as defined by law, and that the importation of pollutant waste to Hungary for the purpose of disposal is prohibited (art. XXI, para. 3). Article XXIV further provides that every person has the right to have his or her affairs administered by the authorities in an impartial, fair and reasonably timely manner, while also guaranteeing every person the right to statutory compensation for any unlawful damage caused by the authorities in the performance of their duties. Individuals do not, however, have the right to approach the court directly, and the Special Rapporteur is concerned that this may limit access to the court for many.

¹ The Constitutional Court ruled *a contrario sensu*, in its Decision 4/1997, that obligations arising from international law (and in particular, international treaties to which Hungary is a party) imposed direct obligations on the State.

10. In Hungary, environmental protection is governed by the Environmental Protection Act of 1995, which sets out an inclusive regulatory framework on the protection of the environment. It embodies numerous principles of environmental law, such as “the polluter pays” and the precautionary principle. Policy-level support of the Act is in the form of medium- and long-term strategies on environmental protection and are defined under the National Environmental Programme (2009-2014), which has specific targets and objectives aimed to mitigate the adverse impact of activities under the jurisdiction of the Act on the environment.

11. The Special Rapporteur was pleased to note the impending passage of a new Waste Management Act (No. 185/2012), which seeks to implement the European Waste Framework Directive (2008/98/EC on waste), and was expected to come into force on 1 January 2013, even though its implementing regulations had not yet been promulgated.² The Act is expected to increase transparency in and the monitoring of the waste sector while providing incentives for enhanced reduction of waste generation and an increase in the rate of reutilization. Efforts to implement the European directives on waste management include the adoption of European Regulation on chemicals and their safe use (EC No. 1907/2006) and the Regulation on the Classification, Labelling and Packaging of Substances and Mixtures (EC No. 1272/2008).³ In addition, the Seveso Directives III on the prevention of industrial accidents in relation to hazardous substances,⁴ which were enacted in domestic legislation by Act CXXVIII of 2011 and Regulation 219/2011, require Hungary to establish a policy on prevention of major accidents applicable to industrial establishments where dangerous substances above a certain threshold are used or stored in large quantities. The facilities are subject to strict monitoring and are expected to provide updates to the public likely to be affected by an accident, to provide safety reports, and to establish a safety management system and an internal emergency plan.

12. Section 2 of Mining Act XLVIII of 1993 states that activities circumscribed by the Act may be carried out only when the protection of human life, health, environment, arable land and property has been assured. Section 26 requires disclosure of the physical and chemical properties of by-products and wastes expected during exploration or exploitation, while section 43(4) provides for mining rules governing activities relating to hazardous substances. In addition, Hungary is required to enforce European Directive 2006/21/EC on the management of waste from extractive industries, including waste resulting from the extraction, treatment and storage of mineral resources.

13. In recent years, Hungary has issued numerous executive decrees addressing the management of hazardous waste, including the creation of a list of atmospheric pollutants, and has established several other strategies aimed at reducing waste generation, such as the National Sustainable Development Strategy, which comprises waste management measures aimed at fostering sustainable production and consumption patterns. The National Climate Change Strategy (2008-2025) seeks to promote material recycling and to reduce emissions that are harmful to the environment and cause climate change. The Special Rapporteur welcomes the efforts made by the Government to link heavily polluting industries to its climate change policy and, in particular, its use of economic incentives to promote climate change-friendly waste management practices.

² On 21 June 2012, the European Commission initiated an infringement procedure against Hungary for its failure to meet the 2010 deadline to transpose the European Directive on waste into national law.

³ Article 288 of the Treaty on the Functioning of the European Union states that European regulations are binding for all Member States.

⁴ See <http://ec.europa.eu/environment/seveso/>.

14. Hungary has several institutions that play a role in managing hazardous waste. The portfolio of the Ministry of Rural Development includes oversight of the Office of the Under-Secretary for the Environment, responsible for environmental protection, which in turn has oversight of the Department of National Environment and Water Authority, as well as that of the National Waste Management Agency. The waste management priorities of the Ministry of Rural Development focus on reduction of pollution, recycling and waste treatment. The Under-Secretary for the Environment is also responsible for environmental inspectorates tasked with inspection and classification. The National Directorate General for Disaster Management under the Ministry of the Interior is responsible for disaster response and ensuring industrial safety, including through the monitoring of hazardous plants, and has harmonized and created legislation in accordance with the Seveso Directives.

15. The Office of the Commissioner for Fundamental Rights, which is responsible for the protection of the interests of future generations, reports annually to Parliament. According to the Constitution, any person may petition the Commissioner if they believe that State or its organs have or may infringe their fundamental rights. The Commissioner may, in exceptional cases, approach the Constitutional Court if, on the basis of a petition, it may be presumed that an activity or omission gravely infringes the fundamental rights of a large group of natural persons. The Commissioner may also draw to attention to a need for review of legislation to ensure conformity with the Constitution. The Office of the Commissioner, having received a number of submissions on allegations of violations of the right to a healthy environment, considered, in 2011, cases on the operation of sewage treatment plants or drainage pipes, and on the disposal by municipalities of liquid waste. Further legislative branch oversight of environmental matters is provided by the Sustainable Development Parliamentary Committee, which includes a representative of political parties in Parliament.

III. Waste and chemicals management: current practices

16. As already mentioned above, the Special Rapporteur will provide a brief overview on the issue of the general management of hazardous substances and wastes currently in Hungary. According to the European Environment Agency, despite the measures taken by the State, the deterioration in air quality caused by both legal and illegal incineration has been reported in Hungary. Furthermore, illegal waste dumping, the “waste heritage” and other wastes entering the system by flooding pose considerable environmental problems.⁵

A. Municipal waste

17. Municipal solid waste accounts for almost 24.3 per cent of all waste generated in Hungary. Despite efforts made in selective collection and recycling, household waste is the biggest challenge for Hungary; municipal solid waste accounts for nearly 73 per cent of all waste generated by the residential sector, and mainly consists of plastics and biowaste. Generally, municipal waste poses no threat to human health or the environment, although a small proportion may be hazardous, such as expired chemicals and pharmaceuticals, batteries, obsolete pesticides, and electrical and electronic waste.⁶ According to Hungarian law, these types of waste should be segregated at the point of generation from common

⁵ European Environment Agency, “Why should we care about this issue”, 26 November 2010.

Available from www.eea.europa.eu/soer/countries/hu/soertopic_view?topic=waste.

⁶ See E/CN.4/2006/42, A/HRC/15/22/Add.2 and Add.3, and A/HRC/18/31.

municipal waste and disposed of in a safe and environmentally sound manner, namely, by means of selective collection and recycling. Hungary has made good progress in selective waste collection points, which are today available in more than 1,200 localities countrywide (including some 8,000 selective collection islands, nearly 100 waste yards and 40 regional composting plants), catering for 55 per cent of the population.

18. Recovery operations in Hungary encompass recycling, incineration with energy recovery, and composting. Disposal operations include landfills, which account for 67.3 per cent of all solid municipal waste. While the Special Rapporteur is concerned at the extensive use of landfills, which have an adverse impact on people's health, he welcomes the steady decline in their use and that of incinerators since 2005. According to the provisions of the new Waste Act, as from 1 January 2013, only non-profit organizations that have signed an agreement with the municipal government may perform waste management public services; a unified determination of waste collection charges will be introduced accordingly. In addition, the new Act will require operators of waste storage sites and landfills to pay a waste storage contribution based on the type and quantity of waste.

B. Hazardous substances and wastes

19. According to information received from the Government, in 2012, the National Directorate General for Disaster Management began to increase the number of hazardous industrial plants from 169 to 791 under the new national law on disaster management (Act CXXVIII) of 2011. While being based on the Seveso Directives, the law broadens their scope by introducing a new class of hazardous establishments. The Act therefore covers, not only upper- and lower-tier establishments ("Seveso establishments") dealing with hazardous substances, but also plants that use or store such materials above the 25 per cent limit of lower tier thresholds. European Directive 2008/1/EC on integrated pollution prevention and control requires industrial and agricultural activities with a high pollution potential to have a permit, which may only be issued if certain environmental conditions are met. The Directive is implemented by governmental decree 314/2005 and also covers mining activities. Hungary has some 1,250 integrated pollution prevention and control installations, of which 600 are on livestock farms and 28 on mining sites.

20. Hungary needed only to promulgate a few laws to comply with its legal obligations under Regulation (EC) No. 166/2006 of the European Pollutant Release and Transfer Register to create its own domestic pollutant release and transfer register system. The Special Rapporteur is however concerned by the findings of a survey conducted between 2000 and 2004 and submitted to the Commissioner showing that, despite the alarming evidence that the mortality of men living in the West of Szentgotthárd due to respiratory diseases is four times higher than the national average and that, among women aged between 15 and 64, the number of deaths due to cancer is nearly 35 per cent higher than the national average, presumably as a result of air pollution. The Commissioner found a violation of the right to a healthy environment and to health and called for air tests and disclosure of the testing data. The Commissioner also found that the Ministry of Rural Development had not fully met its obligation to conduct air quality checks in Vas and Zala counties. The Special Rapporteur reminds the State that, without adequate monitoring, no means are available to identify and mitigate against environmental hazards.

21. Beyond its ratification of the Stockholm Convention, Hungary has made further efforts to eliminate persistent organic pollutants through its implementation of EU Regulation No. 850/2004 on those pollutants. These compounds, usually found in pesticides and resistant to natural decomposition and thus persistent, can be transported over long distances. The documented effects of their bio-accumulation in humans include

cancer, birth defects, repressed immune and reproductive systems and diminished intelligence.⁷ Several compounds controlled by international agreements on persistent organic pollutants have never been produced or licensed for use in Hungary, and even those that are not controlled by international regulations are banned (such as Dicofol). Hazardous substances are thereby subjected to comprehensive regulation.

22. Hungary has also banned polychlorinated biphenyls and, in accordance with article 6 of the Stockholm Convention, has identified the need to destroy abandoned stockpiles. The Government is, however, faced with the challenge of identifying toxic substances owing to the high costs of chemical analysis. The Special Rapporteur emphasizes that existing polychlorinated biphenyls constitute a present and continuing danger to the population. He also wishes to remind the State that the European Committee of Social Rights found that Hungary was not in conformity with article 11 (on the right to protection of health) because it had not taken measures to reduce the mortality rate nor had there been adequate screening of the main causes of death especially, because interventions were aimed at children and young people and not adults.⁸ The Special Rapporteur encourages Hungary to comply with the Committee's recommendation that it assess the true state of the health of the population and, in particular, that it establish what role hazardous substances have in the high cancer rate or other diseases in general. In so doing, the State will make the necessary advances in the right to health it seeks to protect in its Constitution, in particular article XX thereof.

C. Right to information and public participation

23. Even though the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) was promulgated by Act LXXXI of 2001, the Special Rapporteur is pleased to note that Hungary has applied its principles since the early 1990s, primarily through the Protection of Personal Data and Disclosure of Information of Public Interest Act of 1992, which provides for the disclosure of environmental data, and the Environment Act, which defines environmental information, outlines how it should be provided, including format and cost effectiveness, and recognizes the right of non-governmental environmental organizations to participate in various administrative procedures. Furthermore, the Freedom of Electronic Information Act of 2005 provides a general framework for access to free and continuous public information. Provisions of the Aarhus Convention may be invoked and applied in national courts. The Supreme Court adopted decision No. 4/2010 relating to provisions of the Convention with the aim of harmonizing and eliminating different interpretations related to participation rights. The Special Rapporteur also acknowledges the efforts made by Hungary to promote environmental education at all levels through a cross-sectoral approach, including by collaboration between the Ministry of the Environment and the Ministry of Education.

24. Nonetheless, the Special Rapporteur not only observed limited public participation in, but also inadequate mass media presence on, environmental matters in the national media. He therefore calls on the Government to increase its efforts to promote the right to know with information that is user-friendly, accessible, adequate and appropriate while taking into consideration such limitations as language, Internet access and disabilities. Furthermore, the information provided by various ministries in Hungary in order to

⁷ Ulrich Beyerlin and Thilo Marauhn, *International Environmental Law* (Portland, Hart Publishing, 2011), p. 221.

⁸ European Social Charter, European Committee of Social Rights, Conclusions XIX-2 (2009) Hungary, February 2010, (available from www.coe.int/t/dghl/monitoring/socialcharter/Conclusions/State/HungaryXIX2_en.pdf), pp. 10-12.

strengthen other awareness-raising efforts should be regularly updated and cater for the visually impaired. People who reside near hazardous establishments deserve to know the dangers and exercise the option of relocating or remaining to mitigate exposure. Hungary should therefore increase efforts in the public dissemination of this information. Several non-governmental environmental organizations in Hungary involved in advocacy, awareness-raising and education activities are credited with the emergence of forest schools. The Special Rapporteur received information that State funding of non-governmental organizations has been reduced drastically, and is concerned at the resulting diminishing participation of the public in environment issues.

IV. The Ajka industrial incident

25. During his visit, the Special Rapporteurs also focused on the issue of industrial accidents with a view to preventing future accidents and to elaborating measures to eliminate or mitigate the adverse impact that such incidents involving hazardous substances have on the enjoyment of human rights, including the rights to health, housing, water and sanitation, the right to food and a safe and healthy environment, and the right to adequate and effective remedy.

A. Background and response

26. On 4 October 2010, Hungary experienced the Ajka incident, the worst industrial incident and ecological catastrophe in its history. On that day, a reservoir belonging to MAL Magyar Aluminium, a company that took over the plant when it was privatized by the State, ruptured, releasing the red sludge (highly caustic industrial waste produced in the process of alumina extraction from bauxite) contained therein. The substance flooded towns, destroying homes and causing injury and fatalities to residents and rescuers in its wake. It also caused extensive environmental damage that cost approximately \$87 million to remediate (and even then not completely).

27. According to information received from the Government, the incident occurred at 12:30 and shortly thereafter, the National Directorate General for Disaster Management immediately dispatched a team that was on site within two hours, whereupon it conducted a health risk assessment. Simultaneously, medical personnel, fire officers and volunteers were also deployed to rescue the injured, search for the missing and generally to ensure the preservation of life and the protection of property. Environmental monitoring was set up and water samples were taken daily by the National Environment Health Unit for analysis, which continued for a month as part of the environmental health surveying system. The Special Rapporteur received information that the results showed no contamination of the water system; by the second day, it was established that no radiological hazards or toxicity were present, but that the substance was highly caustic and alkaline. Houses in the affected region are connected to a mains pipe for drinking and household water; however, since there were also private wells in the area used primarily for watering gardens, information was shared with the public on the importance of testing well water before use.

28. Two days after the incident, information on the morphological composition of the substance, rescue efforts and safety protocols was made public, although some non-governmental organizations informed the Special Rapporteur of inconsistent messages of the dangers of the red sludge sent out by the company and the State; the organizations were particularly critical of the company for its initial message to the general public that the red sludge was chemically harmless, an act that aggravated peoples' exposure to its effects. At the same time, the State expressed concern at the company's failure to raise the first alarm, thus delaying the response and aggravating damage and injury. In order to neutralize the

alkalinity of the sludge, it was decided that gypsum should be used in all affected areas. This posed logistical challenges, however, since the gypsum was located in the north of the country and required heavy machinery for transportation; consequently, actions to offset the chemical damage caused by the sludge were delayed.

29. Environmental monitoring during the event showed significant air pollution, with air dense with particulate matter and especially high levels of aluminium and iron, with above average limits being discovered in Devecser and Kolontár. The Special Rapporteur was informed that the levels had dropped to acceptable levels two weeks after the incident; when measurements were taken then, the readings for Kolontár and Devecser were lower than for downtown Budapest. A state of emergency was declared from 6 October to 31 December 2010 in the area and a disaster recovery plan was put in place. On 11 October, the Government began to supervise company activities, while the workforce, including management, remained. A team comprising experts from the European Union and WHO arrived on 12 October 2012 to carry out an on-site assessment, with the former focusing on the impact on the environment, the latter on the impact on public health. They subsequently submitted their findings to the Government.⁹

B. Impact on human rights

30. Following the Ajka incident and subsequent exposure of individuals to hazardous substances, the impact on the human rights of the people in the affected region was significant. It is widely accepted that a clean and healthy environment is a precondition to the realization of substantive human rights, including the right to health and the right to adequate housing. The Ajka incident also had an impact on the right of people to a healthy environment, a right recognized by the Constitution. Lastly, the Special Rapporteur was informed of various issues affecting the right to adequate and effective remedy.

1. Right to health

31. When the reservoir containing the red sludge collapsed, the most serious immediate effects were caused by the high alkalinity (pH 13+) of the sludge. The people of Devecser and Kolontár experienced serious first- and second-degree chemical burns to the skin; respiratory problems were also documented. In addition, the health of some 4,000 volunteers and rescue workers were similarly affected. The Special Rapporteur attaches great importance to the issue of occupational health during rescue operations, and reiterates the recommendation of WHO that personal protective equipment should be selected on the basis of the hazards identified, the protective qualities of the equipment and its suitability for the tasks performed".¹⁰ The Special Rapporteur was concerned at information he received indicating that there are no special protocols for the rescue of children, the elderly, disabled or other persons in need of protection in the training programme developed for disaster management forces in Hungary.

32. The National Public Health and Medical Officer Service established a local health command centre in Kolontár where the 2,475 injured persons were given free treatment, including hospitalization (108); persons in a severe condition were medically evacuated by ambulance (408) or military helicopter to nearby hospitals and to Budapest (3). The public health authorities received daily reports on the condition of the patients, and concluded that, of all the injuries treated at the on-site clinics, 36 per cent were minor, 51 per cent were

⁹ WHO, Main findings and recommendations from the WHO Regional Office for Europe mission to Hungary, 2010. Available from www.euro.who.int/__data/assets/pdf_file/0020/127163/e94468.pdf.

¹⁰ Ibid., p. 4.

moderate and 14 per cent were serious. A specialized crisis intervention team provided stress counselling, post-traumatic assistance and grief support. The Special Rapporteur received information that the fatalities that resulted from the incident were due to drowning, not directly from the chemical content. Ten people, including three children, died.

33. As mentioned above, Hungary is party to the International Covenant on Economic, Social and Cultural Rights, of which article 12 recognizes the right of everyone to the highest attainable standard of physical and mental health. In its general comment No. 14,¹¹ the Committee on Economic, Social and Cultural Rights described the normative content of article 12 and the legal obligations undertaken by the States parties to the Covenant to respect, protect and fulfil the right to health. It stated article 12.2 acknowledged that the right to health embraced a wide range of socioeconomic factors that promoted the conditions in which people can lead a healthy life, and extended to the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions, and a healthy environment.¹² With regard to natural and workplace environments, the Committee commented that the improvement of all aspects of environmental and industrial hygiene comprised, *inter alia*, preventive measures in respect of occupational accidents and diseases and “the prevention and reduction of the population’s exposure to harmful substances, such as radiation and harmful chemicals, or other detrimental environmental conditions that had a direct or an indirect impact on human health.”¹³ The Special Rapporteur commends the embodiment of this realization of the interdependence and mutual reinforcement of these rights in article XX of the Constitution of Hungary, which has been amended to reflect these provisions.

34. The governmental committee responsible for the overall coordination of the response established an expert group, which included the participation of the Hungarian Academy of Science, in order to develop a model to ascertain short- and long-term effects on the health of the affected population. Since the bodies of children are more vulnerable to stressors, they were specifically subjected to biomonitoring, which measured pollutants in the body. Urine samples were taken between November 2010 and April 2012 from the children of the affected population, mainly in Devecser and Kolontár, with children from Ajka as the control group. The Public Health Authority found no statistically significant difference in the urinary levels of cadmium, cobalt, chromium or nickel excreted by the children in the red sludge area or in the control area. Statistically significant differences were found between the urinary arsenic and vanadium levels among children in the two areas; these differences were, however, not biologically significant, and the values measured were similar to the published reference values. The measured concentrations from both the red sludge area and the control area were in the range of the published data measured in other countries. The Public Health Authority stated that there were no significant fluctuations of cadmium during the monitoring period save, for the first and fifth quarters, which could be attributed to the normal meteorological conditions of the area and winter heating, which significantly contributes to localized air pollution. Some fluctuation was also detected in levels of vanadium during the monitoring period, with elevated levels in the fifth and sixth quarters attributed to dust in the air, caused by the decision by the company to change its storage method from wet to dry technology.

35. The Special Rapporteur received information from the Public Health Authority that the Government Health Centre continued to monitor the physical and mental health of the residents of the affected areas for a year after the incident. Subsequently, however, he received information that the screening centre and counselling unit had closed. The Special

¹¹ E/C.12/2000/4.

¹² *Ibid.*, para. 4.

¹³ *Ibid.*, para. 15.

Rapporteur is concerned about the current and long-term health impact, including psychological and particularly post-traumatic syndrome. Part 1 of the European Social Charter requires the State to ensure that “everyone has the right to benefit from any measures enabling him to enjoy the highest possible standard of health attainable”; Hungary should therefore maintain programmes to counteract the damage caused by post-traumatic stress, among other conditions. Furthermore, the Special Rapporteur received testimony during the visit from a woman who claimed that her child was chronically asthmatic as a result of the incident and that no assistance had been provided for the child’s care. Without intending to treat the complaint as indicative of the concerns of the broader populace affected, the Special Rapporteur nevertheless wishes to remind the State of the particular health vulnerabilities of children to pollutants,¹⁴ and calls upon the State to ensure that measures are taken to encourage the healthy development of infants and children, including by providing facilities for the treatment of illness, rehabilitation, and removal of expectant mothers¹⁵ from environments with hazardous substances,¹⁶ and that every child receives the protection and care necessary for their proper development as guaranteed by article XVI of the Constitution.

36. According to the observations made in an occupational health guideline for sodium hydroxide (a highly caustic substance similar to the red sludge of the Ajka incident),¹⁷ a greater number of cases of oesophageal cancer is reported in individuals who have scarring of the oesophagus from swallowing sodium hydroxide (although this may be due to the destruction of tissue rather than the direct carcinogenic action of sodium hydroxide itself). The Special Rapporteur draws the attention of the Government of Hungary to the need for continued monitoring of the population affected by the Ajka incident to detect potential cases of cancer.

2. Right to adequate housing and right to property

37. According to the information received, the red sludge damaged 51 houses in Kolontár, 275 in Devecser and 39 in Somlóvásárhely, with 284 of them rendered beyond repair. Since the houses had been inundated with toxic substances, the National Directorate General for Disaster Management decided to have them demolished, thereby acting in conformity with the requirement of habitability as described by the Committee on Economic, Social and Cultural Rights in its general comment No. 4.¹⁸ Approximately 1,000 hectares of soil was contaminated by the sludge, rendering it unsuitable for future housing developments (unless fully remediated). Efforts by the Government of Hungary to ensure the right to housing enshrined in article 11 of the International Covenant on Economic, Social and Cultural Rights and article 31 of the European Social Charter deserve commendation. The Special Rapporteur is pleased to note that, in accordance with the “build-back-better” approach to post-disaster reconstruction, the Directorate built a total of 127 houses (87 in Devecser, 21 in Kolontár and 19 in Somlóvásárhely). Another 117 victims, mainly elderly persons, received compensation in cash.

38. During his visit to the site, the Special Rapporteur received testimony from survivors and rescuers of having to face a two metre-high wave of sludge that invaded homes and swept away cars, farming machinery and livestock. Survivors recounted the

¹⁴ Convention on the Rights of the Child, art. 24. See also art. 6 thereof on inherent right to life of every child.

¹⁵ Convention on the Elimination of All Forms of Discrimination against Women, arts. 11.1 (f) and 12.

¹⁶ See E/C.12/GC/20.

¹⁷ United States Department of Health and Human Services, Occupational Health Guideline for Sodium Hydroxide, September 1978. Available from www.cdc.gov/niosh/docs/81-123/pdfs/0565.pdf.

¹⁸ *Official Records of the Economic and Social Council, Supplement No. 3 (E/1992/23)*, annex III.

despair in their frantic attempts to salvage housing, land, property and belongings, including important documents and family heirlooms. The Special Rapporteur believes that the extent of loss in these situations should not only be assessed from an economic point of view; the emotional attachment that people have towards their homes and property speak to the issue of identity and should not be underestimated.

39. With regard to the post-disaster reconstruction efforts by the National Directorate General for Disaster Management, the Special Rapporteur received reports of discontent by some community members for the loss in equity from alleged lower value housing replacements and little monetary consideration for recent renovations; the drop in market value of existing houses owing to area contamination; and insufficient consultation and inflexibility in planning and construction during post-disaster reconstruction. According to the Directorate, however, victims could select their preferred house from several plans, and could choose any location in Hungary with equivalent value. The Special Rapporteur was pleased to learn that some banks had accorded their customers an amnesty on their mortgages for properties destroyed by the incident, and applauds their demonstration of corporate responsibility and solidarity. The Special Rapporteur also, however, received testimony from residents who had not received an amnesty from their banks and were faced with the possible foreclosure on their new home. The Government of Hungary explained that the amnesty was at the behest of individual banks, and had no role in negotiating for it on behalf of persons affected. The Special Rapporteur is of the view that banks and insurers play a critical role in the aftermath of disasters, and that their response can determine how people recover from them, without crippling debts. Testimony received also raised concerns over the lack of programmes for the new community halls, which prevented people from having effective use of these buildings. To this extent, the provision of physical structures in post-disaster reconstruction is only part of the solution; a robust plan comprising community building programmes should therefore be initiated.

40. Restoration of other types of property, besides land, livestock, trucks and furniture, was included through replacement or cash compensation provided by the State. Some residents complained about the manner in which the coupon system used to provide a range of supplies allegedly excluded cheaper companies with which people could redeem coupons for goods, while more expensive companies were approved on the basis of political affiliation. The Special Rapporteur is of the opinion that the Government should have established more transparent processes to address perceptions of fraud and bias, and believes that it is critical that, for post-disaster rehabilitation to be sustainable, people's ability to participate in and benefit from reconstruction efforts should be strongly encouraged and supported.

41. The Constitution of Hungary recognizes the right to property (art. XIII), and to the protection of property (art. V), as well as the State's obligation to "strive to ensure decent housing conditions for everyone" (art. XXII). Devecser, which is home to a Roma community, witnessed the most destruction of residences. The Government assured the Special Rapporteur that the community was not discriminated against and indeed received the same treatment as non-Roma communities. The Special Rapporteur received, however, information according to which, owing to their lack of title and subsequent status as unlawful occupiers in a previous damaged settlement, the Roma currently have no security of tenure in new houses. The Special Rapporteur was not able to determine the precise status of affected Roma people during his visit, but draws the attention of the State to general comment No. 4 of the Committee on Economic, Social and Cultural Rights, which stated that, regardless of the type of tenure, all persons should possess a degree of security of tenure that guarantees legal protection against forced eviction, harassment and other

threats. States parties should consequently take immediate measures aimed at conferring legal security of tenure upon those persons and households currently lacking such protection, in genuine consultation with affected persons and groups.¹⁹

42. The European Court of Human Rights deliberated authoritatively on the protection of tenure. In *Yordanova and others v. Bulgaria*, the Court stated that the eviction of a Roma community was unlawful even if they had an informal tenure; the State was therefore in violation of article 8 of the Convention for the Protection of Human Rights and Fundamental Freedoms and the obligation of non-interference of the State in this right. Article 1 of the Protocol to the Convention (as amended by Protocol No. 11) reinforces the notion of possession rather than ownership, thus accommodating the distinct position of persons with unsecure tenure and affording them a framework for the protection of property. The Special Rapporteur appeals to the Government of Hungary to assure the Roma community categorically that they enjoy security of tenure, and to protect them from any threat of forced evictions or harassment, present or future.

3. Right to a safe and healthy environment

43. As recalled above, the Constitution of Hungary recognizes the right to a healthy environment and sets forth several provisions related to environmental protection. The Special Rapporteur welcomes the fact that, as a result of the Ajka incident and of the acknowledgement of the gaps in legislation and regulation, the Mining Act and the Construction Act have since been amended to bring such activities under the auspices of the Mining Act rather than the Construction Act. The Special Rapporteur understands, however, that the Mining Act requires further modification to harmonize it with current European Union legislation with regard to the definitions of “mining activity” and “mining waste”.

44. The Ajka incident had a tremendous environmental impact: 1,000 hectares of land were polluted, and rivers were contaminated with toxic impurities, including the Torna Creek and the Marcal River ecosystems. The red sludge reached the Danube on 7 October 2010; however, transboundary effects were prevented when gypsum was introduced into the affected portion of the river. According to information provided by the Ministry of Rural Development, the Government spent some \$87 million on environmental remediation (even then, the state of the environment was not completely restored to its pre-incident conditions). The contamination of arable land resulted in a loss of harvests, thereby affecting the right of farmers to a livelihood. Farmers who opted to keep their land were informed by the Ministry of Rural Development that they would not be able to grow any produce for the next four years. Similarly, the right to food was affected, given that crops and vegetables had been rendered unsuitable for consumption.

45. As mentioned above, an environmental health surveillance system was in place for daily monitoring of environmental parameters, including water and air quality. Furthermore, gypsum was used to neutralize the alkalinity of the red sludge. Some non-governmental organizations raised concerns at the use of gypsum, given that it left behind levels of calcium that were toxic for certain ecosystems. Besides the works necessary to clear access roads to facilitate search and rescue operations, 1.1 million m³ of red sludge was collected and transported to another reservoir. Even though Hungary has adopted the mainland option for disposal of its immense red sludge reserves, the Special Rapporteur stresses that concerted efforts are still needed to develop more environmentally sound ways

¹⁹ *Official Records of the Economic and Social Council, Supplement No. 3 (E/1992/23)*, annex III, para. 8 (a).

of disposal; otherwise, Hungary will remain faced with the inevitable challenge of proper storage. Only seven of the world's 84 alumina plants use a sea disposal method.

46. It is widely held that recycling red sludge is neither economically viable nor sustainable. Dry technology, which poses a lesser environmental risk, is becoming more common. Wet technology entails storing the sludge in a water-based solution, with a layer of water above it; dry technology entails dehydrating the sludge. The Special Rapporteur understands that current industrial practices involve neutralizing or reducing the alkalinity by washing the sludge several times with water (or by a relatively new process using seawater). He is, however, concerned at the use of large volumes of water and at the possible pollution of the water supply that may arise from this practice. Hungary should consider more sustainable options in accordance with the spirit of the provisions it has set for itself in its Constitution. Some countries recycle red sludge to manufacture construction bricks, a practice that appears to be the most environmentally sound method currently available. As a signatory to the European Social Charter, Hungary is required by article 11 thereof "to remove as far as possible the causes of ill-health"; and, to that end, greater effort is required to realize environmentally sound recycling opportunities.

47. The above-mentioned dry technology has, however, disadvantages. During dry weather, wind may lift dust particles from the surface of the Ajka reservoir and blow them down the Lorenputzel valley. The Special Rapporteur received information that other red sludge reservoirs in the country deserve close scrutiny, in particular, the Almásfüzitő alumina plant near the Danube, owing to the potential for serious transboundary pollution. He therefore calls on the Government to ensure that the impact of these hazardous substances and wastes on people's health and the environment is mitigated.

48. The Special Rapporteur received information that there was lack of clarity about which authority had competence for authorization and supervision of the reservoirs, and that no regulatory authority regularly inspected their structural integrity, even though some experts had raised concerns that the dams were gradually sinking. Furthermore, it appears that a number of different and overlapping entities authorized and regulated the reservoirs, resulting in a fragmented approach to management and, consequently, inaction. Furthermore, civil society actors informed the Special Rapporteur that the substandard structural integrity of the dam and the possibility of hazardous wastes therein seeping into the marine and terrestrial environment had been raised with the Government before the incident, but that these concerns had not been heeded. According to other information received, when the dam broke, it had exceeded its storage capacity by three times, which compounded the severity of damage caused. In addition, the sludge reservoir was classified as non-hazardous and was thus not subject to European Directive 2006/21/EC on the management of waste from extractive industries. The Special Rapporteur was disappointed to receive information that indicated that the environmental management system was getting weaker as a result of major dismissals, including of environmental inspectors, thus likely rendering more ineffective the monitoring of potentially dangerous toxic sites countrywide.

4. Right to adequate and effective remedy

49. Article 2.3 of the International Covenant on Civil and Political Rights guarantees victims of human rights violations an effective remedy, which includes environmental wrongs that impinge on human rights. The Special Rapporteur welcomes the attempts made by the authorities to ensure accountability, facilitate reparation and prevent such incidents in future, namely by means of official inquiries into the incident, including the parliamentary commission of inquiry and the inquiry conducted by the Commissioner for Fundamental Rights. The Special Rapporteur concurs with the Commissioner's views that, in cases of interpretive uncertainties, an approach with a stricter protection of the

environment should be adopted. For that reason, it was the responsibility of the authorities in this instance to determine the goals of the regulations, the aim of the legislator and the social interests of preventing disasters.²⁰

50. Under Article XXV of the Constitution, everyone has the right to submit a complaint to any organ exercising public power, and any person causing damage to the environment is obliged to restore it, or to bear all costs of restoration, as defined by law. Nonetheless, under the revised Constitution, *actio popularis* is no longer possible. The Special Rapporteur is concerned about the restricted access to the Constitutional Court, and calls for a robust and comprehensive legal aid scheme to be established as a minimum. Reassuringly, any potential human rights violations resulting from damage to the environment may still be submitted to the Commissioner of Fundamental Rights, who may, inter alia, submit it for review to the Constitutional Court. The Special Rapporteur is nevertheless of the view that the potential for the Commissioner to serve as an effective monitoring tool and alternative dispute resolution mechanism is not being fully exploited, nor is its potential to serve as a sounding board for businesses in matters relating to human rights in business.

51. Although Hungary has a civil liability framework, there clearly are regulatory and implementation gaps, as shown by the inability to enforce sanctions on MAL Magyar Aluminium, despite the existence of legislature. The Environmental Protection Act stipulates that users of the environment are bound to give the environment protection. The commissioner's inquiry concluded, inter alia, that, despite the above, detailed implementing rules had not been elaborated. A separate inquiry by a parliamentary commission identified more or less the same issues. After the incident, the company was fined \$1.5 billion by the Environment Inspectorate for several failures of compliance, including \$2,000 for failing to minimize discharges into the environment. In accordance with government legislation, the company was insured, but the fines were 90 per cent higher than the amount for which the company was insured, and would result in its bankruptcy and closure. A policy decision was taken by the State to maintain operations. The Special Rapporteur is concerned at such situations, where economic factors, such as the need to safeguard jobs, are in conflict with environmental and human rights considerations, and where companies that infringe human rights are ultimately not penalized.

52. The Special Rapporteur was unable to comment more specifically on issues of liability, given that the case (residents had filed civil and criminal cases against MAL Magyar Aluminium and were seeking damages) was *sub judice* during the period under review. There were, however, concerns that the prosecution only included lower level personnel and excluded management and other decision makers. The Special Rapporteur recalls general comment No. 31 of the Human Rights Committee, in which the Committee noted that reparations should be provided to individuals whose rights had been violated.²¹

53. The Special Rapporteur reminds the Government of Hungary of its obligation to protect against human rights abuses by establishing a framework to hold businesses accountable for any business-related impact on human rights.²² Some government authorities expressed frustration at their lack of access to information on multinational companies, in order to screen their track record in human rights and environmental compliance in other places of operation, before they are awarded a license to operate in Hungary.

²⁰ See the website of the Office of the Commissioner for Fundamental Rights at www.ajbh.hu/en/web/ajbh-en/main_page.

²¹ CCPR/C/21/Rev.1/Add.13, para. 16.

²² See A/HRC/17/31, annex.

54. In accordance with his mandate to assess the role of business in hazardous substances, the Special Rapporteur calls on that sector in Hungary to recognize the right of access to information and to avoid using the privilege of confidentiality to shield health and safety information on hazardous substances. The Special Rapporteur urges businesses in Hungary, especially those in the mining sector, to respect human rights by preventing any negative impact on them and by providing remediation or remedy for any adverse impact caused.

55. The Special Rapporteur believes that the court case creates an opportunity for Hungary to set the regional tone for just reparations for environmental injustices. The people affected by the Ajka incident demand, and deserve, final and just restitution, alongside the expectation that all people must be held accountable for the contamination of their property, loss of livelihoods and of lives. The Special Rapporteur is confident that the course of justice will be steadfast, and that responsibility will be fairly directed, not to one person but to all those responsible, without distinction, fear or favour, and that indeed the polluter will pay.

V. Recommendations

1. International obligations

56. **The Special Rapporteur recommends that the Government of Hungary:**

(a) **Consider accession to the Protocol on Liability and Compensation for Damage resulting from Transboundary Movements of Hazardous Wastes and their Disposal and to contribute to its entry into force;**

(b) **Consider ratifying the ILO Chemicals Convention, 1990 (No. 170) and the Prevention of Major Industrial Convention, 1993 (No. 174) to strengthen the framework for occupational safety.**

2. Constitutional, legislative, policy and institutional framework

57. **The Special Rapporteur recommends that the Government of Hungary:**

(a) **Expedite promulgation of the regulations of the new Waste Act to assure protection against the adverse impact of hazardous substances, and to continue to streamline, simplify and rationalize relevant legislation to enhance cohesion and conformity with international human rights standards;**

(b) **Shift the focus from disposal of waste to its prevention and reduction in the next National Environmental Programme in compliance with the European Union hierarchy of waste management, to address the sparse and ineffective policies on prevention;**

(c) **Align the Mining Act with the European Union definitions of “mining activity” and “mining waste”, and place emphasis on provisions that provide for meaningful engagement with affected communities and for the safety of workers, especially those dealing with harmful substances;**

(d) **Ensure that impact assessments use reliable baseline studies for both environmental contaminants and human health conditions, and are carried out by competent authorities to ensure an environmentally sound reflection of the impact of contaminants on the environment and human health of proposed developments;**

(e) **Establish competencies and improve coordination between all agencies responsible for chemical and waste management at all levels, including by establishing**

synergies between the Environment Inspectorate and the Disaster Management Authority, and explore mechanisms by which they may effectively participate in each other's proceedings with the accompanying financial resources;

(f) Ensure continued proper identification, monitoring and classification of sites with potential harmful activities to the environment and human life, ensuring to that end that adequate resources are available to the relevant authorities, including for strengthening the capacity for frequent and efficient inspections carried out by qualified personnel;

(g) Ensure systematic cooperation and exchange of information between enforcement agencies, including by conducting joint inspections to benefit from the added value of expertise and effort, in particular in business activities involving hazardous substances, thereby strengthening oversight bodies, which are essential to preventing and addressing any adverse impact;

(h) Fully resource State-owned analytical laboratories to address the challenges the Government has identified during chemical analysis of persistent organic pollutants, and secure technical assistance to build local capacity in analysis;

(i) Strengthen transparency and accountability mechanisms, and take measures to address gross negligence in duty and, in this regard, to ensure that administrative controls are strengthened to reduce misuse and provide non-judicial remedies for omissions by or actions of State authorities that occasion environmental harm, destruction of property and loss of life;

(j) Increase the capacity of the Commissioner for Fundamental Rights to effectively monitor any impact on human rights, especially impact from business activities, and raise awareness of this competency among the public;

(k) Develop specific provisions for enforcing civil liability for environmental harm pursuant to the Environment Act, and in particular elaborate more effective administrative and non-judicial avenues with regard to private sector liability, to ensure that rights are protected as they are enforced, so that there are no future incidents where people have to resort to litigation to achieve justice in environmental issues;

(l) Consider, in view of its experience, taking the lead in regional and international consultations to address the matter of liability of private actors for environmental damage, with a view to shifting the burden of environmental damage from the State, where appropriate, to corporations and individuals;

(m) Develop strategies to promote the sustainability of health systems based on pollution prevention integrated into national development programmes, and create linkages with environment sectors to enable mainstreaming of environment and disaster responses into the health sector; and address health force migration in the context of disaster management and ensure specialized knowledge to assure delivery of services in complex medical situations, such as those involving hazardous substances;

(n) Review the disaster training programmes for first responders, such as search and rescue teams, to ensure well-coordinated, robust responses to disaster, to thereby reduce casualties and increase success rates of post-disaster recovery; design modules on special rules for rescuing persons requiring special protection, such as children, elderly persons and the disabled, as well mainstream issues of gender into the design of the programme; and consider compiling a register on disabled persons in an appropriate format for the use of rescue teams;

(o) Stimulate private sector engagement with environmental issues, and exploit the potential for economic growth and job creation from proper implementation of waste management initiatives; and provide greater incentives to companies in environment-friendly corporate social responsibility initiatives, including adoption of compulsory and voluntary options to cultivate respect for human rights.

3. Municipal waste

58. The Special Rapporteur recommends that the Government of Hungary:

(a) Strengthen programmes aimed at waste reduction and the sound management of waste generated by households in accordance with waste hierarchy principles, and encourage separation of hazardous and non-hazardous waste at source and subsequent re-use and recycling to ultimately reduce disposal by landfills; ensure regular inspections of existing landfills, and promote re-cultivation of abandoned landfills;

(b) Address the issue of illegal waste dumping observed by the European Environment Agency, and provide for appropriate administrative and criminal fines in new waste regulations;

(c) Ensure that the revenue derived from the landfill tax pursuant to the new Act on Waste Management is used efficiently and directed accordingly to relevant programmes within the realm of environmental protection.

4. Hazardous waste

59. The Special Rapporteur recommends that the Government of Hungary:

(a) Strengthen efforts to complete the liquidation of existing stockpiles of obsolete pesticides, and ensure monitoring of the presence of persistent organic pollutants in the environment, as well as the sound disposal of all objects containing polychlorinated biphenyls;

(b) Address the nationwide deterioration in air quality observed by the European Environment Agency resulting from both legal and illegal incineration; also, in compliance with the Commissioner's findings, conduct frequent air tests and disclose testing data to exposed communities, especially those in Vas and Zala counties, including updated lists of pollutants; also, to this end, consider introducing the WHO Health and environment progress review programme.

5. Right to information and participation

60. The Special Rapporteur recommends that the Government of Hungary:

(a) Provide resources, including technical assistance, for the few environmental non-governmental organizations in Hungary involved in advocacy, awareness-raising and education activities, to thus allow for civil society participation and encourage transparent scrutiny of government action, and to include civil society organizations in developments on responses to disasters to ensure coordinated preparedness and response, capitalizing in particular on networks of non-governmental organizations to reinforce early warning systems and mobilization of national rescue efforts;

(b) Ensure, in the light of the restricted access to the Constitutional Court, a robust and comprehensive legal aid scheme, and assess the effectiveness of all other grievance mechanisms;

(c) Develop a comprehensive and multi-sectoral communication strategy on the environment to facilitate access to information on chemical and waste

management, in particular in the case of disasters involving chemical waste, to ensure that consistent safety messages are given by companies, thus helping to avoid confusion and prevent exposure to toxins.

6. Ajka incident

61. The Special Rapporteur recommends that the Government of Hungary:

(a) Continue to monitor the health of the communities affected by the Ajka incident and actively engage with them through a broad consultative process involving victims, families of victims, victims' associations and other relevant civil society actors on unresolved concerns regarding housing, property, health and measures required to address any long-term human health and environmental effect; and more generally, conduct a comprehensive national health survey on the impact of hazardous wastes on the population to assess the health of the nation and quantify environmental and social impact by means of reliable data, including consideration of the health concerns of vulnerable sections of the community, including women of childbearing age, elderly persons, children, the poor and the disabled;

(b) Establish programmes to support small-scale economic initiatives in communities, especially those conducted by women, and provide the capacity-building necessary;

(c) Consider leading international discussions to explore the environmentally sound disposal and recycling of red sludge, with emphasis on sustainability, including a viability assessment of brickmaking and of investment in best low-waste technologies, to thus remove environmental hazards and their subsequent impact on the health of communities, which continue to be exposed to these dangers;

(d) Comply with its duty to protect persons from human rights violations and ensure adequate remedy is provided to the communities affected by the incident.

7. Business and the duty to respect human rights

62. The Special Rapporteur recommends that business enterprises in Hungary:

(a) Fulfil their obligation to respect human rights, including by conducting human rights due diligence on current and planned activities, including remediation and remedy in instances of adverse impact;

(b) Ensure that operational grievance mechanisms conform fully to the principles outlined by the Guiding Principles on Business and Human Rights such that they are legitimate, accessible, predictable, equitable, transparent and compatible with internationally recognized human rights standards;

(c) Maintain adequate policy space with the Government to clarify business and government roles and liability in environmental matters, to avoid uncertainty and a rights void;

(d) Adhere to such best practices as the Environmental Excellence in Exploration (e3), the Extractives Industry Transparency Initiative, the Global Reporting Initiative, the Sustainable Development Framework of the International Council on Mining and Metals, the Guidelines for Multinational Enterprises of the Organization for Economic Cooperation and Development, the Towards Sustainable Mining Guiding Principles and the Global Compact.