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Promoción y protección de todos los derechos humanos, civiles, políticos, económicos, sociales y culturales, incluido el derecho al desarrollo

Visita a Ghana

Informe del Relator Especial sobre las implicaciones para los derechos humanos de la gestión y eliminación ambientalmente racionales de las sustancias y los desechos peligrosos, Marcos Orellana*

Resumen

El Relator Especial sobre las implicaciones para los derechos humanos de la gestión y eliminación ambientalmente racionales de las sustancias y los desechos peligrosos, Marcos Orellana, visitó Ghana del 30 de noviembre al 13 de diciembre de 2022. El presente informe contiene las conclusiones y recomendaciones del Relator Especial al Gobierno del país.

La visita se centró en cuestiones clave como: a) las instalaciones y la gestión de los residuos sólidos, incluidos los desechos peligrosos, los desechos de equipos eléctricos y electrónicos, los desechos plásticos y los desechos de ropa usada; b) el uso de mercurio en la minería a pequeña escala; y c) el uso de plaguicidas y fertilizantes peligrosos. El Relator Especial acogió con agrado los progresos realizados en Ghana en el ámbito de la gestión y la eliminación de sustancias tóxicas, incluidos sus esfuerzos por aplicar el Convenio de Basilea sobre el Control de los Movimientos Transfronterizos de los Desechos Peligrosos y su Eliminación, el Convenio de Rotterdam sobre el Procedimiento de Consentimiento Fundamentado Previo Aplicable a Ciertos Plaguicidas y Productos Químicos Peligrosos Objeto de Comercio Internacional, el Convenio de Estocolmo sobre Contaminantes Orgánicos Persistentes y el Convenio de Minamata sobre el Mercurio. A pesar de los importantes logros e iniciativas, el Relator Especial observó una aplicación escasa de la legislación sobre la gestión racional de los productos químicos y los desechos, así como lagunas en dicha legislación, y la falta de una política nacional amplia para gestionar el ciclo de vida completo de los productos químicos y los desechos y prevenir la exposición a sustancias peligrosas.

* El resumen del presente informe se distribuye en todos los idiomas oficiales. El informe propiamente dicho, que figura en el anexo, se distribuye únicamente en el idioma en que fue presentado.

Annex

Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Marcos Orellana, on his visit to Ghana

I. Introduction

1. Pursuant to Human Rights Council resolution 45/17, the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Marcos Orellana, visited Ghana from 30 November to 13 December 2022, at the invitation of the Government. During the visit, the Special Rapporteur aimed to identify good practices and assess the efforts made by the Government to prevent and address the adverse impacts of toxics on human rights.

2. This was the Special Rapporteur's first visit to Ghana. The aim of the visit was to collect and assess first-hand information related to issues falling under the scope of the mandate and to offer constructive recommendations to the Government and other stakeholders. The visit was focused on key issues including: (a) solid waste management and facilities, including for hazardous waste, electronic waste, plastic waste and used clothes waste; (b) the use of mercury in small-scale mining; and (c) the use of hazardous pesticides and fertilizers.

3. The Special Rapporteur expresses his sincere gratitude to the Government for the invitation to conduct a country visit, for its willingness to engage in consultations, and for its cooperation.

4. The Special Rapporteur had the honour of speaking with representatives of a number of government authorities, including the Ministry of Foreign Affairs and Regional Integration, the Ministry of Environment, Science, Technology and Innovation, the Environmental Protection Agency, the Ghana Atomic Energy Commission, the Ministry of Food and Agriculture, the Ministry of Sanitation and Water Resources, the Minerals Commission and the Ministry of Energy. Nonetheless, the Special Rapporteur regrets that several of the official meetings requested were not granted.

5. The Special Rapporteur had the privilege to meet with representatives of the Commission on Human Rights and Administrative Justice, traditional authorities, local authorities, several local communities, the Ghana Association of Small-Scale Miners and other stakeholders.

6. The Special Rapporteur welcomes the launch, during his visit, of the new West Africa Center for Global Environmental and Occupational Health at the University of Ghana, in Accra.

7. In addition to visiting Accra, the Special Rapporteur travelled to the Atewa Range Forest Reserve (Eastern Region), Kumasi and Obuasi (Ashanti Region) and Tarkwa (Western Region). He visited communities living by gold mines where mercury and cyanide are used to extract gold from the ore. The Special Rapporteur also visited Tamale (Northern Region) and Bolgatanga (Upper East Region), where he met with farmers who use pesticides and others who practice agroecology. He met with various stakeholders in the Greater Accra Region. The Special Rapporteur visited Agbogbloshie, a site where the dismantling of all types of electronics takes place. He also visited Jamestown beach, which is littered with plastics and adversely affected by the burning of tyres to clean animal skin. In the same region, the Special Rapporteur also travelled to Tuba, where he met with farmers to discuss their use of pesticides. The Special Rapporteur thanks the community members in all those places for their time and their openness and for sharing their experiences concerning toxic substances.

8. The Special Rapporteur was very grateful for the fruitful exchanges with representatives of the active civil society of Ghana, including journalists and academics, who generously gave their time to contribute to the success of the visit. He also extends his appreciation to the United Nations country team in Ghana and to the Resident Coordinator and his team for their support in helping to organize the visit.

II. General background and legal context

9. Ghana has established and adopted several important environmental institutions and laws. Despite such important achievements and initiatives, the Special Rapporteur is concerned about the weak implementation of environmental laws. The Special Rapporteur also notes gaps in the legislation and policies for the effective management of chemicals and waste. For example, there is no comprehensive national policy to manage the entire life cycle of chemicals, including waste. Similarly, there is no phase-out date for mercury use in small-scale mining. Furthermore, corruption in the police force is of particular concern to the proper enforcement of environmental protection laws and the rule of law.

10. Ghana has embarked on several initiatives to strengthen its response to the challenges posed by chemicals and wastes. For example, it established the Chemicals Control and Management Centre and adopted the 2021–2030 Strategic Plan for the Sound Management of Chemicals and Waste and a related communications strategy. The State is preparing a regulation on air quality that would strengthen the Environmental Protection Agency Act of 1994 (Act No. 490). With support from the Global Environment Facility, in 2022, the Government prepared a national action plan on artisanal and small-scale mining, pursuant to the Minamata Convention on Mercury. The Special Rapporteur welcomes the various consultations that have informed the development of that action plan. These are positive steps in efforts by Ghana regarding the sound management of chemicals and wastes.

III. Implications of toxics for the human rights obligations of Ghana

11. Ghana has ratified most of the core international human rights instruments.[1] Ghana has also ratified all international agreements on chemicals and wastes (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, the Stockholm Convention on Persistent Organic Pollutants and the Minamata Convention on Mercury).

12. The Special Rapporteur would like to highlight the leadership of Ghana in the global governance of multilateral agreements in the chemicals and waste cluster. For example, in 2022, Ghana proposed landmark amendments to the Basel Convention in order to subject transboundary movements of e-waste to the prior informed consent procedure of the Convention.[2] Similarly, at the eleventh meeting of the Conference of the Parties to the Rotterdam Convention, held in Geneva in May 2023, Ghana joined in sponsoring an amendment to the Convention[3] to add a new annex VIII on the listing of hazardous chemicals if consensus cannot be reached on the listing in annex III, in order to overcome the paralysis that has undermined the effectiveness of that instrument. Furthermore, Ghana has taken the lead in the process towards the development of a new legally binding instrument on plastic pollution, including incorporating elements of a human rights-based approach. It is also

[1] The treaties that Ghana has not yet ratified include the International Convention for the Protection of All Persons from Enforced Disappearance; the Second Optional Protocol to the International Covenant on Civil and Political Rights, aiming at the abolition of the death penalty; and the Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography.

[2] See https://www.brsmeas.org/MediaHub/News/PressReleases/BRS2022COPsconclude.

[3] See Laurie Kazan-Allen, “Light at the end of the tunnel?”, International Ban Asbestos Secretariat, 21 February 2023.

encouraging to see Ghana take the lead, within the Economic Community of West African States, on the elaboration of an action plan on chemicals and waste for the subregion.

13. In addition, the Special Rapporteur would like to stress the historic significance of the adoption by the General Assembly of resolution 76/300, in which the Assembly recognized the right to a clean, healthy and sustainable environment as a human right. Some 161 States, including Ghana, voted in favour of the resolution. The adoption of the resolution is of great relevance to people exposed to hazardous substances: the right to a clean, healthy and sustainable environment encompasses the right to live in a non-toxic environment.

14. Important progress by Ghana on the realization of the Sustainable Development Goals has been registered in recent years. The latest voluntary national review, submitted in the context of the 2030 Agenda for Sustainable Development follow-up and review mechanisms, indicated an average achievements rate of 63.4 per cent of the Goals in 2022. The Special Rapporteur would like to encourage the Government to continue in this direction, paying specific attention to the sound management of chemicals and wastes.

15. Awareness-raising must be scaled up so that people in Ghana are informed about the human rights risks associated with toxics exposure. The current gaps in the legislative and policy framework of Ghana, coupled with the uneven enforcement of the legal provisions in place, generate a lack of protection of the population against environmental risks. These threats particularly affect people living by dumpsites, people working with agrochemicals in the fields and people exposed to mercury and other pollution generated by gold and other mining.

A. Waste, including hazardous waste

16. As an emerging market, Ghana is experiencing a continuous increase in industrial activity and growth, which results in the increasing generation of hazardous waste and associated management challenges. Chemicals and waste are produced in Ghana by a variety of activities and industries, primarily mining, chemical-intensive agriculture, tanneries, oil refineries and petrochemical processing, among others.[4] Hazardous waste, ranging from electronic and plastic waste to textile and organic waste, has accumulated and contaminated sites. This situation poses serious human rights concerns for the communities that live in their vicinity, including illnesses and deaths among the population.

17. Ghana produces about 12,710 tons of solid waste every day, with only about 10 per cent of it being collected and disposed of at approved disposal sites.[5] Electronic, plastic and other waste is often burned, which is highly concerning, given the hazardous substances released into the air from the combustion of plastics, which contain myriad toxic additives that are harmful to both human health and the environment.

18. The Special Rapporteur notes that, overall, there is poor planning for waste management programmes, inadequate equipment and operational funds to support waste management activities, inadequate sites and facilities for waste management operations and inadequate skills and capacity among waste management staff.

19. The Special Rapporteur notes that section 10 of the Environmental Protection Agency Act of 1994 (Act No. 490), establishing the Hazardous Chemicals Committee, regulates, controls and manages obsolete chemicals and hazardous waste. This includes training stakeholders, raising public awareness through campaigns on reducing the risks of chemicals and conducting routine inspections and monitoring to keep track of imported raw materials, including plastic granules, and fertilizers. However, the Special Rapporteur notes the lack of infrastructure for the environmentally sound management of hazardous wastes, resulting in stockpiles of such wastes at locations where they are generated, and their haphazard disposal.

[4] Ransford Gyambrah, “Hazardous waste management in Ghana”, master’s thesis, University of Cape Coast, 2016, p. 2.

[5] Kwaku Afriyie and Angela Lusigi, “Ghana tackles urban waste management”, United Nations Development Programme, 11 October 2022.

B. Electrical and electronic waste (e-waste)

20. A variety of used electronic materials are imported to Ghana, mainly from Europe and the United States of America, for repair and reuse. Findings from the Basel Convention e-waste Africa programme show that about 150,000 tons of discarded electrical and electronic equipment are imported into Ghana annually. Of that amount, 15 per cent is repaired and resold, 15 per cent is unrepairable[6] and the rest is dumped, creating large contamination sites. Ghana has been identified as among the world's top destinations for waste, in particular e-waste.[7]

21. The waste that enters through the Port of Tema is labelled by exporters as used (or second-hand) consumer goods. However, many of the discarded electronic goods are beyond repair. Pre-shipment inspections that are carried out by a third-party contractor have been inadequate.

22. The Special Rapporteur notes that the Hazardous and Electronic Waste Control and Management Act of 2016 (Act No. 917) is aimed at regulating the import and export of used or discarded electrical or electronic equipment. The Electrical and Electronic Waste Management Fund, established by the Act, is partially financed by a levy system on imports. Article 20 of the Act specifies that the import or export of used or discarded electrical or electronic equipment is allowed only if the exporter or importer is duly registered, holds a valid permit to do so and advances the payment of the levy.

23. The Special Rapporteur is, however, concerned about the impact of Act No. 917 on the ground, as the informal sector handles 95 per cent of e-waste. It has been established that e-waste may contain a variety of substances that are toxic.[8] The human rights impacts are multiple, including on the right to health and the right to a clean, healthy and sustainable environment.

24. While it has been documented that some workers have been educated on e-waste management,[9] the Special Rapporteur witnessed the absence of protective equipment on workers, high risks of accidents at work and infringements of human rights owing to the high level of toxicity and the poor conditions of e-waste sites. In this regard, the Special Rapporteur highlights that, in 2022, the International Labour Organization amended its Declaration on Fundamental Principles and Rights at Work to include the right to a safe and healthy working environment.[10]

Agbogbloshie

25. The Special Rapporteur visited Agbogbloshie, which is among the biggest e-waste dumpsites in the world. Agbogbloshie has been identified as one of the planet's "sacrifice zones", a term defining areas where communities are exposed to extreme levels of pollution and toxic contamination.[11] Human rights are denied to the inhabitants of such heavily contaminated places.

[6] Kathleen McMahon, Chidinma Uchendu and Colin Fitzpatrick, "Quantifying used electrical and electronic equipment exported from Ireland to West Africa in roll-on roll-off vehicles", *Resources, Conservation and Recycling*, vol. 164 (January 2021). See also Peter Yeung, "The toxic effects of electronic waste in Accra, Ghana", Bloomberg, 29 May 2019.

[7] United Nations, "West Africa key destination for illegal electronic waste", 24 May 2015. See also Karoline Owusu-Sekyere and others, "Assessing data in the informal e-waste sector: the Agbogbloshie Scrapyard", Waste Management, vol. 139 (February 2022).

[8] Oyuna Tsydenova and Magnus Bengtsson, "Chemical hazards associated with treatment of waste electrical and electronic equipment", *Waste Management*, vol. 31, No. 1 (January 2011).

[9] Maxwell Y. Owusu-Twum and others, "Electronic waste control and management in Ghana: A critical assessment of the law, perceptions and practices", *Waste Management and Research: The Journal for a Sustainable Circular Economy*, vol. 40, No. 12 (December 2022).

[10] *ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up* (Geneva, 2022).

[11] See https://www.ohchr.org/sites/default/files/2022-03/Annex1_to_A_HRC_49_53.pdf.

26. While the population has fluctuated over the years, it was estimated that 40,000 people lived and worked on the Agbogbloshie site in 2022.[12] Agbogbloshie has seen improvements, including certain efforts at relocation. Workers remaining at the site are exposed to toxic substances such as brominated and chlorinated dioxins.

27. In Agbogbloshie, the Special Rapporteur met workers making a living from e-waste. Many of the people he spoke to had migrated from the northern parts of Ghana, drawn by the economic opportunities of Accra. The Special Rapporteur also held conversations with members of the Agbogbloshie community, including children and women, currently living in informal settlements in poor sanitary conditions with no direct access to safe drinking water, a limited number of public toilets and no formal waste-collection system.

28. The Special Rapporteur witnessed practices, such as burning and mechanical shredding, that expose recycling workers to a variety of health risks. As he walked around the site and talked to its inhabitants, he saw a range of highly hazardous activities taking place a few metres away from families' homes, including transforming used motor oil into waterproof paint for roofs, repurposing refrigerators and motor scrapings, and the burning of electronic cables for the extraction of copper. He witnessed workers conducting those activities without adequate personal protective equipment. In most instances, the workers were wearing jeans and sandals and had no gloves or masks preventing them from inhaling the highly toxic smoke generated by e-waste fires. Those workers were thus exposed to heightened risks of respiratory diseases and diminished lung function.[13]

29. It has also been reported that workers performing burning and dismantling on the site are exposed to elevated levels of particulate matter and polycyclic aromatic hydrocarbons that are generated by disposal and recycling activities.[14]

30. Hazardous substances including arsenic, lead, mercury and copper have also been detected in soil, water, ash, sediment and dust collected from the Agbogbloshie site. These substances infiltrate and affect the food chain. Domestic animals walk freely and graze in the Agbogbloshie area, which is home to one of the main food markets of Accra, and it has been established that free-range eggs from the site contain alarming levels of dioxins, brominated dioxins, polychlorinated biphenyls, polybrominated diphenyl ethers and short-chain chlorinated paraffins,[15] which raise serious human rights concerns, including in relation to the right to food and a healthy environment.

31. The lack of sound management of wastes in Agbogbloshie, the high poverty rate and the dire economic situation in the area create incentives for children to leave school to earn a small amount of money burning cables. Children's exposure to lead and other neurotoxic substances is particularly detrimental, resulting in serious cognitive developments and health issues.

C. Plastic waste

32. According to the Environmental Protection Agency, about 2.58 million tons of raw plastics are imported into Ghana annually, and 73 per cent of that ends up as waste[16] that

[12] See https://www.leibniz-zmt.de/en/news-at-zmt/news/news-archive/humboldt-fellow-joins-zmt-to-study-impact-of-e-waste-management-strategies-in-agbogbloshie-ghana.html. See also Jennie Yang and others, "Arsenic burden in e-waste recycling workers: A cross-sectional study at the Agbogbloshie e-waste recycling site, Ghana", *Chemosphere*, vol. 261 (December 2020).

[13] See Afua Asabea Amoabeng Nti and others, "Effect of particulate matter exposure on respiratory health of e-waste workers at Agbogbloshie, Accra, Ghana", *International Journal of Environmental Research and Public Health*, vol. 17, No. 9 (2020).

[14] Lawrencia Kwarteng and others, "Occupational exposures to particulate matter and $PM_{2.5}$-associated polycyclic aromatic hydrocarbons at the Agbogbloshie waste recycling site in Ghana", *Environment International*, vol. 158 (2022).

[15] Jindrich Petrlik and others, "Weak controls: European e-waste poisons Africa's food chain" (International Pollutants Elimination Network and Basel Action Network, 2019), p. 3.

[16] See https://www.ghanabusinessnews.com/2023/02/10/some-2-58-million-tonnes-of-plastic-imported-into-ghana-every-year/.

litters urban and rural environments, clogs drainage infrastructure, impairs water streams and lagoons, and also finds its way into the sea.

33. Plastics contain myriad toxic additives that pose severe risks and harms to human rights and the environment.[17] Research indicates that almost all plastics are derived from fossil fuels, in particular natural gas.[18] Many of the largest and most hazardous chemicals – including heavy metals, flame retardants and fluorinated compounds – are directly associated with plastic production.[19]

34. The whole cycle of plastics, at its various stages, has become a global threat to human rights. Those stages include the extraction of oil and gas used to make the chemicals from which plastics are made; the release of toxic pollutants into the environment during production; the transportation of plastics and plastic pellets that contaminate coastal communities; waste mismanagement and dumping; and the release of hazardous emissions after disposal, including incineration and open burning. As a result, plastics are accumulating in food chains, contaminating water, soil and air, and releasing hazardous substances such as persistent organic pollutants into the environment.[20]

35. In Ghana, plastic waste is not properly managed. It can be found on roadsides and along the seashore, floating in bodies of water and piled up and burning in informal dumpsites. Farmers informed the Special Rapporteur that plastic waste was blown by the wind to their farms and was eaten by their animals, causing health complications or death. Plastics are found in soils, which negatively affects ploughing activities and prevents crops from growing properly. In addition, bush fires or burning practices in agriculture often result in the burning of plastics as well, as they are found on the land, encrusted in soil or simply dumped nearby. Similarly, fishers report that about half of their catch is plastics.

36. The Special Rapporteur saw piles and piles of waste, including plastics, at Korle Lagoon. He expresses serious concerns about the quantity of waste washed up by the sea onto Jamestown beach, which, in some areas, was covered by 10 to 50 centimetres of waste, including textile garments and shoes that had been brought ashore by the waves. On the same beach, many people live in informal settlements, where they breed and slaughter goats for subsistence and livelihood. As in Agbogbloshie, their human rights to water and sanitation, health, housing, food and a healthy environment are being infringed.

37. In this regard, the Special Rapporteur highlights the adoption of a national plastic waste management policy, including the establishment of collection, recovery, recycling and remanufacturing targets and initiatives to foster innovative resource mobilization towards a circular economy. However, he notes that, while a policy is important, it makes a difference only where it is implemented effectively, including through laws and other measures. The Special Rapporteur suggests that Ghana consider banning single-use plastics and establishing an extended producer-responsibility scheme. There is also an urgent need to reduce plastic consumption, both in packaging and in general.

D. Waste tyres

38. The Special Rapporteur highlights the toxic risks posed by waste tyres. In Ghana, used tyres are often piled up outside shops, and discarded tyres can be seen on the side of roads and in informal dumpsites. In 2019, the amount of waste tyres in Ghana exceeded 100,000 tonnes.[21] Mismanagement of waste tyres constitutes a serious problem for human health, as they provide malaria-infected mosquitoes with additional breeding grounds. In addition, tyres

[17] Health and Environment Alliance, “Turning the plastic tide: the chemicals in plastic that put our health at risk” (2020).

[18] Center for International Environmental Law, “Fueling plastics: New research details fossil fuel role in plastics proliferation”, 21 September 2017. See also A/76/207, para. 15.

[19] Health and Environment Alliance, “Turning the plastic tide”.

[20] A/76/207, para. 2.

[21] Eric Arthur and others, “Waste tyre management: Baseline study for Ghana” (Sustainable Recycling Industries, 2020), p. 4.

are often burned for fuel or to extract the metals in them, which exacerbates the release of highly toxic pollutants to the environment.

39. The Special Rapporteur recalls that agents to which humans are exposed in the rubber-manufacturing industry have been considered as carcinogenic since 1982. They have been classified as group 1 by the International Agency for Research on Cancer and are associated with an increased risk of bladder cancer, leukaemia, stomach cancer, lung cancer and lymphoma.[22] Two compounds used in the production of tyre and rubber goods (1,3-butadiene and benzene) have been identified as carcinogens for humans; however, such production involves the use of hundreds of different chemical compounds. The International Agency for Research on Cancer has maintained, in its successive evaluations, that the whole rubber-manufacturing industry exposes humans to carcinogens.[23]

E. Used-clothes waste

40. The Special Rapporteur notes with concern that used clothes (many of which also contain plastics) are posing a serious waste challenge in Ghana. In the Greater Accra Region, close to Mighty Beach, he saw great quantities of waste, mostly used clothes, littering the coast. Many of the clothes were in large plastic bags, alongside discarded fishing nets.

41. Kantamanto is the largest second-hand clothing market in Ghana, and one of the biggest in the world. It receives over 15 million articles of used clothing every week. The Special Rapporteur is seriously concerned by the magnitude of the pollution this causes: 40 per cent of the clothing ends up as waste and is disposed of in already overburdened landfill.[24] The retail part of Kantamanto market alone covers over 7 acres in the heart of Accra, and employs about 30,000 people. The import side of the business, which supports all of the retail operations, covers another 15 acres. Not all used clothes are in good enough condition for resale. At least 6 million articles are discarded each week. What is not sold is thrown into open drains, where it eventually ends up in the ocean, or is sent to be burned in unofficial dumpsites, the largest of which is located around the Korle Lagoon, which flows into the Gulf of Guinea.

42. Chemicals such as pesticide residue in cotton, per- and polyfluoroalkyl substances and synthetic fibres contributing to plastic pollution are found in clothing that ends up as waste in Ghana.[25] The Special Rapporteur highlights the negative implications of such waste mismanagement for the local community and ecosystem: about 80,000 people who live in the informal settlements surrounding Kantamanto market are exposed to pollution emanating from the unofficial dumpsites. Furthermore, textile waste blocks drains, causing flooding and, as a result, the spread of diseases such as cholera and malaria. Leached dyes, decomposing fibres and microplastics also have a significant impact on both aquatic life and human health.

43. Furthermore, landfill explosions have been reported as a result of methane build-up from disposed second-hand clothing, which affects the moisture- and bulk-density of these disposal sites.[26]

[22] International Agency for Research on Cancer, *Chemical Agents and Related Occupations: Volume 100 F – A Review of Human Carcinogens* (Lyon, France, 2012).

[23] Ibid., pp. 541–562. See also Mathieu Boniol, Alice Koechlin and Peter Boyle, "Meta-analysis of occupational exposures in the rubber manufacturing industry and risk of cancer", *International Journal of Epidemiology*, vol. 46, No. 6 (December 2017).

[24] Ole Spötter, "Shein launches fund to help communities suffering from textile waste", Fashion United, 9 June 2022.

[25] Audrey Millet, "Report: How toxic are the textiles we consume? And how can the EU trade tools tackle it?" (The Greens, EFA in the European Parliament, 2022), p. 28. Available at https://www.lamodefrancaise.org/wp-content/uploads/2023/02/RAPPORT-A.MILLET-IMPORTATIONS-PRODUITS-TOXIQUES.pdf.

[26] Kekeli Ahiable and Chema Triki, "Tackling Ghana's textile-waste challenge" (London, Tony Blair Institute for Global Change, 2021).

F. Gold-mining industry

44. The gold-mining industry is an important source of income in Ghana. Gold is the most commercially exploited mineral in Ghana, accounting for about 95 per cent of the country's mineral revenue.[27] Ghana is also the leading gold producer in Africa.[28] The economic sector is composed of a variety of actors and operations, from large-scale mining by corporate enterprises to small-scale mining, which includes both formal and illegal (*galamsey*) mining.

45. The Special Rapporteur underlines that small-scale gold-mining in Ghana is not actually small. While levels of production and scale vary, such mining occupies a significant portion of the market, contributing 35.93 per cent of total gold production in 2019, which adds up to more than $2 billion.[29] Furthermore, the use of mercury in small-scale mining has devastating impacts on the environment of Ghana and the health of its residents and future generations.

46. During his visit, the Special Rapporteur visited several communities that are adversely affected by mining on all scales. He held conversations with small-scale miners in various regions; he regrets, however, that several mining companies operating on a large scale in the country did not respond to his numerous requests to meet.

47. The Special Rapporteur is concerned about labour rights abuses, exploitation and corruption in the mining sector. In particular, cases of child labour have been reported. The Special Rapporteur received first-hand information about corruption by means of bribery of police officers. Further human rights concerns have been brought to the Special Rapporteur regarding the allegations of some of those involved in *galamsey* being armed, as reported by the Working Group on the use of mercenaries as a means of violating human rights and impeding the exercise of the right of peoples to self-determination.[30]

48. The Special Rapporteur visited Atewa Range Forest Reserve, including to take stock of the joint programme on fostering reforestation, environmental sustainability and tourism in the Okyeman area to accelerate the achievement of the Sustainable Development Goals through a multi-stakeholder, community-based approach to sustainable livelihoods and well-being. The programme is implemented by the United Nations Development Programme, the United Nations Children's Fund, the World Health Organization, the United Nations Environment Programme and United Nations Volunteers, together with the Okyeman Environment Foundation. The Special Rapporteur highlights this project as a good practice in terms of community-led environmental conservation in the context of mining and stresses the importance of putting a human rights-based approach at the centre of the implementation of conservation activities.[31] In this regard, he encourages the expansion and replication of this programme in the country.

1. Small-scale gold-mining

49. The prospect of important rapid economic gain, in a context characterized by significant unemployment and high poverty rates, attracts many individuals into small-scale mining, including *galamsey*. According to the World Bank, small-scale mining contributes to the revenue of between 4 and 5 million households across the country. More than 1.5 million miners are directly linked to *galamsey*.[32]

50. A common denominator in the small-scale gold-mining sector, both legal and illegal, is invariably the use of mercury. In fact, over the course of his visit, many of the Special

[27] International Trade Administration, Department of Commerce, United States, "Ghana: Country commercial guide – Mining industry equipment", 22 July 2022.

[28] Matthew Goosen, "Biggest gold producing countries in Africa", Energy Capital and Power, 5 September 2022; and Foreign Trade Administration, Ministry of Economy and Industry of Israel, "Ghana mining industry review" (Accra, 2020).

[29] Minerals Commission of Ghana, *2019 Annual Report* (2020).

[30] See A/HRC/39/49/Add.1.

[31] See https://www.ohchr.org/sites/default/files/Documents/Issues/Environment/SREnvironment/policy-briefing-1.pdf.

[32] World Bank, *State of the Artisanal and Small-Scale Mining Sector* (Washington, D.C., 2019), p. 21.

Rapporteur's interlocutors told him that mercury was "everywhere" in Ghana. It is concerning that workers in the small-scale gold-mining industry, which is undertaken throughout the entire country, use mercury without being fully informed of the high risks of the substance for human health and the environment. For instance, a miner told the Special Rapporteur that he had been using mercury indoors, at home, without protective equipment.

51. It has been reported that, in 2011, 2012 and 2013, approximately 19.26, 9.6 and 2.5 metric tons, respectively, of mercury were legally imported into Ghana.[33] While the importation of mercury is controlled in Ghana by law, the substance makes its way into the country through a well-organized black market and remains easily accessible.

52. At times, mercury is used close to water streams, contaminating water bodies, ecosystems and the food chain. In fact, it has been estimated that 60 per cent of the water bodies in the country are polluted, with most of them in a critical condition.[34]

53. Approximately 2,000 tons of mercury are emitted and released by artisanal and small-scale gold-mining every year around the world.[35] In the Minamata Convention initial assessment report for Ghana, it was estimated that small-scale gold-mining accounts for releases of 45,150 kg of mercury per year.[36] In the national action plan on small-scale mining, an estimate is given of between 42.5 tonnes and 62 tonnes per year of mercury use in small-scale mining.[37]

54. Elemental mercury is a highly toxic, persistent liquid metal, a neurotoxin that forms dangerous vapours at room temperature and when heated to burn off the mercury to purify the gold. The mercury enters the atmosphere, washes from mine tailings into rivers, lakes and oceans and converts to bioavailable, highly toxic methylmercury, contaminating fish and other aquatic life, building to dangerous levels in the food chain and contaminating those who eat the fish. The inhalation of elemental mercury vapours and consumption of methylmercury in fish can cause neurological and behavioural disorders, such as tremors, emotional instability, insomnia, memory loss, neuromuscular changes and lung, cardiovascular and reproductive defects. Women and girls aged 14–45 years are particularly vulnerable to the neurotoxic impact of mercury. Methylmercury can pass through the placenta, increasing the risk to a fetus of neurodevelopmental disorders, physical defects and reduced IQ. Mercury exposure can also harm the kidneys and the thyroid and can impair vision, speech, hearing and gait.[38]

55. In this regard, the Special Rapporteur would like to commend Ghana for the adoption of the national action plan, which was prepared pursuant to article 7 and annex C of the Minamata Convention. Nonetheless, the national action plan does not include a phase-out date for mercury use in small-scale mining. Furthermore, with regard to the deleterious impacts of mercury on human health and the environment, the Government should adopt strong measures of control. It should ban the trade in and use of mercury, champion amendments to strengthen the Minamata Convention and treat mercury use as a form of environmental crime.

56. In this context, the Special Rapporteur would like to highlight efforts made by the Government of Ghana to address small-scale mining. They encompass programmes on transitioning away from mercury use, including through the acquisition of mercury-free gold-processing machines to promote sustainable mining in the small-scale sector. Additional efforts include the Ghana Landscape Restoration and Small-Scale Mining Project, financed

[33] Friends of the Nation, "Baseline information for the national action plan on artisanal and small-scale gold mining: Ghana", p. 5. Available at https://www.planetgold.org/sites/default/files/2019-12/baseline%20information_NAP_Ghana_Eng.pdf.

[34] Abu Mubarik, "60% of Ghana's water bodies polluted – Water Resources Commission", Pulse Ghana, 13 May 2017.

[35] United Nations Environment Programme, "Ending the toxic trail of small-scale gold mining", 15 February 2023.

[36] See https://mercuryconvention.org/sites/default/files/documents/minamata_initial_assessment/Ghana-MIA-2018.pdf.

[37] See https://downloads.unido.org/ot/26/80/26804366/Ghana CEO 11 May 2022_GEF_ID10616.pdf, p. 16.

[38] A/HRC/51/35.

by the World Bank. Such programmes should be scaled up and the Government should ensure that they are accessible to all small-scale miners. In addition, more should be done about the potential infringement of the rights to life, health and a healthy environment of members of communities exposed to mercury.

2. Large-scale gold-mining

57. The total amount of gold produced in Ghana in 2019 resulted in $6.68 billion in exports and the large-scale mining industry employed 31,571 people in 2019.[39] However, the economic benefits of the sector for the rest of the population are limited. For example, roads and social services are in poor condition in the regions where mining companies are located. Despite the large revenues of mining companies, only a limited percentage contributes to national revenue, therefore having a negative impact on the resources available for the realization of human rights. It should be noted that, according to the World Bank, more than 25 per cent of the population of Ghana lives in poverty.[40]

58. Large-scale mining activities negatively affect the human rights of communities all over Ghana. The effects of such activities include blasting noise and vibration, dust pollution, the destruction of crops, heatwaves and waste generated by mining activities. The transport of hazardous substances is also dangerous and risky. In January 2022, 13 people died in the mining village of Apiate, Western Region, following a road accident and explosion involving a truck carrying explosives to a gold mine.[41]

59. Large-scale gold-mining has contaminated lands previously used for cultivation. The use of mercury, zinc and arsenic has resulted in toxic water pollution. This has eroded people's access to livelihoods and food and has forced communities to leave their villages. It has further impaired their right to live in a clean, healthy and sustainable environment.

60. During his visit to Ashanti Region and Western Region, the Special Rapporteur saw entire villages surrounded by mining waste and large areas of land covered in tailings and stagnant water. He heard testimonies of individuals who had lost their lands, farms and livelihoods, to the benefit of large-scale mining companies. The Special Rapporteur also heard testimonies of entire communities that had been deprived of their sources of clean water by the pollution discharged from mining operations.

61. The Special Rapporteur recalls a survey conducted by the Commission on Human Rights and Administrative Justice in 2008, in which instances of torture and other cruel and inhuman or degrading treatment, including the use of guard dogs, intimidation of community members and harassment of arrested illegal miners, were reported.[42]

62. A human health risk assessment study conducted in Prestea-Huni Valley District and Tarkwa Nsuaem municipal district in 2022 established that the levels of arsenic, manganese, lead, cadmium and mercury in adults and children resident in those areas exceeded the maximum value recommended by the World Health Organization.[43] Such substances have detrimental consequences on health and have a negative impact on entire communities' human rights to health and to a healthy environment. Some community members reported suffering from coughing, rashes, nose bleeds, fatigue, weakness, respiratory problems and cancer, among other health issues.

3. Access to information, participation, and access to justice and remedy

63. Public participation and consultation are still lacking in the large-scale gold-mining sector. It has been reported that individual members of the communities lack opportunities

[39] Minerals Commission of Ghana, *2019 Annual Report*.

[40] "The World Bank in Ghana", 31 March 2023.

[41] See https://www.konkrumah.com/news-stories/govt-launches-full-scale-investigation-into-apiatse-explosion.

[42] Commission on Human Rights and Administrative Justice, Ghana, *The State of Human Rights in Mining Communities in Ghana* (March 2008), pp. 36 and 37.

[43] Samuel Wiafe and others, "Environmental risk assessment of heavy metals contamination in the catchment of small-scale mining enclave in Prestea Huni-Valley District, Ghana", Sustainable Environment, vol. 8, No. 1 (2022).

to voice their concerns about, or opposition to, mining projects, as the current consultation process focuses on the chieftaincy's position. Free, prior and informed consent should not be perceived as a box-ticking exercise, but as a tool to ensure meaningful participation and the realization of human rights. Furthermore, allegations of corruption of traditional authorities and local politicians were reported in the context of large-scale mining projects, despite article 35 (8) of the Constitution of Ghana requiring the State to take steps to eradicate this criminal practice.

64. In the Tarkwa Nsuaem municipal district, cases of individuals waiting for adequate compensation were brought to the attention of the Special Rapporteur. Some of those cases related to individuals who have remained in their communities despite the proximity to the mining operations and exposure to waste and toxics. In addition, cases of inadequate estimates of individuals properties were reported. For instance, in its assessment for compensation for an individual who was forced to relocate, a mining company with a net worth of more than $9 billion assigned a value only to the cement floor of the house. Some entire communities are put under pressure to accept inadequate compensation and to relocate. The Special Rapporteur witnessed destroyed houses and facilities, including public toilets, in communities where people decided to stay. Many community members struggle to find employment in resettled locations, including in the large-scale mines operating around them, despite provisions in the Mining Act that promote the hiring of local workers by mining companies operating concessions.

65. The Special Rapporteur received similar testimonies in Obuasi, where the contemporary human rights impacts of the old mining waste (almost a century old) of a corporate mine on local communities are still visible as they continue to live around historic mining waste dumps.

66. Important steps have been taken by Ghana regarding the development of a national action plan on business and human rights. This initiative is of key importance to operationalize the human rights responsibilities of businesses, as outlined in the Guiding Principles on Business and Human Rights. The Special Rapporteur encourages the Government to make progress towards the final adoption of a plan through extended, informed consultation with all stakeholders, including the most vulnerable and local communities. In this regard, key attention must be paid to the mining sector and its impacts on human rights.

67. Such an initiative is of key importance when it comes to access to remedy. While the Mining (Compensation and Resettlement) Regulations, 2012, outline clear regulations surrounding compensation and resettlement, it was reported that communities affected by large-scale mining operations often face several challenges in this regard. They include inadequate or delayed compensation and limited or no awareness of their rights and the applicable resettlement and compensation framework.[44]

68. In addition, the Special Rapporteur is concerned about the current difficulties faced by the population and rural communities when it comes to accessing justice in general. In this regard, despite the constitutional right to legal aid, implementation remains difficult owing to the lack of resources and the low number of lawyers accessible from such communities, such services being concentrated in big cities such as Kumasi and Accra.[45]

G. Agrochemicals, including hazardous pesticides and fertilizers

69. Agriculture makes a big contribution to the economy of Ghana, ranking second to the services sector in terms of gross domestic product (GDP). Studies show that between 70 and 85 per cent of farmers in Ghana use agrochemicals. These agrochemicals include fertilizers,

[44] Center for Social Impact Studies, "Community experiences with mining-induced compensation and resettlement in Ahafo and Adansi Districts of Ghana" (2022).

[45] A/HRC/38/33/Add.2, para. 47.

herbicides, insecticides and fungicides.[46] The Special Rapporteur notes with concern that the use of various agrochemicals contributes to the toxic challenges in Ghana.

70. The Special Rapporteur raises concerns about the increased use of agrochemicals by farmers with limited knowledge of safety precautions. Farmers frequently apply inappropriate pesticides to crops, use stocks that are past their expiry date and spray too close to harvest time. Pesticides are also frequently stored near food shops. Such practices resulted in the deaths of 15 farmers in late 2010, in Upper East Region.[47] The Special Rapporteur is also concerned about empty pesticide containers, as they are often burned in the fields and sometimes even reused to fetch or store water. Incentives and controls should be put in place to secure the collection and safe disposal of empty pesticide containers. It was also brought to his attention that farmers have limited information about and often lack the financial means to purchase personal protective equipment.

71. In addition, the Special Rapporteur raises concern that some of the agrochemicals used in Ghana are banned for use in Europe and elsewhere because they are hazardous to human health and the environment. Examples include the herbicides atrazine and paraquat and the pesticide chlorpyrifos.[48] It is also alarming that one of the most widely used herbicides in the country is glyphosate (locally known as *kondem*), which the International Agency for Research on Cancer has classified as probably carcinogenic to humans.[49]

72. In this regard, the Special Rapporteur highlights the abhorrent double standards of countries that ban the use of agrochemicals because they are dangerous to people's health and the environment while allowing them to be produced and exported to developing countries. At the same time, the Special Rapporteur reminds Ghana that it is the responsibility of the State to protect the human rights of its own population and to restrict the importation of highly hazardous pesticides.

1. Legislation on pesticides and inspection of agrochemicals

73. The Pesticides Control and Management Act of 1996 (Act No. 528) regulates the registration, distribution and usage of pesticides in Ghana. It provides competence to both the Ministry of Food and Agriculture and the Environmental Protection Agency. However, the insufficient action of the competent institutions to prevent toxic exposure and effectively monitor compliance with the law is resulting in risks and harms to the environment and people's health.

74. The Ministry of Food and Agriculture deploys "extension officers" in communities, and staff of the regional offices of the Environment Protection Agency help to conduct inspections. However, the monitoring capacity of those offices remains limited owing to financial and staffing constraints. The Environmental Protection Agency requires more capacity and tools, including testing and monitoring equipment, vehicles, laboratories and staff exchange programmes.

75. Throughout his visit, the Special Rapporteur became aware of the need for greater coordination between competent government institutions and agencies in terms of exposure to toxic substances and outreach to affected populations. For example, there is no common platform for data and information-sharing to improve such coordination and outreach.

76. Furthermore, the Special Rapporteur was surprised to learn that agrochemical business interests are represented on the Pesticides Technical Committee, thereby influencing which pesticides are registered in Ghana.[50]

[46] Michael Onwona-Kwakye, Jonathan N. Hogarh and Paul J. Van den Brink, "Environmental risk assessment of pesticides currently applied in Ghana", *Chemosphere*, vol. 254 (September 2020).

[47] Northern Presbyterian Agricultural Services , "Ghana's pesticide crisis: The need for further Government action" (2012).

[48] On 10 January 2020, the European Commission adopted Implementing Regulation (EU) 2020/18 concerning the non-renewal of the approval of the active substance chlorpyrifos.

[49] See https://www.iarc.who.int/featured-news/media-centre-iarc-news-glyphosate/.

[50] Article 30 (2) (i) of the Pesticides Control and Management Act provides that the Pesticides Technical Committee includes a representative from the Association of Ghana Industries.

77. The Special Rapporteur had the opportunity to see agroecological farming in action. In northern Ghana he visited the Gundoog community, whose members cultivate crops without the use of chemical pesticides. They explained that their ancestral and local agricultural practices are organic. The Special Rapporteur learned about how they have achieved food security, in addition to preserving soil fertility and preventing the pollution of water bodies. The Special Rapporteur also learned about microbial farming and the microbial fertilizer value chain, which offer an alternative to the use of chemical fertilizers.

78. Even though sustainable farming practices are available, farmers have little knowledge of them, and the Government mainly promotes pesticides.

2. Impacts of agrochemicals on the right to health and healthy environment

79. The Special Rapporteur considers that Ghana has a great opportunity to decisively address the above-mentioned concerns. If it fails to do so, the country runs the risk of being left out of international markets, which are increasingly seeking to ensure respect for the environment and human rights in supply chains, in particular when it comes to food products. This is particularly important considering that Ghana is the second-largest producer of cocoa in the world; cocoa makes a significant contribution to the country's total foreign exchange earnings, second only to mineral exports.[51] During the financial year 2020/21, Ghana was estimated to have produced about 1,047 thousand tons of cocoa beans, the most ever produced by the country.[52] In September 2022, GDP from agriculture represented approximately $670,000, while GDP from the mining industry represented approximately $439,000.[53] In this regard, the Special Rapporteur is particularly concerned about the impacts of the industry on food safety and security and on the livelihood of the population that depends on the production and export of cocoa.

80. The Special Rapporteur highlights that agrochemical residues in foods are known to create numerous concerns for human health. The indiscriminate use of these chemicals is dangerous for the environment and has adverse effects on human health.[54]

81. Over the past quarter of a century, epidemiologists have examined the links between pesticide exposure and human health, mainly by studying the agricultural workforce. They have highlighted the disproportionately high incidence of chronic and neurodegenerative diseases, in particular Parkinson's disease, and cancers, notably blood and prostate cancers, among agricultural workers.[55]

82. In addition, owing to their non-biodegradable nature, pesticides can persist in nature for years and are regarded as potent biohazards.[56]

IV. Conclusions and recommendations

83. **The Special Rapporteur wishes to reiterate his appreciation to the Government for its invitation to visit the country and the hospitality offered by the people of Ghana during his stay. The Special Rapporteur would like to reiterate his offer for continuous technical support to address the challenges facing the country regarding toxics and human rights.**

84. **The Special Rapporteur congratulates Ghana for its leading role in important initiatives related to toxics and waste, at both the national and the international levels. Ghana has adopted relevant laws to prevent toxics exposure. The country is also considering several regulatory and other measures to strengthen the sound**

[51] Observatory of Economic Complexity, "Cocoa beans in Ghana".

[52] M. Shahbandeh, "Production of cocoa beans in Ghana from 2012/13 to 2022/23", Statista, 27 March 2023.

[53] Trading Economics, "Ghana GDP from agriculture".

[54] Akanksha Sharma and others, "Global trends in pesticides: A looming threat and viable alternatives", *Ecotoxicology and Environmental Safety*, vol. 201 (September 2020).

[55] Jean-Noël Jouzel, "Pesticides and human health: between toxicology and epidemiology", Cogito, 11 October 2018.

[56] Sharma and others, "Global trends in pesticides".

management of chemicals and wastes, including in respect of air pollution and mercury use in small-scale mining. The adoption of the 2021–2030 Strategic Plan for the Sound Management of Chemicals and Waste reflects growing momentum in addressing the human rights risks and harms of toxics.

85. **Ghana has also led the strengthening of international instruments in the chemicals and waste cluster, such as by proposing amendments to the Basel Convention to close gaps that enable sham plastics recycling, joining in sponsoring amendments to address the breakdown of the science–policy interface under the Rotterdam Convention, and leading the Group of African States in incorporating a human rights-based approach into the negotiation of a legally binding instrument on plastics. A critical achievement is the collection and disposal of polychlorinated biphenyls, in line with requirements under the Stockholm Convention. These initiatives reflect efforts towards and commitment to the sound management of chemicals and waste.**

86. **While noting the environmental laws and policies of Ghana, as well as the ratification of all international agreements on chemicals and wastes, the Special Rapporteur notes that much remains to be done. Every person in Ghana has the right to live in a clean, healthy and sustainable environment. In this regard, Ghana must take further steps to strengthen its legal framework by addressing current gaps and improve implementation and enforcement.**

87. **The Government of Ghana should not delay taking the steps necessary to address the adverse impacts of waste mismanagement, the use of mercury in the mining industry, in particular *galamsey*, and the use of hazardous pesticides and fertilizers. The State should prohibit the import and use of hazardous pesticides that are banned or restricted in their countries of origin.**

88. **Ghana is on the receiving end of a global economy that seeks to externalize the costs of waste generation to developing countries. The result is the exposure of workers who lack protective equipment to the hazardous substances released during the dismantling and recycling of e-wastes. Furthermore, electronic equipment is not currently designed to be recycled, which is an obstacle to a circular economy and adds to the need for an extended producer-responsibility system across borders.**

89. **The Special Rapporteur is concerned that many communities in Ghana are suffering from exposure to toxic substances. One of the main concerns is the lack of effective enforcement of environmental legislation. Another is that action to address chemicals and waste ranks low in priority compared with other environmental concerns. There is an urgent need for Ghana to respect and guarantee the free and full exercise of human rights in the face of the threats posed by toxic substances in the country, on the part of both the State and the companies involved.**

90. **Ghana has true opportunities for leapfrogging the applications in technology on the sound management of hazardous substances, but such opportunities are unfortunately not being taken advantage of at the moment. As a result, Ghana appears to be stuck with the polluting practices that have caused heavy human rights impacts in other countries, including contaminated sites that harm future generations. In addition, there is a need to address false solutions, such as certain waste-to-energy proposals, that shift the contamination from one medium to another.**

91. **The national action plan to address mercury in small-scale gold-mining, under the Minamata Convention, is an important step. However, its targets on reductions of mercury use reflect only moderate ambition; furthermore, the national action plan does not include a date for phasing out mercury use in the country. The Government should tackle *galamsey* and prevent Ghana from becoming a patchwork of contaminated sites, including by banning the trade in and use of mercury and championing amendments to strengthen the Minamata Convention.**

92. **The Special Rapporteur stresses that fertile soils for food cultivation are vital to food security. However, the health of soils is threatened by the overuse of agrochemicals. The Special Rapporteur heard throughout his visit about the lack of State action in the face of cases of human rights violations related to the use of hazardous herbicides.**

Exposure to such chemicals can also have severe adverse effects on the communities using them, in terms of their right to a healthy life, to food and to a healthy environment, among others.

A. Chemicals

93. **The Special Rapporteur recommends that the Government of Ghana:**

(a) **Develop a comprehensive national policy on the management of chemicals and waste that is based on a chemically safe circular economy approach and accounts for the impacts of the life cycle of products;**

(b) **Take measures to ensure the effective implementation and comprehensive monitoring of the country's environmental laws;**

(c) **Enact regulations to reduce the emissions of air pollutants from relevant sources and incorporate the updated air quality standards of the World Health Organization into national legislation and any new authorizations;**

(d) **Support the work of the new West Africa Center for Global Environmental and Occupational Health at the University of Ghana;**

(e) **Strengthen the tools available for civil society to gain access to information, particularly on hazardous substances and wastes;**

(f) **Actively involve and ensure the meaningful participation of civil society in the drafting of legislation and the implementation of measures to realize the transition towards a non-toxic circular economy and secure the sound management of chemicals and wastes;**

(g) **Address inequalities, the lack of resources and support and the discrimination that hinder access to justice for some groups;**

(h) **Increase the number of environmental monitors from the Ministry of Environment, Science, Technology and Innovation;**

(i) **Implement initiatives to achieve a just transition for workers and communities;**

(j) **Support initiatives to strengthen the capacity of communities to prevent, monitor and report exposure to toxic substances in their environment, as well as to access health-care facilities and remedies;**

(k) **Fully implement the Globally Harmonized System of Classification and Labelling of Chemicals.**

B. Waste and e-waste

94. **The Special Rapporteur also recommends that the Government of Ghana:**

(a) **Ensure just and favourable conditions of work, in particular the right to safe working conditions for e-waste pickers, including the provision of personal protective equipment and infrastructure such as toilets, health centres and other basic services;**

(b) **Establish a definition and classification of hazardous waste, with up-to-date reporting of hazardous waste generation;**

(c) **Support companies handling hazardous waste in the development of plans for the final management of such waste;**

(d) **Ensure greater coordination, with effective cooperation at the national, regional and district levels, in the implementation of waste management plans and programmes;**

(e) **Enforce existing waste legislation to prevent the illegal disposal of waste;**

(f) **Develop awareness-raising campaigns on environmental sanitation, personal hygiene and on-site waste management practices to reduce the risk of exposure to harmful substances faced by workers in Agbogbloshie;**

(g) **Develop and implement health and safety awareness campaigns for the e-waste workers in Agbogbloshie;**

(h) **Consider developing, in a participatory manner, a solid waste management strategy, ensuring that it addresses the growing volume of waste.**

C. Plastic waste

95. **The Special Rapporteur further recommends that the Government of Ghana:**

(a) **Urgently implement the national plastic waste management policy and the establishment of collection, recovery, recycling and remanufacturing initiatives towards a circular economy;**

(b) **Develop measures to tackle the urgent need to reduce plastic consumption, both in packaging and in general;**

(c) **Ban single-use plastics and focus on the use of alternatives to plastics;**

(d) **Establish extended producer-responsibility schemes;**

(e) **Ensure and conduct the monitoring of plastics in the environment and promote public information campaigns, awareness and education on preventive and protective measures regarding plastic pollution;**

(f) **Develop and implement projects at Jamestown beach, through a close dialogue with fisher communities, for the collection and recycling of fishing nets and for the cleaning of the beach.**

D. Textile-related pollution

96. **The Special Rapporteur recommends that the Government of Ghana:**

(a) **Regulate the import of textiles by, inter alia, limiting the entry points for imports;**

(b) **Introduce regulations that would incentivize the domestic processing of shredded fibres, ensuring optimal returns for the country;**

(c) **Increase public awareness of textile pollution, with targeted campaigns to encourage people and industries to adopt greener practices;**

(d) **Fund research to study and develop a circular textile economy;**

(e) **Invest in the necessary research to develop and scale recycling technologies.**

E. Use of mercury in gold-mining

97. **The Special Rapporteur also recommends that the Government of Ghana:**

(a) **Ban the use of mercury, champion amendments to strengthen the Minamata Convention and treat mercury use as a form of environmental crime;**

(b) **Set a deadline in the national action plan on small-scale mining for the elimination of mercury use;**

(c) **Develop just transition programmes to help small-scale gold miners move away from the use of mercury and avoid harmful alternatives;**

(d) **Ensure that technological alternatives to mercury are accessible to all small-scale miners;**

(e) **Disseminate information on the dangers of mercury, in particular to mining and downstream communities;**

(f) **Monitor the health status of groups and individuals affected by the use of mercury in small-scale gold-mining.**

F. Human rights impacts of the mining industry

98. **The Special Rapporteur further recommends that the Government of Ghana:**

(a) **Task the Commission on Human Rights and Administrative Justice with updating the survey conducted in 2008 on the mining industry and ensure that sufficient financial and human resources are allocated for this purpose;**

(b) **Address corruption in the mining sector, particularly in its dealings with the police force, by accelerating recommendations formulated by the Special Rapporteur on extreme poverty and human rights;**[57]

(c) **Expand the legal aid programme and establish a human rights awareness-raising programme for mining communities around the country;**

(d) **Consider the expansion of environmental conservation programmes to protect the environment from the impact of the gold-mining industry around the country and develop human rights training programmes for those involved in the implementation of conservation activities;**

(e) **Ensure access to an effective remedy for harm caused by hazardous substances and wastes released by mining operations, with a specific focus on accountability and redress, in particular with regard to populations with specific vulnerabilities, such as children, women, older persons, workers and local communities, as well as people living in extreme poverty and other marginalized groups;**

(f) **Finalize a national action plan on business and human rights through extended, informed consultations with all stakeholders, including the most vulnerable and local communities, and pay specific attention to the mining sector and its impacts on human rights;**

(g) **Ensure the meaningful and informed participation of all, including the most vulnerable, in environmental impact assessments of mining projects;**

(h) **Provide adequate and timely compensation to communities affected by mining activities and remediate negative impacts, including on the environment.**

G. Use of agrochemicals

99. **The Special Rapporteur recommends that the Government of Ghana:**

(a) **Increase institutional capacity to monitor the sale and use of pesticides and improve the registration of farmers;**

(b) **Enhance the number and improve the training of inspectors to enforce pesticide regulations;**

(c) **Improve the capacity and tools of the Environmental Protection Agency, including through the provision of testing and monitoring equipment and vehicles and the establishment of laboratories and staff exchange programmes;**

(d) **Improve coordination between the competent government institutions and agencies;**

(e) **Prevent the import of pesticides and industrial chemicals that are banned for use in the country from which they are exported;**

[57] See A/HRC/38/33/Add.2.

(f) **Carry out studies on the impact of pesticides on the environment and the health of farmers and their families;**

(g) **Carry out studies on the impact of pesticide residues on the health of consumers;**

(h) **Develop and carry out awareness-raising campaigns on the risks and harms of pesticides and the need for protective measures in their use;**

(i) **Develop initiatives to raise the awareness of farmers on the safe disposal of empty pesticide containers;**

(j) **Create incentives and controls to secure the collection of pesticide containers after usage;**

(k) **Promote the use of organic pesticides and actively support agroecology, including through the establishment of market distribution networks for organic products;**

(l) **Promote sustainable agroecological farming practices, such as those of the Gundoog community, that cultivate crops without the use of chemical pesticides, such as the use of composting, microbial farming, use of organic manure and other integrated farming techniques and crop diversification.**