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including the right to development**

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 Denmark and Greenland*

Note by the Secretariat

The Secretariat has the honour to transmit to the Human Rights Council the 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 Denmark. In his report, submitted pursuant to Human Rights Council resolution 36/15, the Special Rapporteur shares his findings and recommendations derived from his official country visit.

* The present report was submitted after the deadline in order to reflect recent developments.

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** Circulated in the language of submission only.

I. Introduction

1. In the present report, submitted pursuant to Human Rights Council resolution 35/15, the Special Rapporteur on the implications for human rights of the environmentally sound disposal of hazardous substances and wastes shares his findings and recommendations from his mission to Denmark and to the self-governing territory of Greenland from 2 to 13 October 2017.

2. The Special Rapporteur expresses his deepest gratitude to the Government of Denmark for the invitation to visit the country and the exemplary cooperation. In particular, the Special Rapporteur thanks the Ministry of Environment and Food for organizing meetings with authorities in Copenhagen, and the Greenland Self-Government authorities for organizing meetings with Governmental entities and authorities in Ilulissat and Nuuk.

3. In Denmark, the Special Rapporteur met with representatives from the Ministries of Foreign Affairs, Defence, Environment and Food, Health; and from the Environmental Protection Agency (EPA). He also met with representatives from the Danish Institute for Human Rights. From the business community, the Special Rapporteur met with representatives from the Danish Industry Federation, Danish Shipping, and A.P. Møller–Maersk. He also met with representatives from the European Environment Agency and multiple civil society representatives working on human rights, labour rights, equitable trade and environmental issues.

4. In Greenland, the Special Rapporteur met with representatives from the Ministries of Independence, Foreign Affairs and Agriculture; Mineral Resources; Industry, Labour, Trade and Energy; Nature and Environment; and the Health and the Environmental Agency for Mineral Resource Activities. He also visited the Inatsisartut (Greenlandic Parliament) and met with Parliamentarians sitting at the Environment, and Foreign Affairs Committees. The Special Rapporteur also met with the Human Rights Council of Greenland, representatives from the Inuit Circumpolar Council in Greenland and civil society representatives.

5. The Special Rapporteur thanks all the civil society organizations, companies and individuals in Denmark and Greenland with whom he met, for their time and cooperation in sharing information on their views and experiences.

6. The present report is divided into two main sections containing separate observations on the situation in Denmark and in Greenland given the specificities of the legal and institutional frameworks in place in the Self-Governing territories of Denmark. The Special Rapporteur was unable to visit the Faroe Islands and thus this report does not address the situation there. A final section provides conclusions and recommendations for the observations made in Denmark and Greenland.

II. The situation in Denmark

A. National legal and institutional framework

7. Denmark's Constitution guarantees a number of civil and political human rights. Yet, the level of incorporation of international human rights instruments, especially the level of recognition of economic, social and cultural rights in the domestic legislation is considered insufficient.¹ The European Convention on Human Rights is the only human rights treaty incorporated in Danish law to date. In 2014, an Expert Committee established by the Government presented an assessment on the implications of further incorporating human rights instruments into legislation with most members favouring the incorporation. Civil society organizations expressed disappointment that the only result of the Committee's work was that the Government decided to accede to the Third Optional

¹ See p. 5 and 6 of CRC/C/DNK/CO/5 and p.4 of E/C.12/DNK/CO/5.

Protocol of the Convention on the Rights of the Child.² The Danish Government indicates that despite not having achieved the treaties' incorporation, these can be and are applied nationally by courts and other relevant authorities.³

8. Denmark has ratified most global human rights treaties. However, two notable exceptions are the Optional Protocol to the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families. The Special Rapporteur underlines the importance of ratifying both instruments, noting the special relevance of the Optional Protocol to the ICESCR in enhancing protection of various rights often affected by hazardous substances and wastes, and the specific vulnerability of migrant workers to the exposure to hazardous substances. Denmark regularly collaborates with international human rights mechanisms, and issued a standing invitation to the special mechanisms appointed by the UN Human Rights Council. The Danish Institute for Human Rights, the national human rights institution in place, possesses "A status" in accordance with the Principles relating to the Status of National Institutions (Paris Principles).

9. Denmark is party to all the global treaties for toxic chemicals and wastes and has actively championed the improvement of global standards both at regional and global levels. The regulatory system for the protection from exposure to hazardous substances and the management of wastes in Denmark is framed by European Union (EU) legislation, supported by additional national norms and mechanisms. Denmark participates in Nordic, European (EU/EEA and Reach) and global bodies to improve protection from exposure to toxic chemicals. As detailed below, the Danish national experience with research and regulation of chemicals and other hazardous substances has contributed to the advancement of regulations and practices at European and global levels.

10. The Ministry of Environment and Food of Denmark is the main authority in charge of regulatory and research activities in the areas of environmental protection, farming and food production. Within the Ministry, the Environmental Protection Agency is the leading entity promoting, *inter alia*, protection against air, sound and waste pollution and protection from exposure to hazardous chemicals. The Danish Veterinary and Food Administration, within the same Ministry, carries out all inspection work on the presence of hazardous substances, including pesticides,⁴ in food products, making recommendations to producers, importers and exporters. All inspection of farms regarding pesticide issues are managed by a single authority – the Danish AgriFish Agency.⁵ Occupational health and safety is promoted by the Danish Working Environment Authority, under the auspices of the Danish Ministry of Employment, and the Authority is responsible for compliance with occupational health and safety standards.⁶ Continued ad-hoc inter-ministerial coordination at the national level, led by the Ministry Environment and Food, is highlighted as a good practice to address challenges in contamination of food and the environment through exposure to pesticides and other toxics.⁷

11. National legislative instruments, norms and policies are framed by EU regulations aiming at the protection from exposure to hazardous substances and wastes. Often, as

² Joint Stakeholder Submission Universal Periodic Review of Denmark 24th session of the UN Human Rights Council January-February 2016

³ A/HRC/32/10/Add.1

⁴ This report uses the definition of WHO on pesticides: accordingly "pesticides" are chemical compounds that are used to kill pests, including insects, rodents, fungi and unwanted plants (weeds).

⁵ <http://eng.mst.dk/chemicals/pesticides/reducing-the-impact-on-the-environment/initiatives-under-the-green-growth-action-plan/inspection-activities/>

⁶ Part 7, The Greenland Working Environment Act, Executive Order No. 1048 of 26 October 2005 subsequently amended (Executive Order No. 1048 of 26 October 2005, and Act No. 1382 of 23 December 2012)

⁷ Danish Ministry of Environment, National Implementation Plan: Stockholm Convention on Persistent Organic Pollutants, page 9
<http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/Default.aspx>

detailed below, Danish norms in areas such as the control of pesticides and other toxic substances go beyond EU norms, providing incentives for regional improvements.

12. The Special Rapporteur was impressed by the societal value placed on the protection of human health and the environment from toxic exposures. Denmark has championed a freedom from toxic exposures for several years⁸, with clear recognition in its national action plan that the improvement of international standards for toxic chemical production and use is essential given the country's reliance on imported goods. Denmark's promotion of a non-toxic environment, which the Special Rapporteur views as being an essential component of the right to a healthy environment, influenced an EU-wide strategy for a non-toxic environment.⁹

B. Protection of the child's right to the highest attainable standard of health

13. Denmark has achieved considerable progress nationally and internationally in the adoption of specific measures to protect children and women of reproductive age from toxic exposures. In general, children have higher levels of exposure and are also more sensitive to the adverse effects of exposure to hazardous substances. States have a clear duty to take protective measures to minimize the exposure of children (and thus women of reproductive age) to pollution and toxic chemicals.¹⁰ For decades, Denmark has applied the principles of prevention and precaution to protect child rights from toxic threats, often leading to improved standards of protection both in Denmark and abroad.

14. One of the most notable contributions of Denmark in the protection of children from toxic exposures comes from its work on endocrine (or hormone) disrupting chemicals (EDCs). Scientific evidence on the pervasive health impact of EDCs and the urgent need to increase controls and restrictions to protect human health, and in particular, child development, has emerged over the last two decades.¹¹ Exposure to EDCs poses distinct threat to the rights of the child to life, health, maximum development, and physical integrity, among others. EDCs are linked with ailments such as declining sperm count, early puberty in girls and breast cancer. In 2002, Denmark adopted its first strategy within the field of EDCs and combination effects. Current action plans in place are organized around three main areas: knowledge building and development of test methods, action-orientated investigations, and regulation.

15. Significant investments have been made in research. In the 1990s, Danish researchers identified effects on male reproductive health possibly related to EDC exposure during foetal development. In 2008, the Government established the Danish Centre on Endocrine Disruptors to generate and disseminate scientific knowledge on EDCs.

16. The Centre on Endocrine Disruptors has facilitated research on areas including exposure of pregnant women; combination effects on both male and female hormone systems; options for the grouping of EDCs for expedited regulatory action; and the effects of EDCs in the aquatic environment. Particularly, with regard to the combination or "cocktail" effect of daily exposure of young children to a mixture of toxic chemicals, Denmark has conducted research¹² identifying the deficiency of existing individual risk assessment models for certain hazardous substances in real world conditions. The research is important to improve measures for the protection of especially vulnerable groups such as children and women of childbearing age.

⁸ Danish Chemical Action Plan, "Towards a life without toxins" (2014)

⁹ <https://chemicalwatch.com/register?o=21262&productID=1&layout=main>

¹⁰ A/HRC/33/41

¹¹ EDC-2: The Endocrine Society's Second Scientific Statement on Endocrine-Disrupting Chemicals <http://press.endocrine.org/doi/10.1210/er.2015-1010>

¹² EPA, 'Survey and Health Assessment of the exposure of 2 year-olds to chemical substances in Consumer Products', 2009 and EPA, 'Exposure of pregnant consumers to suspected endocrine disrupters', 2012.

17. Efforts adopted at the national level have often preceded similar measures by the EU, and have sometimes been negatively affected by slower adoption of protective measures at EU level. In 1999, Denmark adopted a ban on all phthalates in toys and personal care products for children under three years of age. Eight years later, the EU adopted a ban on the use of only six phthalates in this context. In 2012, the Danish Government announced the intention to work towards a broader national ban on the use of phthalates, which was unfortunately blocked by the European Commission using the European parameter as an instrument to lower protections.¹³ In 2011, Denmark became the first country in the world to ban propylparaben and butylparaben in all personal care products for children up to three years of age.

18. The Government has also used taxes on the use of hazardous substances to push for further reduction of exposure, through imposing taxes on pesticides, chlorinated solvents, Chlorofluorocarbons (CFCs), nickel-cadmium batteries, soft Polyvinyl chloride (PVC) and certain phthalates.

19. Since 2012, Denmark has pressured the EU to adopt a set of criteria for EDCs applicable across all relevant legislative areas, including cosmetics, pesticides and industrial chemicals. In 2013, the EU Directorate-General for Environment proposed criteria for the regulation of EDCs, which were supported by the Danish Government, but viewed as too stringent by other EU members. The pesticide industry was particularly concerned, as it claimed that the criteria could prohibit the use of 40 per cent of its products, indicating the extent to which the control of the use of EDCs lags behind the state of the science on the issue. In 2016, the European Commission published its proposed criteria for the identification of EDCs, which was criticized by many in the scientific community, including endocrinologists. Denmark joined the reaction against the criteria proposed, while noting that the proposal required unprecedented and scientifically unjustified levels of evidence; that it was inconsistent with corresponding legislation; and that it lacked a precautionary aspect.¹⁴

20. The Commission eventually adopted criteria for the identification of endocrine disrupting biocides in 2017, with relevance to other pesticides and industrial chemicals as well. The adopted regulation was criticized by medical specialists¹⁵ for its limited scope and for requiring an excessively high burden of proof on how endocrine disruption results in adverse effects. Concerns continue to be raised on the lack of transparency and limited scope for participation of independent public researchers in this process. Danish authorities reportedly continue to ask European regulators on how to proceed under this level of uncertainty.

C. Protection of workers

21. Denmark's approach to the protection of workers from exposure to hazardous substances includes legislation, monitoring, continued investment in research, and the creation of mechanisms for knowledge sharing and collaboration between scientists, policy makers, business enterprises and civil society.

22. The Danish legal and policy framework dealing with protection of workers from exposure to hazardous substances includes the Working Environment Act,¹⁶ related executive orders,¹⁷ and the Working Environment Authority Guidelines which give an

¹³ <https://www.euractiv.com/section/health-consumers/news/denmark-defies-eu-with-planned-ban-on-phthalate-chemicals/>

¹⁴ <https://chemicalwatch.com/49735/denmarks-environment-minister-why-the-commissions-edcs-criteria-fall-short>

¹⁵ <https://www.endocrine.org/news-room/2018/eu-criteria-fall-short-of-protecting-public-from-endocrine-disrupting-chemicals>

¹⁶ Ministry of Employment Consolidated Act no. 1072 (2010) and amendments, <http://engelsk.arbejdstilsynet.dk/en/regulations/acts/working-environment-act/arbejdsmiljoeloven1>

¹⁷ Executive Orders pursuant to the Danish Working Environment Act, the Offshore Safety Act, and the Act of Certain Offshore Installations, <http://engelsk.arbejdstilsynet.dk/en/regulations/executive-orders>

indication on possible interpretation of the law on occupational safety and health.¹⁸ Denmark ratified in 1995 the ILO Occupational Safety and Health Convention, (No. 155). The law on protection of workers from exposure takes a preventative approach focusing concern on elimination or minimization of exposure as a first step.

23. The Danish Working Environment Authority is responsible for occupational health and safety inspections of all companies, communication of information related to occupational safety and health, and regulation.¹⁹ The rights of workers in relation to remedy for workplace accidents and occupational diseases are covered under the Workers' Compensation Act.²⁰ Employers and occupational medical service providers have a duty to report cases of industrial injury to the Labour Market Insurance to assess, investigate, and make a decision on the claim.²¹ The establishment of a list of occupational diseases is considered to have facilitated the access of workers to remedies.

24. A 2017 review of the literature on occupational safety and health²² concluded that the introduction of legislation combined with labour inspection enforcement activities contributed to a reduction in injuries and fatalities and improved compliance with regulation.

25. The requirement by Danish legislation for substitution of hazardous substances or materials with less hazardous ones, even if the effects of the hazardous substances are insignificant, seems to have particularly contributed to progress in the protection of workers (and consequently consumers) from exposure. The publication of a list of undesirable substances, for which substitution is encouraged, has further improved the protection of workers.

26. The Danish experience to protect the right of workers to safe and healthy working conditions reflects the country's overall strategy regarding the promotion of a non-toxic environment, continuously identifying and eliminating hazardous chemicals, and is a relevant source of knowledge on the multiple instruments that may be utilized by Governments.

27. The Ministry of Environment and Food publishes annually detailed and disaggregated statistical data on pesticides use.²³ Research developed in Denmark has served to raise awareness on the need to increase levels of protection. A 2015 study on the implications of exposure of pregnant women working in greenhouses to pesticides, for example, identified adverse effects in the neurodevelopment of their children, even though the exposure occurred only during early pregnancy and under well regulated working conditions.²⁴

28. The Special Rapporteur acknowledges Denmark's efforts in promoting occupational safety and health through cooperation with other governments, to which he attaches great importance given the transnational production and disposal chains of Danish businesses. Among other activities, a 2016 project in Bangladesh established an expert group on Occupational Safety and Health, in the Department for Inspection of Factories and Establishments of the Government of Bangladesh. The Special Rapporteur welcomes this cooperation but was disappointed to note that cooperation efforts did not include support to the shipbreaking industry in Bangladesh or elsewhere, despite the substantial impact of Danish businesses in this sector on the rights of foreign workers. He encourages further

¹⁸ <https://workplacedenmark.dk/en/health-and-safety/working-environment-regulations>

¹⁹ <https://workplacedenmark.dk/en/health-and-safety/arbejdstilsynets-role-and-tasks>

²⁰ Consolidated Act No. 278 (2013); <https://workplacedenmark.dk/en/health-and-safety/industrial-injuries-rights-and-duties>

²¹ Labour Market Insurance, <https://aes.dk/da/english.aspx>

²² Andersen JH1, Malmros P2, Ebbelhoej NE2, Meulengracht Flachs E2, Bengtsen E3, Bonde JP2, Systematic literature review on the effects of occupational safety and health (OSH) interventions at the workplace, 2017

²³ <http://eng.mst.dk/chemicals/pesticides/pesticides-statistics/>

²⁴ Andersen HR, Debes F, Wohlfahrt-Veje C, Murata K, Grandjean P, Occupational pesticide exposure in early pregnancy associated with sex-specific neurobehavioral deficits in the children at school age, 2015

efforts by Danish businesses enterprises to ensure all workers are protected from exposure to toxic substances in their supply chains, among other concerns for workers' rights.

D. Information and public participation

29. Information is the cornerstone for efforts to respect and protect human rights from toxic exposures.

30. One relevant initiative for knowledge sharing and informing the development of norms and policies was the establishment of the "Danish Chemicals Forum". The forum promotes dialogue between authorities, industry, consumer organizations and other relevant stakeholders sharing information in the products area. Collaboration with the Central Customs and Tax Administration and the Danish Safety Technology Authority helps to promote enforcement of regulatory decisions made at the Forum. In the same space, experts may raise alerts on potentially harmful substances to be studied or eliminated, and discuss practical challenges in ensuring elimination of these chemicals.

31. Another good practice is the "Tjek Kemien" mobile phone application, developed in 2014, which helps consumers regain some control of their exposure to toxic chemicals and to use their collective purchasing power to drive the adoption of safer chemicals in a variety of consumer products (toys, electronics, clothes or furniture) which could contain toxic substances. The application sends a request for information on the presence of various Substances of Very High Concern (SVHC) (such as those linked to cancer, mutations or reproductive harms). The manufacturer is required to reply within 45 days, free of charge and provide guidance on the safe use of the product in accordance with the EU REACH Regulation. Reportedly, consumers in Denmark have used the application almost 120,000 times since its creation,²⁵ and over 1,000 companies have provided feedback. In more than 7,000 cases, the consumer has received an answer right away.²⁶ This application supported improvements by industry to avoid the use of SVHCs, either for consumer confidence or to avoid the costs of compliance. The use of the application has gradually decreased, possibly because of delays in receiving information and challenges with getting responses from companies abroad. A similar application has been developed in Germany and the EU is supporting a Europe-wide version.²⁷

32. The Danish Consumer Council invests in the promotion of testing on the presence of undesirable substances in multiple consumer products and in the dissemination of this information among consumers and retailers. The project "Think chemicals" examines the content of a very wide range of products (body lotions, toys, deodorants, food containers, etc). The results of the tests it conducted over the years are publicly available online.²⁸ Testing processes help to sensitize the overall population and have sometimes persuaded manufactures and retailers to adopt measures to ensure that the products offered are safer. The Special Rapporteur was informed that local companies tended to be very collaborative in finding safer alternatives, while some global giants (that are proportionally less affected by the Danish market) were less keen. The coordination of data collection in Denmark with similar processes in other locations in Europe is also helping organizations to push for greater protections at the EU level.²⁹

E. Extraterritorial impacts of shipbreaking

33. Some of the most profound impacts on human rights from Danish business activities occur outside the continent. Victims of transnational rights abuses by business enterprises

²⁵ <https://chemicalwatch.com/65331/danish-consumer-council-says-svhc-app-is-a-success>

²⁶ https://newsletter.echa.europa.eu/home/-/newsletter/entry/1_15_danish-app-for-consumers-a-big-success

²⁷ <https://chemicalwatch.com/64821/eu-wide-app-to-learn-from-danish-project-problems>

²⁸ <http://kemi.taenk.dk/english>

²⁹ Joint study on fluorinated substances in fast food packaging: <http://kemi.taenk.dk/bliv-groennere/fast-food-packaging-contains-unwanted-fluorinated-substances>

face various obstacles in accessing effective remedies, particularly for occupational exposure to toxic substances. These challenges include proving damages and establishing causal links, financial costs of access to remedy in most jurisdictions, and the potential lack of independence of judicial systems. States have a duty to take necessary steps to address these and other challenges for extraterritorial impacts of businesses in their territory or jurisdiction to prevent a denial of justice and ensure the right to effective remedy for victims abroad.³⁰

34. The Danish shipping sector is among the biggest in the world, and has at times contributed to the development of sound practices in the dismantling of ships. In 2017, Denmark ranked seventh on the global ranking of operator nations.³¹ The Danish company A. P. Moeller Maersk stands as a world leader in the sector: as of May 2018 it has a global capacity market share of 18.7 per cent.³²

35. The extremely poor working and environmental conditions prevailing in most shipbreaking yards remains of great concern to the mandate (A/HRC/12/26). South Asian beaches are a regular destination for disposal and dismantling of vessels, resulting in serious environmental damage and human rights violations and abuses. In 2017 it was estimated that 543 large ships (80% of the total number of ships dismantled in the world) were dismantled in the beaches of Bangladesh, India and Pakistan. As unsafe conditions predominate, at least 33 workers reportedly died while working in shipbreaking during the same period, a statistic that does not account for deaths, diseases and disabilities from toxic exposures.³³

36. The Danish government stated its commitment to promote the safe recycling of ships by becoming the seventh country to ratify the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships.³⁴ In 2013, the EU adopted a Ship Recycling Regulation,³⁵ increasing the requirements established by the Hong Kong Convention as it requires all ships calling EU ports to carry an inventory of hazardous materials and establishes that EU flagged ships are only to be dismantled in EU-accredited facilities. During the course of this visit, the EU was conducting a second assessment in the first process of accreditation of yards worldwide.

37. Danish shipping companies repeatedly indicated their willingness to ensure safer dismantling of their ships. Notably, Maersk abandoned in 2006 the export of ships for recycling in South Asian beaches, effectively prohibiting the practice of beaching. Yet, in 2016, Maersk reversed this position and resumed the sale of vessels for dismantling in Alang Bay in India, where ships continue to be dismantled in deplorable conditions.

38. Representatives of Maersk and Danish Shipping emphasized to the Special Rapporteur the slowness of the evolution of the international regulatory framework, placing them at a competitive disadvantage and the lack of definition on the EU accreditation process, while explaining their decision to return to the selling of ships for dismantling in Alang. They indicated that the selected yards in Alang had greatly improved in capacity to dismantle ships without contaminating the area and under adequate working conditions. They explained that the decision to return to the area was only made after the verified adoption of safety requirements, and that the intent of this approach was to promote progress in these difficult areas.³⁶ Maersk adopted what they called a “Responsible Ship

³⁰ General Comment no 24, CESCR

³¹ Danish Shipping Facts and Figures, 2017

³² <https://www.statista.com/statistics/198206/share-of-leading-container-ship-operators-on-the-world-liner-fleet/>

³³ http://www.shipbreakingplatform.org/shipbrea_wp2011/wp-content/uploads/2018/02/NGO-Shipbreaking-Platform-Stats-Graphs-2017-List-UPDATED.pdf

³⁴ The Convention will enter into force 24 months after ratification by 15 States, representing 40 per cent of world merchant shipping by gross tonnage, combined maximum annual ship recycling volume not less than 3 per cent of their combined tonnage.

³⁵ EU Regulation no 1257/2013 of 20 November 2013

³⁶ <https://www.danishshipping.dk/en/press/news/alang-is-not-just-alang>

Recycling Standard”³⁷ with express intent to ensure ships are decommissioned in accordance with human rights, labour and environmental standards. During the mission, Maersk stated it did not have any environmental monitoring data. In this process, a group of four yards in Alang received a Statement of Compliance (SOC) for Ship Recycling Facilities following audits by ClassNK at the request of the industry.

39. Several concerns were raised by civil society organizations with regard to this decision. It was noted that there are only 4 accredited yards in an area with over 110 other facilities side by side. No accurate environmental data was available to confirm improvements as abundant malpractices remain around the accredited facilities. Additionally, the access of relevant civil society organizations is strictly limited and only a few pre-arranged visits with full control of the companies involved were promoted.³⁸ Finally, an independent investigative media and research organization made an unannounced visit to an accredited yard in Alang just after Maersk had sent their first vessels back to one of the yards considered to be improved and reported that, contrary to what was stated by companies, parts of the ship were still in direct contact with the beach and working conditions were clearly inadequate with workers exposed to serious risks.³⁹

40. The Special Rapporteur remains seriously concerned that the decision to return to Alang and the obvious social or environmental risks involved. Although recognizing the importance of the accreditation efforts, he underlines that these should not replace official assessments such as the ongoing EU assessment. In the view of the Special Rapporteur, Class NK is not sufficiently independent or balanced to address the issues at hand. Its administrative Council, Board of Directors, Auditors, Technical Committee and Marine Committee are all directly or indirectly appointed “from among ship-owners, shipbuilders, manufacturers of marine machinery and equipment, and others.”⁴⁰ The credibility of the efforts is also damaged by the incapacity of the companies to convince the improved yards to receive independent visits by civil society organizations, justifying their lack of transparency with a claim that NGOs had scared yards owners with negative reporting.

41. The dismantling of the vessel North Sea Producer, jointly owned by Maersk and the Brazil-based Odebrecht, provides further insight on the extremely poor human rights due diligence processes still in place in the sector. This vessel was sold in April 2016 by Maersk and Odebrecht in the UK, while local authorities were informed by the owners that it was being purchased by a Saint Kitts and Nevis-based company Conquistador Shipping Corporation for further use in Nigeria. Yet, just after leaving Europe, the vessel was beached in Chittagong, Bangladesh after being sold locally by Global Marketing Systems JLT, a company involved in trading ships for dismantling on South Asia beaches. Radioactive residues were found in the ship while it was already being dismantled at the Chittagong beach without minimal protection. As a result of the radioactive contamination, dismantling was halted and investigations started in 2017 both in Bangladesh and the UK. Civil society and media informed that the owners were aware that a company specialized in recycling was the actual purchaser of the ship, the sale to Saint Kitts and Nevis for further use was not real; and that they failed to properly inform authorities.

42. The Special Rapporteur was particularly troubled by the reluctance of Maersk to engage in dialogue on this episode. During his visit, the representatives of Maersk indicated that only the joint venture North Sea Producer Company, which merely existed for administering the dismantled vessel, was capable of sharing any information on the issue. In response to a communication on the same case sent by The Special Rapporteur and the Working Group on Business and Human Rights, Maersk (still signing as North Sea Producer Limited) vehemently denied knowing that the ship was purchased to be scrapped and stated it believed the buyer would abide by clauses requiring responsible recycling of the vessel imposed in the sale context. Contradicting Maersk in responding to the same

³⁷ Maersk, Responsible Ship Recycling Standard “RSRS”, May 2018

³⁸ <http://www.shipbreakingplatform.org/platform-news-the-new-lobbyist-of-beaching-maersk-ignores-concerns-of-environmental-and-human-rights-experts/>

³⁹ <https://old.danwatch.dk/en/undersogelse/maersk-and-the-hazardous-waste/>

⁴⁰ <http://www.classnk.com/hp/en/about/organization/index.html>

letter, Odebrecht indicated that the ship was indeed sold to Global Marketing Systems JLT (making no reference on the inoperative Conquistador Shipping).⁴¹

43. This episode underlines the extreme challenges in ensuring accountability in the cases of beaching and the unsatisfactory cooperation of the private sector in this regard. Danish officials and industry representatives responded to the concerns raised by the Special Rapporteur by making constant references on the need to move ahead with the ratification of the Hong Kong Convention and on the lack of advancements made by other States and the global industry. Yet, it is widely recognized (including by these same interlocutors) that the Hong Kong Convention levels of protection are insufficient (See p.62 in A/HRC/12/26). Today, this enables various actors to undermine the provisions of the Basel Convention that prohibit practices permitted by the Hong Kong Convention. It seems that the creation of the Hong Kong Convention has allowed for the continuation of global abuse of South Asian workers and communities by the shipping industry, including Maersk. Even if the initiatives of the industry to promote some level of self-regulation could be regarded as positive steps, this must not replace more robust efforts and existing obligations on States and businesses under international law. It is crucial to recall that the Basel Convention is in force, with near universal ratification, and still a source of clear duties and responsibilities in the export of hazardous vessels for dismantling.

44. The States where beaching is practiced have obligations to ensure the protection of human rights in these locations. Yet, Denmark as well as other States hosting companies, which are circumventing existing, global obligations in order to dispose their vessels in inadequate conditions, also has the duty to prevent these well-documented abuses. The incapacity of the Danish Government and companies to ensure a more rapid improvement of norms and practices regarding shipbreaking is particularly disturbing when so much progress was achieved in the protection against hazardous substances through the dialogue between Danish authorities and companies operating in other sectors.

F. Extraterritorial impacts of pesticide exports

45. Taking into consideration the very advanced initiatives developed by Denmark in the protection of Danish workers and their communities from the harmful effects of toxic chemicals, in particular pesticides, the Special Rapporteur was disturbed by the lack of attention to the continued exportation of hazardous pesticides banned by Denmark to countries that have lower levels of protection against the adverse impacts of such pesticides on the human right to health, among others. In some cases, products produced with such banned pesticides and other toxic chemicals can be imported back into Denmark.

46. The Danish company Cheminova is one of the main producers of one such pesticide, Malathion (an insecticide). Evidence is publicly available on the serious risks posed by Malathion to the environment, especially water sources and biodiversity and to human health.⁴² An analysis conducted in 2016 by the World Health Organization International Agency for Research on Cancer (IARC)⁴³ concluded that Malathion is probably carcinogenic to humans while identifying strong evidence that exposure to malathion-based pesticides is genotoxic. For these reasons Malathion is not commercialized in the EU. Yet, only in 2017, Cheminova A/S, a multinational pesticide producer based in Denmark exported Malathion to over 40 countries outside the EU.⁴⁴ In 2015, the Special Rapporteur expressed his concerns on the extreme impacts on the rights to food and water, and livelihoods of communities, when 500 to 1000 kg of fish were killed in Peten River, Guatemala, reportedly due to the heavy contamination of local waters by Malathion.⁴⁵ The

⁴¹ JAL OTH 6/2018, <https://spcommreports.ohchr.org/TMResultsBase/DownloadPublicCommunicationFile?gId=23623>, <https://spcommreports.ohchr.org/TMResultsBase/DownloadFile?gId=84603>

⁴² http://www.pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC32924

⁴³ <https://monographs.iarc.fr/ENG/Monographs/vol112/mono112-07.pdf>

⁴⁴ Export Notifications, European Chemical Agency

⁴⁵ AL GTM 4/2015, [https://spdb.ohchr.org/hrdb/31st/public_-_AL_Guatemala_25.11.15_\(4.2015\).pdf](https://spdb.ohchr.org/hrdb/31st/public_-_AL_Guatemala_25.11.15_(4.2015).pdf)

practices of Cheminova in countries with weaker normative frameworks have been criticized in the past.⁴⁶

47. The exposure of communities and workers in States with weaker regulations to chemicals banned in Europe is an unacceptable demonstration of double standards.⁴⁷ As previously addressed, additional legal instruments should be considered in Denmark in order to ensure companies respect human rights throughout their operations and conduct human rights due diligence in relation to their domestic and international operations and supply chains, always using the highest levels of protection when operating in different jurisdictions.

III. The situation in Greenland

A. Self-Government legal and institutional framework

48. In 1953, Greenland became an integral part of the Danish Realm. Gradually over the following decades Greenland expanded its autonomy. The Greenland Self-Government's legal and institutional autonomy is currently provided by the Act on Greenland Self-Government of 21 June 2009, which recognises that the people of Greenland have the right to self-determination; describes the fields of responsibility and competences that Greenland can assume; and introduces a new economic arrangement between Denmark and Greenland.⁴⁸

49. Pursuant to the 1978 Greenland Home Rule Act, Greenland has already assumed legislative and administrative responsibility in a substantial number of fields, including the environment area (except from marine environment). Several areas such as the constitution, foreign, security, defence policy, foreign exchange and monetary policy cannot be assumed by the Greenland Self Government due to the Danish Constitution. The Self-Government Act contains a comprehensive set of rules and regulations concerning cooperation between the Danish Government and the Greenland Government; Greenland has to be consulted before the ratification of international agreements of specific relevance to Greenland.

50. This also includes matters of foreign policy and military activity in Greenland. Greenland has established representations in Danish Embassies in countries and institutions of specific interest. Two members in the Danish Parliament represent Greenland. Most human rights treaties recognized by Denmark apply in Greenland and the Greenland Government provides reports to international human rights mechanisms. The Danish Institute for Human Rights' mandate as national human rights institution extends to Greenland. Since 2013, Greenland has also established its own Human Rights Council, which is funded with Greenlandic resources and cooperates with the Danish Institute for Human Rights. Local authorities demonstrated great interest in strengthening the existing mechanisms and maintaining regular collaboration with civil society.

51. A number of international environment conventions including the Basel Convention apply to Greenland. Until present, Greenland has not informed Denmark that the Aarhus Convention shall be applicable in Greenland. Taking such a step would enhance Greenlandic and Danish commitment to realize the rights to information, meaningful participation and access to justice where there is a risk of exposure to hazardous substances and wastes.

52. The Greenlandic Ministry of Nature and Environment is charged with most of the responsibilities relevant for the protection from hazardous substances and wastes. Within this Ministry, the Department of Environment and Contingency Management is the main

⁴⁶ Michael Sjøgaard Jørgensen, Bruno Milanez, Pesticide export to institutionally vulnerable countries, who is responsible? An assessment of the practices and strategies of a Danish company in Brazil, 2012

⁴⁷ A/HRC/33/41/Add.2, A/HRC/36/41, A/HRC/34/48

⁴⁸ UN GA, A/64/676.

authority in the control of pollution, providing environmental permits and also monitoring the implementation of regulations for pollution and waste. Also within this Ministry, the Greenlandic Environmental Agency for Mineral Resource Activities is the entity mandated to oversee the environmental impact of Mineral activities.

B. Pollution of the Arctic environment and climate change

53. The Arctic region is particularly affected by global pollution. Several studies have confirmed the region is exposed to global pollution with possible important negative consequences for the health of Greenlandic and other Arctic populations, including indigenous peoples.

54. Persistent pollutants were found in the Arctic region during the 1950s. The Arctic region receives disproportional amounts of pollutants, naturally transported northward from distant sources and deposited in arctic ice. The vast majority of these toxics do not originate in the Arctic and were banned or restricted due to human health or the environmental risks several decades ago.⁴⁹

55. Serious concern is drawn to this issue as a violation of the rights of the indigenous peoples of the Arctic Region, especially in contravention of Article 29 of UN Declaration on the Rights of Indigenous Peoples, prohibiting storage or disposal of hazardous materials on their lands or territories without their free, prior and informed consent. Further these pollutants pose a clear risk to a myriad of other rights of indigenous peoples, including their rights to life, health, physical and mental integrity, and self-determination, among others.⁵⁰ Global efforts to reduce the exposure to these toxics such as the Stockholm Convention on Persistent Organic Pollutants (POPs) are vital to protect Arctic populations from exposure without their prior informed consent, i.e. 'toxic trespass'.⁵¹ However, existing global treaties for toxic chemicals do not ban or regulate the use or emission of many toxic chemicals that eventually contaminate the Arctic.

56. A recent study⁵² further confirmed that the frozen environment of the Arctic cryosphere has become a "reservoir of toxic chemicals". As climate change contributes to the melting of the ice sheet, the remobilization of these toxic chemicals into the Arctic region and thus global environment is underway. Another recent study called the Arctic Ocean a "dead end for floating plastics" indicating that drifts of floating plastic (and their toxic constituents) dumped into oceans in other regions over the years are accumulating in polar latitudes.⁵³

57. Concerns exist with regard to the high level of contamination of traditional food sources for Greenlandic communities. It is reported that a wide spectrum of substances – industrial chemicals, pesticides, heavy metals, and radionuclides - that reach high levels in the Arctic ecosystem have a strong impact in marine mammals (as contaminants biomagnify up the food-chain) that form an important part of the traditional Inuit diet.⁵⁴ Such a disproportional exposure is associated with relevant risks to human health: a recent study⁵⁵ found markedly higher levels of persistent pollutants in individuals with the highest intake of traditional Greenlandic food and indicated a possible relation between the

⁴⁹ These include highly hazardous pesticides like DDT, Aldrin, and Dieldrin, as well as toxic industrial chemicals like Polychlorinated biphenyls (PCBs) and Hexachlorobenzenes (HCBs).

⁵⁰ Articles 3, 7, 17, 21, 22, 24, UN Declaration on the Rights of Indigenous Peoples

⁵¹ « toxic trespass » refers to exposure to hazardous substances and wastes without free, prior, and informed consent.

⁵² Aviaja L Hauptmann, Thomas Sicheritz-Pontén, Karen A Cameron, Jacob Bælum, Damian R Plichta, Marlene Dalgaard, Marek Stiba., Contamination of the Arctic reflected in microbial metagenomes from the Greenland ice sheet. *Environmental Research Letters*, 2017; 12 (7): 074019 DOI: 10.1088/1748-9326/aa7445

⁵³ <http://advances.sciencemag.org/content/3/4/e1600582>

⁵⁴ ICC, Food Security across the Arctic, Canada May 2012

⁵⁵ L. K. Schæbel, E. C. Bonefeld-Jørgensen, H. Vestergaard, and S. Andersen, The influence of persistent organic pollutants in the traditional Inuit diet on markers of inflammation, 2017

exposure to this pollutants and the prevalence of inflammation affecting the health of Greenlandic communities. Another recent case study in Greenland identified significant, positive associations between breast cancer risk and certain classes of toxic chemicals, concluding that exposure to such pollutants can be a factor increasing the risk for breast cancer in Inuit women.⁵⁶

58. As a consequence of research findings, Greenlandic authorities have promoted information campaigns to reduce risks of the traditional diet, especially for pregnant and breastfeeding women. Identifying alternative food options is clearly a challenge in the local eco-system. The Special Rapporteur underlines the need to continue investing in research on the consequences of Arctic pollution, the relevance of ensuring access to information and the importance of developing a protocol to test for heavy metals in domestic foodstuffs, in addition to developing alternative dietary options. The Arctic Monitoring and Assessment Program, AMAP has during many years provided information about pollution levels in Greenland and the Arctic.
59. Climate change has been found to potentially modulate the impact resulting from exposure of humans to toxic pollutants, and certain uncertainties regarding the effects of climate change on means it is not possible to make reliable risk and impact assessments, requiring stricter application of the precautionary principle.⁵⁷ Climate change, including increasing climate variability, may affect both primary and secondary emissions of persistent pollutants in the Arctic region, potentially offsetting the efforts undertaken under the Stockholm Convention to reduce emissions of POPs, increasing the risks related to their harmful effects on human health.⁵⁸ Climate change is also increasing the navigation possibilities around the island as the frosting of some areas becomes infrequent. The increase of navigation brings other stressors, for example, ships discharging ballast water into Arctic seas may introduce invasive species that may outcompete and displace resident species. Increased opportunities of navigation also expand fishing opportunities. The fishing industry is in fact a key pillar in the Greenlandic economy and reports were shared with the Special Rapporteur with regard to the overfishing of some species such as salmon⁵⁹ and Greenland halibut.⁶⁰
60. There is an urgent need for greater attention to the impacts of pollution in the Arctic. The Special Rapporteur recognizes that Greenland suffers important consequences of global pollution and should therefore continue and expand its involvement in demands for global actions to speedily improve the management of hazardous substances and wastes. Even if there are no major sources of mercury in Greenland, mercury contamination is a key source of concern for the diet of traditional communities – therefore, Greenland should consider application of the Minamata Convention on Mercury.⁶¹

C. Military activities

61. The Danish Government has competence in matters of defence, but is to consult and cooperate closely with the Greenlandic Government on foreign and security affairs of particular importance to Greenland in accordance with the 2003 Itilleq Declaration. Agreements signed between Denmark and the United States (U.S) in 1941 and 1951 allowed the United States to build a number of bases and radar stations in Greenland. The establishment of the Thule Airbase in 1953 was particularly traumatic, as Danish authorities

⁵⁶ Wielsøe M, Kern P, Bonefeld-Jørgensen EC, Serum levels of environmental pollutants is a risk factor for breast cancer in Inuit: a case control study, 2017

⁵⁷ United Nations Environment Programme/Arctic Monitoring and Assessment Programme (UNEP/AMAP) Expert Group, Climate Change and POPs: Predicting the Impacts, submitted to Stockholm Convention COP2, April 2011

⁵⁸ UNEP/AMAP Id.

⁵⁹ http://www.nasco.int/wgc_measures.html

⁶⁰ <http://wwf.panda.org/?309430/Much-at-stake-in-Greenland-halibut-overfishing>

⁶¹ <http://www.highnorthnews.com/making-mercury-history-greenland-chooses-to-opt-out-of-historic-un-convention/>

forced the relocation of the inhabitants of the village of Uummanaq to other villages in the area. The case was the object of domestic litigation and villagers were awarded financial compensation. American presence significantly decreased over the years and successive agreements between Denmark and the U.S, resulted in the return of military facilities to Danish control with the exception of Thule Airbase.

62. The lack of participation of Greenlandic authorities in past agreements adopted between Danish and U.S. forces, and the protracted unwillingness from the Danish and U.S. authorities, until recently, to perform a comprehensive clean-up following U.S. military activities and of abandoned U.S. military sites, have fuelled debates on the responsibilities for cleaning up of remains of former military presence as well as monitoring and safeguarding the corresponding landfills. Difficulties in clarifying the extent, location and type of waste, and the resulting inability to provide meaningful risk assessments to communities living and hunting in the affected areas, has fuelled the sense of resentment and frustration by Greenlanders. The Danish Government informed the Special Rapporteur that it has financed various impact assessments.

63. In recent years, concern over hazardous wastes left by the U.S. military increased in Greenland. A 2016 report on the situation around the U.S. base “Camp Century” beneath the surface of the north-western Greenland Ice Sheet estimated that tons of toxic waste including PCBs and radioactive material could be exposed due to climate change and thawing ice.⁶² The base was decommissioned in 1967 after a study on the feasibility of deploying ballistic missiles within the ice sheet. The Danish Government, in cooperation with the Greenland Government, initiated several studies to assess the remaining waste at Camp Century, including a programme for long-term climate monitoring, a survey of the debris field and measurements of radioactivity in ice samples.

64. The Special Rapporteur was informed that the U.S. Government interprets that the agreement with Denmark excludes them from any liability related to the cleaning of the remaining debris from previous military activity conducted in Greenland. Greenlanders from their side exercise pressure on Danish authorities for solving the impact of the years of activities conducted in their territory without their consent, control or participation. However, interlocutors informed the Special Rapporteur that the U.S. Government financed an arrangement with the Greenland Home Rule regarding the abandonment, demolition and clean-up of certain bases, based on agreements between U.S. and Danish Governments, including the Government of Greenland. Danish authorities granted a mutually agreed financial contribution to the Home Rule for environmental clean-up at Dundas when that area was given up by the US Government at the request of the Home Rule.

65. Controversy marked the implementation of military activities especially due to the difficulties in accessing information on the full nature of operations implemented by the US forces. Concerns existed, for example, on the impact of the contamination generated by the crash near a U.S. B-52 bomber loaded with nuclear weapons near the Thule Airbase. Due to the high level of confidentiality, a controversy emerged about the potential risk of an unaccounted unexploded device allegedly left in the area, but a study by the Danish authorities⁶³ discarded this hypothesis. Workers involved in the clean-up operation claimed long-term health problems resulted from their exposure to the radiation and legally challenged the Danish Government for allegedly failing to monitor the health consequences of their exposure to hazardous substances. Joint studies conducted by Danish health authorities and the Greenland Home Rule Government did not identify the existence of specific health consequences.

66. In January 2018 Danish and Greenlandic authorities signed an agreement to promote the clean-up of American military installations. The deal earmarks 180 million kroner over six years for the clean-up. This followed a February 2017 agreement, adopted for the monitoring and gauging the risks associated with Camp Century and the reported retraction

⁶² *The abandoned ice sheet base at Camp Century, Greenland, in a warming climate* by Colgan et al. in *Geophysical Research Letters*, 2016

⁶³ https://www.diis.dk/files/media/publications/2009/diis_rp_2009-18.pdf

of the covering ice cap. Regarding Camp Century, the Greenlandic Government does not necessarily consider these studies and projects to be sufficient, and reiterates that it does not assume legal responsibility for the detection, investigation and clean-up of pollution, including radioactivity in the area.

67. The Special Rapporteur recognizes the efforts taken to assess the impact of the military waste and the commitment of Denmark to support the clean-up. Full transparency is crucial to dissipate the tensions that had emerged over years of covert operations. Regardless final attribution of responsibilities between Danish and U.S. forces, States must ensure the disposal of contaminated war debris, unexploded ordnance and military equipment in a manner that is consistent with international standards (A/HRC/5/5). However, Greenlanders raised concerns during meetings regarding the continued use of the island in defence efforts, including as part of an anti-missile shield.

68. The Special Rapporteur was also informed about concerns regarding the impact of waste left from the debris of rocket launching in the arctic sea. In 2017, Greenlandic Inuits protested⁶⁴ against the launch of satellites by the European Space Agency as the debris potentially containing important quantities of unburned hydrazine fuel fell into an area of vital hunting sources.⁶⁵ Greenlandic Inuits complained about not being informed on the launches and noted the important risks these activities create for them. A recent study called attention to the fact that since 2002 Russia has at least on ten occasions dropped rocket stages fuelled with unsymmetrical dimethylhydrazine (UDMH) into the Barents Sea and the North Water Polynya without consideration on the important risks posed by these activities. The study noted that not all of the fuel on-board is consumed during a launch and the residual fuel can pollute large areas. Scientific literature on the health consequences of UDMH exposure is documented among US aerospace workers⁶⁶ Another study prepared by United Nations Development Program in Kazakhstan, in areas of frequent use of similar rockets, has noted serious health consequences for children and adults.⁶⁷ The Special Rapporteur fully concurs with the calls for avoiding the use of UDMH-fuelled rockets until their safety is fully demonstrated.

D. Mining initiatives

69. The extraction of minerals is regarded as one of the main potential sources for economic expansion in Greenland and viewed by some interlocutors as critical for full independence from Denmark. At the same time, there are important concerns on the environmental and social impact of these activities can provoke. Reportedly, investment in mineral activities has slowed in recent years due to the general decrease of commodities price which made investments in remote areas less attractive.

70. Most mining projects are still at embryonic stage. Special concerns existed, for example, with regard to a mine for rare earth elements, zinc and uranium in Kvanefjeld, near Narsaq. Accumulated experiences around the world illustrate that such mining projects are associated with a wide range of potential adverse human health and societal risks. Besides the risks to workers, this specific mine could potentially contaminate and otherwise disturb areas used by the local community, for example as sheep farms. Depending on the dimension of projects considered, an influx of migrant or temporary workers may be required. Special measure must be taken to ensure oversight of working conditions and to promote their integration in local communities. The capacity of authorities to ensure close monitoring of waste and tailings dumps in the future might be another source of concern,

⁶⁴ http://www.inuitcircumpolar.com/uploads/3/0/5/4/30542564/press_release_icc_pikialasorsuaq_commission_calls_for_postponement_of_russian_rocket_launch.pdf

⁶⁵ <https://theconversation.com/latest-rocket-launch-renews-concerns-over-inuit-food-security-85708>

⁶⁶ Ritz, Beate PhD et al, Chemical Exposures of Rocket-Engine Test-Stand Personnel and Cancer Mortality in a Cohort of Aerospace Workers, 1999

⁶⁷ Environment and development nexus in Kazakhstan, UNDP, <https://www.thegef.org/sites/default/files/nca-documents/2147-22347.pdf>

especially while considering the accumulated challenges faced in the management of waste around the island.

71. The Mineral Resource Act (2010) is the framework legislation for all activities related to mineral and hydrocarbon exploration and exploitation. The adoption of the legal and institutional framework governing the mineral resource area, e.g. mining activities, in Greenland was one of the significant consequences of the adoption of the Act on Greenland Self-Government in 2009.

72. The Mineral Resource Authority— comprised of the Mineral Licence and Safety Authority and Environmental Agency for Mineral Resource Activities — is responsible for all matters relating to mineral resources. The Authority may grant exploration licenses (for ten years) with the possibility of renewals for additional three years at a time, and exploitation licenses (once exploration has determined an economically feasible deposit— for thirty years). A license for approval of a mineral activity can be granted only after an assessment has been made of the impact on the environment (EIA) or when a social sustainability assessment (SSA) has been conducted.

73. Over the years, authorities have adapted the procedures for environmental and social impact assessments with the aim of ensuring greater transparency and participation. Environmental licensing is to be obtained with the Greenlandic Environmental Agency for Mineral Resource Activities, which operates under the Ministry of Environment. The Agency cooperates closely with DCE/Danish Center for Environment and Energy and with the Greenland Institute of Natural Resources (GN), Pinnngortitaleriffik with the aim of securing independent scientific advice. Detailed guidelines⁶⁸ were prepared to orient the process for preparing a Social Impact Assessment (SIA) and ensure meaningful participation. The guidelines were updated in 2015, in a public consultation process. The processing time for an application is expected to take from 4 to 12 months. During this process at least two public consultations are required. Information on the entire process is to be regularly made available online. Guidelines were also prepared for the Environmental Impact Assessment (EIA).

74. Authorities underscored their commitment to ensure prior and informed consent by those affected in mining projects and the evolution of the norms regulating the licensing seem to reflect this position. Yet challenges remain for ensuring wide access to information and meaningful participation. The Special Rapporteur was informed that the time allowed for pre-consultations was not realistic considering the special complexities of ensuring meaningful participation of communities living in remote locations. Difficulties also reportedly exist in the translation of documents often containing complex technical information to Greenlandic and in informing all concerned communities. Some recent assessments also revealed issues such as the lack of systematic evaluations of the former and present extractive projects and to the challenges in creating spaces for participation in an atmosphere where people feel comfortable to talk about issues that may be sensitive to them (as the acceptance of mining projects can often divide communities).⁶⁹ Another assessment also indicated that public participation in the decision making process is still impaired by the lack of public access to the draft EIA report.⁷⁰ A comparison between two different mining licensing processes revealed that capacity concerns affect especially projects of greater scale.

E. Challenges in the management of waste

75. The overall planning of waste management across Greenland is a responsibility of the Greenlandic Government, while municipalities can plan and implement their own

⁶⁸ https://www.govmin.gl/images/Documents/Socio_Economics/SIA_guideline.pdf

⁶⁹ Anne Merrild Hansen & Rachael Lorna Johnstone, *Improving Public Participation in Greenland Extractive Industries*.

⁷⁰ Maria Ackrén, *Public Consultation Processes in Greenland Regarding the Mining Industry, 2015* <https://arcticreview.no/index.php/arctic/article/view/216/803>

practices of local waste systems. The main norms for waste management are Parliament of Greenland Act No. 9 of 22 November 2011 on the protection of the environment and the Greenland Home Rule Proclamations No. 28 on the disposal of waste and No. 29 on oil and chemical waste.

76. Greenland faces major and quite unique environmental challenges in the management of waste. It is a large landmass with disparate communities and lack of connecting roads, which means that much of the transportation of waste is exclusively done by boats or airplanes. Large volumes of plastic waste are generated through packaging for imported goods. Recent evaluations⁷¹ noted that the majority of the waste in Greenland is disposed of in open dumps or incinerated in simple small-scale incinerators which release toxic chemicals (e.g. dioxins) that accumulate in ice, food and people, calling for the planned improvement. Concerns also exist with regard to waste management and the rights to water and sanitation. Bucket toilets and discharge of wastewater to the ground or to open sewer are problematic issues with potential consequences for environment and health.

77. Investments were recently made to ameliorate the management of waste in more populated areas. The Special Rapporteur was informed on the efforts of local authorities in Ilulissat and Nuuk. In both locations authorities recognized the need to tackle backlog from previous years and the need to abandon past practices of landfills and open air incineration. Greenland aims at expanding economic activity by investments in the tourism and mining sectors: such efforts must be planned considering the urgent need of improvements in waste management.

IV. Conclusion and Recommendations

A. Denmark

78. **The rich experience of Denmark in the promotion of the right to the highest attainable standard of health through the reduction of toxic exposures can serve as a valuable resource for other countries. Denmark has simultaneously advanced research, public awareness and participation to advance the development of laws and policies to improve health by enhanced protections against toxic exposures. Noting increasing de-regulatory pressures at home and abroad, which are causing or threatening regression from established protections, the Special Rapporteur believes Denmark's leadership is needed now more than ever to protect health from toxic chemicals and urges the Government to redouble its efforts.**

79. **A human rights-based approach to the protection against toxic exposure requires specific attention to exposures by sensitive, at risk or vulnerable groups, and deficiencies in the protection of the rights of such groups. Denmark's efforts in protecting the health of children from toxic exposures, particularly to chemicals that interfere with a child's healthy development, are commendable.**

80. **However, challenges remain, particularly with the impact of Danish businesses in foreign territories. These extra-territorial concerns were clearly evident in the cases of shipbreaking and the export of hazardous pesticides banned by Denmark to countries with lower standards of protection for workers and communities at risk. The Government has paid insufficient attention to the toxic impacts of Danish businesses on the rights of people outside Denmark. The mandate holder was struck by the lack of attention by the national human rights institute and equitable trade initiatives to the extraterritorial impacts of Danish businesses due to the externalization of toxic exposures on people living outside Denmark. This is particularly striking against the background of achievements within Denmark in reducing domestic and European exposures to toxics.**

⁷¹ Eisted R¹, Christensen TH., Environmental assessment of waste management in Greenland: current practice and potential future developments. 2012

81. In this regard, the Special Rapporteur would like to make the following recommendations:

(a) Denmark should continue its efforts to prevent exposure to hazardous substances and further increase its efforts to protect the right to health and others from toxic exposures in the following respects:

- Explicitly link its efforts to develop a non-toxic environment with the realization of all human rights implicated by toxic exposures;
- Strengthen internal collaboration between experts on exposure to toxic substances and human rights, including reporting under UN human rights instruments; and
- Develop a stronger, more comprehensive and ambitious global regime to minimize exposure to toxic substances and prevent the abuse of human rights in lower income countries. Such a regime should: redefine substances of global concern to include those used in international supply chains; subject any such chemicals of global concern to legally binding obligations based on human rights obligations of States; include a periodic review for monitoring State performance, with outputs of the process sent to the UN Convention on the Rights of the Child regarding the realization of Article 24; a non-binding policy framework to raise and discuss truly emerging issues; and require States to compel businesses to perform human rights due diligence for impacts of toxic substances throughout the lifecycle of their product and supply chains.

(b) Denmark should ensure businesses in their territory/jurisdiction respect human rights by:

- Requiring such businesses to conduct human rights due diligence to identifying, monitoring, assessing and addressing any abuses of human rights from toxic substances. This should be for any impacts such businesses cause, contribute or are linked to, in Denmark or abroad in relation to their domestic and international operations and throughout their supply chains
- Increasing cooperation with foreign governments in areas where there are commercial relations with Danish businesses, particularly shipbreaking and agriculture

(c) Denmark should ensure that their laws provide for jurisdiction for foreign cases of impacts due to hazardous substances and should assert jurisdiction for corporate abuse of human rights abroad due to toxic exposures, including criminal sanctions where appropriate

(d) Denmark should consider ratification of the Optional Protocol to the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families.

(e) A stronger, comprehensive global regime for toxic chemicals is required to protect those most at risk of exposure to substances with risks to life and health, including workers, low-income communities and children among others, and to prevent businesses from exploiting lower standards of protection and weaker governance structures in certain countries.

B. Greenland

82. As Greenland increased its governance autonomy, concerns on the management of wastes and hazardous substances have emerged. Greenland faces important challenges in establishing a reliable system for pollution control and waste management: the small population distribution in a vast territory and the arctic climate impose important challenges to authorities. The Special Rapporteur was pleased to note the commitment of Greenlandic authorities to pay attention to human

rights obligations while promoting mining opportunities. Considering the significant risks posed by some activities, greater capacity among environmental officials might be needed to ensure standards are implemented. Special concerns exist with regard to the high levels of contamination of traditional food sources for Greenlandic communities with a wide spectrum of substances. These include synthetic chemicals, heavy metals, and radionuclides that migrate northward to the Arctic ecosystem, accumulating in traditional foods of the Inuit diet and contaminating water and ice. The Special Rapporteur underlines the injustice to Greenlandic and Arctic communities from the contamination of the resources on which they depend with pollutants from foreign sources and calls for stronger international measures to protect their rights.

83. Concerns on the cleaning of waste accumulated by years of past military activities can only be dissipated with the full support of all parties involved in past activities. Transparency is vital to build the trust needed to conclude this process effectively. Greenland is also particularly vulnerable to pollution coming from other parts of the world and, therefore, must have its voice heard by the international community as solutions on major environmental concerns are designed.

84. In this regard, the Special Rapporteur would like to make the following recommendations to the Greenland Self Government and to Denmark:

(a) The Self Government should actively participate in global debates on the control of pollution. It is encouraged to strengthen inter-linkages between climate change and toxic chemical conventions to enhance efforts towards reducing exposure to toxics. Greenland should consider informing Denmark to apply all relevant conventions, including the Minamata Convention on Mercury and the Aarhus Convention.

(b) The Self Government should ensure information on pollution and adequate forms of waste management is made available and accessible to local communities, including potential options to reduce exposure to toxic substances.

(c) Denmark must identify and remove all military waste left in Greenland that is unwanted by the Greenlandic people. The United States is strongly encouraged to engage and assist in this effort. Denmark and Greenland should significantly enhance the participation of Greenlandic people in decisions regarding the presence of foreign military forces in Greenland.

(d) With regard to participation and consultation related to mining projects, the Self Government is encouraged to reconsider time offered for pre-consultations to allow sufficient mobilization of communities living in remote locations. Additional resources should be directed towards translation and wider dissemination of documents. The Self Government should further address concerns of a lack of systematic evaluations of former and present extractive projects.

(e) While considering the accumulated challenges faced in the management of waste around the island, the Self Government is encouraged to upscale monitoring of waste and tailings dumps and to ensure oversight of working conditions.

(f) The Self Government should ensure the promotion of economic expansion is constantly sided by efforts to improve chemicals and waste management systems. Related to this, the Self Government should take concrete steps towards a circular economy, including by abandoning open-air landfills and incineration of waste.

(g) Denmark should ensure that all neighbouring countries avoid launching UDMH-fuelled rockets that land near Greenlandic territory until their safety is fully demonstrated, and assess the potential impact of pollution from previous launches.